Balancing the technical and intellectual:

Practice-based teacher education, core practices, and pedagogical judgment

with novice literacy teachers

by

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DEDICATION

To the many teachers, students, colleagues, and friends

who helped me learn how to teach

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Hillary Clinton once said that it takes a village to raise a baby. It applies to a dissertation also. And when you're raising babies *and* writing a dissertation, that village is awfully large.

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CHAPTER ONE: INTRODUCTION

During my work as a teacher and teacher leader, I was often frustrated by the kinds of learning opportunities that were available to me. Most professional development was either unrelated to the questions I had about literacy instruction or failed to include opportunities to apply new ideas to my students and contexts. Many of the teachers with whom I worked shared these complaints. I came to Vanderbilt in order to better understand alternative methods for teacher professional learning that would address these concerns.

During graduate school, I had the opportunity to deeply consider alternative models of professional learning. These models emphasized providing teachers with learning opportunities that related to their own questions and concerns, required connection to their teaching placements, and incorporated opportunities to "do" the work of teaching (Borko, 2004; Desimone, Porter, & Garet, 2002). I became particularly fascinated by practice-based methods of teacher education (PBTE), which include both a focus on the core practices of teaching as well as practice-based pedagogies that provide increased opportunities to engage in practice teaching (Hauser & Kavanagh, 2019). In my work with novice teachers (NTs), I was able to use rehearsals (a particular practice-based pedagogy) to try out some of these ideas. Through analysis of earlier work, I noticed that my rehearsals differed in some significant ways from how they were represented in the literature. I found that frequently the most meaningful aspects of our rehearsals were the interruptions that occurred in the middle of a lesson, where NTs would raise questions or concerns that I hadn't anticipated, and often didn't relate to the core practice we were learning. These conversations delved into complex issues that novices faced. They involved

questions of not only how to teach, but also why that might be useful. Novices reflected on their own practice, knowledge, and beliefs in order to make decisions about how they wanted to teach.

This dissertation grew out of that realization: our rehearsals seemed to be functioning differently than what I'd read about in existing research. At the same time, they were promoting learning in different ways from more traditional methods classes that I had observed and participated in. This observation made me want to better understand how people were using practice in teacher education, what kind of learning practice-based teaching supports, and the impact that PBTE has on NTs' subsequent work with students. These questions were examined in the third semester of a design-based research study looking at how our clinical rehearsals can support the development of pedagogical judgment.

My challenges in feeling unprepared to address the complexities within the classroom were not rare. In fact, Practice-based Teacher Education (PBTE) grew out of commitments to improve teacher education by identifying core practices and pedagogies that novices could enact during their university training. Developing in response to the cognitive revolution in teaching and learning research that dominated the academy between the 1960s and 1980s, reformers advocated for an expanded view of skilled teaching that emphasized teaching as a practice that includes cognition, craft, and affect. In order for teacher educators to prepare novices for the intellectual, practical, and relational demands of teaching, it was necessary to shift attention away from teacher knowledge (including child development, disciplinary content, or instructional "best practices") towards "a curriculum organized around…practices, in which knowledge, skill, and professional identity are developed in the process of learning to practice" (Grossman, Hammerness & McDonald, 2009, p. 274). It was meant to bridge the traditional divide between theory and practice by incorporating more teaching into theory and knowledge

focused methods courses. This shift required a more intensive focus on the clinical aspects of practice to develop new ways for novices to develop skilled teaching. Over time, PBTE came to advocate an alternative approach to teacher training, with aligned instructional pedagogies, that more effectively unite theory and practice, and more accurately represent the realities of classroom teaching compared with traditional course sequences and requirements.

Importantly, these initial designs made careful arguments about how this effort to incorporate practice would not fall into some of pitfalls that plagued previous reforms, specifically the competency-based approaches of the 1940s and 50s. These reforms eventually fell out of favor because they saw teaching as primarily performative, rather than interactive. As a result, early advocates of PBTE emphasized the reflective, interactional, and situative aspects of their reforms. Grossman, Hammerness and McDonald (2009) wrote:

> We see practical tools as not purely technical strategies divorced from the intellectual, but rather as defined through a socio-cultural perspective. In this view, practice incorporates both the technical and the intellectual, and is enacted not by single individuals but as members of a broader community of practice. (p. 275)

Similarly, in describing the potential of a set of core practices to guide this work, McDonald, Kazemi, and Kavanagh (2013) argued that by:

> …highlighting specific, routine aspects of teaching that demand the exercise of professional judgment and the creation of meaningful intellectual and social community for teachers, teacher educators (TEs), and students, core practices may offer TEs powerful tools for preparing teachers for the constant in-the-moment decision-making that the profession requires. (p. 378)

Clearly, these designs seek to use practice, in a way that attends to the more relational and intellectual demands of the work.

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This goal, however, is challenging. A lot of PBTE implementation fails to adequately address the original commitments. In particular, PBTE is often less concerned with the intellectual work of instruction than many reformers hoped. This is because practices become overly simplified, and therefore emphasize performance rather than responsiveness. Furthermore, like with many ideas, dissemination often contributes to change: the original theoretical models are inconsistent with some of the ways practices are used. Additional criticism has focused on the lack of attention to equity (Dutro & Cartun, 2016; Philip et al., 2018), minimal attention to how practice will differ in different subject areas, particularly literacy (DeGraff, Schmidt, & Waddell, 2015) or the inauthenticity of using practice during university-based courses (Bartolome, 1994; Janssen, Grossman, & Westbroek, 2015; Janssen, Westbroek, & Doyle, 2015). Critics argue that divorcing practices from context works against the goals of equity and justice. They caution against pedagogies that assume that any approach to good teaching will be successful in all situations or can be mastered during decontextualized practice sessions.

These criticisms suggest that a true combination of knowledge and practice may require more than a set of a core practices or pedagogies (i.e. instructional routines in methods classes) that support scaffolded enactment of teaching. Instead, research needs to consider purposes for PBTE, specifically what we hope NTs learn through their participation in these pedagogies. Mastery of core practices is problematic for a number of reasons. The list of core practices is long and complex; it's impossible to imagine a novice doing this in a year or two. Additionally, practices are designed to be flexible and responsive; defining learning as fidelity to any particular practice contradicts this aim. Finally, operationalizing learning is similarly problematic. Constructs for defining learning often contradict one another and determining how and when to measure teacher learning is practically and theoretically fraught.

And yet, identifying a learning outcome is necessary. Currently, many PBTE studies focus on learning as mastery of core practices, but constructs that focus on expertise may better represent the learning closest to that envisioned by the originators and also the learning that can prepare NTs best for the nuances of classroom contexts. Therefore, a construct like *adaptive expertise* (Schwartz, Bransford, & Sears, 2004), which attempts to capture how skilled teaching balances efficiency and innovation, or *pedagogical judgment* (Horn & Campbell, 2014), which explains the importance of teachers' decision making on student learning, may be more appropriate for the goals that PBTE aims to achieve.

Why do these constructs better represent the learning PBTE claims to value? Well, adaptive expertise (Schwartz, Bransford & Sears, 2004) focuses on balancing efficiency and innovation as too much emphasis on efficiency leads to frustration when new challenges arise, whereas too much emphasis on innovation makes it difficult to develop sustained skill. A more balanced approach includes opportunities to learn about and develop one's own conjectures and commitments, while also becoming efficient at implementation. Adaptive expertise is a general construct used across fields (e.g. medicine, nursing, education) Thus, it's helpful to also consider how to operationalize this specifically as it relates to teaching.

Pedagogical judgment (Horn, 2019), defined as: "(1) pedagogical action supported by (2) pedagogical reasoning and rooted in (3) pedagogical responsibility" (p. 4) takes these ideas further to emphasize the importance of making teaching decisions that consider the context and ethical implications of any instructional choice.

These constructs are meaningful in tandem. Adaptive expertise specifically addresses the need to include the general and the specific. For example, there is a need for the efficiency that comes from learning a set of well-defined practices that are useful across domains, while also

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allowing for the innovation that individual schools, students, or situations warrant. Similarly, in including action, pedagogical judgment recognizes the importance of having a set of practices on which NTs can rely, while also emphasizing the intellectual and ethical aspects of any particular choice.

An example can help clarify these terms. When writing a test, teachers rely on well-established formulas and criteria for their design; they do this in order to build from the knowledge and experiences of previous curriculum experts as well as save time. However, this efficiency needs to be balanced with careful consideration of what this teacher has taught, what they value, and the needs of their students. This requires adaptive expertise. Pedagogical judgment acknowledges that balancing efficiency and innovation in teaching requires reasoning, action, and responsibility. Continuing with the previous example, Horn (2019) argues that when teachers write tests they face ethical, legal, and institutional questions about what sorts of accommodations to make for linguistic minority students or students with IEPs; these require them to consider their responsibilities, reason about which choices are most appropriate, and then implement aligned actions.

Determining the best way to use practice in teacher education is not easy. Debates over the nature and purpose of PBTE have once again led scholars to divide into "camps" over the best way to move forward. One side emphasizes the utility of core practices (Kavanagh & Danielson, 2019) while another suggests that core practices are contrary to equity (Philip et al., 2018). A recent article about this growing debate describes how "early sparks [have evolved into] a raging fire of debate about the relationship between justice and practice" (Kavanagh & Danielson, 2019, p. 30).

This dissertation is fueled by this fire and adds important ideas to this debate. While there seem to be dichotomies when implementing PBTE, this dissertation advocates an approach that blends these two perspectives. I argue that learning to teach is a process of learning to enact practices that, while dynamic and contextually contingent, are not so unique as to resist description or commonality. It's possible to blend knowledge with practice, efficiency with innovation, and abstract theories with specific application. As a result, it makes sense to focus practice-based teaching on efforts to support novices' abilities to implement and adapt core practices in ways that align with the needs of their students, their own beliefs, and their growing experience in the classroom, rather than on efforts to master any list of behaviors.

Thus, this dissertation presents an empirical look at how PBTE can use core practices in service of helping NTs develop pedagogical judgment. To do this, I focus on one PBTE structure, clinical rehearsals, and explore the instructional interruptions that occur, attending closely to the actions and ideas experienced within rehearsals. Importantly, I focus on the way that participation in a rehearsal cycle (interaction between TEs and NTs, NTs with each other, and NTs' enactment with students in classrooms) can help demonstrate learning. I pay particular attention to how these interactions support literacy learning (i.e., discipline specific) as the core practices tend to be framed in this discipline neutral way. This work leads to better understanding of the ways that clinical rehearsals function, and subsequently, how the instructional interruptions support NTs' understanding and implementation of specific practices and techniques. I see this as a first step in extending the core practice lens to consider pedagogical judgment as while pedagogical judgment is not measured directly, close analysis of these learning interactions allow us to better understand how NTs are reasoning about pedagogy and

make inferences about how these conversations influenced the subsequent actions they took in their classrooms, both of which are critical aspects of pedagogical judgment.

Research Questions

The following research questions guided this study:

Research Question 1: What do TEs and NTs do during a clinical rehearsal focused on literacy instruction?

    a.   What is the nature of instructional interruption, specifically considering changes over time?

    b.   How do instructional interruptions function to support learning?

Research Question 2: How are discipline specific and neutral subpractices discussed and enacted by NTs throughout a clinical rehearsal cycle, specifically looking at the connection between rehearsal interactions in the methods classroom and NTs classroom teaching within a practicum setting?

By exploring these questions, we can link NT practices to pedagogical judgment. For example, the discussions that occurred within our rehearsal cycle inform pedagogical reasoning and responsibility that can then be tied to pedagogical actions like implementation in the classroom.

These questions were explored through the analysis of data from the third semester of a design research study investigating how to implement rehearsals for elementary teachers enrolled in reading and writing methods classes. This study describes how I redesigned rehearsals to use core practices in service of pedagogical judgment. I describe how the interactional work of

novice teachers and teacher educators leads to important discussion interrogating significant pedagogical ideas (including core practices, the embedded discipline neutral and discipline specific subpractices, and the instructional techniques in service of these practices). Furthermore, I trace these pedagogical ideas from the methods classroom into school-based placements, looking at how NTs engage with them.

Using grounded theory, I found that instructional interruptions allow participants to highlight important questions, tensions, and trade-offs involved in effective instruction. Over time, we spent more time interrogating our instruction, bringing practical and conceptual resources to bear. These shifts help demonstrate changing patterns of participation that revealed what and how NTs were learning. Our conversations included a variety of topics, including pedagogical questions and techniques that were applicable to a variety of classes and settings (which I called discipline neutral subpractices) and those specific to elementary literacy (which I called discipline specific subpractices). More specifically, issues were raised about content knowledge and pedagogical content knowledge that are often overlooked in discussions of core practices. Importantly, I found that NTs implemented instructional techniques that were discussed and enacted during rehearsals within their classroom teaching. In contrast with two recent studies, NTs implementation did not differ based on whether the subpractice was discipline specific or discipline neutral. This suggests that the design of our rehearsals better supported an approach to teacher learning that makes space for both domain specific and domain neutral practice.

Overview of the Dissertation

This dissertation is divided into six chapters. Chapter 1 presents an introduction to central issues of this paper, including how this study relates to the problem at hand as well as current knowledge of PBTE. In Chapter 2, I describe the theoretical and empirical frameworks that guided the design of the research and the analysis of the data. Chapter 3 details the research design, methodology and analytical methods. I explain the previous iterations of the design study, including how learning conjectures evolved over time. I describe the site and context for the work, as well as how my role as researcher influenced how data was collected and its analysis. I follow this by sharing the different sources of data and methods for data analysis. This chapter finishes with a justification for the trustworthiness of this approach. Chapters 4 and 5 present findings in response to each research question. Chapter 4 looks closely at what happened during rehearsals, specifically the instructional interruptions that took place during enactment. I use this unit of analysis to interrogate what NTs and TEs did together, how their interactions changed over time, and how these patterns function to support learning. Chapter 5 looks at uptake, connecting methods instruction to classroom enactment. I trace two subpractices (supporting equitable participation and assessing understanding of plot and structure) to explore the difference between uptake of discipline neutral and discipline specific practice in both methods instruction and classroom enactment. Chapter 6 is an overview of this dissertation's findings, including contributions for both research and practice, a discussion of the limitations of this study, and implications for future research.

CHAPTER TWO: THEORETICAL AND EMPIRICAL FOUNDATIONS

This dissertation draws on both theoretical and empirical work in its conception of learning and its research design. Since my goal is to explore the way that practice-based teacher education-- specifically enactment, via rehearsals-- supports NTs' development of pedagogical judgment, it is important to review and build from this prior research. This chapter starts with a review of how situative and critical theories define learning, and why rehearsals are well-aligned with these approaches. Following this, I look at PBTE: how it developed, the way its designers defined it (and the need for a new, more precise term), and what we know empirically about its implementation.

Reviewing these elements allowed me to design a study that addressed some of the gaps in this particular research base. Therefore, I conclude this chapter with how this study responds to these gaps in the research. I close with an anecdote from my use of rehearsals. This story helps demonstrate how clinical rehearsals, especially instructional pauses where we could interrogate NT decisions, can offer a new direction for using practice in teacher education.

Theoretical Foundations

This work draws on both sociocultural and critical theories of learning to examine how context, identity, and power influence all our interactions and have implications for learning.

Sociocultural Theory

Sociocultural theory emerged from the work of Lev Vygotsky, a Marxist scholar, who believed that people are innately social and that engagement with others influences development. Thus, despite his orientation as a psychologist, over his career his view shifted from understanding learning from primarily a biological process to one that is driven by social experiences (Wertsch, 1985). Wertsch (2010) notes three essential ideas within of Vygotsky's work:

- Cognition should be understood both developmentally and socially – there are genetic components as well as cultural components
- Cognition is mediated by semiotic mechanisms, including language
- Higher order thinking, including memory, problem-solving, and attention originate in social activity

Vygotsky's ideas were further developed by anthropologists like Lave and Wenger (1991), and Cole (1988) who investigated the way that context influenced learning. Observing the differences between Brazilian children's mathematics knowledge while selling candy versus in classrooms, Cole (1988) argued that learning and context are inextricably linked. Similarly, Lave (1988) observed that women were able to do more complex arithmetic during grocery shopping than on a paper and pencil test. These observations contributed to an emerging theory of learning as a complex social phenomenon dependent on specific context. They argued that what we learn is shaped by where, how, and with whom we learn. These specific experiences and interactions typically involve a gradual refinement of skills and habits modeled by experts. Through appropriating the tools of specific practice, learners become more expert in that practice (Gresalfi, 2009; Lave & Wenger, 1991).

Thus, situative theory suggests that teachers learn by developing expertise in the particular practices of teaching. They do this by engaging in meaningful work, interacting with more knowledgeable peers, and gradually adopting and refining the tools of experts so that they can engage in these same practices. Putnam and Borko (1997) write that teacher learning is, "as much a matter of enculturation into a community's ways of thinking and dispositions as it is a result of explicit instruction in specific concepts, skills, and procedures" (p. 5). This perspective underscores the need for teacher learning experiences that are embedding in meaningful contexts and undertaken within a community of practice (Lave & Wenger, 1991).

Critical Theory

Critical theories offer an important additional perspective that attend more specifically to issues of power and identity. As we know, in the United States, there are serious discrepancies and "gaps" between historically privileged and disadvantaged groups in terms of educational opportunities and outcomes (Corney & Rothstein, 2013). These include traditional measures of academic achievement as well as students' success after graduation and overall well-being. These discrepancies underscore the importance of highlighting issues of race, class, gender, and other demographic categories when discussing teacher education reform.

In her discussion of equity in mathematics, Gutierrez (2009) offers a useful heuristic for thinking about different aspects of equity. She identifies two axes of equitable instruction: the dominant axis and the critical axis. The dominant axis includes access to high quality instruction and student achievement. These elements are what have long been considered important when trying to reduce gaps between different groups of students, and what she labels the dominant access. This axis, however, is inadequate. It continues to locate the source of inequity in children

and schools, failing to take into consideration the ways in which society creates and reinforces these patterns of exclusion. Thus, Gutierrez combines this with another equally important axis, the critical axis, that requires attention be paid to students' identities and agency. Similar to Ladson-Billing' (1995a) explanation of culturally responsive teaching, the inclusion of this axis emphasizes the limitations of focusing solely on traditional measures of equity. Students do need opportunities to achieve at high levels, but they also need classroom environments and activities that center their experiences. Attending to students' identity and agency involves helping them learn the tools to participate in and critique the systems that have historically marginalized them and their communities.

Building on these perspectives, Kumashiro argues for anti-oppressive education that attempts to interrupt these historical power structures. This involves teaching in ways that interrupt hegemonic perspectives implicit in existing curricula and school practices. His work seeks to actively include and promote the voices and knowledge traditional of non-dominant groups, including religious minorities, LGBTQ community members, and women. In order to achieve anti-oppressive education, he argues that the community of teacher educators must constantly trouble what is known and taken for granted. We must also include our students (NTs) in this negotiation, helping them identify and interrupt the power structures that exist not only in school, but also in society at large.

Rather than advocating one solution, strategy, or intervention that can address the kinds of oppression students encounter, Kumashiro argues that "perhaps what is needed, then, are efforts to explicitly attempt to address multiplicity and keep goals and boundaries fluid and situated... Rather than search for a strategy that works, I urged the participation in efforts that address the articulated and known needs and individuality of the students… to find students who

are being missed and needs that have yet to be articulated" (p. 30). He continues by exploring the ways that post-structural theorists contest what is known by seeking disruption and difference. It involves "on-going labor" of questioning, reflection, and attempts to improve. These perspectives offer a powerful way to think about how teachers learn in ways that attend to equity and inclusion. We must see classroom tensions and decisions as generative and motivation for on-going inquiry. The next section examines how these theories relate to the specific practice-based pedagogy, rehearsal.

Rehearsal Through Situative and Critical Lenses

Rehearsal

This study used a particular practice-based pedagogy called rehearsals (Kazemi, Ghousseini, Cunard, & Turrou, 2015; Lampert et al., 2013). Although some variation exists, rehearsals typically consist of the following six steps (see Figure 1).
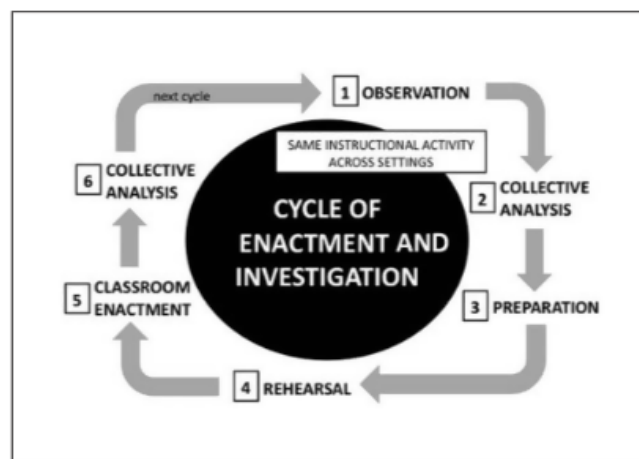
Figure 1: Rehearsal Cycle

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First, NTs learn about a core practice and/or an instructional activity through observation (Ghousseini, 2015; Lampert & Graziani, 2009). This observation may be a video or a live demonstration by the teacher educator (Shaw, 2017). NTs collectively analyze the exemplar, decomposing the teaching into smaller elements. Discussions provoke teachers to consider the interaction between their theoretical commitments and the application in a real lesson. Then they prepare their own lesson and rehearse it with their adult peers (Elliot, Aaron, & Maluangnont, 2015). During this step, teacher educators, and sometimes other NTs, pause the rehearsal to highlight important instructional moves, raise questions, or offer suggestions (Kazemi et al., 2015). These interruptions require NTs to use conceptual and theoretical knowledge to help work through the challenges within the lesson. After rehearsing with other adults, NTs implement the lesson with students. The cycle finishes by reflecting on or analyzing the classroom teaching. Typically, this leads into another cycle, where the steps are repeated.

Through a Situative Lens

Instead of assuming knowledge resides within individual teachers, a sociocultural lens highlights how teachers' "knowledge-in-practice is socially, culturally, and historically negotiated" (Horn, 2019, p. 2). Therefore, situative theory suggests that teachers learn in context, through engagement with more knowledgeable peers and mentors, adopting and refining the tools of experts so that they can engage in similar practices.

Rehearsals are a particularly meaningful format in which to do this. The activity resembles the actual work of teaching: watching, trying on, reflecting, and revising. Kennedy (1999) writes: "Psychologists refer to this kind of knowledge as situated knowledge, meaning

knowledge that is understood through specific situations rather than, or in addition to, knowledge that is understood abstractly" (p. 71). Rehearsals offer a close approximation of classrooms and provide opportunities for immediate application to real teaching. Within rehearsals, teacher educators provide many scaffolds and structures, including focal practices, instructional activities, and lesson plans, that enable novices to participate in skilled practice.

Additionally, they participate in a cycle of practice that includes deep analysis of a modeled lesson, discussion and planning with a peer, live teaching with opportunities to stop, question, and revise, and finally, a chance to implement the lesson with students in an actual classroom. Horn (2019, p. 2) writes, "Instead of viewing a practice as learned when instruction aligns with a particular template, a situative view would suggest that a practice is learned when a teacher can make it meaningful with a particular group of learners and articulate the reasons for doing so." The modeling and discussion embedded within a rehearsal cycle allows novices to better understand specific moves, unpack complex decisions, and ask questions about themselves and their students. Their learning is ultimately demonstrated through application with their own students.

Through a Critical Lens

Critical theories highlight the necessity of being responsive to context, and the limitations of any one-size fits all approach to address historical inequities in public education (Cochran-Smith et al., 2016). Like with situative theory, rehearsals provide a meaningful way of engaging in this approach. As described above, anti-oppressive education (Kumashiro, 2000) requires centering the voices and knowledge traditions of non-dominant groups. To achieve this, teacher educators and NTs must constantly question what we know and take for granted. Rather than

advocating one solution, strategy, or intervention that can address the kinds of oppression students encounter, Kumashiro suggests that teacher educators take a learning stance.

Moreover, it's necessary to include NTs in this negotiation, helping them identify and interrupt the power structures that exist not only in school, but also in society at large. This kind of teaching involves on-going labor of questioning, reflection, and attempts to improve. Critical theories demand a humble view of teacher preparation. Rather than believing that any set of practices can "future-proof" teachers from further challenges, they highlight the inevitability of struggle. Instead of offering a solution, they necessitate paying attention, questioning, and adapting to new situations, students, and circumstances. Rehearsals operate under these assumptions; they provide opportunities to model this messy, recursive, incomplete process for novices.

Situative and critical theories offer an important way to think about what NTs need in order to grow as effective and equitable instructors. We know that teacher education is not finished when novices graduate. NTs cannot learn a set of practices and approaches that will inoculate them against the challenges they will face in the classroom (Ball & Forzani, 2009). But we also know that reading and discussion about theories, history, and methods for teaching are insufficient preparation for the experience of actually teaching (Grossman, Hammerness, & McDonald, 2009b). Instead, education programs should help NTs integrate their emerging understanding of theory and practice, and be prepared for the on-going work that teaching requires. We must help them see that even with effective practice, new problems emerge. Rehearsals may allow teachers to try things out, question why and when a particular approach is warranted, and discover alternatives that may work better. This is exactly what pedagogical judgment asks teachers to do.

The Role of Practice

This is not the first time that teacher educators have focused on practice. Therefore, it's important to think about how practice has been used historically, how this particular approach differs from previous moments, and what has been learned through empirical studies. Here, I focus on one subset of PBTE, which I call enactment-based teacher education because this is the category that is most informative for understanding rehearsals.

History of Teacher Education Reform

A close analysis of the history of education reform highlights the tendency in teacher training to divide what teachers *know* from what they can *do* (see Figure 2). For example, 19th century teacher education emphasized knowledge of content as the primary qualification for teaching. Teachers were primarily scholars and subject matter experts whose qualification was *knowing*. In contrast, as departments of education grew in prominence, practice became emphasized, with the goal of identifying effective components of teaching. Here, teacher training programs focused on the *doing* of teaching (Kennedy, 2005; Reynolds, 1989). Projects like the Commonwealth Teaching Training Study in the 1920s and the Competency/Performance Based Teacher Education program in the 1950s developed detailed taxonomies of teacher skills and strategies intended to help teacher educators better prepare novices for the realities of the classroom (Allen, 1966; Zeichner & Liston, 1990). Yet this emphasis on "doing" eventually drew criticism for its understanding of teaching primarily as performance rather than an interaction with a learner (Forzani, 2014).

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As a result of these critiques, a new wave of reform began to bridge the knowledge and practice gap through emphasizing integration of content-specific practice. In the 1980s, this included emphasis on *pedagogical content knowledge* that involved both deep subject matter knowledge and knowledge of how to make that content accessible to students (i.e. content specific practice; Shulman, 1986). Here, scholars and teacher educators began to understand teaching not as a collection of behavioral competencies, but instead as a series of moment-to-moment judgments leveraging knowledge about instructional goals, students, and disciplinary instruction. Yet, even with these reforms that united content and instruction, NTs rarely got practice *implementing* (i.e. doing) in ways that would prepare them for the experience of teaching in this way.

Starting in the 1990s, the newest wave of reform redefined what it means to know and do, arguing that knowing and practice cannot be divided, and that learning requires meaningful integration. As described earlier, sociocultural learning theorists believe that knowing and learning are situated in physical and cultural contexts, social in nature, and distributed across people and tools (Greeno, 1997; Lave & Wenger, 1991). Their emphasis on authenticity and interaction contradicted course sequences that isolated theory, knowledge, and practice. Offering theory courses separately from instructional methods courses, and then expecting NTs to transfer all that knowledge in meaningful, effective, and accurate ways during student teaching and early career teaching was neither theoretically justifiable (Borko, Jacobs, & Koellner, 2010), nor effective (Ball & Cohen, 1999; Cohen & Ball, 1990). Therefore, teacher educators advocated a return to practice that saw theory and practice as integrally connected, and advocated a new research agenda for examining how to do this. This agenda eventually came to be known as practice-based teacher education.

19th Century				
Knowledge	1900-1950			
The Academic Tradition and Disciplinary Knowledge	Practice	1970-1980		
	Competency Based Education	Integration of Knowledge and Pedagogy	1990s	
		Pedagogical Content Knowledge	Sociocultural Theory	2000-Present
			Situated Practice and Interaction	Practice-based Teacher Education (PBTE)
				Integration of Knowledge and Theory in Context
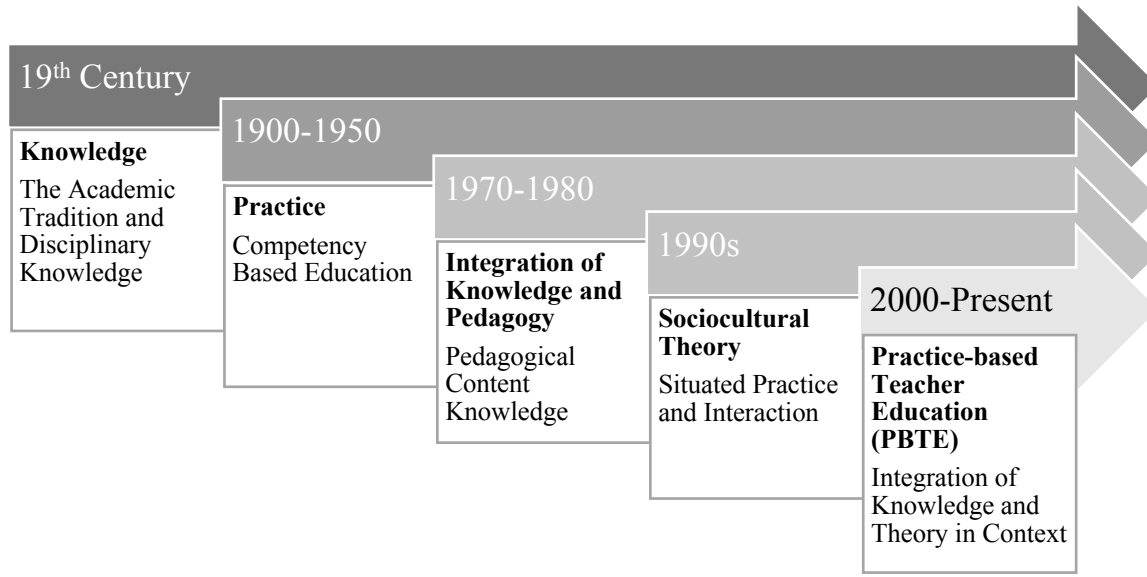
Figure 2: Timeline of Educational Reform Initiatives

Practice-based Teacher Education

PBTE grew out of three critical papers that demonstrated the limitations of previous reforms. Together these papers offered a new model that emphasized blending knowing and doing through enactment of actual teaching. They argued that combining knowledge of teaching with carefully designing opportunities to practice teaching would improve teacher education.

First, Kennedy (1999) described the "problem of enactment": classroom practices do not reflect teachers' knowledge or beliefs. The term refers to a mystery: many teachers learn what they ought to be doing in the classroom but their knowledge and goals are not demonstrated in the actions they take. As an example, teachers typically value student voice and engagement. Nevertheless, they often rely primarily on questioning patterns (i.e. initiate-respond-evaluate, using raised hands) that limit participation. This occurs as teachers resort to classroom practices

that resemble the way they were taught, even if these practices contradict their own goals (Lortie, 1975) or as teachers draw on competing theories and commitments. Given the number of decisions teachers make in a day, they don't have the time to consider alternatives that may better match their goals. Finally, teachers often simply lack knowledge of alternatives strategies they could use.

Kennedy argued that teacher education needs to offer pedagogical tools that mitigate the challenges highlighted above. First, NTs need a common vocabulary and shared language for describing their theory, best practice, and instruction. Second, they need opportunities to identify and question their own "frames." And finally, they need tools that support translating their beliefs into action, to develop "situated knowledge" (p. 71). Situated knowledge requires teachers to have both knowledge and the ability to implement and adapt their instruction in the context of real-live teaching via interactions. As a result of this work, many teacher educators started thinking about the sorts of behavioral enactments that could support this approach.

Around the same time, Ball and Cohen (1999) argued for a common curriculum focused around the central practices of teaching. Much of what teachers need to learn must be learned in and from the work of teaching, rather than in preparation to teach. Drawing on situated theories of learning (Feiman-Nemser & Remillard, 1995; Lave & Wenger, 1991), they suggest that teachers must actually be practicing to develop the stances, beliefs, and practices that ambitious teaching requires. Furthermore, they emphasize the student as an essential component of the practice. They propose a number of ways for teachers to incorporate this sort of practice, particularly in mathematics education: collaboratively completing assigned mathematical tasks to better understand what students need to know and be able to do, watching video of a lesson and replanning the lesson to better account for student misconceptions, or analyzing and discussing

student work. A task that involved this type of practice would require teachers to develop common language for talking about teaching, as well as a disposition of inquiry that could carry forward into their classrooms. This paper became the origin of work focused on defining a new set of "core" or "high leverage" practices that could provide a common language and curriculum for skilled teaching (McDonald, Kazemi, & Kavanagh, 2013; McNew-Birren & van den Kieboom, 2017).

Nearly a decade later, Grossman and McDonald (2008) connected Kennedy's critiques to Ball and Cohen's work. Importantly, this paper makes the claim that teacher education needs to develop a shared set of practices and pedagogies that require enactment of teaching. They celebrate the way that teacher educators have embraced "pedagogies of investigation" to create thoughtful analyses of teaching. And yet, they argue that the "problem of enactment" continues; teachers still lack opportunities to practice and learn from real aspects of teaching. Moreover, the division between foundations and methods historically present in teacher preparation prevents novices from effectively implementing the strategies they've learned. This separation suggests that learning and doing, theory and method, *can* be separated, a fundamental contradiction with its theoretical orientation. Grossman, Hammerness, and McDonald (2009) write,

> …the perception of theory and practice as distinct from one another continues to sap the richness of the ways in which 'abstract principles are interwoven in worldly experience'… programmatic structures and pedagogy [need] to acknowledge and build on the integrated nature of theory and practice as well as the potentially deep interplay between coursework and field placements (p. 276).

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They conclude by arguing that teacher education must incorporate pedagogies that unite theory and method through *pedagogies of enactment*. In order to understand the importance of enactment, the next section details some limitations of practice-based approaches.

Limitations of PBTE

While innovative, PBTE is not without criticism. One concern about PBTE is that is sits within a neoliberal tradition emphasizing accountability, standards, and technocratic approaches to improving teacher education. Drawing an unlikely comparison, Apple (2001) highlights the similarity between conservative efforts to improve education though market-based reforms and progressive efforts to professionalize teacher education through higher standards for teaching. Although the rationale for the approaches is often very different, their outcomes overlap. They both lead to a system of more centralized authority over what counts for student learning, and correspondingly, the methods and goals of teacher education.

Building on Apple's observations, Philip et al. (2018) argue that practice-based approaches often demonstrate this contradictory alignment. In emphasizing practice, many reformers have (perhaps inadvertently) minimized the philosophical and historical courses that typically contribute to teacher education. This approach is visible in many alternative certification programs, including RELAY Graduate School of Education and Teach for America (newschools.org). These programs typically have short summer trainings, followed by abbreviated courses that NTs take during their first couple of years teaching (Hartman, 2019). Inevitably, this comes with a paired down curriculum, and often focuses on generic approaches to effective instruction. These tend to look similar to the competency-based approaches of the 1950s, where novices drill particular strategies for effective teaching (see Lemov, 2010).

Although ostensibly rooted in efforts to achieve educational equity (a progressive stance), these reforms often enact the conservative goals of deregulation, increased free-market emphasis, and more parental choice.

Moreover, this tendency is not entirely limited to alternative certification programs. Even within the academy, these shifts are visible. In a keynote at the American Association of Colleges of Teacher Education, Ball (2014) described increasing prescriptiveness in teacher education as justifiable in the effort to raise standards and accountability. In order to develop NTs who are "safe" to teach, some of the individualism and subjectivity will be lost.

How we train our teachers involves complex questions around what we believe and how we prioritize with limited resources. It is important to recognize how promises of quick fixes can justify skipping deep examination of the historical and philosophical purposes of education, the racist and classist roots of public education, and the ongoing inequity that exists in schools and societies. Moreover, it's essential to interrogate both the intention of a particular approach as well as the way it's taken up and implemented in the field. A commitment to access and equity is clear in the initial PBTE designs. However, it's worth considering whether that commitment is enacted in practice, and if not, make appropriate adjustments.

Enactment-based Teacher Education

When Grossman et al. (2009) describe pedagogies of enactment, they are advocating for an integration of theory and practice during teacher education, in which the NT, with the support of a coach, practices and reflects on (i.e. *enacts*) the way their knowledge and beliefs impact how they teach. Their work, however, never made this requirement explicit. As a result, practice-

based teacher education has taken on many different meanings, with a variety of different goals. Identifying a more precise term allows me to be more specific in my review, and build more concretely from what the research says as well as gaps that exist.

Therefore, I am identifying a sub category within PBTE that most closely aligns with these original goals. I am calling work that aligns with these goals Enactment-Based Teacher Education (EBTE) and defining it in the following way. EBTE has two primary requirements. First, it requires NTs to combine the practice of teaching with meaningful reflection and conversation about what and why they're doing it. Second, it occurs within a community of practice. Teaching is made public, but so is the process of learning, negotiating, problem-solving and revising. NTs learn from coaches and each other.

PBTE that is not enactment frequently resembles the drill-based, competency-based style described above. It supports novices in developing muscle memory, based on repeated drills of particular strategies. These pedagogies often emphasize adoption of a particular practice without considering the context, history, or theoretical components necessary to enact the practice effectively (Zeichner, 2012). Thus, the NT may not understand the complexity of the practice or how to use it responsively (Kavanagh et al., 2019). Instead, they learn in a behavioral mode – that is, they learn what to do without necessarily learning why to do it.

I argue that enactment-based teaching works differently. It embraces the use of practice as a verb. Thus, these approaches don't necessarily have as well-defined an outcome, and therefore, encourage practice in a way that is messier, but also more authentic. They frequently require NTs balance the efficiency that comes with particular strategies with the need to innovate for different contexts or students (Kavanagh & Danielson, 2019; Lampert et al., 2013; Neel, 2017). In doing this, NTs must consider how their theoretical principles and commitments are

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implemented in their teaching and determine particular practices and techniques that align with their beliefs and the needs of their students. This incorporation requires pedagogical judgment, and justifies using EBTE to develop that skill.

This sort of teacher training is more demanding of both NTs and observers than traditional approaches or efforts to increase NT's time in classrooms, without this kind of support. It takes more time. It may seem inefficient compared to the more purely behavioral approaches. But initial results suggest EBTE holds potential for supporting the development of pedagogical judgment (Ghousseini, 2015; Horn & Campbell, 2014; Lampert et al., 2013).

Current Trends in Research

But what do we know about EBTE? Lantos (2018) investigated trends across 96 studies with the goal of determining how EBTE is currently being enacted and affecting teacher education. Four key trends emerged that are important to consider when deepening understanding of the potential of rehearsals to support pedagogical judgment.

Core Practices

One of the most important findings from this review is that many researchers have embraced the concept of "core" or "high leverage" practices (McDonald Kazemi & Kavanagh, 2013). However, their purpose and definition vary significantly across studies. Different research teams define core practices differently, operationalize them in competing ways, and disagree about whether or not they should be the focus of the work.

In describing the potential of core practices, McDonald, Kazemi and Kavanagh (2013) explain:

> By highlighting specific, routine aspects of teaching that demand the exercise of professional judgment and the creation of meaningful intellectual and social community…, core practices may offer teacher educators powerful tools for preparing teachers for the constant in-the-moment decision-making that the profession requires (p. 378).
>
> In essence, these researchers see core practices as a way for novices to develop the

knowledge and skill of teaching at the same time they develop the capacity to implement (Ghousseini, 2015).

However, this description is not always the way core practices are used. Many studies use core practices as the learning goal in and of themselves. In other words, improved teaching is equated with adoption of a set of practices. For example, Charalambous, Hill and Ball's (2011) study looks at how math teachers learn to improve their instructional explanations, a core practice of mathematics instruction. They asked whether NTs can learn to provide better instructional explanations, and if so, how they learn it. NTs completed sample math problems, practiced explaining their thinking with partners, developed criteria for effective explanations, and then rehearsed their explanations in class; throughout these activities they received feedback and coaching from peers and instructors targeting this primary practice.

The problem here is that, by design, these practices are incredibly complex. It's unrealistic to imagine that NTs will *master* any of these practices. In fact, these practices are intended to be flexible enough that, even for experienced teachers, implementation varies with subject, students, and context. Thus, fidelity to one version of practice is not the goal; core

practices are a pedagogical tool for specifying and engaging with complex elements of effective instruction.

We can see this in Janssen, Westbroek, and Doyle's (2014) study of how to improve biology teachers' use of scientific reasoning with their students. In operationalizing core practices, they realized that they often presuppose a context in which the core practice makes sense. Therefore, they introduce "core practice frames [to] create a context … of meaningful activity for several important core practices. From this perspective, learning a set of teaching practices means also learning the frame that gives meaning to the individual practices" (p. 196). They see core practices as one pedagogical tool among many. NTs also need to understand the context of the practices, and therefore need lesson frames to accompany the practices. This allows NTs to draw on their own values, goals, and growing understanding of good teaching, and use these to flexibly incorporate practices in their classrooms. Learning opportunities, therefore, end up requiring a number of additional components beyond practices, including but not limited to, teachers' individual beliefs and rationales (Dutro & Cartun, 2016; Janssen et al., 2015a; Kazemi & Waege, 2015), theories of effective teaching (Bottoms, Ciechanowski, & Hartman, 2016), and instructional activities (Kazemi & Waege, 2015).

Importantly, there is no one list of core practices on which all research teams agree, and designers argue that this is a good thing (Dutro & Cartun, 2016). They vary in grain size and number (Kennedy, 2016). Some are defined by discipline, including history (Fogo, 2014; Reisman et al., 2017), and science (Windschitl, Thompson, Braaten, & Stroupe, 2012), while others are deliberately neutral towards academic subject. Ultimately, the identification of core practices attempts to delineate crucial aspects of teaching that all NTs should know before

entering the classroom, and yet, be flexible enough to respond to the specific needs of any particular context (McDonald, Kazemi & Kavanagh, 2013), and possibly discipline .

Core practices have critics. They argue that core practices are too prescriptive, too generic, involve mimicry more than expertise, and are often onerous to learn (Kennedy, 2016; Zeichner, Payne, & Brayko, 2015). Moreover, they may fail to attend to other important aspects of teaching, often included in theoretical and foundations courses, including social justice, equity, community engagement, or learning theory (Dutro & Cartun, 2016; Philip et al., 2018).

Understanding the tension around core practices is necessary not only to make sense of how EBTE is currently implemented, but also to understand the iterations of my research design. Analysis of the literature suggests core practices are useful for rehearsal because they help scaffold for novices. Narrowing the scope of practice so that NTs can focus on particular aspects, like attending to student thinking or facilitating discussion, is more productive than trying to improve everything all at once. However, as McDonald, Kazemi and Kavanagh (2013) describe above, core practices should work in service of decision-making. Further, focusing on decision-making addresses many of the concerns that critics raise. My design and analysis, therefore, uses core practices in service of developing adaptive expertise and pedagogical judgment.

Core Practices and Literacy

Lantos (2018) also found that core practices are not as widely implemented in research on literacy teaching. This indicates both the underexplored potential of using core practices to support literacy teachers, but also raises questions about the most effective way to use core practices within the field of literacy. Some of this discrepancy is historical; core practices grew out of Ball's work (2009), which focused on math. However, another reason that core practices

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are less used in literacy is that defining the scope of literacy instruction is different than other subjects. At its most expansive, literacy instruction must encompass the practices of literacy that infuse our lives. Drawing on anthropology, sociocultural perspectives, new literacy studies, scholars argue that there is a great deal of overlap with literacy, power, and identity (Gee, 2000; Heath, 1982; Moje, Luke, Davies, & Street, 2011; Street, 2005; 2013). From these perspectives, defining effective literacy instruction as primarily the mechanistic skills of reading and writing would be inadequate (Gee, 2003).

However, literacy instruction in schools is necessarily narrower. Current standards aim to help students learn to read, write, speak and listen – skills that can be applied broadly to all facets of their life, including academics (National Governors' Association. Center of Best Practices, 2012; Snow, 2002). This stands in contrast to other disciplines: although students need to write, speak, and listen in mathematics, there are not speaking and listening strands within the math common core standards. This distinction, in which ELA teachers are tasked with teaching both the disciplinary knowledge (e.g., text analysis), as well as the thinking and communication skills that underscore all academic success, is unique to ELA.

As a result, some scholars argue that ELA teachers should attend to disciplinary literacy, teaching students to engage in the sorts of literacies defined by traditional academic disciplines (Kavanagh & Rainey, 2017; Lee & Spratley, 2010; Snow & Moje, 2010) This work most resembles the approach taken by mathematics reformers around ambitious instruction, in which school instruction engages students in the types of thought provoking disciplinary learning that aligns with expert practice (Jennings & Spillane, 1996; Lampert & Graziani, 2009). However, the practices of literacy are so diverse and widespread that the notion of expert or professional practice is less clear (Street, 2013). Because literacy encompasses language and communication,

the scope of ELA is broader than its academic tradition or its professional application (Lee & Goldman, 2015).

Finally, another important distinction within literacy is that the scope and sequence for English Language Arts (ELA) instruction is usually much looser than in math or science. Unlike mathematics where most 8th and 9th graders take Algebra, followed by Geometry and Trigonometry (or biology and then chemistry), ELA looks very different across schools. Although the Common Core Standards present a sequence of skills that students should master, English teachers typically have more control over how to teach them. Furthermore, most of these skills cycle from year to year – students are required to read and use evidence from first grade to twelfth grade. The Common Core offers minimal guidance on the difference between these skills at different grade levels. Some of this is true in math also, but the ambiguity is typically more pronounced in ELA.

In considering what novice literacy teachers need to know and be able to do, these complexities must be addressed. The many aspects of effective literacy instruction have important implications for efforts to streamline or standardize literacy instruction. The concept of core practices implies that certain practices are core, and others are optional, less important, not central. The complexity described above makes it challenging to identify a shared set of core practices that account for the various perspectives on effective instruction, and offer an approach on which literacy teacher educators could agree. Focusing on professional judgement offers an important alternative.

Enactment within Literacy

One gap in the research identified by Lantos (2018) was that overall, few studies consider the differences between literacy and other subjects, or attempt to define unique disciplinary practices for literacy. In other words, the difference between leading a discussion in a literacy classroom versus a math classroom was not unraveled. Like with the rest of this field, many studies of EBTE in literacy use core practices to define their work, and the core practice upon which most studies focus was leading a discussion.

Importantly, two studies did focus on the necessary modifications of a core practice approach within literacy instruction (DeGraff et al., 2015; Kavanagh & Rainey, 2017; Meneses, Hugo, de los Ángeles García, & Müller, 2018). One of these, Kavanagh and Rainey's (2017) study, describes using rehearsals with a group of pre-service literacy instructors. In their rationale, they describe the importance of merging theory and practice, as well as the importance of using core practices to restructure teacher education. Like many, they emphasize that core practices can be used as a scaffold for the sort of complex engagement that enactment allows.

Their design identifies two learning goals for novices. They aim to support NTs' ability to lead text-based discussions (a core practice) as well as their ability to support students' textual analysis skills (a discipline-specific practice). They argue that a practice-based approach could support NTs as they "(1) learn to participate within the professional community of educators and (2) learn to teach adolescents to participate within the communities of the academic disciplines, including literary studies" (p. 911). The authors analyzed the ways that their methods classroom instruction, which included reading articles about literary analysis, and representing, decomposing and approximating (Grossman et al., 2009) the practices of leading discussion influenced NTs' work with students.

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They found that NTs took up the two learning outcomes in very different ways. They were more effective in helping NTs with the discipline neutral practice (leading a discussion) than they were with the discipline specific once. Because the authors analyzed their own instruction, as well the ways NTs participated, they were able to link this outcome with what they did in class. They found that the ways they supported novices to use discussion were very different from the ways they supported them to engage in literary scholarship. While they frequently relied on representing, decomposing and approximating practice (Grossman, Hammerness, & McDonald, 2009) with regards to discussion, they rarely used these same tools for helping novices attend to the disciplinary literacy. Instead, when supporting NTs' understanding of literary analysis, they primarily read and discussed articles. As a result, NTs were much more successful implementing discussion routines in their classrooms than they were at supporting students to "read or discuss literature in ways that were specific to a disciplinary community of readers of literature" (p. 920). They conclude that the practice-based approach worked better for discipline neutral practice. It also demonstrates the challenge for implementing these routines within literacy instruction, and with the aim of supporting specific disciplinary outcomes.

A second study takes a different approach. Meneses and colleagues (2018) also focus on leading a text-based discussion, but they measure NT learning over three years of participation. In doing this, they identify four literacy-specific subskills embedded in the practice (i.e. text analysis, responding to error) and assess these using a scenario-based test, the CoLTS (Kucan, Hapgood et al, 2001).

Using this assessment, Meneses and colleagues compare NT learning over three years, following them from their disciplinary course, into their methods course, and then their field

placement. Teacher educators included pedagogies of enactment all three years. Their findings indicate that NTs improved over the three years in all four of the subskills for leading discussion; however, scores were still under 70%, indicating that more work is needed to help teachers master both the knowledge and skill components of effective literacy teaching.

Most studies assume that EBTE can be implemented the same way in literacy and STEM. However, the two studies that attempted to define core practices within literacy concluded the opposite. They demonstrated that the nuances of literacy instruction need to be considered on their own right, and that discipline neutral practice is insufficient for effective literacy instruction, in part because effective literacy instruction is such a large and complex endeavor. Nonetheless, there may be important ways to adjust the work that has been done in STEM teaching so that it aligns with these demands. Therefore, the third iteration of this study seeks to do this through a redesigned rehearsal protocol designed to be delivered in a literacy methods class. We use core practices in service of developing literacy instructional practices and pedagogical judgment.

Practice-based Teaching and Equity

The final pattern that emerged from this analysis was a lack of focus on equity. Many studies refer to equity in their framing but rarely define it. They may acknowledge the importance of closing the achievement gap, better preparing teachers because of increasing diversity in American schools, or better supporting EL students. However, most studies do not come back to these ideas when explaining the nature of practice or assessing the impact of their intervention. This was not the case in all studies, and a smaller group of studies either emphasized equity or critiqued PBTE for overlooking equity and justice.

Many studies that occurred in social foundations courses intentionally focused on equity. These studies typically supported NT learning around community engagement, parent involvement, and/or student agency (Self, 2016). Also, some of the literacy studies made a more concerted effort to question core practices (Dutro & Cartun, 2016), especially why practices that were neutral to discipline and equity were label "core", while those that emphasized disciplinary and equitable instruction were seen as peripheral.

Additionally, many studies use the term ambitious instruction to demonstrate their commitment to equity. Ambitious instruction is teaching that engages all students in the types of thought provoking disciplinary learning that aligns with expert practice, regardless of demographics (Jennings & Spillane, 1996; Lampert & Graziani, 2009). Ambitious instruction embraces an understanding of equity primarily defined by achievement. Drawing on the critical scholarship about equity cited earlier, equal achievement is inadequate for establishing equitable instruction. Considering the importance of identity, agency, and critical consciousness advocated by Gutierrez (2009) and Ladson-Billings (1995b), we need to embrace a vision of teaching more responsive and individualized than ambitious instruction demands. Additionally, it requires an understanding of practice and core practices that are necessarily context-dependent. There may not be such a thing as effective teaching for all students (Gutierrez, Morales, & Martinez, 2009; Kumashiro, 2000), which means our practice must be flexible enough that we can change it depending on the needs of our students. This requires a rehearsal protocol that explicitly attends to issues of equity and context, and informs the research design of this study.

Summary: What We Know and What We Don't

Neither practice-based nor enactment-based teacher education is the first time that teacher educators have emphasized practice in teacher education. However, this recent turn differs in its emphasis on scaffolded integration of knowing and doing during teacher education (Zeichner, 2012).

One thing we do know: EBTE affords NTs opportunities to engage in meaningful ways. Efforts to incorporate more practice in teacher education have led to identification of meaningful practices that warrant NTs' attention. Some of these lists consider disciplinary specificity as well as equitable instruction. Moreover, these are accompanied by pedagogies that require NTs to get up on their feet, try things on, spend more time with students, and think critically about what they're doing. When they participate in EBTE, they practice the sort of learning that many teacher educators envision as ideal. This seems to be true regardless of which particular pedagogy is used (rehearsal, simulations, etc). Studies incorporate detailed, methodologically rigorous accounts of the nature of participation, the types of interactions, and the way NTs describe their experiences. These methods offer a new model for how to integrate theory and practice that is situated in context. These developments are significant and have pushed the field of teacher education forward.

This close review of the literature, guided by Lantos (2018), indicates more research is needed in three particular areas (see Figure 3). First, we need more work clearly identifying the learning goals of EBTE. Although the majority of studies focused on core practices, more recent studies question what it means to adopt a particular practice, and whether this should be the goal. Many studies combined core practices with additional pedagogical tools (instructional activities, core practice frames, principles). It can be difficult to determine which of these components is the learning focus for novices or whether all of them are. This ever-expanding list of design

components may speak to the inadequacy of core practices as the primary lever for improving teacher education. In other words, core practices are useful, but not sufficient. They help focus teacher practice, but implementing them with fidelity is not the goal. And yet, this generates a new question. If fidelity to a particular practice is not the goal, can we agree on an alternative?

Second, more work needs to be done about how EBTE should adapt for the complexities of equitable literacy instruction. In doing this, it's necessary to consider what we mean when we talk about both high-quality literacy teaching and equity. These terms are often used without explanation, which contributes to the challenge in identifying and measuring success. Clarifying our goals may help us determine the outcomes for which we're designing.

Finally, more work needs to be done to demonstrate whether EBTE works, for both NTs and for their students. Some models exist for how this can be done. We need more studies that follow NTs out of their university coursework and examine the work they do with students. Studies that use control groups, or pre- and post- assessments to demonstrate the impact of participating hold additional promise.

The following text appears within the figure:

Research on Expertise and Decision Making

- **Gap in existing research**: Can we better understand how teachers develop expertise? How can core practices and pedagogical judgment co-exist?

Research on Equitable Literacy Instruction

- **Gap in existing research**: Does PBTE work with literacy? In what way does this content show up in practice or practices?

Research on Effectiveness of EBTE

- **Gap in existing research**: How do practice-based teacher education pedagogies influence enactment in classrooms?

Research questions in response to these gaps:

- What do NTs and TEs do during a clinical rehearsal cycle?
- How does these interactions support learning, including disciplinary practice?
- How are subpractices discussed and enacted throughout a clinical rehearsal cycle, including in classrooms?

Figure 3: Research Gaps Addressed by this Study

Influence on this Study

Currently, EBTE is primarily considering core practices as a learning outcome, but a construct like pedagogical judgment may be more appropriate. Instead of seeing any particular practice as the learning goal, our designs should return to the goals of enactment. Pedagogies of enactment allow novices to integrate theory and practice, within a community of learners. NTs need help interpreting situations and knowing how to respond. They need opportunities to develop the sort of situated knowledge that Kennedy (1999) describes, and the adaptive expertise (Anders Ericsson, 2008) that enables them to implement their knowledge and commitments effectively.

Pedagogical judgment may allow us to address the complexity of literacy instruction. Many of the current approaches to EBTE are discipline neutral. However, it's easy to imagine how enactment would enable conversations about content as well. For example, novice teachers often correct students' language, suggesting that they use academic English when participating in class. They may do this without thinking about the implications of that choice. Like with so many of the decisions that a teacher makes in a day, there is not a right answer here. There are reasons to help students develop academic language skills. There are also reasons to encourage and validate the ways of thinking and speaking that students naturally use. It also will depend on the student; this choice may be different for a native speaker of English than an English learner. These trade-offs would be highlighted, and novices could question, problematize, develop alternatives, and enact different strategies.

It also holds promise for equity. In many ways, EBTE's struggle with equity resembles the challenge with literacy. Just like ELA, equity is a term with many different definitions and instructional implications. As such, it's likely that any generic method for achieving equity will fail to account for local and specific challenges. Like with literacy, equity may best be achieved through acknowledging the complexity, and empowering teachers to make decisions based on their students, their schools, and their challenges.

Drawing on the learning theories that opening this chapter, rehearsal is powerful for its ability to unite situative and critical perspectives on learning. A learning outcome more directly in line with these theories is appropriate. We must see classroom tensions and decisions as generative and motivation for on-going inquiry. Enactment allows NTs to question their decisions and trouble their beliefs. Developing pedagogical judgment honors the sort of work that Kumashiro is advocating, and may allow NTs to realize greater classroom achievement, and

build in work that gives students agency and a stronger sense of self (Cochran-Smith et al., 2016; Gutierrez, 2013).

Conclusion

In my experience using pedagogies of enactment with NTs, I continually returned to one central question. I would stop the rehearsal and ask the group, "What did that decision get you? And what did you lose from that choice?" This question required students to pause and consider their goals. It required them to identify the choice they had made. It asked them to think about how students would react to an instructional decision, who would be served, and how. It also recognized that no strategy was perfect, and that instructional choices have trade-offs.

One simple example came from their decision to ask students to raise their hands. I paused the rehearsal and ask what they gained and lost from asking for volunteers. NTs acknowledged that it likely felt safer to their students. They were more likely to get a correct answer. They were more comfortable when they did not put students on the spot. They also acknowledged that they regularly called on the same students, and that that quieter students rarely shared. This interfered with their desires to have greater student participation and talk in their classrooms. It probably prevented English Learners from participating as much as they hoped. This question unearthed the experiences that they drew on to make a seemingly automatic and insignificant instructional move, and the alternatives that existed.

I would typically push them further, and ask them what they might do instead. Some did not know. One student suggested using cold calls. Another student offered partner talk, before asking volunteers. A third option was to give everyone a chance to individually think and write.

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Sometimes the alternatives pushed them out of their comfort zone. Afterwards, they would replay it, picking a new strategy that better matched their goals. My hope is that they drew on these alternatives when implementing lessons with students.

This negotiation, which requires the use of pedagogical judgment, holds promise. Instead of thinking that we can come up with an ever-expanding list of practices (or forego practice altogether), we might limit teacher training to a few broadly defined core competencies and then empower NTs to question their own work and make changes given their circumstances and the needs of their students. This involves the kind of interaction between theory, belief, context, and action that pedagogies of enactment are positioned to support. It acknowledges the situated nature of learning to teach. It recognizes the complexity of every context. While this may seem incompatible with a desire to support achievement, I don't believe that it is. An approach that uses core practices and pedagogies of enactment to highlight both the dynamic nature of effective teaching and the need to break it down for novices may allow us to meet more ambitious goals for teachers.

CHAPTER THREE: METHODS

This design research study examines the redesign of a rehearsal pedagogy to support the development of pedagogical judgment. It uses data from the third semester of a multi-semester study. Specifically, it addresses the following research questions:

Research Question 1: What do TEs and NTs do during a clinical rehearsal focused on literacy instruction?

    a. What is the nature of instructional interruption, specifically considering changes over time?

    b. How do instructional interruptions function to support learning?

Research Question 2: How are discipline specific and neutral subpractices discussed and enacted by NTs throughout a clinical rehearsal cycle, specifically looking at the connection between rehearsal interactions in the methods classroom and NTs classroom teaching within a practicum setting?

In this chapter, I describe the study's design, the context of the research, the research site, participants, and my role as a researcher. Next, I explain methods for data collection, data sources, and methods of data analysis. I conclude with a discussion of the study's trustworthiness.

Throughout the next several chapters, I use first person pronouns. Typically, I use "we" when describing work that I did in collaboration with another person, whether that is NTs or other course instructors. I conducted the analysis individually (other than member checking and peer debriefing), and therefore use a singular pronoun when describing that process.

Research Design

Study Design

This study reports on findings from the third semester of a design research study (Cobb, Confrey, diSessa, Lehrer, & Schauble, 2003). Over the course of three semesters, I investigated how to implement rehearsals (Lampert et al., 2013; Lampert, Beasley, Ghousseini, Kazemi, & Franke, 2009) for elementary teachers enrolled in reading and writing methods classes. Each semester involved refining my implementation of rehearsals around an evolving set of conjectures. I paired with three different course instructors to facilitate rehearsals, working with different NTs each time. Analysis was on-going throughout the semester, as well as retrospective in preparation for another iteration.

The first semester occurred in a digital and print media course with both undergraduate and graduate students. Each NT participated in an individual rehearsal. Rehearsals took place within groups of four students, with different groups of students presenting simultaneously. They rehearsed a lesson on monitoring comprehension, using a think aloud. NTs wrote their own lesson plans, drawing on course content around reading strategies and think alouds. Conjectures were: a. rehearsal is about practice, b. learning is communal, and c. safety is essential. On-going and retrospective analysis indicated that although NTs reported the rehearsals were helpful, there was no opportunity to demonstrate improved ability to implement the content. Interactions and interruptions were important, but given the structure of practice, specifically the fact that the groups of students were not led by a more experienced facilitator, interruptions were not necessarily purposeful. Finally, many NT's reflected on how important it felt to be part of a safe

community. They acknowledged the inherent vulnerability of practicing in front of their peers, but appreciated the emphasis on learning and growth, rather than skilled performance.

These findings influenced the design in the second semester. In this case, rehearsals occurred in an undergraduate elementary writing course, with only six novice teachers. NTs participated in three cycles of rehearsal, practicing their lesson individually. Unlike the first semester, practice sessions were conducted as a full class activity. I facilitated all the rehearsals, and the other five NTs and the professor role-played students. Initially, the cycles of practice focused on a single core practice around which NTs could plan their own lesson. (As described in chapter 2, there is not a clear and widely shared definition of "core practice." Thus, we looked across lists of practices and identified three that we found appropriate for our context.) These lessons were demonstrated in class prior to being enacted with third grade students. Conjectures were modified slightly from the previous semester with a greater focus on the nature of collaborative interaction and the function of skilled facilitation.

On-going analysis during the semester suggested that NT-written lesson plans were challenging to enact. As is typical for novices, the lesson plans were often flawed in ways that made them hard to implement. For example, objectives did not line up with instructional activities, they relied too heavily on teacher talk, there was too much focus on doing something exciting, rather than something rigorous etc. As a result, many of our interruptions were about planning decisions rather than implementation. Second, practicing NT-written lesson plans made it difficult for the observing NTs to participate. For example, many of the lessons relied on knowledge of a text that others had not read; other times they built on a previous lesson with which we were unfamiliar. These two observations, paired with a mid-semester debrief, resulted in changing the final cycle of practice. This time, I wrote a shared lesson plan that all NTs

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practiced. This led to greater engagement during the rehearsals, including more rigorous examination of teacher moves. It also revealed that a more limited scope in what rehearsals seek to do (not requiring NTs to do everything, providing more supportive scaffolding) may offer deeper and more meaningful engagement with intended focal areas.

Retrospective analysis indicated that the most meaningful part of this practice was the discussion. This suggested that we may be using our focal core practices in the wrong way, an idea I explore in greater detail in Chapter 2. Rather than thinking that a rehearsal cycle would allow NTs to master the cycle's focal core practice, we began to see core practices as a tool in service of adaptive expertise and pedagogical judgment.

In the third iteration of the study, from which these data are drawn, rehearsals took place in an undergraduate elementary reading course, with nine novice teachers. Like the previous semester, I worked with the course professor to implement and facilitate the rehearsals. Drawing on the successes of semester two, rehearsals occurred as a full class activity. There were three cycles of rehearsals, during which NTs practiced in pairs and/or trios (a decision based largely on available time; solo practice was impossible in a group this size).

For these cycles of rehearsals, I wrote the lesson plans, with help and support from the professor, Amanda Goodwin. Additionally, although each cycle of practice focused on one core practice, the goal of our rehearsals shifted in an important way. Instead of focusing on mastery of the core practice, we aimed to support the development of pedagogical judgment. This focus included close consideration of the way that NTs made decisions about which approaches, techniques, and strategies to use in their rehearsal and placement classrooms. Although I hoped NTs would adopt certain research-endorsed techniques in their rehearsals and during practicum, fidelity to these techniques was no longer the primary focus of our practice.

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The design for semester three relied on a cycle of investigation and enactment that included learning about a core practice and observing and analyzing the practice in action via demonstration by the course instructor. The demo lesson was followed by rehearsals by four pairs/trios of NTs, each practicing the same lesson. Therefore, each lesson was implemented a total of five times, during which some of the themes and questions would reappear and develop. This structure, where NTs all rehearsed the same lesson, which they then implemented with their second-grade students, contributed to high engagement and investment even when they were not "on-stage". For example, NTs asked questions about their own classrooms or challenges they anticipated, versus simply providing feedback to another presenter. Similarly, Amanda and I both observed that our feedback and questions became group feedback (versus feeling like it was only relevant to one or two presenting NTs) (See Figure 4).
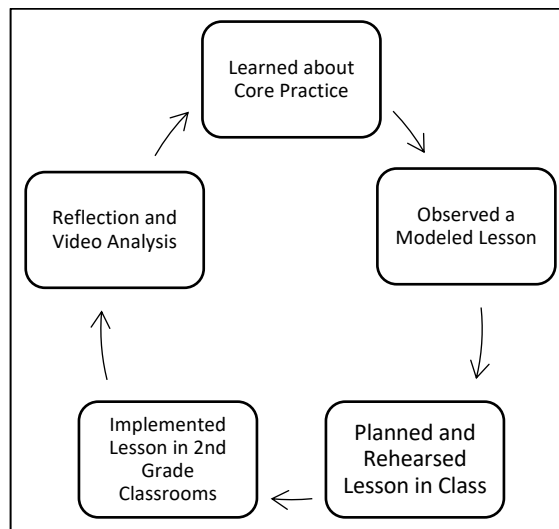
Figure 4: Semester 3 Rehearsal Cycle

After classroom practice, NTs enacted the same lesson in placement classrooms, filmed their lesson, and brought their film to class. We repeated this cycle three times. Rehearsals focused on three core practices that students investigated through professor-designed instructional activities (Hiebert & Morris, 2012; Kazemi, Franke, & Lampert, 2009; Lampert et al., 2009). (See Table 1 for core practices, instructional activities, and student learning outcomes for each of the three cycles.)

Table 1: Core Practices, Instructional Activities, & Student Learning Outcomes for Each Cycle

	CYCLE 1	CYCLE 2	CYCLE 3
CORE PRACTICE	Modeling and Explaining	Leading a Discussion	Collecting and Using Student Learning Data
SHARED INSTRUCTIONAL ACTIVITY/LESSON PLAN	Framing a lesson and using a think aloud	Interactive read aloud and discussion	Independent Work and Conferring
STUDENT LEARNING GOAL	Summarizing text	Author's purpose	Plot and story structure

Study Design Rationale

Design-based research (DBR) allows researchers to "engineer particular forms of learning [while] simultaneously studying those forms of learning" (Cobb et al., 2003, p. 9). In other words, DBR is used to tune what works, while simultaneously developing new theories about how learning occurs in particular contexts. DBR prioritizes the development of new theories because the explanations and understandings embedded in them are necessary for long-term and sustainable educational improvement. Thus, the hallmark of design-based studies is a balance between the pragmatic goal of improving instruction in a particular context and the theoretical goal of better understanding how learning occurs more broadly.

Thus, it's a useful paradigm for this study for two primary reasons. First, as demonstrated in chapter two, little is known about how to use EBTE with literacy. The research that does exist raises important questions that suggest that new designs and approaches may be necessary. This likely requires a pragmatic approach, where we make conjectures about what is necessary for literacy teacher learning and test out instructional designs aligned with these goals. Similarly, it requires us to consider what it means to be an effective literacy instructor, and the process through which people learn to do that. This is ultimately a theoretical question: what are we

doing and why it matters, which can be answered most effectively through developing conjectures, testing out models, and analyzing data in service of new theories about how this sort of practice supports NTs learning.

In addition, DBR allows for a variety of analytical approaches for making sense of data. I've chosen to use qualitative analysis of video data, including methods instruction and classroom teaching, to better understand the effectiveness of this rehearsal protocol. Denzin & Lincoln (2008) write "Qualitative research is a situated activity that locates the observer in the world….Qualitative researchers study things in their natural settings, attempting to make sense of, or interpret, phenomena in terms of the meanings people bring to them" (p. 4). This description aligns with my goals for understanding how TEs and NTs participated in rehearsal, and the way their learning developed during classroom enactment.

More specifically, I used the constant comparative method of grounded theory (Glaser & Strauss, 1967; Strauss & Corbin, 1990) to better understand what we were doing and how it functioned to support learning. Often, when we consider what and how teachers learn, we spend more time focused on what they are thinking about their learning, students, and practices than we do on their actions. In contrast, these data reveal what they are doing, with each other and their students. These patterns informed substantive level theory (Glaser & Strauss, 1967) about how clinical rehearsals work, and why they might be useful within teacher education.

Research Context

Iteration 3 of this study took place in a semester-long undergraduate elementary reading methods course at a private, selective university in the southern United States. This was NTs second literacy methods course with the first designed to develop 1-on-1 teaching/tutoring

related to the reading process and the current class designed to develop effective instructional practices to teach literacy via small and classroom-sized groups. Students were co-enrolled in a writing methods course and practicum teaching placement within a local diverse elementary school located within a large urban school district. During practicum, each NT implemented one-hour lessons, twice a week throughout the semester; content of these lessons alternated between reading and writing instruction.

This course sequence took place within the teacher education program, which was beginning to incorporate more pedagogies of enactment, although these occurred more frequently in the secondary education program. Several courses required NTs to use video in their practice teaching, and then analyze video during "video club" (Johnson & Cotterman, 2015; van Es & Sherin, 2006) in their methods instruction. Different courses used a variety of video analysis software to help teachers watch and reflect on videos of both themselves and their peers. Additionally, secondary teachers participated in three clinical simulations (Self, 2016; Sparks, 2011) in their social and philosophical foundations course. These three simulations all focused on issues of equity, justice, and educational access. This, however, was exclusively for secondary teachers. Therefore, this particular group of teachers had not participated in a simulation or rehearsal that involved live teaching and/or role-playing. I partnered with the course professor to implement rehearsals. We aligned the instructional goals of the rehearsals with the course goals, and rehearsals took place weekly in the last hour of a three-hour block.

Participants

Facilitator and Course Instructor

I, a white female graduate student, facilitated the rehearsals. I was not a course instructor, and only joined the class for the last hour of each class session. I was not responsible for assessing NTs in any capacity, either their regular coursework or participation in rehearsal. I had eight years of teaching experience primarily occurring in urban high schools but also as a teaching assistant in multiple undergraduate and graduate literacy methods courses.

The course instructor was Amanda Goodwin, a white female professor, who had taught this course for several years. She had never used rehearsals in her courses. She had seven years of elementary and secondary teaching experience.

Both Amanda and I participated fully in rehearsals. When Amanda was demonstrating the lesson, I facilitated the rehearsal in the same way that I did with NTs. This was done to demonstrate how rehearsals would work, but also to model that experienced teachers could also benefit from publicly sharing practice and using it to interrogate their teaching. Building on a long tradition of teacher self-study, I played both the role of instructor, facilitator, and data collector. In the role of facilitator, I did a number of preparatory tasks, including identifying core practices and instructional activities from existing research that also aligned with the course goals, selecting texts for shared practice, writing lesson plans, providing written feedback to NTs on their lesson plans. During class, my role included building community through games and check-ins, introducing core practices and instructional routines, and facilitating the rehearsal enactment (pausing and restarting instruction, providing feedback, and managing NT participation).

Novice Teachers

Participants included the nine pre-service teachers enrolled in the course; all NTs consented to participate in the study. Eight of the teachers were white, one was Asian-American;

all pre-service teachers were female. 7 of the 9 teachers were juniors; 2 were seniors. This was the final semester before full-time student teaching.

Rationale for Participant Selections

All NTs enrolled in the course participated in classroom rehearsals. This was part of their course grade (although participation was graded on a pass-fail basis). Despite the expectation that they participate in this learning activity, they were not required to consent to the study. In the beginning of the semester, Amanda stepped out and I explained the consent process to them and gathered consent. Neither Amanda nor I looked at their consent forms until the semester concluded, with the understanding that any data from a non-consenting NT would be destroyed. We originally viewed our study of NT participation as a version of practice-as-usual.

Role of Researcher

I was a high school English and history teacher for eight years before pursing my doctorate degree. I taught exclusively in urban schools, often with students far below grade level in their reading ability. Although my experience as a teacher was with high school students, during graduate school, my interest in reading often led to work with pre-service elementary teachers. I am a white educator, though most of my students have been youth of color. I attended private, primarily white institutions for both undergraduate and graduate school, and most of the pre-service teachers with whom I work are also white.

I've facilitated clinical rehearsals within university courses as well as "deliberate practice" sessions in an alternative certification program that was also focused on practice-based teaching. Their approach focused heavily on observable teacher behaviors, with minimal attention to the rationale of a particular choice or its impact on students. These two experiences

supported my interest in a modified rehearsal protocol, what I came to call clinical rehearsals, and shaped the progression of my thinking around the purpose and structure of effective clinical rehearsals.

Data Sources and Collection

As mentioned above, the data for this study are from the third semester of a design-based research project. Data were collected over 13 course sessions from January to April, 2017. NTs started their practicum in the middle of January, and filmed themselves six different times, although only three of their videos were relevant for this study (since three involved teaching lessons they'd designed themselves). In the next section I will detail procedures for collecting the video data as well as the secondary data sources.

Video and Field Notes

To understand the nature of engagement, primary data sources include videos of multiple types of enactment. I collected audio and video of all rehearsals (n=15), including the introductory lesson. The introductory lesson in each cycle included some form of team building, an introduction to the core practice, and then a demonstration by Amanda. Each cycle also included four videos of pairs/trios of NTs enacting the lesson. After each course session, I recorded field notes about the rehearsal, including moments, comments, or instructional interruptions that were particular interesting or salient. During analysis, I rewatched the videos and expanded the field notes to be a more complete record of what occurred.

Additionally, I collected video of classroom implementation (n = 19). NTs consented students and parents to participate in the study. Four of the NTs taught their school-based lesson in pairs, resulting in video data of seven individual or pairs of NTs implementing three different

lessons. Two of the NTs videos were lost or unusable. Video of both rehearsals and classroom enactments were transcribed prior to analysis.

Lesson Plans

I further analyzed the instructor-written lesson plans, the adaptations made by the NTs, and weekly reflections to triangulate findings (See Appendix A for lesson plans from each of the three cycles). Instructor written lesson plans included three different parts, an introduction, a detailed lesson sequence, and a place for post-teaching reflection. The introductory section explained the lesson objectives, how this lesson fit in the larger scope and sequence of instruction, expectations for student performance, and ways to differentiate the lesson.

The lesson sequence was described in instructional chunks. Typically, lessons included some sort of launch, shared reading and/or mini-lesson, and then discussion or individual work. Parts of the lesson were scripted, though other parts were left open for NTs to adjust. The lesson sequence included a column for explaining the rationale for particular instructional choices. Examples of topics that were included in the rationale are why a particular launch was chosen, additional reading about discussion norms, or expectations about pacing.

When pairs of NTs were rehearsing, they were expected to send me their version of the lesson by Sunday night. Often, they made minor modifications, including different questions, different launches, or different participation structures. Sometimes their versions included notes to themselves about how they wanted to say something, or why they'd made particular choices. Additionally, they would often indicate which part of the lesson they planned to rehearse, since there was never enough time to get all the way through the lesson (See Appendix B for a sample NT lesson plan).

Written Reflections

After every class, all NTs would write written reflections about the rehearsals. (See Appendix C for reflection questions). They emailed me their reflections within two days of class. Presenting NTs had a different set of questions than observing teachers. Questions included what they learned, how the rehearsals connected to their practicum experience, as well as how they felt about rehearsals and their growing identity as teachers. Reflections were typically about one page.

Semi-Structured Teacher Interviews

In the middle of the semester, I individually interviewed all of the NTs for half an hour each. These were audio recorded. Interviews followed a semi-structured interview protocol. Topics included whether they found rehearsals helpful, how they differed from other methods instruction, whether they felt safe and protected during their practice sessions, and how they saw themselves developing as teachers. (See Appendix D for interview protocol).

Table 2: Data Sources

DATA COLLECTED	DURING REHEARSALS	DURING CLASSROOM ENACTMENT	MID-SEMESTER
AUDIO/VIDEO RECORDING OF INSTRUCTION	X	Video only	
FIELD NOTES	X		
ADAPTED LESSON PLANS	X	X	
POST INSTRUCTION WRITTEN REFLECTIONS	X		
SEMI-STRUCTURED INTERVIEWS			X

Data Analysis

Analysis occurred in two phases, one answering the first research question around NT and teacher educator interaction and then a subsequent analysis tracing uptake into classrooms. These two phases are described in more detail below.

Analytical Process Phase 1: Research Question 1

Strand 1

The first strand of analysis started with open-coding data of transcripts of rehearsals that occurred in methods class (Charmaz, 2006). Along with open-coding, I wrote theoretical memos about the significance of these data. (In grounded theory, theoretical memos function as records of the researcher's developing ideas about codes and their interconnections. In contrast with field notes, they provide documentation of the researcher's thinking processes, rather than a description of a social context [Montgomery & Bailey, 2016)]).

In order to establish codes, I employed grounded coding methodology and constant comparative analysis (Strauss & Corbin, 1990). I reviewed the field notes and transcripts of the 15 rehearsal videos and developed coding schemes that considered many different aspects of what NTs and TEs did during rehearsal. These involved how I framed practice for the day, the way NTs explained what they were working on, how they implemented the lesson, and instructional interruptions that occurred.

Given my interest in the way that practice pedagogies support the development of pedagogical judgment, it was necessary to consider how to operationalize different parts of the construct. Moreover, it was important to consider what aspects of this construct were represented in these data.

Drawing on the definition of pedagogical judgment (Horn, 2019) established in previous chapters (pedagogical action, reasoning, and responsibility), focusing on the verbal interactions that occurred between participants offered a window into some of these components. In particular, the interaction between NT and TE often revealed pedagogical reasoning (i.e. how NTs made decisions about what they were doing), and then tracing particular pedagogical ideas (which I operationalized as anything related to pedagogy or instruction, e.g. managing equitable participation, pacing, supporting comprehension) into classrooms allowed me to consider how their actions did or did not align with their reasoning. Therefore, open-coding gradually became more refined around the form and function of instructional interruptions as a site of learning.

The moments of instructional interruption often led to deep and meaningful engagement. They offered an opportunity to look critically at practice and have a better understanding of what was occurring and why. Therefore, I identified "instructional interruption" as the unit of analysis, which I operationalized in the following way: an instructional interruption occurs when the

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lesson enactment is paused and lasts until the lesson enactment resumes. Instructional interruptions ranged in frequency and length across the rehearsal cycles, and throughout the semester. Therefore, although I started by coding the entire rehearsal, this analysis presents information specific to instruction interruptions. Honing in on the nature of instructional interruptions, the way they changed, and the way they supported learning allowed me to better understand what was going on in the rehearsals.

Learning is itself a conceptually challenging concept. Drawing on situative theory (Lave & Wenger, 1991), I operationalize learning as an identifiable change in participation. In this case, when NTs went from more passive to active questions, when they tried new strategies that they hadn't previously attempted, or when they were eager to demonstrate something challenging to receive feedback and support, it demonstrated a change in participation that would qualify as learning.

Strand 2

Thus, the second strand of analysis moved from open-coding the entire video of methods rehearsal to a more focused pass looking exclusively at instructional interruptions. Initial codes included how instruction was interrupted, what was talked about, who talked, what kinds of questions were asked, etc. In order to get a better understanding of the nature of instructional interruptions, I sought to organize these codes into meaningful categories. This gradually led me to develop the following categories for organizing my initial, open codes:

a) Nature of interruption (who interrupted and how?)

b) Structure of interruption (what kind of participation occurred [i.e discussion, responding to questions]?)

c) Substance of interruption (what pedagogical ideas were explored?)

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d) Type of sense-making (how were we talking about instruction?)

Every instructional interruption was then coded for each of these categories. In determining the unit of analysis as well as the labels for axial-codes, I drew specifically on Lampert et al.'s (2013) rehearsal analysis and van Es and colleagues' (2014) categories for facilitating video analysis. (See Appendix E for Lampert's coding scheme).

Table 3: Coding Details for Instructional Interruptions

AXIAL CODE	DEFINITION	EXAMPLE SUB-CODES
NATURE OF INTERRUPTION	Describes who interrupted and for what purpose	Facilitator asks a question; facilitator makes a suggestion, presenting NT asks a question about their own practice, observing NT asks a question
STRUCTURE OF INTERRUPTION	Describes what kind of engagement occurred	Facilitator asks a question, discussion, reteach
SUBSTANCE OF INTERRUPTION	Describes what pedagogical ideas were explored	Core Practice, nature of instructional activity, discipline neutral subpractice, discipline specific subpractice, ELA-specific content goals, instructional technique
TYPE OF SENSE-MAKING	Describes how we talked about instruction	Identifying a dilemma, defining key terms, offering alternative ideas

In order to understand how an idea was explored and/or taken up in classrooms, I first needed to spend some time operationalizing "pedagogical idea." I started with broad language intentionally because many of the terms that we use to describe good instruction, ranging from technique to best practice, core practice to strategy, carry multiple meanings. In writing my question, I wanted to avoid this jargon, and the potential confusion it might bring. Therefore, pedagogical idea simply referred to anything that had to do with pedagogy or instruction (using Lampert [2013]'s rehearsal coding scheme, I labeled these ideas with a "substance" code). This allowed me to inductively analyze the data, generating smaller categories from the larger dataset. In my findings, I make deliberate connections to more well-known terms (practices, techniques, routines, etc).

Initially, the axial codes that I used to organize pedagogical ideas were a. the focal core practice of the module, b. discipline-specific technique, c. discipline neutral technique, d. classroom management, and e. equity. As I tried to define each of these categories (e.g. what is the difference between a practice and a technique?), I realized that there was some important

overlap between my categories. Thus, I returned to these initial codes to determine how issues of academic discipline, management, and equity relate to core practices. In other words, I was looking for whether core practices included aspects of these topics or whether they were another category of practice altogether (e.g. equitable practices, management practices).

Eventually, I developed a few different models representing how core practices work with other elements of teaching. For the first model, my analysis contrasted codes that were labeled as core practices with those labeled as discipline specific technique. I came to believe that discipline specific techniques were often complex practices of their own, embedded within core practices. I, therefore changed this code to represent a subpractice, either one that was specific to discipline or neutral to it. Some examples of these subpractices include: leading a think aloud (discipline specific) or framing learning objectives (discipline neutral). However, we spent far more time talking about discipline subspecific practice than discipline neutral. I wanted to better understand the differences between these categories. I sought to identify key properties and dimensions of discipline neutral and specific subpractices, with an eye towards developing substantive theory about the role of content knowledge and expertise within core practices and subpractices. This analysis led to the model I share in the findings.

Of note, the list of axial codes included in Table 3.3 is not exhaustive, and all of these codes have multiple subcodes. Additionally, many instructional interruptions are coded for multiple things within a particular axial code category, for example, an interruption may start with an instructional question to which the presenting student responds, but then lead to a discussion among multiple NTs. The substance of the conversation may cover a core practice, as well as a discipline-neutral technique. Finally, this conversation may include identifying a dilemma as well as defining aspects of that dilemma. Rather than seeing this complexity as a

problem, the way these interruptions lead to overlapping interactions and learning opportunities helps explain how they function to support learning.

Strand 3

Finally, after open-coding and axial coding, I interpreted patterns in response to the research questions above. This involved looking across multiple cases to describe important patterns related to instructional interruption, comparing and contrasting particular ways of participating to show changes over time, and then developing substantive-level theory about how these aspects of instructional interruptions functioned to support NT learning. I further triangulated these findings with secondary data sources. (See Appendix F for code book).

Analytical Process Phase 2: Research Question 2

The second phase of analysis sought to determine how pedagogical ideas were discussed and enacted by NTs and TEs, throughout the clinical rehearsal cycle (i.e. in both rehearsals and classroom teaching). In particular, I wanted to document how their knowledge of core practices, subpractices, etc was manifested with students.

Drawing on the findings from research question 1, I picked two subpractices, one that was more neutral to discipline (managing equitable participation) and one that was more specific (assessing understanding of plot and structure) to examine across the rehearsal cycle. I selected these for a couple of reasons. First, they were well-represented in the data; they both came up frequently during instructional interruptions and were present in multiple enactments of teaching. Second, most current work on EBTE focuses on discipline neutral practices, and assumes that discipline specific practice will look similar. However, findings from two recent articles, one about literacy instruction, the other about social justice teaching, suggest that NTs implement

discipline neutral practices very differently than either discipline specific or social justice practices (Kavanagh & Danielson, 2019; Kavanagh & Rainey, 2017). Furthermore, Meneses et al. (2018) demonstrate the challenge literacy teachers had implementing the knowledge demands of literacy instruction. Focusing on different types of subpractices allows me to respond and build on these articles. Finally, neither of these was the most complex subpractice or the least, as measured by the number of embedded instructional techniques and overall time spent discussing. This suggested that these subpractices were fairly "average" within this data set.

For both subpractices, I looked at all the ways we discussed and enacted them during methods rehearsals as well as the way that NTs implemented them in their classrooms. This allowed me to draw conclusions about how they enacted their learning independently in their classrooms. Like all qualitative analysis, I'm cautious about making claims about replicability. Although these subpractices were purposively chosen, I cannot assume that the patterns I found would hold true for all subpractices or situations. The thick description (Geertz, 1973) provided in the findings chapter should be considered in terms of transferability to other practices and contexts.

Analytical Process Rationale

In selecting this approach to analysis, I drew on methodological theories from grounded theory (Charmaz, 2006) and constant comparative analysis (Glaser & Strauss, 1967).

I used constant comparative analysis to open-code close to the data incidents. I used codes that exist in the literature as well as some that I generated unique to my data. Drawing on Goffman's (1981) idea of frames, I saw the instructional interruption as an important moment in which we broke the rules of a lesson, and engaged in meaningful interaction. This warranted a

close analysis. After open-coding all of the methods rehearsals, and then a closer pass at the instructional interruptions, I organized codes into larger themes and categories. These axial codes were the basis of my analysis of the nature of instructional interruptions.

I employed grounded theory methodology (Charmaz, 2006) to generative substantive level theory explaining the significance of these patterns. Grounded theory is concerned with "generat[ing] conceptual categories or their properties from evidence, then the evidence from which the category emerged is used to illustrate the concept" (Glaser and Strauss, 1967, p. 23). Thus, I used the categories and properties about how instructional interruptions function to theorize about how they support teacher learning. Similarly, comparing the categories I'd used to code and organize pedagogical ideas supported theory generation about the difference between core practices, sub practices, and techniques.

Establishing Trustworthiness

I attempt to maintain trustworthiness through thick description (Geertz, 1973) from a multitude of sources: methods instruction, classroom enactment, written reflections, lesson plans, and interviews. I visited the school placements multiple times to watch the NTs teach. This helped me better understand the context of practice in order to make sense of NTs' teaching videos. For example, realizing that many NTs were leading small groups of students in the hallway with all the potential distractions that come with that or being assigned to students who struggled academically helped inform my analysis (Creswell, 2003). This data set allowed me to triangulate findings as well as represent the complexity of the phenomenon in question.

To establish coding credibility (Lincoln & Guba, 1985), I took two key steps for this study. First, I regularly shared my on-going analysis with the NTs in the class. In each of the

semesters, I included a mid-semester member check, during which I shared my findings with the NTs and invited participants to ask questions or share additional observations. These conversations influenced how I interpreted the data, as well as revisions to the design. I was also able to share the first round of analysis with the NTs. Specifically, I shared my coding scheme and initial interpretations with them, invited them to a presentation on my findings, and incorporated their feedback for subsequent analysis.

Additionally, I trained a colleague to code rehearsals for this study. The colleague was another doctoral student with strong knowledge of practice-based methods of professional learning, though her experience is primarily in mathematics. We coded two videos together, during which we discussed the coding scheme and process. She then coded two videos on her own to determine the degree to which my codes and definitions were clear and could be replicated. Although the purpose of qualitative data is not to ensure interrater reliability (Armstrong, Gosling, Weinman, & Marteau, 1997), comparing our analysis allowed me to better understand whether the phenomena I sought to describe were identifiable by another researcher. After individually coding videos, we compared our notes, which resulted in some changes and clarifications to my coding scheme. For example, I changed the language in the research question to "pedagogical ideas" from "instructional idea," developed clearer definitions for core practice, subpractice, and technique, clarified the definition of each of the equity codes, and added additional codes for instructional techniques that we saw.

Finally, I acknowledge my biases in an attempt to create a genuine description of how NTs and instructors rehearse literacy content and core practices, and how they enact these practices in their school placements.

CHAPTER FOUR: INSTRUCTIONAL INTERRUPTIONS AND NOVICE TEACHER LEARNING

Part One: The Nature of Instructional Interruptions

What do TEs and NTs do during a clinical rehearsal focused on literacy instruction?

    a. What is the nature of instructional interruption, specifically considering changes over time?

In considering the nature of instructional interruptions, including change over time, I noticed three important patterns in the data. The first was that the frequency of instructional interruptions during the rehearsal and the length of time spent discussing teaching (in contrast to time spent implementing the lesson) changed significantly throughout the semester, and especially within each rehearsal cycle. This occurred because the more comfortable NTs and I became with the lesson plan, instructional interruptions became less procedural and more conceptual. The second important trend involved how the interruption was initiated and how participants responded to the interruption. In particular, I noticed that at the beginning of the semester, interruptions were primarily initiated by me. Gradually, NTs began to take greater initiative in interrupting instruction, and more frequently asked each other questions. Finally, I analyzed the conversations that occurred during the interruption to have a better sense of how we discussed practice and what kinds of instructional ideas were discussed. I identify a number of formats for our conversation, which supported decomposition of practice, at multiple grain-sizes. These trends are explained in greater detail below.

Frequency and Duration

Instructional interruptions varied in frequency and duration across different practice sessions throughout the semester. Interruptions ranged in frequency from five interruptions to 22 interruptions (average of 12), and they lasted anywhere from five seconds to several minutes. The lowest percentage of time spent in instructional interruption was Amanda's second demonstration, which only included five interruptions, for 7% of the rehearsal time, and greatest percentage of time was our final rehearsal, in which 65% of the practice session was spent in some form of discussion (versus implementing the lesson.) Typically, there were the fewest interruptions during Amanda's modelling of the lesson plan, followed by the second NT rehearsal (out of four.) On average, interruptions occurred most frequently and lasted longest during the final rehearsal of each of the three cycles of practice. See Figure 5 for more details about this distribution.

Frequency seemed to vary for two primary reasons. First, during Amanda's rehearsal, she and I often were unaware of the questions, tensions, and/or challenges that would develop when a NT implemented the lesson. I wrote the lesson and reviewed it with Amanda prior to implementation. This meant that we were usually on the same page for her demo lesson. As a result, there were fewer unexpected questions or tensions. Although I often used her model as a way to highlight key instructional elements, typically these were anticipated and uncontroversial. During the first NT rehearsal, many of these unpredicted questions and tensions emerged. Elements of the lesson that seemed unproblematic or straightforward to us as facilitators were often difficult for NTs. Sometimes this came from them struggling to implement an idea or pedagogical technique, other times it came from deviations that highlighted important pedagogical considerations that I had not anticipated.

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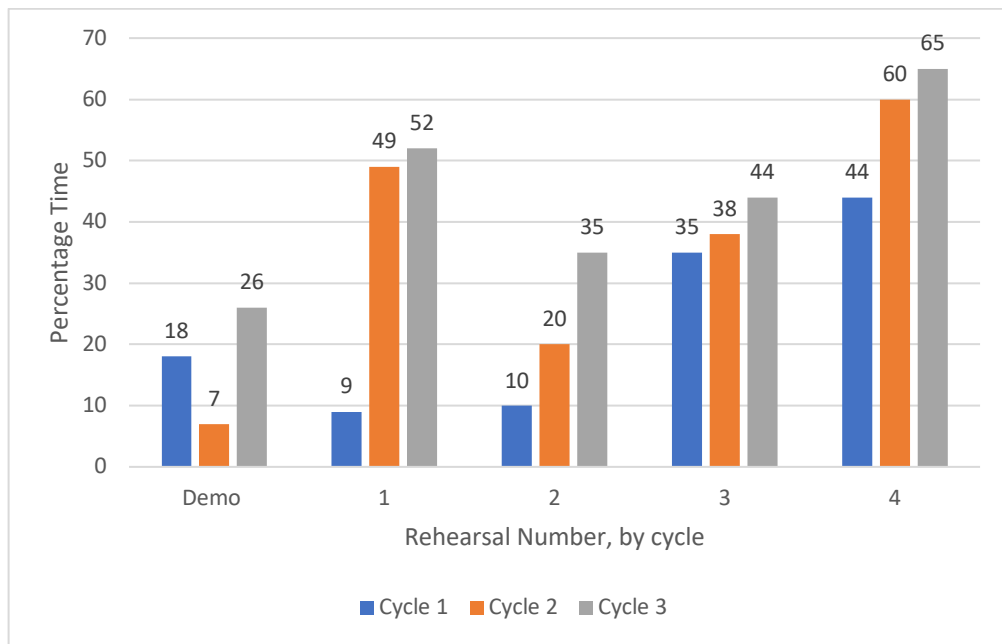
Figure 5: Percentage of Rehearsal Spent in Instructional Interruption

The second reason that frequency varied was that as the lesson became more of a shared resource, we could delve more deeply into the complexities built into it. In making sense of this statement, it's helpful to remember that the frequency and duration of interruptions was usually the lowest during the demo, increased during the first practice session, then went back down, gradually rising across the next three practice sessions. Figure 5 helps demonstrate this. The gray bar represents our final rehearsal cycle. 26% of Amanda's demonstration was spent in instructional interruption. This increased during the first rehearsal, as NTs took over the practice, dipped during the second rehearsal as NTs internalized the instructional activity, and was highest during the fifth rehearsal. During our final rehearsals, we spent much of our time (44% and 65% respectively) in discussion. This pattern can be explained through a closer look at what was

going on during some of those interruptions, and how the content of our conversation moved from procedural questions to those that were more conceptual.

The following excerpts come from the second rehearsal cycle. The focal core practice was leading a discussion (including how to use levels of questions to develop rigorous discussion questions), and the instructional activity was an interactive read aloud. The student learning objective was identifying main idea and author's purpose. We were reading a story about Ruby Bridges.

For the purpose of this example, I'm going to trace interruptions that had to do with the core practice *leading a discussion*. I chose this example because the term discussion is ubiquitous in teacher education but also complex and ambiguous. Thus, an idea that I anticipated would be easily implemented became much more fraught. Additionally, it's easy to trace the transition from the logistics of implementing the plan to the larger questions about what defines a discussion. Other core practices show a similar pattern, but this one demonstrates it most clearly. (Of note, I'm only showing instructional interruptions that deal with this core practice. These excerpts are not all of the instructional interruptions that occurred.)

Amanda's demonstration included three interruptions, all initiated by me. They were used to clarify practical aspects of the lesson plan that NTs would need to demonstrate or to help the demonstration run smoothly. I've included two interruptions that help show this.

Demo Lesson, Interruption 1

1   Tess: Quick pause. What level of questions was that?
2   Sam: Level two.
3   Tess: Level two, and maybe one, right? [The answer] might've been like, she's black. She's young, and it might've been, she's determined. I heard that.

Right? So some inference and some literal interpretation, like what's the story gonna be about. Keep going.

This exchange is primarily me checking NTs' understanding of a key skill needed to implement this lesson, including the cognitive work required of students. The NT correctly identifies the question as a level two, which requires both literal and analytical thinking. This exchange is quick and directed. Importantly, I was asking a question to which there was a right answer versus a question to highlight an instructional dilemma.

Demo Lesson, Interruption 3

1	Amanda:	All right, so what do you guys think the main idea of this text was?
2	Tess:	*[To the NTs]* And you can just guess based on what you predict this is gonna be about, just for the purpose of the exercise.
3	Amanda:	Or what we, yeah. Or what we read about. *[In the role of teacher]* Oh, I know you guys have bigger ideas than that. Use your jots. What do you think? Jackie?
4	Jackie:	Ruby was a brave student.
5	Amanda:	What do you guys think? Anybody got some agreement with Jackie? Anybody have a follow up question for Jackie?
6	Maggie:	What made ... Why do you think she's brave?
7	Jackie:	Because they told her to go to a, a white school and there were like angry people outside, and she still did.

Again, this instructional interruption is simply about managing practice. I'm guiding NTs so that the role play happens smoothly. The conversations above are largely about highlighting and guiding key aspects of the lesson plan so that NTs understand what they will practice. In contrast, the conversations below delve into some of the problems and tensions that inevitably arise when making instructional decisions.

During the first NT rehearsal, there were three conversations about how to lead a discussion. In all three, the conversations involved open-ended questions about effective ways of

questioning and responding to students and generating participation. Two of the three

instructional interruptions are included below. The first excerpt below shows a group discussion

about whether revoicing students' ideas is productive and necessary.

First Rehearsal, interruption 1

1	Tess:	So, let me pause for a sec. I love that you did not tell them the answer. That said, do you feel like we needed to come back together to hear anything of what was discussed?
2	Catherine:	Yes.
3	Tess:	Yes. Maybe, anyone [think] no. *[calling on someone]* Yeah?
4	Maggie:	Um, I would, probably, for the second question. I don't know if I would have talked about the first one just 'cause it's more explicit in the text.
5	Tess:	Okay.
6	Maggie:	Um, because it does say that like they were proud and they were [inaudible] of that, probably. But the second question's more abstract.
7	Tess:	What was your thinking in the moving . . . us forward?
8	Catherine:	Um, we thought that the- we wanted them to think more as we read more text so like they could add on to that so instead of having a whole discussion now we didn't want to, I guess, halt the text so many times and talk for a long period of time.
9	Tess:	Mm-hmm [affirmative].
10	Catherine:	But return back to the text and have them deepen their thinking on their own.
11	Annie:	I think, in that case, like just like a really quick sentence being like- like you even said like I hear some awesome things and then just adding maybe, like, I want you to keep all those thoughts in mind as we keep reading to see if you can add to your own thoughts and feelings about this. And then like go right back into it. Like again, it isn't a big halt but like I think then it like addressed it as that like, what we just discussed is important and you know, that way, like if you want that to happen, that's like a good way.
12	Tess:	Abigail, I know you [had an idea].
13	Abigail:	Um, I was going to say like, I guess as long as you're like listening to what the students are saying and making sure that everybody's kind of on the same page or at least on topic then, um, that works. Maybe have in the back of your mind like what to do if students just aren't, like aren't addressing the question or just like chatting or like, um, just not really getting it and like [inaudible].
14	Tess:	And not everybody. It's impossible for you to get everybody but if you're- if you know that's coming, listen to a couple, maybe your lowest [skilled

		students], so you go to a couple who you think might be off and then move it forward.
15	Maggie:	Um, I was just going to say that, given that this was like the first question of the day, I think it, like, would be important to like address it and, like, kind of groom my students like how to talk about the question and, like, how to think about it because even, like, I as an adult kind of struggle to answer, like, how are these parents [feeling] because that's like a very, like, higher level, like, thinking question and so I- I think it- it would've been important to address it so that, like, as they moved on they would've been able to take those skills and put some of their thinking to answer other questions that you might not have had to talk about [inaudible].
16	Tess:	And I- I don't think there's a right or wrong. I think this is one where, I- your rationale made a lot of sense, your rationale makes a lot of sense. So, I'm going to move us forward. Don't feel like you have to do that again, um, and we've got lots to think about in terms of knowing what our students know, you know? Cool. You ready to go forward?

This exchange demonstrates the way that I highlighted an instructional dilemma that had not been intentionally built into the lesson plan or highlighted during Amanda's demo lesson. When leading a discussion, it's important to consider facilitation moves that support student learning. Sometimes this involves repeating what students say (to highlight key ideas, to help clarify their point, to support students who need key ideas repeated), but it also can have the negative effect of slowing down a discussion or training students not to listen to each other. The NT decision to not revoice what was said provided an opportunity to consider this trade-off.

The example below is conversation between presenting NTs and me about preparing for student responses.

First Rehearsal, interruption 3

1	Tess:	And that's my follow up question, did you guys have a right answer in mind? Like had you- do you know what the main ideas were that you expected?
2	Meg:	I don't think we really had a solid, like, definitive answer.

3	Catherine:	Like, I had like an idea in mind but also we knew that there were many main ideas so-
4	Tess:	Totally.
5	Catherine:	Open to it.
6	Tess:	And I just- I raised that as sort of the last piece of feedback. That it's so much easier to respond to wrong answers if you have a template in your head of what you're looking for, including [potential misconceptions]. Right? There's many right answers. You don't even necessarily have to write them down because there's so much you're writing down ahead of time but it's really hard in the moment to respond to wrong answers other than to say, "You're wrong." Or, you know, like probing questions are hard and so predicting, this is what I hope, this, maybe, is what they're going to say... and then having some of that pre-planned just lets you think on your feet a little bit.

As described above, these two interruptions move from the procedural knowledge necessary for implementing the lesson plan, and begin to consider the trade-offs of particular instructional decisions. The first conversation shows an important discussion about whether it is necessary to go over students' answers after a pair-share. NTs are able to identify pros and cons to either decision (fostering independence versus making sure everyone knows the answer), and are left with the opportunity to make their own choice going forward. The second exchange shows me suggesting to students a more efficient way of responding to students. This challenge is not something I raised in either their written lesson plans or during Amanda's model, but its necessity became clear during their enactment. Furthermore, both of these exchanges were relatively brief, compared to the conversations shown below.

During the second NT rehearsal (which happened on the same day as the first), there were no interruptions coded for this core practice.

By the third practice session, many new ideas came out. This practice session occurred a week after the previous two. NTs wrote reflections about their practice, which included descriptions of what they'd learned and questions that arose from their participation. These

reflections informed how I framed our practice for the day as well as some of my interruptions.

During this rehearsal, there were five instructional interruptions focused on leading a discussion.

They built on the question of revoicing and moved on to defining what a discussion is and how it

differs from an interactive read aloud. I include one extended conversation to demonstrate this.

Third Rehearsal, interruption 4

1	Tess:	Okay. Um, one thing I noticed also in your reflections last week is we used the word "discussion" to describe lots of things. And I don't think this is just us, I think this is [the field of] teaching. Do we think an interactive read aloud is a discussion? And there's not a right answer to this. This is a true question. I think people call it a discussion all the time, but was what just happened a discussion?
2	Julia:	No.
3	Tess:	How come?
4	Julia:	When I think of discussion, I think more of like not necessarily specific questions. Like, there can be discussion questions, but more like, we're gonna spend a lot of time on like one question and get deeper. But these questions, like, or this type of … or discussion-
5	Tess:	Yeah.
6	Julia:	... talking, seems more like broad-
7	Tess:	Okay.
8	Julia:	... and like using [your questions] to get to a bigger picture.
9	Tess:	Okay. So it's more a reading strategy than a discussion, and it's a reading strategy that has questions and talking in it?
10	Julia:	Mm-hmm (affirmative).
11	Tess:	Other thoughts.
12	Maggie:	Well, like, also I know that we've read articles about like what makes strong discussion, and like a strong discussion is like presenting questions and then having like you choose what you want to focus on, like just diving into it. But I feel like what we're doing with the students isn't necessarily like the ability to like really ... Like, hopefully they will dive into the questions, and like students will get carried away and like wanna answer. But like we're kind- we're guiding them through like picking out material. I don't know where I'm going with that.
13	Tess:	And I- and I maybe am misinterpreting, but there's also a teacher, student, teacher, student element-
14	Maggie:	Yeah.
15	Tess:	... versus student, student, teacher, student, student, student, teacher, which is a more typical structure, I think, for a discussion.

16	Sam:	And it feels like ... going off of what Maggie said, it feels like there's a right answer, there's like an answer that the teacher's looking for. And, you know, as a student, you're trying to be like, "Okay, well, there's an important idea here that I need to get. That I'm going to share the important idea." Instead of delving into multiple important ideas.
17	Tess:	So I'm hearing that discussions shouldn't have a right answer, they should be more open-ended.
18	Sam:	Or more than one right answer, I guess.
19	Tess:	Okay. Anyone think it is a discussion before I [respond to] that?
20	Sam:	Well, is it okay if it's not a discussion if that's also like-
21	Tess:	Yes.
22	Sam:	... what we were going for?
23	Tess:	Absolutely!
24	Sam:	Like, we weren't going for a discussion?
25	Tess:	Absolutely.
26	Sam:	Okay, okay. I wasn't sure.
27	Tess:	I- I mean that. Yeah. No, I think- But I think many of us called all of it a discussion last week. And I think knowing what we want, again-
28	Amanda:	And I think lots of people would call this a discussion. In the reading community ... I mean, there was multiple times where you asked, you talked, you rephrased, right? You sent it to somebody else to contribute.
29	Tess:	And I don't think these have one right answer. I think they are big questions. And so I think somebody who said, "This is a discussion. It's a controlled, limited, but student-driven conversation, which is my definition of discussion" would have a case to make. You know? Yes, ma'am?
30	Julia:	Um, the only thing I was gonna add, going off of what Maggie said, was that it wasn't student responding to student in the same way that like I think we've learned what discussions are.
31	Tess:	Right.
32	Julia:	Like, you had students build off of each other, but like you directed that. Students weren't volunteering, "This is what I think about that."

During this conversation, NTs are debating the boundaries of a discussion. Discussion is a word with many meanings; the classroom implications of what counts as a discussion and how to support student participation are significant. Although we'd been using the term to mean a variety of engagement strategies, this conversation shows NTs beginning to grapple with what they're aiming for and why (not just *how* to do something). They consider the effects of calling anything that involves student talk a discussion, versus something that is defined more narrowly

(e.g. open-ended questions, student generated interest, no right answers). Interactions often involve pausing, rephrasing, or self-interruption. Together, we're working through new ideas and our ideas are not fully developed. The complexity of this question results in a several minute interruption, where multiple NTs contribute. Moreover, they push back against my claim that this does count as a discussion (line 30), instead, using their own theories, readings, and experience to inform their developing expertise and skill.

Of all of the rehearsals in the cycle, our final rehearsal dedicated the most time to working on defining discussion and how to most effectively lead one. Although there were only three interruptions that specifically addressed this technique, two of them were extended conversations that included most of the NTs in the class. These had to do with establishing discussion norms to support their emerging goals and definitions around leading discussions. Again, I only include one of these for purposes of illustration.

Fourth Rehearsal, interruption 1

1	Tess:	I have a big picture question. I picked two big picture questions for each of you guys. And this, again, came up a little bit in reflections, but we have this thing in our lesson plan where we say, "We assume you would've taught these beforehand." How many of you think teaching discussion norms is something that would- is worthwhile ... Do we wanna talk about how to do that? That's sort of my question.
2	NTs:	Yeah.
3	Tess:	Okay. 'Cause this is- The point is discussion, and we just gave you this thing that's like, "I bet you already did this." So, how do you intro, practice, and model discussion norms with little kids, or big kids, but with second graders? What would it take to build this habit? And this is for everybody, obviously, not just the ladies up front. Yeah?
4	Sam:	Um, so I know that there's ... We have four discussion norms. But this would like happen over a period of time and like-
5	Tess:	Mm-hmm [affirmative]
6	Sam:	Um, there's a thing, I guess, at Vanderbilt called CW Fit, where you like focus on one specific thing at a time and you like hone that specific skill

for the students. Um, so I think like probably at the beginning of the year, you'll focus on like one discussion norm a day and then like every day- after you've hit four days, then you can like pick which one you wanna focus on. And then over time you'll be able to put them all together. But it's like something that's gonna have to happen gradually.

7	Tess:	And I think more than one day even, probably, could- could make sense. Pushing on that, what does it mean to "hone one at a time"?
8	Amanda:	Or are they all equally-
9	Tess:	Okay.
10	Amanda:	Are they all equally- like are they all equally separate?
11	Sam:	Wait, what do you mean?
12	Tess:	Like can we separate them?
13	Amanda:	Like, one- one says "students do most of the talking," but the other one says "we listen to each other respectfully," you know? So, like are those equal in terms of timing, do they take a similar amount of time to teach? Or do we model them in a similar way? Or can we model them s- same time?
14	Tess:	So, I hear two questions from that: Are all equally different…and worth the same amount of time? And, can we isolate them perfectly? Probably not. So, what does it mean to isolate them, even partially?
15	Abigail:	Um our teacher, I don't know if this would work for this, but she does this thing called like a fish bowl where like she'll have one of her students like model a skill they're learning and, and then like the other like half of the class everyone like sits outside and watches and then like a few days later they'll switch or something. Um but like having them like kind of watch each other and like be able to see what a discussion looks like.
16	Tess:	Mm-hmm *[affirmative]*. So there's something there about having a model and then reflecting on the model. Where did you see teachers talk? Where did you see students talk? What did it look like to listen respectfully? You could do that as a fish bowl, you could also do it as a video. Like if it's really new, find other second graders talking.
17	Abigail:	Mm-hmm [affirmative].
18	Tess:	And there could be a fish bowl, there could be a Socratic seminar, people talk about doing it that way, or a video of your second graders last year having a really good discussion.
19	Jackie:	Or you could give them the challenge this year, have all of them go out and do one video, all of them, and pick one of them.
20	Tess:	Yup, and say what did we do well? What do we need to grow on? So having some sort of exemplar with the kids as the exemplar.
21	Catherine:	Um in our classroom our mentor teacher does this thing with the classroom rules that I think also [applies] we haven't seen reflection or discussion about if it works, but she has she picks a like secret rule of the day or week or something and has it in a folder with a question mark on it um and doesn't tell the students like which of the rules it is so that their motivated to follow all of the rules. And then if they get whatever point or prize, if

		they did a good job of following like that specific like mystery rule that day ...
22	Tess:	Okay.
23	Catherine:	I feel like if you did that with discussion norms and then um that would kind of be not really honing in on one at a time more they are all equally important but then when you go back and like review what the mystery one was you can talk about it and like what students were doing well like with that specific discussion norm or what happened.
24	Tess:	Totally.
25	Jackie:	I think that's true too, you're talking about what students did well specifically, so you as the teacher can talk about what they did well, the students can tell what they did well, but they also at the end of their own discussion they can self-reflect. If they have the list of things to self-reflect on, what did we do well, what do we need to improve.
26	Tess:	Mm-hmm [affirmative].
27	Jackie:	And how did this help our learning?
28	Tess:	Yes ma'am?
29	Maggie:	Um about the…self-reflection, I feel like then they could also once they like reveal the mystery, discussion norm or whatever, can argue or justify why they met that or not. Like even add that to their discussions.
30	Tess:	This one I don't know if it would work on second graders. It might [be another idea] to build on these. If you're having people watch each other, you could assign one to ones and then [assign tasks] like count how many girls talked, count how many boys talked. Watch whoever and see if they participated. So that's just one other way to focus in on how to watch and how to reflect on a model. I'm gonna move us forward...

These transcripts demonstrate how participation in instructional interruptions changed over the course of the semester. Interruptions occurred more frequently and typically accounted for more of the overall time spent rehearsing. Part of this can be explained by more confident NT participation. They ask more questions (e.g. line 6, do we need all four [discussion norms]?), they bring in experiences from their practicum classrooms (e.g. line 21, Um, in our classroom our mentor teacher does this thing with the classroom rules …), and they are more likely to disagree with me and each other (e.g. line 30, when Julia continues to say, "going off of what Maggie said…it wasn't student responding to student in the same way that like I think we've learned what discussions are").

It also can be explained by the fact that I facilitated the rehearsals slightly differently on the second day of practice than the first. NTs' weekly reflections would often inform my synthesis or discussion questions. As mentioned above, the demo lesson was often fairly straightforward (in the transcript above, the interruptions were primarily about the structure of the written lesson plan), whereas the first round of student rehearsals generated more interruptions, questions, and tensions. Thus, the reflections they wrote in the middle of the cycle were often the most inquisitive and detailed. I would use these to share patterns and tensions across rehearsals and push our thinking forward (e.g., line 1 when I say: I have a big picture question. I picked two big picture questions for each of you guys. And this, again, came up a little bit in reflections, but we have this thing in our lesson plan where we say, "We assume you would've taught these beforehand." How many of you think teaching discussion norms is something that would- is worth ... Do we wanna talk about how to do that?)

Initiation and Social Norms

Another important aspect of instructional interruptions was who initiated the interruption and how other people responded. I categorized interruptions in the following ways. First, I identified whether the facilitator initiated the interruption or the NTs did. Of all the interruptions, 74% were initiated by me or Amanda, the rest were initiated by NTs. In order to further understand the norms around interruption, I organized all interruptions into the following functions. Facilitator interruptions were either about 1. affirming NTs and building community, 2. highlighting specific aspects of strong instruction that might not be recognized, 3. making a suggestion, or 4. asking a question. The NTs interruptions were primarily focused on 5. asking questions of the facilitator, but they also would sometimes 6. Make unprompted instructional

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suggestions to their peers or 7. direct a question directly to their presenting peers. See Figure 6

for the frequencies of these categories.
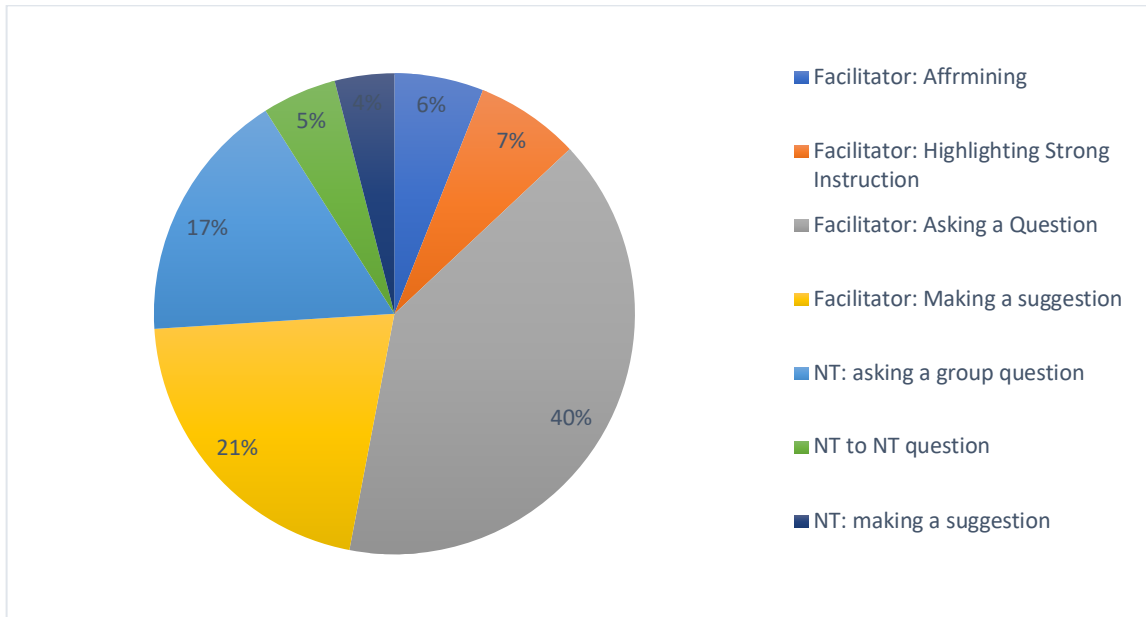
Figure 6: Instructional Interruptions by Function

Like above, this these shifted over the course of the semester. In particular, interruptions

initiated by NTs grew over time (see Figure 7 for how NT interruptions changed over time).
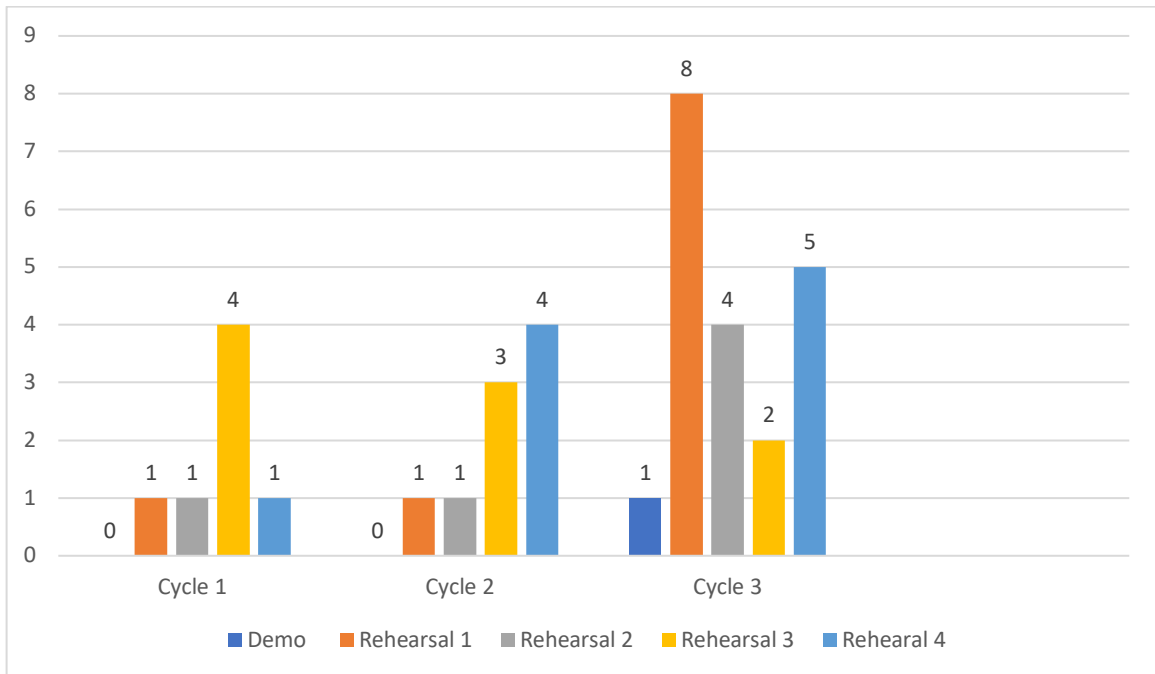
Figure 7: Novice Teacher Interruptions, by rehearsal cycle

The following table provides examples of each of these categories.

Table 4: Instructional interruptions coded by type of interruption and pedagogical technique

TYPE OF INTERRUPTION	EXAMPLE	PEDAGOGICAL IDEA CODE
FACILITATOR AFFIRMING NTS AND BUILDING COMMUNITY	**Tess**: So take that book proudly. Imagine, a group of excited second graders and you have your picture book in front of you and you're going to think aloud about important details. If you do them differently than the script, that's okay. You're just helping them summarize. You got it. Give her snaps that she's got this; sending love. Yeah, right, begin.	Discipline Neutral Instructional Practice: Teacher Enthusiasm Discipline Specific Instructional Practice: Think Aloud
FACILITATOR HIGHLIGHTING SPECIFIC ASPECTS OF STRONG INSTRUCTION	**Tess**: There were a couple other things that I just want to highlight that you did there, the first is that several times you indicated how you wanted hands, you gave time for the their - for how long they were gonna talk, and whether it was cause you knew it was 30 seconds or you saw me look at my watch, but you called them back together, you did an all-together shout out… So there were	Discipline Neutral Instructional Practice: Pacing Discipline Neutral Instructional Practice: Student Response

	several different things we've talked a lot about that all just appeared in that two and a half minute intro. [snapping fingers] Keep going!	Discipline Neutral Instructional Practice: Maintaining Engagement
FACILITATOR MAKING A SUGGESTION	**Tess**: I'm gonna pause you right there. I want you to do that again, and I want you to take her question and put it towards the group instead of answering it.	Core Practice: Leading a Discussion
FACILITATOR ASKING AN INSTRUCTION-AL QUESTION	**Tess**: I'm gonna pause you for a sec. You have really good pacing. Unlike me last week who was going a mile a minute. Your, your speed right now is like spot on. One thing I'm noticing is your [students] aren't holding their [summary cards] up. Do you want them to be doing that? **Julia**: Um, well when I was listening to them repeating the objectives, I didn't hear them say holding it up. So, I mean we can hold it up. I feel like that's a good action cause then it requires the students to like participate more. **Tess**: And that's a true question for you. If they weren't doing it. [Talking to the entire class] And this is like, we were talking a little last week about authenticity of student behavior. Right now we've got a situation where for whatever reason there was a lot of direction and you're not with her. Do you want to really give that direction or do you want to just move on and think, oh man, they have a lot going on?	Discipline Neutral Instructional Practice: Pacing Discipline Neutral Instructional Practice: Maintaining Engagement
NOVICE TEACHER ASKING A QUESTION	**Maggie**: This [question] is on the, like, on this same note. But with the paper, I assume that most second graders have these sight words down. They're very confusing. They all start with "wh" and, like, do you think kids are going to have to pay too much attention trying to [inaudible] trying to figure out which paper to like, hold...	Discipline Specific Instructional Practice: Phonics
NOVICE TEACHER MAKING AN INSTRUCTION-AL SUGGESTION TO THEIR PEERS	**Jackie**: Could you also ask her to like compare what she has to the big example story mountain over there because it says like, I don't know exactly what her struggler one says, but it says like character and setting are reduced, so what of that did you do? Can we add to complete the beginning section and just put section by section to see if you can like complete what it's asking for?	Core Practice: Assessing and Responding to Student Understanding Discipline Specific Instructional Practice: Plot and Structure

| NOVICE TEACHER ASKING THEIR PEERS A QUESTION | **Annie**: Um, so, I feel like, do you guys start it with the details and not the main idea, right? Do you think it would've gone differently if you had still, like, addressed what the main idea was and then the students gone back and found the details?
Catherine: I think the goal for us was to like build up the details [crosstalk 00:24:50]. But, I see we're you're coming from. | Discipline Specific Instructional Practice: Main Idea versus Summary |

In addition to who initiated the interruption, I was curious about the social norms associated with each type of interruption. Thus, I looked within each category to better understand patterns around how instruction was interrupted.

In interruptions that I initiated (whether to make a suggestion or ask a question), I often minimized my expertise or included self-deprecating language (N = 10). This included referencing errors I made in writing or demonstrating the lesson plan, discussing my own challenges learning a particular practice or technique, or recognizing the complexity of a particular choice. Through my analysis, it seemed that this sort of language was not random, or even necessarily negative. It helped demonstrate and reinforce that none of us is perfect, and in fact that perfection was not the goal of the rehearsal.

During one discussion of whether student should hold up pieces of paper during a teacher demonstration or if that would be too distracting, I say, "And keep in mind, we [*referring to myself and Amanda*] wrote this lesson plan. So, if we're [*referring to the whole group, including NTs*] like, oh my gosh, the paper is really intense! [It] isn't a critique of any of you guys. And, we only learn these things through experiencing them" (1/26/17). By highlighting my own errors, questions, or doubts, it validated the complexity of these instructional moments. I acknowledge that the tension we're experiencing is from a lesson I wrote, and that only through

practicing it are we realizing how pacing, engagement, and distraction are negotiated. This further encouraged NTs to practice the part of the lesson with which they felt the least comfortable, rather than the part that they could execute smoothly. The way that I initiated interruptions helped normalize the messiness of learning, as well as the fact that most of these questions and/or decisions had multiple potential correct answers.

Another pattern that can be seen in my questioning of students is that I would often refer to a "true question" which I contrasted with a "gotcha" question (N = 6). This came in response to students who seemed nervous about answering a question, concerned that they might get it wrong. Instead, I routinely told students that if I asked a question, I was not looking for a specific answer. I emphasized that if there were a right answer, I would simply frame that interruption as a suggestion. Using questions in this way is very different from most instructional questioning. Typically, teachers ask questions that do have right and wrong answers, and frequently use questioning as a way of assessing knowledge (which I did do sometimes). By referring to "true" questions, I sought to establish a different norm, one where questions were about building knowledge rather than assessment.

Additionally, NTs were often nervous, hesitant, or insecure when they made interruptions. Their interruptions often included speech fillers (e.g. um, like, so) or phrasing minimizing their knowledge (e.g. I feel like maybe, I'm not sure, I don't know exactly). Over the course of the semester, although NTs were increasingly likely to interrupt the lesson plan, these markers did not diminish. This suggests that engaging in this sort of instructional analysis and revision was often outside of their comfort zone.

Almost all of the time, presenting NTs were the first to respond to a question. Observing NTs tended to take a supporting role and would respond after the presenting NTs, or they would

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step in if presenting NTs looked overwhelmed or confused. Sometimes, observing NTs would

participate when I specifically invited them (after the presenters had a chance to answer.) Their

hesitation seemed to be primarily about respecting the intensity and intentions of the presenting

NTs. Presenting NTs were given the space to explain themselves or their confusion. Their peers

did not jump in to demonstrate that they could have done it different or better. Like with other

patterns, this shifted somewhat over time. Although presenters were typically given first

response, observing NTs did not wait for my invitation if they wanted to participate in the

discussion as well.

Structure of Interruption: Form, Sense-making, and Content

Another important aspect of the nature of instructional interruptions was what happened

after the initial interruption. For this category, I looked at the structure that the conversation took

(which I call form), how we talked about instruction (which I call sense-making), and what

pedagogical ideas were discussed (which I call content)

Form

Eight patterns were found in how people participated throughout the entire instructional

interruption episode. 1. NTs changed instruction in response to suggestions or comments, 2. a

group discussion occurred, 3. facilitator offered additional suggestions, 4. facilitator synthesized

multiple comments or patterns, 5. no engagement beyond initial interruption, 6. presenting NT

asked clarifying questions, 7. presenting NTs respond to instructional question, 8. presenting

NTs respond to instructional suggestion. Importantly, these patterns were not mutually exclusive.

Some interruptions involved a group discussion, facilitator synthesis, and then changed

instruction. If so, the unit of analysis was coded for all three patterns. Figure 8 presents the
frequency of each form of participation.
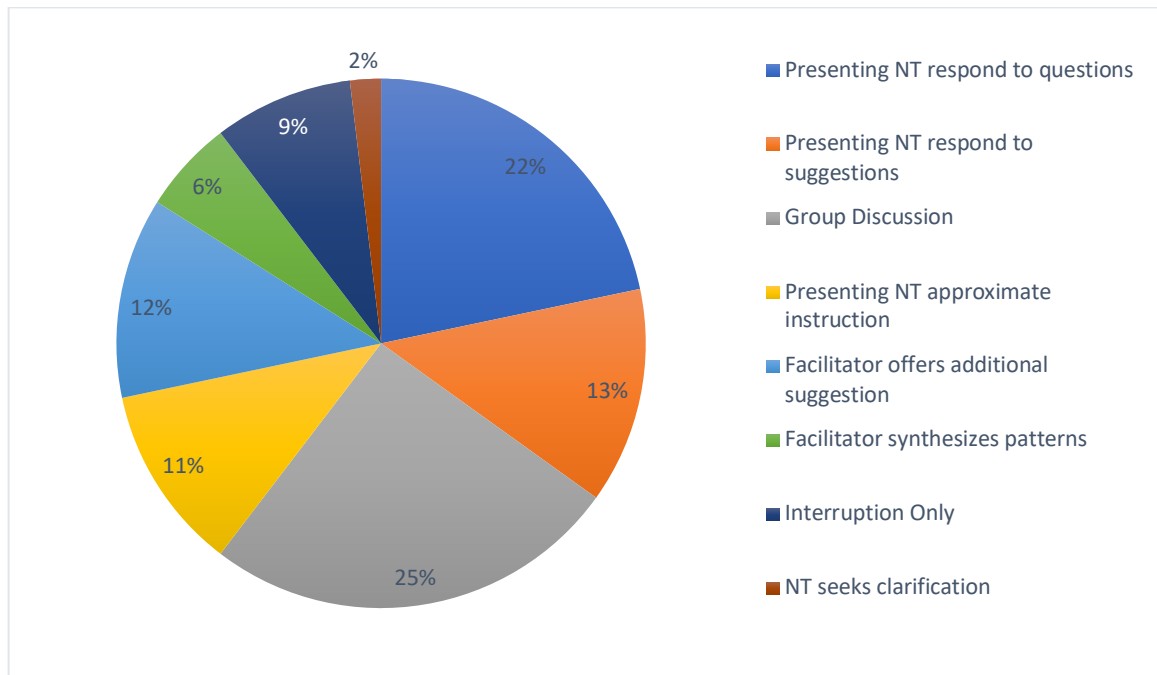
Figure 8: Instructional Interruptions, by form

Sense-making

In terms of sense-making, I found that we spent most of our time decomposing practice,
with a smaller amount of time spent representing and approximating practice. To come to this
conclusion, I started by coding each instructional interruption with how NTs made sense of their
instructional practice. Initial codes included descriptions like defining, identifying trade-offs,
presenting alternatives, etc, which ultimately were organized into thematic categories where NTs
1. described practice, 2. questioned practice, and then 3. imagined re-enacting practice in
response to our discussion. In many ways, these categories aligned with Grossman and
colleagues (2009) *representing* (e.g. which typically involves describing or watching a model),

decomposing (e.g. breaking apart practice into constituent parts, considering why something might be effective), and then *approximating* practice (e.g. role-playing). I, therefore, used Grossman's labels as the axial codes explaining the kind of thinking in which we engaged.

We spent most of our time (62%) decomposing practice. This makes sense because I was specifically looking at interruptions, which were the conversations that we had about practice. Conversations frequently involved discussing what just happened, why it happened, and what it might mean. We did, however, spend some time (29%) representing practice (e.g. defining elements of a discussion, highlighting a way to differentiate a particular strategy, etc), and then approximating (9%) (e.g. responding to feedback with new instructional ideas, asking if a particular move would be effective, etc). Note: it is important to remember that I am focused on the interruptions, hence time spent approximating was low as approximating was what was interrupted, and hence if one considers the entire rehearsal, the percentage of time spent approximating practice would be the highest.

Content

Finally, I wanted to understand what kinds of pedagogical ideas were discussed during the rehearsal. As described in the methods, pedagogical idea was operationalized as any topic related to pedagogy or instruction. We spent approximately 1/3 of our time discussing aspects of our focal core practices, including subpractices and techniques that were aligned with these practices (both discipline specific and neutral). The remaining conversations focused on a combination of subpractices and techniques that were not aligned with the focal core practice, but align with other core practices, classroom management, and equity. When discussing subpractices, we spent almost twice as much time talking about discipline specific subpractice as

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discipline neutral. The significance of this breakdown will be explored in greater detail in the next section.

Another important pattern is that we did not spend as much time talking about equity as we did about instruction. On average, we discussed equity for five instructional interruptions, for a total of 8% of the total rehearsal time. Moreover, 75% of the codes related to equity dealt with Gutierrez' (2009) "dominant" axis (access and achievement rather than identity and agency). This finding is particularly important given my hope that pedagogical judgment would be more attuned to issues of equity.

Part Two: How Instructional Interruptions Support Learning

What do TEs and NTs do during a clinical rehearsal focused on literacy instruction?

b: How do interruptions function to support learning?

This section moves from explaining the nature of instructional interruptions to how they functioned to support learning. These findings present substantive level theory (Glaser & Strauss, 1967) using the patterns described above to explain how learning occurred.

Clinical Rehearsals Slow Instruction Down, Prioritizing Depth Over Breadth

Clinical rehearsals allowed for several important learning opportunities. First, they allow teacher educators and NTs to stop and start instruction, reflecting in the moment when the questions and concerns are close at hand. Over 15 rehearsals, we paused instruction 179 times, resulting in approximately 12 interruptions per rehearsal. The opportunity to stop and start slows down the experience of teaching, allows for questioning, analysis, fine-tuning, and reflection. It

also allows us to focus deeply on small and specific aspects of good instruction (there were over 50 codes identifying pedagogical ideas). For example, interruptions discussed discipline specific techniques like how to best set a pace for choral reading or highlighted the use of a picture as a piece of "textual" evidence.

We never got close to covering or mastering a core practice. For example, during our first cycle, the core practice was modeling and explaining content. We spent most of that time looking at a think aloud as one method of explaining content. We talked about how to indicate when you were in the model (thinking as a reader) versus out of the model (back in the role of teacher). We also spent a long time discussing the importance of debriefing a think aloud, and not assuming that what was modeled automatically made sense to students. These are two very important aspects of thinking aloud, which is a common and research endorsed instructional strategy within reading instruction. Nonetheless, they barely scratch the surface of what it means to model and explain, and the nuances of different contexts for doing this. Clearly, our clinical rehearsals valued a deep focus on key aspects within a larger practice, rather than attempting to attend to all parts of it.

Clinical Rehearsals Rely On Communities Of Practice

The structure of our clinical rehearsals, in which a pair of NTs present a common lesson, is different from either observing another teacher present their own lesson or individually responding to one's own teaching. There was a deep personal connection when observing because NTs knew they were responsible for rehearsing and implementing the same or similar lesson plans.

According to NT reflections, most NTs actually felt more engaged and reflective in the role of observer than presenter (7 out of 9, via mid-semester interview). One NT wrote: "Interestingly I feel that when watching my peers rehearse, I get much more out of their rehearsal, than I do when I present, because I am so focused on delivering the lesson, it is hard for me to reflect in the moment" (2/23/17). The affective dimension of observing one's own teaching, or receiving live feedback seemed to interfere with the learning potential. Hence, removing that emotional barrier and designing a community observation and participation practice contributed to deep engagement.

An important part of building this community of practice involved the teacher-written, shared lesson plan, which became a communal artifact that could be questioned and improved across time (Lampert & Graziani, 2009). Conversations moved from simply facilitator offering feedback to the presenters "Why don't you try it again, but do it this way..." and increasingly became group issues and concerns. Comments sounded more like, "Would it work if we did this instead?" or "When I was doing a similar thing in practicum, I found success when I tried…" Also, although NT suggestions were overall a small portion of the instructional interruptions (only 8 instances overall), 7 of those 8 suggestions occurred in the final rehearsal cycle.

The reflections and interviews also showed that the communal aspect of the rehearsals was supportive of the NTs. NTs wanted to talk about practice, they wanted to hear their peers' thoughts and share their own concerns and ideas. One NT wrote, "By practicing a lesson in front of real people, I am getting invaluable experience. The feedback we receive is even better because we can then take that and apply it when we actually teach the lesson. Our class is definitely a much more comfortable setting to teach in than in our placement. I like when you guys see something and then we are able to discuss it more thoroughly rather than just quickly

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correcting it and moving on" (2/23/17). The more comfortable they got, the longer they spent doing this. Initially, discussion (a code that meant that more than one NT spoke, and that include both presenting and observing NTs) accounted for only two percent of the rehearsal. By the third cycle, we spent thirty percent of each rehearsal in discussion. This is documented in another reflection: "I think it has also been great to see other novice teachers and have comfort in the fact that we're all learning and trying to improve with the help of more experienced teachers and each other" (2/17/17).

Clinical Rehearsals Allow for Responsiveness

In addition to slowing learning down, clinical rehearsals allow for important adaptations to the lesson in response to what NTs and/or their students need. 26% of interruptions were initiated by NTs. Moreover, even the facilitator interruptions invited dialogue. 40% of total interruptions were facilitators asking a question (i.e what is the value of revoicing? What did we learn that this student knows?)

One example demonstrates this well. This was the third cycle of the semester, during which our instructional activity was an interactive read aloud, with extended student work time; the learning objective was: *I can identify the structure of our story, including identifying the beginning, middle, problem, and solution*. The core practice was *responding to student understanding*. The lesson involved using a story mountain graphic organizer around plot to help students identify the structural components of a story. As we were practicing, the entire group listened to a turn and talk of two "students" identifying multiple problems and putting different events at the top of their graphic organizer. Technically, this meant that they were "wrong" in their understanding of plot and structure. In response, the following exchange took place:

1 Julia: I have a question about that. Would it be too advanced or just like, confusing even, to like, turn it and kind of be like, does it matter if there is like, one peak or could it be a mountain range, I don't know if I'd use that word, but like-

2 Tess: *[crosstalk]* I'm gonna throw that back to you guys, I don't have an answer to that. Or, um, I think that's an open question.

3 Julia: I don't know if that's a good idea.

4 Tess: When you continue the metaphor basically?

5 Julia: Yeah.

6 Tess: Um, or would you be like, "No, there's only one problem." *[Talking to an observing NT]*

This first part of the conversation shows how a NT generated issue could be highlighted and discussed. In particular, the question she raised focused on clarifying the nuances of ELA terminology and content. We often think that this sort of knowledge is clear and widely shared, but her question highlighted the complexity of common terms. The second half of the conversation demonstrates how we collectively worked to define this term.

7 Tess: Yeah, jump in.

8 Maggie: Well, I- I'm not an expert or anything, but obviously like, they're leading problems up to the like, the final problem. So like, I feel like most stories do follow some type of thing, like, even though events can be problems in the story but I think like, the problem is like the major thing that's like going to change the character. I feel like, that's how-

9 Julia: Yeah.

10 Maggie: We define like, the thing that changes the character, like ...

11 Annie: The big problem.

12 Maggie: The big problem.

13 Annie: It's not just a little problem-

14 Maggie: It's not like, yeah.

15 Annie: It's a big problem.

16 Julia: Okay. So would you like, ask them to pick the most important?

17 Maggie: Like, the mo- like the fin- yeah. So let's just say the main challenge characters face. So like, if you had to pick like, the main challenge a character faced as like, that's going to be your problem on the top of the

mountain. But also in second grade I guess like, they are reading some chapter books, but like, I feel like most books they're reading ...

18 Annie: Are simple.

19 Maggie: Are like, yeah. Like don't necessarily have like, so many actual like, I can't even say the words. Extra- I can't say it (laughs). Crises.

20 Annie: *[crosstalk]* additional problems going on?

21 Maggie: Extra- yes, like, for those types of crises going on.

22 Sam: Well, existential.

23 Julia: Oh.

24 Annie: And if you don't (laughs) and like, so yeah, I just feel like you can- do the right thing. I think most stories we read have one problem, but like, there are other problems in this story but, they're not the big one.

25 Julia: Could you like, continue the discussion with Finding Nemo [the launch activity], and go back to the fact that like, meeting the shark is like, a problem. But like, not the big problem.

26 Tess: Mm-hmm [affirmative]-

27 Julia: Um, like, the big problem is that like, he's missing or got kidnapped? And then I could teach that?

This exchange is meaningful for a number of reasons, but especially that it allowed us to consider how to teach ELA content within the enactment of a lesson. Like so many of the questions generated by students, this concern was not something I or Amanda had anticipated. A plot diagram is a widespread conceptual tool for teaching structure; we rarely think that it needs explanation. And yet, as we can see here, these students flagged the fact that there is not a single problem, and that tension does not typically rise in a linear fashion. Although Julia initially raises the question, Maggie builds on it, bringing in her experience with her students and the books they're reading. Describing the impact of that kind of responsiveness, one NT wrote: "The [biggest] learning point came more from me watching the other rehearsal. I was so inspired by their vulnerability because they were able to express the fact that they didn't really understand the difference between main idea and summary. Under further inspection, I realized that I didn't understand the difference either, and so I thought it was helpful" (2/17/17).

In addition to patterns in how instructional interruptions worked, NT reflections emphasized responsiveness as a key part of clinical rehearsals' effectiveness. One NT wrote, "I find the discussions surrounding the rehearsals particularly valuable, more so than the actual rehearsals, because I learn by asking questions and talking through possible solutions for different situations. I do not feel the need to have a specific theme running through the rehearsals as these themes can become restrictive and do not give us the opportunity to talk about other issues that may arise. Instead, I find it particularly informative when we discuss how to address problems that may come up in the classroom or during the lesson and when we talk over questions that we as teachers might have" (2/23/17). This emphasis on responsiveness shows one of the ways interruptions supported learning.

Clinical Rehearsals Attend to Practice at Multiple Grain-Sizes

When describing the nature of core practices, I mentioned that time was split between core practices, subpractices, and techniques. This division is critical for how they supported learning. Initially, I'd expected most of the content of our conversations to address the focal core practice. But much of what we talked about was unrelated. Therefore, I categorized my initial open-codes as either one of the three pre-planned focal core practices (explaining and modeling, leading a discussion, responding to student thinking), as a discipline specific technique (e.g. leading an interactive read aloud) or neutral technique (e.g. giving directions) that did not specifically align with the central core practice, or as something related to equity or classroom management.

As I interrogated my codes in more detail, it was clear that most of my codes were actually describing a more specific practice than the core practice (for example, the central core

practice was explaining and modeling, but in order to do this NTs implemented a think aloud, gave directions about what students should do before and after the model, managed behavior and participation, and checked for understanding about a particular learning objective). In other words, it did not seem that our conversations were actually about the core practice; we were discussing practices, but ones that were more contextual and specific than the focal core practice. To ground this conclusion in data, the axial code for the core practice "collecting and responding to student data" has 2 direct references, but 145 aggregated references. This means that most of our conversations that ultimately were categorized as this core practice addressed subpractices (e.g. assessing student understanding or recording data) or instructional techniques (e.g. redirecting a student question back to the group). Therefore, I concluded that the core practices functioned as an umbrella that included discipline specific and neutral subpractices, as well as practices that addressed equity. Yet, the subpractices were themselves complex practices that required teachers to consider and choose among a variety of techniques, routines, and habits that aligned with their attitudes and beliefs about learning and their knowledge of their students.

Inspired in part by two recent analyses of core practices (Danielson, 2016; Kavanagh & Rainey, 2017) that raise questions about how core practices can incorporate literacy content, I wanted to further consider the role of content for how core practices get implemented. Additionally, a closer look at the subpractices codes revealed that we spent more than twice as much time on discipline specific subpractice than discipline neutral. Thus, I determined that these categories needed to be further broken down, to capture the differences between types of subpractice.

Ultimately, I developed a core practice model that acknowledges the complexity in learning how to enact them. It was often necessary and productive to focus on a smaller and

more specific subpractice, embedded within a core practice. Similarly, these different

subpractices required different kinds of skills and knowledge. Discipline-specific practice was

more complex, which is why it has a third dark gray box representing content and pedagogical

content knowledge. The following model offers a way to think about this relationship.
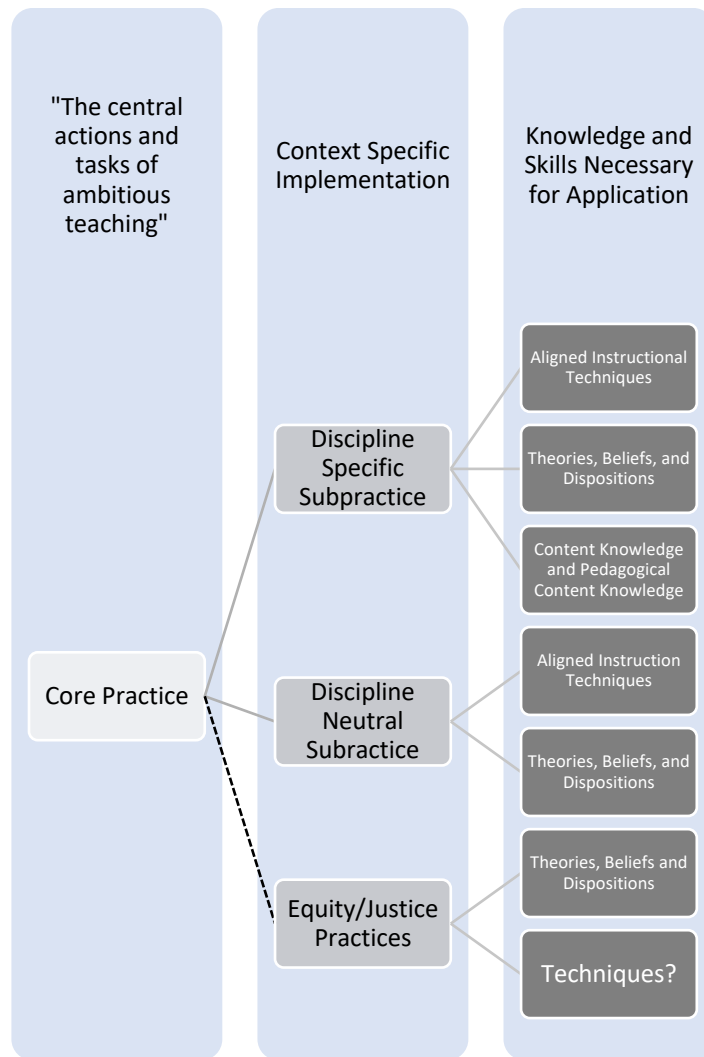
Figure 9: Core Practice Model, including embedded knowledge and skills

One aspect of this model that I still have questions about is the role of equity. While we

did attend to issues of equity during our rehearsals, these often occurred at the same time as the

subpractices. For example, during a conversation about assessing student work, we talked about

the importance of differentiation or when discussing how to write lead an interactive read aloud, we discussed culturally relevant text. Thus, I'm not sure where equity fits into this model. I've represented it here as a category with subpractices of its own; this might include ways of differentiating, ways of attending to students' identities, etc. Another possibility is that issues of equity influence the implementation of all of these practices and subpractices (and perhaps should encircle the entire diagram). This data does not provide an answer, and warrants further study (Kavanagh and Danielson, 2019; Philip, 2019).

Nonetheless, clinical rehearsals made space for all of these aspects of enactment. The core practice functioned the way designers envisioned. It was a "central action/task of ambitious teaching" that provided "powerful tools for preparing teachers for the constant in-the-moment decision-making that the profession requires" (McDonald et al., 2013, p.378). They are large enough that NTs are not tasked with memorizing lists and broad enough that they can be used in multiple contexts and disciplines. Furthermore, they helped focus the rehearsal; otherwise, my facilitation would have been too random and haphazard in its interrogation of practice. However, nearly all of our conversations were actually about the subpractices, either within the focal core practice or that spontaneously arouse from questions during the rehearsal. This suggests that clinical rehearsals supported learning through attention to instructional practice at many grain-sizes.

Clinical Rehearsals Involve Mini-Cycles of Approximation

Similar to the finding above, results further suggest that rehearsals functioned to support learning via mini-cycles of representing and decomposing subpractice, which then shaped new approximations. These mini-cycles contrast with how Grossman and McDonald (2008) envision

enactment, in which representation and decomposition come before approximation, as these often occur through observing and analyzing an exemplar lesson. However, rather than seeing these components as linear, learning may occur in a spiral. In other words, within an approximation of practice, like a rehearsal, where NTs get the chance to try something out on their own, there are new opportunities to pause. These interruptions foster opportunities to represent a more specific layer of practice, decompose it, and then try out a new approximation.

The following example demonstrates how approximating the practice of modeling and explaining led to its own mini-cycle of representing, decomposing and then a new, more specific approximation. Some version of this pattern occurred in nearly all of our instructional interruptions. This example happened during the first cycle of practice. The instructional activity was a think aloud about how to use supporting details to summarize text.

1	Tess:	Okay. I'm gonna pause you there because this is a good point for conversation. This is not a question exclusively for them. This is a group discussion. How do we feel about length? Do you think second graders are going to be with us for that whole time? Do you think we need the physical? How is our timing and pacing in terms of teacher demo to student engagement? …
2	Maggie:	Um, we can stop somewhere in there and maybe like share, you know, like stop and think and share with your partner. Like what you, which symbols you use for that page or that sentence?
3	Julia:	Um, yeah as sort of like a check for understanding of what she'd just done or giving it to them to do their own.
4	Annie:	Giving it to them then to come back together and I like if you could do it quickly I think it'd be worth it to kind of check in and on engagement.
5	Tess:	Cool. Cause I think both could be cool. You could literally say turn and talk to your partner. What did I just do or turn and talk to your partner. What additional symbol would you put? Remember you can wiggle first. Right? … Other thoughts? That's totally complicated. That's okay.
6	Annie:	Could you like pretend that you're a student and be like, like ask someone like pretend like I'm this. I'm like the teacher when I'm actually like a student now cause I'm in my think and be like: Sarah, for some reason I'm having a hard time remembering like what this says, like, can you help me? Is that

		okay or is that too much like teacher voice? I mean it's up. It's up to you. I mean, what do you, what do you guys think?
7	Tess:	Do you mean like to try to engage students? Like while you're doing it as a way to ask them questions about being like, what is this? [NT nods] I think it might be confusing because it's like, if [questioning is] something that you would want [them to do], then you should intentionally model. Like if that was something that you would want the students that would be like, okay, when I'm reading I could just be like, oh, Cynthia. Like can you help me? Like understand this? Which like isn't a bad thing. But I think if that's not something that you are intentionally modeling, I don't think that it should be in the think aloud… then you'd be modeling, questioning almost, you know? And so you're bringing in this whole other reading strategy of monitoring or like checking comprehension. Um, yeah, [but], I love it as a question! …Let's get back in the rehearsal.

In this exchange, we see NTs working to make sense of what it means to use the core practice modeling and explaining. In the demo lesson, Amanda modeled a think aloud. NTs also had a written lesson plan, including scripting of what to say during the think aloud. Using these resources, they had the opportunity to approximate the practice themselves. However, during their rehearsal, I realized that their model was taking a long time and required students to listen silently for several minutes. In raising this concern, I was helping them think more critically about how to model with a think aloud.

I asked NTs to reconsider what it means to model effectively for students. How long does it take? How much student engagement is necessary? How does this change when you're teaching second graders versus fifth graders? These questions require decomposing the larger practice into constituent parts; this was on-going work, rather than something that had been finished prior to the rehearsal.

This question leads several students to offer additional techniques that could be used during a think aloud. These suggestions are new representations of how this practice might be enacted, specifically considering the nature of a think aloud (as one form of modeling).

Additionally, Annie's question about whether a think aloud would work if the teacher pretended to be a confused student, in the middle of the model, requires further decomposing what a think aloud is (a particular kind of model, where one single reading strategy is verbalized), versus other ways of modeling for students. After collectively working to improve our understanding and ability to lead a think aloud, a new approximation was enacted.

Of the different aspects of sense-making, instructional interruptions were most frequently coded as decomposing (62%). This is not surprising since the unit of analysis was an instructional conversation. Nonetheless, it clarifies how this structure supported learning. Perhaps inadvertently, I did a lot of the work representing practice in designing and writing the lesson plans. For example, I identified core practices for us to work on, I wrote instructional activities based on literacy best practices, etc. In many ways this served to control a part of the experiment, leaving space for deep interrogation.

Discussion

This chapter presents findings about the nature of instructional interruptions within a clinical rehearsal and how these interruptions supported learning. Instructional interruptions are a complex site of engagement, in which TEs and NTs work together to deepen their understanding of instructional practice. It's important to understand these complexities. The way the facilitator supports NTs to participate, whether through asking open-ended questions or inviting them to take ownership of the interruptions, has important implications for learning.

These features of a clinical rehearsal support learning in a number of ways. In particular, they allow for deep, communal, decomposition of practice. In particular, they attend to the way

that core practices include many embedded practices and techniques and draw on knowledge of content, theory, and students. They then create space for NTs to decompose those practices further: define complex terms, discuss vague terminology, generate potential techniques for achieving instructional aims.

As described in chapter two, there is no single list of core practices and there are some discrepancies in how people are using this term. Although the lists vary, the leading scholars in this area generally agree that core practices should be identified at an intermediate grain size that is neither a broad and general standard for the teaching profession or an isolated and decontextualized skill that teachers might employ (Forzani, 2014). Moreover, most researchers agree that core practices are those that occur with frequency in teaching, exist across different curricula or instructional approaches, and are research-based with evidence of connection to student learning (Grossman & McDonald, 2008). These broad outlines leave many questions unanswered; additionally, much of the recent work looking at core practices describe using them in conjunction with other instructional tools (core practice frames, pedagogical judgement, teacher noticing, etc) (Amador, 2017; Horn & Campbell, 2014; Janssen et al., 2014). These gaps and inconsistencies invited a closer look.

In her dissertation about the nature of decomposition with elementary literacy teachers, Danielson (2016) presents a framework for thinking about how core practice is decomposed. She argues that we can think about decomposition along two axes. The vertical axis goes from practical to conceptual considerations, while the horizontal moves from general to specific. She writes:

The horizontal dimension captures the grain size in which a practice is decomposed. These ends are defined general and specific to articulate how detailed the decomposition

has become, ranging from chunking a day to how to engage with students in a five-minute lesson introduction. The vertical line delineates the dimension of conceptual and practical…The definitions of these ends come from the work of Grossman, Smagorinsky, and Valencia (1999) who described how conceptual and practical tools are utilized in teacher preparation. For example, on the conceptual end: decomposing theory on the process of reading; on the specific end: an in-the moment question you might ask a student working on decoding. (p. 50)

In seeking to explain how practices are decomposed, this description still glosses over what a practice is (and isn't) and therefore, how to identify a NT doing it. On a more practical level, the boundaries are so large that it's difficult to know how to design opportunities to use them. For example, it's possible that in the decomposition of a practice, we might only attend to the conceptual question of decomposing theory and not consider what kind of question you might as to make the meaningful for students. You might realize that you remained purely neutral to discipline, without think about what that might mean for this particular content, text, or student. Therefore, these two axes may not be adequate for explaining the interaction between core practices, content, and implementation. Thinking about practice along a trajectory is powerful, but also raises the question of how we can more deliberately attend to the different aspects of the trajectory.

The second article that shaped my thinking looked at the difference between NT uptake of discipline neutral practice and discipline specific practice. In this piece, Kavanagh and Rainey (2017) focus on helping NTs learn two foundational practices for ELA instructors: the first was as core instructional practice (leading discussions), while the second was a disciplinary practice (how to analyze and interpret fiction). In both cases, they drew on significant research to determine the importance and value of these practices. However, their own analysis revealed that their instruction differed significantly between the two. Their findings suggest that in attending

to the discipline-neutral practice of leading a discussion, they incorporated opportunities to enact, whereas their approach to textual analysis did not. It involved reading and discussion, not the kind of work that EBTE emphasizes.

Thus, in making sense of the substance codes in our conversations, it became clear that using core practices to help NTs learn is powerful, but they are far more complex than is often acknowledged in existing research. First, they inevitably overlap with one another, and isolating a particular practice is difficult. Second, the intermediate grain-size that scholars aimed for remains quite large. They often involve subpractices that themselves require decomposition and approximation. In order to help NTs make sense of these large, more universal level practices (leading a discussion), it's necessary to incorporate subpractices, techniques, and routines that are much more specific and contextualized. Additionally, they also involve larger questions about beliefs or commitments, therefore, it's necessary to make space to discuss why and when a particular core practice is warranted and for what purpose. This is not meant as a critique of the grain-size of core practices. Instead, I see it as expanding the utility of core practices and adding ideas of how they can be most useful in practice.

Conclusion

Through an analysis of how clinical rehearsals work with elementary literacy teachers, we can more broadly think about why they work and better develop theories about what NTs need and how teacher educators can make that possible. In particular, this chapter considered the

way they create meaningful opportunities for enactment of practice that are often lacking in traditional teacher education courses.

This chapter showed that clinical rehearsals prioritize instruction as the mechanism for learning. Using a shared lesson plan and multiple opportunities to practice and interrogate aspects of the lesson helped NTs draw on theories and beliefs in their reasoning and rationale, make decisions that aligned with these ideas, enact research-aligned instructional practices, and develop muscle memory for how something might be implemented with students. Additionally, clinical rehearsals value depth over breadth, including a focus on discipline-specific content. Sometimes this meant that we spent time deeply interrogating a small or taken-for-granted concept, which nonetheless has significant impact on how the lesson was implemented and on what students would learn. Finally, clinical rehearsals bring in the experiences and questions that NTs are having. As we know from literature on professional learning, the relevance of the content and the connection to real classroom practice is important for meaningful learning to occur.

These findings set up research question two, which considers the connection between NT learning in the methods classroom and their implementation with second graders in a classroom.

CHAPTER FIVE: CONNECTION BETWEEN METHODS AND CLASSROOM IMPLEMENTATION

Findings

Research Question 2: How are discipline specific and neutral subpractices discussed and enacted by NTs throughout a clinical rehearsal cycle, specifically looking at the connection between rehearsal interactions in the methods classroom and NTs classroom teaching within a practicum setting?

As described in the methods, the second phase of analysis sought to determine how pedagogical ideas were discussed and enacted by NTs and TEs throughout the clinical rehearsal cycle (i.e. in both rehearsals and classroom teaching). An important finding from chapter four was differentiating between core practices and subpractices as part of enacting the work of teaching. Drawing on this conclusion, I decided to trace two subpractices (one neutral and one specific to discipline) across contexts, considering how they were discussed during methods, enacted in the classroom, and any important differences between them. As mentioned in Chapter three, these cases were chosen such that these patterns would be as representative as possible.

The neutral subpractice was managing equitable participation. We discussed this subpractice across all three modules, as it was relevant to each of the instructional activities and core practices that we used. The discipline specific subpractice was assessing understanding of plot and structure, which only appeared in the third module. The core practice was collecting and using student data; the instructional activity was a mini-lesson following by independent work

and conferring. Students were working on using a story mountain graphic organizer to identify plot and structure.

Finding One: Discipline neutral and discipline specific subpractices require different kinds of attention, but rehearsals provide a space for both.

The discipline neutral practice of managing student participation is very important for facilitating a productive learning environment, creating equity, supporting all learners, etc. It requires teachers to connect what they believe about how a classroom should look and feel with a set of strategies or techniques for achieving it. Although it's not easy to do, it's far more straightforward than most of the discipline-specific practices we observed. It does not require knowledge of content or the obligation to make the content accessible for all students. Assessing understanding of plot and structure, however, required the same integration of beliefs about one's classroom with effective implementation techniques, but it also required understanding of what plot meant, how it differed from structure, components of plot that are reasonable for second graders to know, and the ability to support learners in accessing this content.

These differences were clear from the overall number of times we discussed each practice as well as the nature of the interruptions that occurred. We discussed managing student participation six times in cycle 3; we discussed assessing plot and structure 18. Of the 6 interruptions about participation, I asked 4 were questions and highlighted particular instructional moves twice. Of the 18 interruptions about assessing plot and structure, I asked 9 questions, I highlighted instruction 3 times, and I made 1 suggestion; NTs asked 3 questions and made 2 suggestions.

Additionally, we used different sense-making strategies. Discussion of discipline neutral practice involved sense-making strategies that focused on representation and approximation of practice, i.e. I highlighted things that NTs did as a way of representing particular techniques they might want to use. When I asked questions, NTs and I were able to generate suggestions fairly quickly and easily, and then NTs implemented a new instructional sequence without much challenge.

Discussion of discipline specific practice often involved lengthier discussions marked by exploration of what we meant when we taught key concepts, what it meant to master them, and appropriate rigor for particular students. Sense-making involved more questioning, assessing trade-offs, and synthesizing (all of which I coded as decomposition). We returned to the same topic across multiple rehearsals, each time considering new aspects involved in implementing the subpractice.

Additionally, about a third of the instructional interruptions about assessing plot and structure were initiated by NTs. They often brought up experiences they'd had with their students, raising particular concerns about their own or student understanding. The specificity of their lens contrasted with the more generalist approach that I took, but often led to some of the most meaningful conversations that we had. (This can be seen especially in the third and fourth transcript included below.)

The following transcripts help to demonstrate the patterns I describe above. The first excerpt shows the discipline neutral practice of ensuring equitable participation. It comes from the third rehearsal cycle (see above for more details about this practice cycle).

1	Tess:	OK quick pause, for a second. Who have you not heard anything from yet? Imagine, I mean, this, you probably were playing a role [provided by the facilitator], but who were our four or so silent students at this point?
2	Jackie:	Tracy, Sam, Meg, maybe?
3	Tess:	Have you said anything Abigail?
4	Jackie:	Oh, yeah.
5	Tess:	Okay so we've got four silent students, and we've got a couple gals who like to raise their hands. What are we gonna do with our four silent? Cause you just did a mini lesson, and gave really key information. They may be with you, of course, but they may not.
6	Jackie:	Can I say something like, I wanna hear from someone who didn't speak yet?
7	Tess:	Absolutely. Do you wanna try now? Should you do anything else before, I love that one, but let's get two more ideas
8	Maggie:	I think they pair-share, and then she can hear like what they're saying with their partner, and then also respond from that.
9	Tess:	Perfect. So she can plant her body [where her silent students are] and do a cold call. Anything else? That was two ideas in one.
10	Annie:	I mean this less like in the moment, but have them write on a sticky note, and like, you know she could either look at it later so she knows they got it, or if she wants immediate [inaudible] can like really quickly flip through while they're starting like their activities so she knows who she should check in on.
11	Tess:	Cool. Which one do you want to do?
12	Jackie:	Um I think right now I am going to do the I want to hear from-
13	Tess:	Great, love it.

This conversation flows as described above. I framed my interruption in light of our goal of understanding what our students know. We discussed the fact that if collecting data about student understanding is our goal, it's important to hear from more of our students (in case they're not "with us" – line 5). Following that dilemma, the presenting NT offered an idea, which two other NTs built on. The presenting teacher picked one of the strategies and retaught the plan.

The next three transcripts also come from the third cycle of practice. They are about discipline specific practice of assessing student understanding of plot and structure. The first exchange occurred during Dr. Goodwin's demonstration. In it, we can see the same attention to

technique that we saw above. I ask NTs to consider what my rationale and purpose might be for having written the lesson plan in a particular way. This helps them connect a classroom dilemma (wanting to better understand what students can do independently) with a particular strategy (using two different stories, one for a model, the other for independent practice).

1	Tess:	One question. Why do you think we [reviewed the] story mountain with Cinderella, and not together with the reading? Anybody? Of course, it's a mini lesson, but what else in terms of assessment does that offer us? …
2	Maggie:	Well I mean like this allows for us to apply our prior knowledge to like a new concept because if we had to do a new concept with a new story like good luck to us.
3	Tess:	Absolutely, it scaffolds the learning to some degree. [inaudible] what are we gonna collect then? Students, and their, their individual work, right? It's not gonna be a class discussion, and so then you get data about what they can do on their own. I think often we [go over it] together, right? We come back together, and go over it, and then students turn it in, but you never know what they could've done on their own because you felt like you needed to go over it. So this was: we went over it first, and then let them work.

But addressing this technique only got us so far. During a rehearsal a week later, a NT raised a question about what kinds of answers students should be putting on their papers. Although they may have a strategy for collecting data (based on the conversation above), they needed more support in making sense of the content they were teaching and how to interpret the data they gather.

This conversation happened after the NT asked her role-playing students to define plot. One of them gave an answer that differed from the definition she'd presented during the mini-lesson. I asked the group if they thought her answer was correct.

1	Maggie:	Um, so it's- that kind of like threw me too, and then I was starting to think about like what is the difference between plot and structure? Um, and so like maybe would have asked her, "Are you referring to the events or like, the order?" Because like the structures are like the order there and so she did give plot in the sense that she like, was talking about the events, but then she was also putting them in that order so she could have been thinking of structure.
2	Tess:	That's a great observation.
3	Jackie:	I didn't think about that.
4	Tess:	I didn't think about that either. What I thought about was that it wasn't the right thing or wasn't the definition. We problematized that answer and what that told us about what she knew and what we were teaching. The same way [we did with] main idea.
5	Julia:	I think in my head I went that like, she just already like, connected not thinking about it. But like, she just gave the structure of the plot. And not that like, those were two different things that we were talking about right now, but in like, in students' minds those are still two very separate things, right. Um, so I didn't think about that.

Similarly, in the example used in chapter 4, one of the NTs pauses the rehearsal to

interrogate what plot means, and whether the story mountain graphic organizer includes enough

complexity to capture students' thinking.

1	Julia:	I have a question about that. Would it be too advanced or just like, confusing even, to like, turn it and kind of be like, does it matter if there is like, one peak or could it be a mountain range, I don't know if I'd use that word, but like-
2	Tess:	*[crosstalk]* I'm gonna throw that back to you guys, I don't have an answer to that. Or, um, I think that's an open question.
3	Julia:	I don't know if that's a good idea.
4	Tess:	When you continue the metaphor basically?
5	Julia:	Yeah.
6	Tess:	Um, or would you be like, "No, there's only one problem." *[Talking to an observing NT]* Yeah, jump in.
7	Maggie:	Well, I- I'm not an expert or anything, but obviously like, they're leading problems up to the like, the final problem. So like, I feel like most stories do follow some type of thing, like, even though events can be problems in the story but I think like, the problem is like the major thing that's like going to change the character. I feel like, that's how-
8	Julia:	Yeah.

9 Maggie: We define like, the thing that changes the character, like ...
10 Annie: The big problem.
11 Maggie: The big problem.
12 Annie: It's not just a little problem-
13 Maggie: It's not like, yeah.
14 Annie: It's a big problem.
15 Julia: Okay. So would you like, ask them to pick the most important?
16 Maggie: Like, the mo- like the fin- yeah. So let's just say the main challenge characters face. So like, if you had to pick like, the main challenge a character faced as like, that's going to be your problem on the top of the mountain. But also in second grade I guess like, they are reading some chapter books, but like, I feel like most books they're reading ...
17 Annie: Are simple.
18 Maggie: Are like, yeah. Like don't necessarily have like, so many actual like, I can't even say the words. Extra- I can't say it (laughs).
19 Annie: *[crosstalk]* additional problems going on?
20 Maggie: Extra- yes, like, for those types of crises going on.
21 Sam: Well, existential.
22 Annie: And if you don't (laughs) and like, so yeah, I just feel like you can- do the right thing. I think most stories we read have one problem, but like, there are other problems in this story but, they're not the big one.
23 Julia: Could you like, continue the discussion with Finding Nemo [*the launch activity*], and go back to the fact that like, meeting the shark is like, a problem. But like, not the big problem.
24 Tess: Mm-hmm [affirmative]-
25 Julia: Um, like, the big problem is that like, he's missing or got kidnapped? And then I could teach that?

In these second exchanges, we can see how NTs and I are making sense of specific content standards. Plot and structure are clearly two different concepts, with different definitions. The story mountain is a well-established heuristic for helping students demonstrate plot. But the students' answers reveal that these ideas are not as straightforward as they seem. They demonstrate the importance, and challenge, of really grappling with the content that we're teaching so that our instruction matches our expectations for student learning.

Finding Two: NTs enacted what they learned in methods instruction, regardless of
what type of practice it was

Videos of classroom enactment show a great deal of alignment with what was discussed
and practiced during methods instruction. This aligns with several recent articles that show the
effectiveness of pedagogies of enactment in influencing the emerging practice of NTs
(Grossman, Kazemi, Kavanagh, Franke, & Dutro, 2019; Kavanagh et al., 2019; Kavanagh &
Rainey, 2017).

The transcripts below demonstrate this finding. These came from the same rehearsal
cycle described above. In the first transcript presented in this chapter, NTs and I discussed
multiple ways of ensuring that students participate. Ideas were raised about asking for a specific
number of hands, including a turn and talk with a cold call, or giving students a chance to write
on a post-it note instead of a verbal response.

When she taught this same lesson with her elementary students, she included each of the
following techniques, demonstrating close alignment with what occurred in class:

- I want you to talk to your neighbors. So you two, you'll talk to each other and you three, we'll talk to each other about why you think I gave you this hand-out, and what you think it might mean. (4/18/17)
- Before we continue to read and learn more, will you guys share with me some of the things I was able to find and summarize when I was reading? Take 10 seconds to think to yourself. (4/18/17)
- Can I get a thumbs up if we agree? (4/18/17)
- Would anybody like to tell me the plot of the story? …I'm going to wait for two more hands to be raised before I call him. I also accept guesses too. So do you want to share your, your guesses with us? (4/18/17)
- Yes. So can everyone say the difference between plot and structure together with me? (4/18/17)

These exchanges show that she has involved opportunities for students to share using
hands, she has asked for greater participation rather than calling on the same student repeatedly,

but she also gave students time to talk to each other, and respond chorally to a review question. This demonstrates her ability to implement what was discussed in the methods classroom, as well as her desire to increase participation of all of her students.

The next example comes from a different classroom enactment. In this example, the pair of NTs are helping students understand the difference between plot and structure.

1	Tracy:	So, the different events, how you knew that they went in the story helped you know what famous story this is. So, we're going to be talking about the different ways they are structured today. Just as the structure of this story helped you tell what it was from the different pictures. So, we're going to be talking about two important words when we're talking about stories today. The first is the plot. I just want a show of hands. Has anyone ever heard of the plot of a story before? A few of you. So turn and talk to a partner.
2	Students:	[murmuring, talking in pairs]
3	Tracy:	Okay guys, I'm hearing some really good ideas. So, what we're going to do, use for our definition of the plot. Guys, eyes back up here. *[Calls on a student]*-- Okay, So what are people talking about? The characters and the different events that happened in the story. Okay. So, what we're going to say the plot is is the major events that happen in the story *[refers to anchor chart on the board.]* Can everyone read that with me?
4	Students:	*[Choral reading]* The major events that happen in the story.
5	Tracy:	That's right. So, our second important words that we're going to talk about today is structure. The structure is kind of similar to the plot in that it's also about the major events but this how they are ordered. What comes first, what is in the middle, and how does the story end. So can everyone read our definition with me?
6	Students:	*[Choral reading]* The order of the major events in the story
7	Tracy:	Okay. In order to discuss the structure of our stories, we're going to be using this story mountain. See the story mountain has a beginning, and then it rises up to the different events, reaches the peak, that's the main, biggest problem of our story, and then goes back to our solution and the end. So, for the beginning of the story, that's the setting and the characters. All the introductory information that kind of like lets you know what the story is going to be about. Thinking about the three little pigs that we just discussed, what do you think the beginning of that story is going to be? *[Calls on a student]*--

In this interaction, NTs present two concepts to students. They define and differentiate plot and structure, clarifying how one builds on the other. This helps students understand the

differences between them. They also show how multiple events can contribute to the problem, but maintain that there is a single problem (rather than a mountain range of problems.)

The next section shows a different NT working individually with a student while she fills out her graphic organizer. She uses individual conferences to gather data about student mastery and she supports the student in clarifying the problem in the story.

1	Catherine	The problem is the challenge, is the major challenge that the characters face. What is the problem that Sylvia's parents face? What is that problem?
2	Student 1:	They couldn't go to school.
3	Catherine	Can you explain it better? Can you give more detail?
4	Student 1:	They went to go sign up and they couldn't go to school and so they fought with the judge so that Sylvia could go to school.
5	Catherine:	Very good. I want you to write all of that right here.

The final transcript demonstrates the lesson debrief from Catherine's lesson.

6	Catherine	Let's talk about the events, leading up to the problem. What events happened before the problem? What are some events that happened? _
7	Student 1	In 1944, Sylvia's family moved to a farm?
8	Catherine	Yeah, Sylvia's family moved to a farm, what else happened? S- do you have anything? Does someone want to help him out?
9	Student 2	People said that they had to go to a Mexican school.
10	Catherine	Yeah, that's a little bit like a problem. Okay, one of our problems is that Sylvia wasn't allowed to enroll in the nicer school, because she had to go to a Mexican school (writing the problem on the plot diagram as rising action). Were there any other problems that you guys wrote down? *[Calls on a student]* —do you have a different problem?
11	Student 3	Her and her brothers couldn't go to the American school.
12	Catherine	Yup, they couldn't go to that school. T- do you have a different one?
13	Student 4	They tried to find a good school.
14	Catherine	Okay, yes, it seems like most of us are saying the same thing here. *[Calls on a student]* do you have a different one?
15	Student 5	I'm just guessing. . . she wanted to go to the school, but she couldn't.
16	Catherine	Alright. So what was the solution? How was the problem fixed? I know that some of you got there, so I should see a few hands. How did they fix the problem? *[Calls on a student]*
17	Student 6	Um, what was the question?

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18	Catherine	How did they fix the problem at the end?
19	Student 6:	Um, they kept on fighting and fighting against segregation.
20	Catherine:	Yeah, and then who finally ruled in their favor? Who told them that it was okay and that they should be able to go to that school? *[Calls on a student]*
21	Student 6:	The judge.
22	Cynthia:	Yeah, the judge did. Perfect.
23	Tracy:	So, as we were thinking about this story and the different events. What were the two important words that we were thinking about that apply to all stories? Please shout them out…
24	Students:	Structure. Plot and Structure.
25	Tracy:	Just to review the plot is all the major events that happened in the story. The problem, the events, the solution, and the beginning. While the structure was the order that those pieces took place. Which we saw in our story mountain. So, I want us to think to ourselves, just for a minute. How did thinking about the beginning, the events, the problem and the solution, help us understand the story?

These excerpts show that NTs are spending attention differentiating between plot and structure, in similar ways to what we discussed in class (even though their students are still struggling with the concept). They clearly define the words in the beginning, clarify how the story mountain functions, and then use it to help support students in practice. They also use it during the debrief.

Finding Three: NTs' classroom enactment did not differ significantly by type of practice.

Videos of classroom enactment showed that NTs implemented many of the ideas that we discussed, and there was not a significant difference between discipline neutral and specific practice. There were many techniques and strategies used to ensure equitable participation (just as there were many opportunities when these strategies were not effectively employed) and many

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of the challenges and solutions we identified in accurately assessing student work showed up in classrooms.

Of note, discipline neutral practices are often able to be used frequently throughout a lesson (giving directions, ensuring equitable participation, checking for understanding), whereas the discipline-specific practices were often relevant at particular points in the lesson (assessing understanding of particular content, debriefing a think aloud). Thus, a numerical count does not capture the nuances of how these practices were taken up in various settings.

For these particular subpractices, across all six videos showing classroom teaching of the third cycle's lesson (1 video from this cycle was lost), I identified 24 moments when NTs attended to ensuring equal participation. I identified 12 moments when they assessed students' understanding of plot and structure. I caution against comparing these against each other because of the difference between the practices. Attending to equal participation occurred throughout the lesson and could be occur with the full group or while students worked individually. Assessing understanding of plot and structure primarily occurred at the end of the lesson while NTs conferred with students or debriefed the lesson.

Discussion

One of the reasons that Kavanagh (2017) cites for why there was such a difference in classroom uptake is that teacher educator practice also differed. She explains that when teaching about literary analysis, teacher educators relied on pedagogies of investigation. NTs spent time reading and discussing literary analysis, but they did not use approximations of practice in the same way. Similarly, in a more recent article about social justice teaching Kavanagh and

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Danielson (2019), write, "When TEs did use pedagogies of enactment to teach about social justice issues, they did so exclusively to support novices in learning how to plan lessons and, perhaps unsurprisingly, when novices reflected on social justice issues in their teaching, they did so almost exclusively in relationship to planning and not instruction" (p. 19).

This observation contrasts with our approach. During instructional interruptions, NTs were able to raise questions not only about the core practices, but also issues around content, pedagogical content knowledge, student relationships, etc. By locating this interrogation within the rehearsal, it helped us consider these questions within a pedagogy of enactment (not investigation). This may be why we saw a more equal degree of implementation in classrooms.

Although we saw uptake of discipline specific practice in classrooms, it was typically related to the conversations we'd had during class, (versus a general attention to *all* of ELA content). For example, in the same cycle described above around responding to student understanding of plot and structure, NTs did a nice job helping clarifying those terms and collect data that related to students' comprehension. They did not, however, respond as often or as deliberately to other literacy content. This observation underscores another crucial difference between discipline neutral and specific practice: discipline neutral practices have clearly boundaries. It's easier to imagine developing a sophisticated repertoire of participation routines that cover most of what a teacher needs to do. It's much harder to imagine covering (let alone agreeing on) the scope of effective literacy instruction.

In Chapter 2, I acknowledged the challenge of core practices within ELA, making note of the complexity of ELA instruction. This finding helps clarify that observation a bit. It's not that core practices cannot adapt to address the knowledge demands of ELA instruction, but rather, that they are inadequate on their own. In our attention to practice, we need to make space for the

discipline neutral practices that are so often highlighted when talking about core practices, as well as their application with specific academic content. Due to the amount of content that ELA teachers must cover, this sort of learning needs to be on-going, where throughout their career, teachers get the chance to use pedagogies of enactment to interrogate their teaching practice, including both what they're teaching and how they're teaching it.

It is important to note that when looking at NT practice with their second graders, they drew on models, exemplars, and conversations we'd had. But, it's harder to make claims about generalized improvement, either in teaching efficacy or pedagogical judgment. This is partially due to the data available. I did not ask teachers to explain their instructional reasoning or how they thought about their responsibilities; nor did I measure their abilities at the beginning compared to the end. But missing data is only a part of this conclusion. Pedagogies of enactment are effective because they are closely tied to specific aspects of instruction. They require integration of thinking and doing about concrete and specific lessons, techniques, and rationales. When these same lessons, techniques and rationales are implemented with students, there is evidence that this experience influences what NTs are able to do. However, it raises a larger question about whether there is transfer to other aspects of teaching, including other lessons, other instructional activities, other dilemmas teachers face. More research is needed to consider that question.

Conclusion

Building from the findings in Chapter four, about how clinical rehearsal support NT learning, this chapter presents findings about how this learning transfers to new contexts,

specifically NTs' practicum classroom. In contrast with other a few other recent pieces, this article suggests that pedagogies of enactment can attend to the unique demands of literacy instruction, but it requires some adaptation. Rehearsals must make space for the content demands of effective instructional practice, including attending to the content knowledge necessary to implement discipline specific practices.

CHAPTER SIX: DISCUSSION

Four years ago, in our very first doctoral student course, I was asked to describe my research interests. I wrote about the possibility of what I then called role-playing as a meaningful way for English teachers to learn how to better support their struggling readers. As a teacher-leader, I'd tried this out with my colleagues, and wanted to see how other people were using this sort of strategy for professional development. This idea gradually transformed, bringing in theories about what learning is, empirical work investigating the potential of (what I came to call) enactment-based teacher education, and data from several semesters refining how clinical rehearsals could be most effective. This dissertation presents the findings of that work.

Through a qualitative analysis of clinical rehearsals, this study provides some important insights for understanding how enactment can support the development of expertise, particularly in the context of supporting literacy teachers. In Chapter two, I shared Figure 3 to explain how this dissertation responds to gaps in existing research. In this section, I will return to these three broad categories to discuss the significance of these findings. I will conclude with a discussion of the study's limitations as well as directions for future research.

The figure contains a Venn diagram with three overlapping circles and a text box.

Research on Expertise and Decision-Making

- **Gap in existing research**: Can we better understand how teachers develop expertise? How can core practices and pedagogical judgment co-exist?

Research on Equitable Literacy Instruction

- **Gap in existing research**: Does PBTE work with literacy? In what way does this content show up in practice or practices?

Research on Effectiveness of EBTE

- **Gap in existing research**: How do practice-based teacher education pedagogies influence enactment in classrooms?

Research questions in response to these gaps:

- What do NTs and TEs do during a clinical rehearsal cycle?
- How does these interactions support learning, including disciplinary practice?
- How are subpractices discussed and enacted throughout a clinical rehearsal cycle, including in classrooms?

Figure 3: Research Gaps Addressed by this Study

Significance

Equitable Literacy Instruction

The first contribution of this paper is that clinical rehearsals provided space to enact practice related to both literacy and equity. Part of the way that clinical rehearsals created this opportunity was due to their responsiveness (Kavanagh et al, 2019). Although I designed the framework for practice, identifying a core practice, writing a lesson plan, and developing instructional materials, the needs of NTs and their students shaped how the practice unfolded. Part of this happened because my instructional focus shifted away from fidelity to a specific practice towards pedagogical judgment.

Pedagogical judgment is inherently adaptable. It acknowledges that teachers are constantly making decisions about instruction; these involve discipline neutral practices like how to use the board, but also discipline specific practices including how to define story structure. Similarly, we can consider issues of equity or even classroom management, helping NTs better understand the dilemmas they face, determine various outcomes, and negotiate the best path forward given their students and their goals. In a recent piece, Philip (2019) argues for "principled improvisation" as a way for PBTE to more directly engage with the relationship work of teaching. He argues that improvisation is necessary because it's impossible to predict the flow of the class; it emerges from the actions of all the participants. He emphasizes that he is not prioritizing improvisation over practice, as "such a position is a false dichotomy…improvisation is inextricably connected to practice and is an inherent dimension of human activity" (p. 3). This perspective aligns with our findings. The conversations we had were deeply rooted in instructional practice, guided by core practices but also about much more. Given the limited focus on literacy and equity within current research on PBTE (Lantos, 2018), the flexibility that allowed us to improvise and consider the many elements of practice is an especially important contribution.

This adaptability also allowed us to discuss practice at multiple grain-sizes (Ball & Forzani, 2009). Through the process of exploring how pedagogical ideas were explored and enacted by NTs, it became clear that we need some new ways to think about how to use core practices. There are some agreements about general properties that define core practices, however, the ambiguity makes implementation and analysis difficult. In particular, I found it difficult to categorize or label specific pedagogical ideas (i.e. when we talked about the definition and variations of discussion, including the difference between an interactive read

aloud and a Socratic seminar, should that be labeled a core practice? If not, what is it?), which

made it challenging to determine how these ideas were learned and/or used with students. This

led to a new strand of analysis trying to tease apart the nuances of what a core practice is, and

how core practices may fit with other practices and techniques of instruction.

When advocating for the development of core practices, McDonald, Kazemi, and

Kavanagh (2013) suggested that they "highlight specific, routine aspects of teaching that demand

the exercise of professional judgment [in order to prepare] teachers for the constant in-the-

moment decision-making that the profession requires" (p. 378). Core practices are intentionally

identified at a medium grain-size that allows them to be broad enough to be widely applicable

and specific enough to be meaningful. My analysis suggests that while this level of practice

exists, it is also necessary to attend to practices that are both more broad and more specific. In

other words, we cannot help facilitate a discussion (a core practice), without considering why

discussion matters and what it affords students (an instructional principle), when and what type

of discussion to use (a core practice frame), how to lead an interactive read aloud (a discipline-

specific subpractice), what a proficient 2nd grade summary is (content knowledge) or how write

discussion questions (a technique). All of these should be intentionally considered in the design

of enactment-based pedagogies. Moreover, this complexity is exactly why focusing on mastering

core practices should not be the goal of enactment-based pedagogies.

This finding suggests that we need more work understanding these aspects of

instructional practice and the ways NTs engage with them (Neel, 2017; Windschitl, Thompson,

Braaten & Stroupe, 2012). I am not suggesting that we return to a competency-style approach, in

which we generate a list of all of the content and practices that teachers need to learn. Rather, if

we want the idea of core practices to influence the design of teacher education, we need more

examples of how they're used. This involves a discussion of what teacher educators and NTs actually do together during practice: the form of the discussions, the type of sense-making, and especially the content of their conversations. Thus, this paper's findings respond to Windschitl et al. (2012) and others' call to make core practice approaches public, available to be 'owned and collectively refined by a community of practitioners and scholars' (p. 880). Doing this could empower teacher educators to use empirical data to design practice-based pedagogies for their contexts.

Expertise and Decision-Making

The findings above lead to the second contribution from this paper. If mastery of core practices is not the goal of EBTE, it's necessary to determine what is. I hypothesized that core practices can serve as a tool in service of developing pedagogical judgment (Horn, 2019).

Currently, teacher educators and researchers use PBTE, and EBTE in service of many different learning outcomes, including core practices, equity practices (Self, 2016; Dotger, 2015), and noticing or judgment (Amador, 2017). More recent work attempts to weave these many aims together, attending to the way that practices can support expertise and responsiveness. As Kavanagh et al. (2019) ask, "If our aim is instruction that is collaboratively negotiated between students and teachers and unique to the content under study and to the school and community context in which it is enacted, how can we specify predetermined practices and approximate those practices outside of the context of their use?" (p. 2).

The findings of this study help answer that question. Rather than using practice to help NTs become proficient at a single or small set of core practices, clinical rehearsals offer NTs an opportunity to blend knowledge and practice, develop both efficiency and innovation, and

incorporate abstract theories into actual application. This builds their skills at responding to the dilemmas that they will inevitably face in their own teaching. Although they require NTs to role play a lesson in front of their peers, using core practices and instructional activities, the most important learning occurred in the interruptions that these structures made possible. During instructional interruptions TEs and NTs worked together to interrogate the reasons for particular pedagogical choices and implement aligned actions. These are two aspects of pedagogical judgment.

Over the course of a semester, the instructional interruptions grew in length and were increasingly initiated by NTs. These interruptions allowed us to work in community to identify questions about instruction, generate potential solutions, and implement revised approximations. They also required us to work in community, including role-playing students, sharing our own suggestions and experiences, and applying lessons from other NTs demonstrations to our own teaching.

The deep analysis of teaching, although embedded within an approximation of practice, required its own cycle of representation and decomposition, which then led to a new and more nuanced approximation (Grossman, 2009). Learning to teach in a cyclical manner, where NTs learn something, try it out, generate new questions, learn more about it, and try it again is different than the more linear sequence exemplified through the theory, methods, student teaching model, or even through a single sequence of representing, decomposing and approximating a practice. Rather than assuming that we can demonstrate, interrogate, break apart and then perfectly implement any particular practice, the reality is that after going through these steps, new questions arise. Learning does not happen in one linear path (Moje, 2015). Clinical rehearsals acknowledge and support the development of expertise in this way.

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Effectiveness of EBTE

The final contribution of this study is simply that the work that is done during a clinical rehearsal shows up in classroom implementation. My analysis followed two subpractices included within the core practice of "collecting and using student learning data": managing student participation (discipline-neutral) and "assessing student understanding of plot and structure (discipline-specific). During the clinical rehearsal, we spent time discussing both of these subpractices. Questions involved how to involve more students in the activity, the difference between plot and structure (which had not been specified in the provided lesson plan), questions about what kinds of answers were proficient, and how to push students who needed additional help.

Novice teachers addressed these ideas in their classroom implementation with second graders. I saw multiple techniques for involving more students in the discussion and generating more equitable participation. Additionally, NTs changed the instructional activity to more clearly define plot and structure, and help their students master their particular definitions. They looped back to their definitions and identified students who continued to struggle. Of particular importance, this implementation included both discipline neutral and discipline specific practice. Recent work on how the effectiveness of PBTE with literacy instruction questions whether this is possible. My findings suggest that if space is made during enactment to include both discipline neutral and specific practice, then both will show up in classrooms.

In the Introduction, I shared Horn's (2019) perspective that "instead of viewing a practice as learned when instruction aligns with a particular template, a situative view would suggest that a practice is learned when a teacher can make it meaningful with a particular group of learners

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and articulate the reasons for doing so" (p. 2). It's easy to see how the aspects of rehearsal described above allow this. NTs had a chance to learn about core practices, and then, as a community, work to understand how and why to use them. Finally, they were able to implement them with their own students.

Limitations

This study's contributions are limited in three major ways. The first is that we do not have data to fully capture the development of pedagogical reasoning. In focusing on what NTs do, I did not attend to what they thought about what they did. Pedagogical judgment is about making decisions that inform one's teaching; thus, it is difficult to draw conclusions about pedagogical judgment without NTs explaining their reasoning, including the moral and ethical components of their choices. Although some of these decisions are demonstrated in the conversations during rehearsals, NTs enactment with students does not address this. I've attempted to address this by making my research questions exclusive to what I can show with my data. This can be a first step in moving towards claims about pedagogical judgment.

Additionally, based on the qualitative nature of this work, findings from this study may be applicable to other teacher education contexts but are by no means replicable. The inability to generalize findings is a feature of a qualitative work, however, it is particularly significant since NTs experiences with students occurred in a highly structured practicum experience. They were only teaching a few hours a week, with heavily scaffolded lesson plans. Additionally, the sample was highly specific. NTs were primarily white, female and enrolled at a competitive research university; they do not represent the majority of teacher candidates in the US. Thus, caution

should be taken in generalizing these findings to other contexts. Although I cannot say that clinical rehearsal will necessarily contribute to improved pedagogical judgment throughout a teacher's career, or even that the topics discussed will show up in teachers' own classrooms, I do show that our rehearsals provided opportunities to develop important aspects of pedagogical judgment, and these conversations influenced the nature of practice during their practicum placement. Future research can build from these findings, attending more specifically to how rehearsal affects teachers throughout their careers.

The third limitation of this work is that I conducted the research and analysis on my own. Qualitative work is by definition interpretive. Nonetheless, doing this work without additional researchers privileges my particular worldview and perspective. I have worked to establish trustworthiness through a variety of methods, from peer-debriefing and memoing, to member-checking and triangulating findings across data sources. Additionally, I describe my background and positionality, encouraging readers to recognize that the conclusions are shaped by who I am and my lived experiences. Still, the findings presented in my analysis ultimately reflect my interpretation of the data.

Next Steps and Outstanding Questions

As with all work, even a finished piece leaves more questions than answers. I am left with several directions for future research. The first responds directly to a limitation described above; it is important to lengthen the amount of time spent with teachers. The process of learning to teach is lengthy; it starts before we even begin our training and lasts throughout our career (Feiman-Nemser, 2001). Any investigation of what helps teachers learn must consider the

longevity of any particular strategy as well as the impact of different phases of teaching. Furthermore, teachers report that their first years in the classroom often influence their instruction more than their university training (Beauchamp & Thomas, 2009; Bezzina, 2006; Bullough, 1997). This is, in part, what practice-based teaching seeks to remedy (McDonald et al., 2014). Thus, following teachers after their training through the first part of their career is absolutely necessary. Often, the justification for EBTE is better alignment with the realities of the classroom, but, this claim needs to be tested empirically.

Similarly, I'm curious about how a clinical rehearsal pedagogy would work with in-service teachers. If EBTE is a more effective method for teaching education during training, it raises the question of whether it would be effective as professional development, and if so, what would be different. A previous study (Lantos, 2018), looking at the use of rehearsals with in-service teachers, showed that teachers took even more ownership of the practice than I saw in this study. It was often difficult, however, to practice common lessons or find time for this sort of work. It's worthwhile to build from both of these studies to examine the effect of rehearsing as an on-going part of in-service teachers' professional learning.

Another outstanding question is how to demonstrate improvement in adaptive expertise or pedagogical judgment. This study functioned primarily as a proof-of-concept; rehearsals provide opportunities to interrogate instruction. This was not an intervention, where evidence was collected about how NTs' pedagogical judgement evolved as a result of participation. Additional work is needed theorizing what it would mean to measure this kind of skill, and then how to operationalize these constructs empirically.

Related to this, it's worthwhile to consider how this approach to teacher learning ultimately impacts student achievement. Lantos' (2018a) review of 96 studies of pedagogies of

enactment showed that not a single one considered student achievement. There are many good reasons for this, most importantly that the designs for teacher learning were still being understood. However, in order to make the case that teacher education should take practice seriously, it will be necessary to demonstrate improved student outcomes.

Conclusion

A growing body of research suggests that pedagogies of enactment can address some longstanding challenges of improving teacher education through more meaningful connection to classroom teaching. This study supports this work, showing how clinical rehearsals allow NTs to practice teaching in ways that align with their own questions and dilemmas.

One the one hand, this process was very practical: questions related to nitty-gritty, real-life issues that NTs faced. At the same time, the process was deeply conceptual: it required us to draw on our beliefs about learning, students, equity, and literacy. Questions rarely had right and wrong answers, and NTs often left our sessions with differing plans for their own implementation. This was not easy. It required effort and vulnerability from both the facilitator and NTs. It may not be efficient, or scalable. But it may do what Kumashiro (2000) advocates when he says, "perhaps what is needed, then, are efforts to explicitly attempt to address multiplicity and keep goals and boundaries fluid and situated… Rather than search for a strategy that works, I urged the participation in efforts that address the articulated and known needs and individuality of the students" (pg. 38). It is my hope that teacher education can incorporate this sort of work more regularly and purposively, uniting practice, practices, and theories to better prepare novices for what their students need from them in the classroom.

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Early Childhood & Elementary Education Learning Plan
Rehearsal Lesson Plan 1: Conducting a Think Aloud
(Practice Focus: Explaining and Modeling)

Quick introduction:
Modeling allows teachers to make the invisible work of reading and writing visible for students so that the course content is accessible to all students in the class. When modeling, the teacher thinks aloud, while publicly demonstrating a specific literary practice or process. Modeling is relatively brief (5-10) minutes and teacher led. A good model shows what experts do when they engage in a particular skill, and then helps break that down for students so they can see the why and the how of the process.
This lesson plan focuses on the frame, the use of a think aloud, the debrief of that think aloud, and the transition to student practice. The core practices on which we're focusing this time are explaining and modeling; this means that we will focus our attention on the teacher part of this lesson plan and deep dive into the decisions you make in this section.

Embedded Practices
Primary
1. Modeling and Explaining
   a. scripting a think aloud that align with the objective and the standard, and includes both what and how
   b. debriefing the why and how of summarizing
   c. Using appropriate board work/graphics to help students learn material
Secondary
1. Eliciting and interpreting individual students' thinking
   a. routines for calling on students
   b. responding to students correct and incorrect answers
2. Setting up and managing small group work
3. Checking student understanding during and at the conclusion of lessons
   a. Checking for understanding/readiness before releasing students to practice
   b. Collecting and recording data about students' success with this strategy

Some additional resources on these core practices:
- https://www.youtube.com/watch?v=hM4z74QJQN0
- http://www.teachingworks.org/images/files/NCTM_2016_MakingContentExplicit_FIN_shareable.pdf

Name:	Date:
School: Sylvan Park Elementary	**Grade/Subject: 2ⁿᵈ/Reading**

Content Standards for Learners	CCSS.ELA-LITERACY.RI.2.1 Ask and answer such questions as *who, what, where, when, why,* and *how* to demonstrate understanding of key details in a text.

Context and Structure of this Lesson

- *Describe the instructional sequence within which this lesson (these lessons) are situated?*
- *How are the ideas, concepts, and/or skills related to the identified standards, being introduced, extended, applied, and/or assessed?*
- *How are students grouped and organized for this lesson (these lessons)?*

1. This lesson falls within a non-fiction reading unit on the civil rights movement, where we're practicing who-what-when summaries, identifying main idea, and drawing conclusions from pictures.
We're going to be reading *Martin Luther King Jr and the March on Washington* by Frances E. Ruffin
2. Each of these major three reading skills will be introduced and practiced using think alouds. Students will get additional practice during guided reading groups. Students will have multiple chances to practice them both in the full class, as well as in pairs and small groups. These skills will be assessed during guided reading groups.
3. For today's lesson, students will be in small reading groups. The teacher will explain and model summarizing, and then students will practice in pairs.

Standards-Based Instructional Goals

- *What big idea, skill, or concept is being taught?*
- *What specific learning outcomes characterize this lesson, what do you want students to learn?*
- *How does this content build on what your students have already learned?*
- *Why are these goals appropriate for these students at this time?*
- *What specific academic language (particular words or phrases) is essential to this lesson?*

1. Today's learning target is:
I can practice summarizing a text by explaining important details.
2. This is the first reading strategy that students are practicing, although it's the second think aloud of this particular strategy. This is not the first time students have answered who, what, and when questions, but it is the first time they're grouped together as a "reading strategy" called "summarizing". I hope that their prior experience with these questions will allow them do this independently, without me prompting them each time.
3. These goals are appropriate for this period because they're a key part of the 2nd grade common core informational text standards. This unit is focused on building students' independence with reading, and helping them internalize certain strategies that they can use when they read.
4. Some important academic language for this lesson is:
summary
key details
subject

Assessment
• *What do you know about your students' current understanding in relation to the instructional goals?*   • *What evidence will you use to assess learning? How will this help you know if students are making progress toward your learning goals?*   • *How does the evidence you expect to collect align with your instructional goals?*   • *What are your expectations for performance?*   • *What kind of feedback will be provided to the students?*
1. I expect that this will be challenging for students, but that they can begin practicing it own their own.   2. I will gather formative data while students are working in pairs about whether they correctly identify the key details in the passage they'll be practicing with.   3. I think that students will be more successful with who and when, although they may struggle what what.   4. I will go over the answers with students after they've worked in pairs, and provide feedback during that discussion.

Learning Activities
• *Describe the procedures of your lesson; include key questions, management considerations, etc.*   • *Articulate the purpose of each step in the lesson to be sure it aligns with stated goals and assessment.*

Time	Learning Activities	Purpose/Notes
0-2	**Frame and Opening:** Good morning readers! I'm so exciting to be here with you. Today we are going to continue practicing a really important strategy that we can use when we read. We're going to work on summarizing non-fiction text. This skill really matters because it will help you remember what you've read about and prepare you for all the reading you will do next year in third grade. Sound good?	It is important to engage students in what they're working on, and why it matters. The core practice of explaining seeks to make certain skills/habits EXPICIT; one part of this is telling students what they're learning and why.
2-7	**Review:** 1. Yesterday, we started practicing this a little bit. One thing we went over yesterday was the how to make a summary. Turn and talk with your partner – what do you remember about 'summaries'?	Review is not necessarily a crucial part of a think aloud. However, if you haven't introduced something yet, it's sometimes

2. Cold Call: Student X, what did you and your partner remember? **If correct – great job! Yes – a summary is a short description of what the story is about. [WRITE ON THE BOARD] **If not correct, identify what is close and ask for another student to help. [WRITE THE DEF ON THE BOARD.] 3. Does anyone remember what sorts of details we included in our summaries? Please raise you hand if you do. Yes – we often include who the story is about, what happened in the story, and when a story takes place. [WRITE ON THE BOARD.] OR **Brief Mini-lesson** 1. In order to build our skills with summarizing, I want to go over a few things that will help you practice this. 2. First of all, raise your hand, does anyone know or have a guess about what it means to make or a summary or to 'summarize' a story? **If yes, then great! Let them tell you. If not, move on. 3. Okay, this is really important, so I want all my readers to listen up! A summary is a short description of what the story is about. [WRITE ON THE BOARD – Summary = a short description of what the text is about] 4. This time, I want you to turn and talk to your elbow partner. What kinds of information might we put in our summaries? [Give them 30 seconds] Cold Call – Student A, what did you and your partner talk about? Listen closely to their answers – some possibilities, though they wont use these words: plot, setting, subject, how it ends, 5. Those are really awesome answers, and help show me that you guys are ready to do this. Today we're going to practice looking at a couple of important details, specifically WHO the text is about, WHAT is happening in the text, and WHERE/WHEN the event takes place. [WRITE THESE ON THE BOARD under your definition of summary] 6. Check for understanding before moving on: Turn and talk: What is a summary?	helpful to do a little mini lesson here instead. i.e. 'Today we're going to be learning how to summarize a non-fiction text by recalling key details. A summary is. . . and some of the key details we can identify are. . . In order to help you develop this skill, I am going to model how I do it, and then we will all get to do a bunch of practice together.

	Cold Call: What is a summary Cold Call: What kinds of details do we pay attention to for our summaries [feel free to point to the notes on the board if students are stuck]	
7-16	**Think aloud** 1. Y'all are killing it with this review/mini-lesson. I'm really impressed by what you remember from yesterday. In order to help you guys learn how to do this, I am going to read the next section of our book, and then model for you how I summarize when I read. While I'm modeling, I want you to listen closely to what I'm doing. Afterwards, we're going to talk about what things you heard me think about while I was reading. Check for understanding before moving on: Student X – what should you be doing while I'm reading? Student Y – after I'm done, what are we going to talk about? Thank you so much. **2. Martin Luther King Junior and the March on Washington, by Frances E. Ruffin, and illustrated by Steven Marchesi.** **August 28ᵗʰ, 1963. It is a hot summer day in Washington DC.** – Oh, this seems important. Knowing where and when a story takes place is a good thing. This story takes place in the summer time, almost 50 years ago, in the city of Washington. Okay. I should remember that so that when I write my summary, I can include that detail. I'm going to keep reading. **More than than 250,000 people are pouring into the city. They have come by train, by plane, by car, and by bus. Some people have walked all the way to Washington from New York City. That's more than 230 miles.** Wow! That's a really long way. That seems really important and helps clue me into what this section is about. If people are willing to walk that far, there must be something going on that really matters to them. Read three more pages. Notice some of the details from the illustrations as well as the words. Make note of the pretty pictures, no need to ONLY talk about summary in your think aloud, but don't include TOO many other reading strategies. 3. Okay, before I continue reading, I am going to summarize what I've read by including some key details. [WRITE ON BOARD} First, this seems to be about African Americans coming to Washington DC. – [WHO – African Americans] Anther key detail is the setting – when and where. This is in DC	In order to model effectively, you need to include a couple of crucial parts. 1. First, you need to determine what you actually do as a proficient "do-er" of that strategy. 2. It's very helpful to write a script that builds in elements of WHAT you're doing and WHY you're doing them. 3. While it's useful to mostly focus on the strategy you're practicing, you can include other things that help make it an authentic read. 4. DEBRIEFING the think aloud is the most important part. We tend to assume that students understand what we were doing and why – but we need proof of that. A think aloud is ONLY AS GOOD as the debrief. 5. Using visual information can help your message land – in this case that is simply notes on the board.

	in the 1960s [WHEN – DC in 1960s] and then last what. I'm not totally sure, but they are gathering together. So maybe a big party or event. [WHAT – AN EVENT] Now that I've done a brief summary, I can keep reading to learn more. 4. Debrief Alright – that is the end of my think aloud. Don't worry – we're going to get to keep working on this together. But first, I want to talk about what you heard me doing. Turn and talk to your partner: What sorts of details did I notice while I was reading? Share out – Please raise your hand – what did you and your partner talk about? Things that could be shared: - you stopped and noticed things that seemed important - you noticed when it happened and where - you looked at the pictures, which helped you make your summary [*A quick note: depending on the age group, and the complexity of the skill, I sometimes provide steps for completing or practicing. For example: First, I look at the title and the pictures. Then I figure out the subject of the piece. After that I complete my summary by explaining what happened and where the story is set. These three details complete my summary. For this age group, that is likely too complex.*]	Visual representations or pictures are also really useful for explaining and presenting information.
16-22	Guided Practice Okay, I want to do a little bit more of this, but this time, I'd like your help gathering and recording those details. As I read, I am going to keep modeling my thinking. At other times, I am going to ask for your help. When I ask a question, I want you to quietly whisper your answer to your shoulder partner. Okay, let's keep reading. **Why are so many people here at this place on this day?** That's a good question. I don't think I know the answer yet, but I am realizing that it's something really important. People are willing to work very hard to get here. Okay, let's see if they tell us. **It is because 100 years ago, President Lincoln helped to free the people who were slaves. It was during the civil war. President Lincoln knew that slavery had to end. Now it is 1963. There has been no slavery for a long time. But are black and white people treated equally? No.** Wow. That was an important part of the book! Whisper to your partner – who is	This is early in the unit, and guided practice is the best way to help students engage in this material. Eventually they'll have to do it along, but our time today is short, and working in partners is sufficient. It's worth bringing some pad of paper, attendance sheet, or tracking sheet, and recording which students do really well answering these questions, and whether

	this book about? [They might say black people, they might say President Lincoln, they might say slaves, or marchers All could be good answers.] May I have one volunteer to share their answer with all of us? Push question: how did you know that it was about them? Okay, let's keep reading. . ..	any students this struggle. This formative assessment data can help you plan future lessons.
22-25	Closing We did some really important work today. To close our day, I'd love to hear you tell me what your learned during today's guided reading. Do I have any volunteers to share what they've learned? ** Depending on what you heard, asking probing questions about both CONTENT and SKILL. Help students realize they worked on identifying key details in a summary and they learned about civil rights, Martin Luther King Jr, President Lincoln, and the March on Washington. Thank you for your effort today. Each of you is working hard to become a stronger reader.	Closings are a SUPER important part of a lesson, and the piece that is most often forgotten. Giving students a chance to reflect on and capture their own learning is one of the best ways to ensure they remember it and can use it in the future. (A former coach of mine called it "putting the lid on the pot" which is a metaphor I really like ☺) Closings should offer a quick summary of what was learned and how it was learned. They can also include an exit ticket if you want to collect any additional data.

Supporting Student Learning
• *What opportunities for differentiation have you considered and/or embedded in this lesson?* • *What specific supports (And for whom) are in place for this lesson?* • *Consider places where your lesson might not go as planned, what will you do about it?*
1. This lesson is not super differentiated because it's so early in the unit. 2. There are a number of supports built in for students. First – there are notes on the board that can help students who are new to the material, not fluent English speakers, or have challenge with attention or listening.

There are multiple opportunities for peer support before students are asked to share. Creating a seating chart that has deliberate pairs between strong/struggling students may make the partner work even more effective.

Introducing the material with a quick review and/or mini-lesson will help support struggling students, while allowing those who come in with prior knowledge to shine.

3. The intro could go very differently. I'm not sure what my students will come in knowing about summarizing. I've tried to plan for a number of different outcomes, but that might change!

Materials and Resources
• *Describe (list) the instructional materials and resources you will use.* • *How will you adapt/modify the instructional materials to make the content relevant and accessible to your students?*
1. I need a copy of the book, I need board space/white board or paper taped to the wall. I need markers to record my thoughts. 2. I picked the books for this unit very carefully to make content relevant and accessible. All of the books fall within the appropriate lexile band, and cover content from the civil rights movement. The student/task elements are also appropriately complex and aligned to the common core. While much of that has to do with African American civil rights, I also have a book about a Mexican American girl integrating schools. These topics will be engaging for my students, and appropriate for a unit during Black History Month (and women's history month in March.)

Informing Future Planning and Teaching (Completed following implementation)
• *To what extent did students meet your learning goals/objectives; how do you know?* • *What is working? What isn't working? For whom? Why? (consider teaching and student learning with respect to content, management, and academic language concerns)* • *How does this information inform what you plan to do in future lessons?*

Early Childhood & Elementary Education Learning Plan
Instructional Activity 2: Leading an Interactive Read Aloud and Discussion
(Practice Focus: Leading a Discussion/Eliciting and Interpreting Student Thinking)

Quick introduction:
This instructional activity asks teachers to engage a group of students in a focused discussion around a text examining both the content being taught and an aspect of the reading process. This task is designed to highlight and develop reading comprehension strategies such as inferencing, identifying the main idea, and analyzing text structures. The task requires that teacher candidates select a text that would be productive and accessible for their specific group of students. Once the text has been selected, an appropriate content and process objectives would be chosen. It also requires that teachers purposefully plan rich questions that will engage students in talk, positioning them as competent sense-makers. Teachers must be able to engage students in talk and manage a whole class discussion around the text. The task can be used as a reinforcement or springboard for an upcoming small group literacy lesson.

Embedded Practices
Primary
4. Leading a Discussion
    a. Use students ideas as resources
    b. Building collective knowledge through speaking, listening, and interpreting
5. Eliciting and interpreting individual students' thinking
    a. Routines for calling on/engaging all students
    b. Revoicing, rephrasing, probing to deepen students thinking
    c. Responding to students correct and incorrect answers
Secondary
6. Chunking text into meaningful units – that allow for textual analysis and discussion
7. Drafting high quality questions

Some additional resources on these core practices:
http://tedd.org/english-language-arts/
http://tedd.org/activities/interactive-read-aloud/

Name:		Date:
School: Sylvan Park Elementary		**Grade/Subject:** 2ⁿᵈ/Reading
Content Standards for Learners	CCSS.ELA-LITERACY.RI.2.4 Determine the meaning of words and phrases in a text relevant to a grade 2 topic or subject area. CCSS.ELA-LITERACY.RI.2.6 Identify the main purpose of a text, including what the author wants to answer, explain, or describe.	

Context and Structure of this Lesson

- *Describe the instructional sequence within which this lesson (these lessons) are situated?*
- *How are the ideas, concepts, and/or skills related to the identified standards, being introduced, extended, applied, and/or assessed?*
- *How are students grouped and organized for this lesson (these lessons)?*

 1. This lesson should come within the same unit on civil rights as our previous lesson. Because of the nature of rehearsals, this was written to stand on its own. That said – an interactive think aloud can be used similar to a think aloud as an opening lesson, that leads into writing or other application. You can also spread the text out over several days – and focus on different types of reading strategy/content for each of those days.

One possible sequence is to have spend several days on the previous text.
Day 1: modeling/thinking aloud with students about summarizing.
Day 2: rereading the text, annotating for the who/when/where/what, and writing about the text in a more holistic fashion.
Day 3: Discussion and Application (this could also easily take two days). What do we learn from this period in history? How does it connect to now? What are rights? Why do people march? Application could be more writing, it could also be something creative. Students could draw pictures – and put quotes from the book. Students could write/record letters to the president. Students could look at more recent examples of civil rights – from a short film clip.

Following that sequence, students would read their second book in guided reading groups, grouped by skill. This lesson picks up during those guided reading groups.

Remember, you can also use the same text with multiple reads – after this interactive think aloud, you could have kids read through again doing some sort of annotation, and then in partners, having a discussion about the ideas.

2. The skills will be briefly introduced in the frame, they will be extended during the discussion

3. This is a guided reading small group lesson. [Guided reading groups tend to be homogenously grouped. I'm not sure how your groups were created, and whether students have similar skill-profiles or not]

Standards-Based Instructional Goals
- *What big idea, skill, or concept is being taught?* - *What specific learning outcomes characterize this lesson, what do you want students to learn?* - *How does this content build on what your students have already learned?* - *Why are these goals appropriate for these students at this time?* - *What specific academic language (particular words or phrases) is essential to this lesson?*
1. The big idea in this lesson is that authors write to convey an idea (i.e., main idea and author's purpose). Good readers analyze the words authors use as clues to figure out the main idea and the

author's purpose. They put together details (who, what, when, where) and inferences (why) like puzzle pieces.

2. Learning Targets
I can explain the main idea and author's purpose in a text.
I can use details from the text to explain how the author communicates their ideas.

3. This will depend on the specific teaching context. For our rehearsal, this lesson builds on student's learning how to identify key details for summarizing. They will now be asked to put those key details together to identify the main idea and to examine the language the author uses to convey that point.

4. These goals come from 2ⁿᵈ grade common core standards for informational text. The book builds off other texts in a civil rights unit. It moves away from just modeling, and instead has an interactive discussion, during which students can grapple with explicit and inferred meaning.

Assessment
What do you know about your students' current understanding in relation to the instructional goals?   *What evidence will you use to assess learning? How will this help you know if students are making progress toward your learning goals?*   *How does the evidence you expect to collect align with your instructional goals?*   *What are your expectations for performance?*   *What kind of feedback will be provided to the students?*
We've been working on summarizing, but we haven't really talked about main idea. They are, however, closely connected. Some of the interactive read aloud questions will be about who-what-when, and will build on this prior knowledge. We also haven't talked about author's purpose, but students studied this idea in first grade and they are familiar with the concept of purpose in their own lives. The reflection question at the end, as well as their annotations will be both give some formative data. I expect that students will not have trouble getting the main idea – though one possible challenge will be if they get caught up in the details causing trouble seeing the whole text at once. I will help push them their with probing questions. The interactive read aloud offers a lot of opportunity to collect data, and give feedback. It also allows me to model the kind of deep questioning that is necessary when doing a close read of atext.

Learning Activities
Describe the procedures of your lesson; include key questions, management considerations, etc.   *Articulate the purpose of each step in the lesson to be sure it aligns with stated goals and assessment.*

Time	Learning Activities	Purpose/Notes
0-3	**Hook:** Game to activate prior knowledge. Before we jump into our reading today, I want to review some of the ideas that we discussed last week. In just a minute, I am going to project a picture You will have ten seconds to look closely at the picture and make connections what we learned last week. When you've identified who is in the picture, hold up your thumb and wait for me to call on you! Got it? Give me snaps if you're ready to go! Martin Luther King Junior March on Washington Rosa Parks Begin practicing probing questions – including pushing them to consider all of the picture and/or what clues are embedded within the picture.	Activating prior knowledge is an important part of most lessons. This can be prior knowledge from the class, or knowledge that you expect some students may lack (a way of differentiating). The hook is a great place to include this because it is efficient, and also can be fun. A good rule of thumb for hooks: - review prior knowledge - prime students for the skill/content for the day through thought provoking questions/inquiry
4-6	**Name your teaching point:** Today we're going to be reading a book about Ruby Bridges. You may have heard of her before—but shhh… let's keep what she did a secret until we start reading!– Just know that she was another really impressive person fighting for equal treatment during the Civil Rights movement. [*This would be a good place to have a motion like making muscles or a change to represent fighting for equal treatment, but we haven't set this up earlier, so we won't do this in this rehearsal*] While we are reading, we are going to build on our summarizing skills (identifying the who, what, when, and where). Like good readers, we are going to treat those details like puzzle pieces that help us identify the main idea of the text. We are also going to search for the author's purpose for writing the text, and by looking closely at the words the author uses. So that is what we are going to do: Search for details so that 1) I can identify the main idea and 2) I can identify the author's purpose for writing the text. Let's read these goals together. 1-	Naming the teaching point helps prepare students to learn it. It must be both clear and quick. Don't teach here, just explain what the lesson will include. Have students repeat it back, write it down, or share with each other. This helps them internalize what they're learning and remember it in the future.

	2-3 [Read both from the board. Use your hands to punctuate the goals.] in the text, and the ways in which the author describes this point. This is such an important skill because it helps you really understand what you're reading. It helps you be a critical thinker—you can think about why authors are writing texts so that you don't get tricked into believing things that you may not agree withIt also can help you become a better writer.		
7-15	Interactive Read Aloud: *The Story of Ruby Bridges* *PICTURE* *Our Ruby taught us all a lot.* *She became someone who helped change our country.* *She was part of history, just like generals and presidents are part of history.* *They're leaders, and so was Ruby.* *She led us away from hate, and she led us nearer to knowing each other, the white folks and the black folks.* *- Ruby's Mother* Let's stop there for a second. <u>Q:</u> Turn and talk: What does this picture tell us about Ruby? How does this connect to the text we just read? Be ready to cite the text—that means share parts of the picture and specific words! <u>Q:</u> Raise your hand (wait time): Ruby's mom compares her to generals and presidents. What does that tell us about Ruby? Do other people agree with what X said? *Ruby Bridges was born in a small cabin near Tylertown, Mississippi.* *"We were very poor, very, very poor," Ruby said. "My daddy worked picking crops. We just barely got by. There were times when we didn't have much to eat. The people who owned the land were bringing in machines to pick the crops, so my daddy lost his job, and that's when we had to move.* *"I remember us leaving. I was four, I think."* *In 1957, the family moved to New Orleans. Ruby's father became a janitor.* *Her mother took care of the children during the day. After they were tucked in bed, Ruby's mother went to work scrubbing floors in a bank.*	During the read aloud, you should plan to stop and ask question of the text. It's helpful to think about questions on several different continuum. **You want to include a variety of questions that move from concrete to abstract.** You can think of this as explicitly explain versus inferred meaning. You can also ask students to move beyond inference to interpretation and connection. **It's also helpful to think about finding questions at the word level, the sentence level, paragraph and/or whole text.** This helps you focus in on different levels of structure to find meaning. Some techniques you will use during this think aloud are engagement strategies and discussion moves. Engagement strategies can be: everybody	

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Every Sunday, the family went to church. *"We wanted our children to be near God's spirit," Ruby's* *mother said. "We wanted them to start feeling close to Him from* *the very start."* *At that time, black children and white children went to separate* *schools in New Orleans. The black children were not able to* *receive the same education as the white children. It wasn't fair.* *And it was against the nation's law.* Question: Turn and Talk: We learn a little bit about her family here. What do we learn about them? Follow up question: how do you know that? Where in the story did you learn that information? Ahh. . . I hear you say this. Did you hear what X said . . .? Do you agree, why or why not? Revoice what's been said and how we know it. Question: When I say go, if you think what I say is true, put your thumb up, if you think it is false, put your thumb down. Ruby could go to any school she wanted. Think. . . Go. [Respond depending on what students put up.] Question: Please raise your hand. The author uses really strong language here – "It wasn't fair. And it was against the law" – What does the author want us to know about the challenges that Black Americans faced from this language? Probe deeper. Revoice what you've heard. Invite other students to add on, or build from what was shared. Ask if anyone disagrees. *In 1960, a judge ordered four black girls to go to two white* *elementary schools. Three of the girls were sent to McDonogh* *19. Six-year-old Ruby Bridges was sent to first grade in the* *William Frantz Elementary School.* *Ruby's parents were proud that their daughter had been chosen* *to take part in an important event in American history. They* *went to church.* *"We sat there and prayed to God," Ruby's mother said, "that* *we'd all be strong and we'd have courage and we'd get through* *any trouble; and Ruby would be a good girl and she'd hold her* *head up high and be a credit to her own people and a credit to* *all the American people. We prayed long and we prayed hard."*	writes, think pair share, wait time Revoicing, repeating, rephrasing, adding on, probing deeper. **It's helpful to put your questions on post-its, in your book. This helps you know when to stop and start. And what you were planning to ask.** Coming up with these questions on the spot is very difficult – planning them and following through on your script works better.

Don't ask all of these! I just wanted to give you some ideas of how to write these (and don't stress too much about correctly labeling them.)

Level 1 Question:
- What did the judge order Ruby to do?
- Let's do some quick summarizing. Who is this about? When and where does it take place?

Level 2 Question:
- What is the most important idea we learned in this section?
- What have we learned about Ruby's family? Be sure to tell me where in the story you learned that.
- Ruby's parents talk about their religious beliefs a lot. What does this show us about their family?

Level 3 Question:
- How does Ruby's story compare with Martin Luther King Jr's (*if you've just read that book*)?
- In what way is she a "credit to all the American People?'

Level 4 Question:
- What would you have felt if you were Ruby?
- Does this remind you of anything that is happened now in our country?

Remember- to engage students use different question types, and offer a chance to build on each other's ideas – maybe offer sentence starters or connectors. [Give students a sentence strips saying, "I agree with . . because" or "I'd like to know more about. . . " and then require students to use them]

At this point – have students help you read through choral reading, volunteers, or partner reading. But continue to pause every few paragraphs or so to ask questions.

Rather than script out the rest of the reading – I'm going to leave it to you to think about asking text dependent questions that a. hit at multiple levels of text and b. move from concrete to interpretive and c. hit at the critical meaning of the text and the author's purpose. In your own lesson, you will need to script these out to show your planning.

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15-25	**Finding the main idea** Now, that we've read and talked about a lot of details (who, what, when, wheres), it's a good idea to put our ideas together and think about the main idea of the book and the author's purpose for writing it. Getting main ideas and purposes are tough work, so we are going to use our discussion skills. Remember, when we have a discussion in this room, we have the following expectations: 　1- We *SHARE* and *LISTEN* to each other ideas. 　2- We are always *THINKING*. 　3- We *ADD* ideas and *QUESTION* ideas respectfully (sentence starters help) 　4- We students do most of the talking. Ms. X just helps. Ok—ready? Let's use our discussion to put our ideas together and think about the main idea of the book and the author's purpose for writing it. [2 min] --First, let's get our ideas going: Turn and talk and jot: with your partner, discuss the important details. Then put those details together to figure out: What is the main idea of this story? Jot it down on a sticky note. Be sure to put your name on the back. Repeat directions: So let's review—here is what you will do (have on board) Talk about 1-2 important details, Discuss and jot Main Idea. [choose a student to repeat and act out directions] *Note: I am assuming discuss and jot is established routines. If they were not, I would need to model them more closely and establish what I expect. Also, if we had already practiced having strong discussions, I might do a jigsaw here such that the first partner pair talks, then we chat a bit, then they return with a different partner to hone their ideas and re-jot their improved understandings. This would give me two assessment points. What they could do on their own with a partner, and also what they could do after our discussion.*[4 min] Ok, Let's talk about what the main idea is. Now, I'm going to push you a bit further to think about PURPOSE. Purpose is why the author write this book. What do you guys think the author was trying to teach us? Make sure to include your thinking. Please raise hands. I'm waiting to see a couple more hands. Thanks! Please share, X.	

	Oooh. That's an interesting idea. Snaps if you agree (*again thinking this is already a routine established*). Anyone want to add on and provide another reason for X's big understanding? Anyone want to ask Y a question about their understanding? Remember, additions and questions should add to our understanding on this point. Choose Z and hear the point. Great, Z added Y to X's point. That provides another reason why this may the main idea or why this may be the authors purpose. Or Great, Z—that question made us think about X's point. *Remember, the goal here is to be a facilitator, not a talker. You want students to be doing the talking and listening to each other—not just to your restatements of the students ideas.* Anyone have another idea? Keep probing the thinking – how do you know that? Why do you think that's what the author is trying to explain. **[It's necessary for you to have a main idea in your head – so that you can gauge whether students are accurate or not.]** [take 2-3 responses] Ok, now that you have some more ideas, I want you to meet with your other partner and discuss the main idea and authors purpose. Then go back – and 1. find and circle parts of the book where the author includes his main idea. 2, jot your final main idea and authors purpose on the title page and explain why you chose those.	
25-30	Closing Quick review and reflection (Think, pair, share—be sure to give them some time to think before pairing): What did we do to find the main idea? What helped you find it? What did we learn about Ruby Bridges?	These two questions get at both skill and content. How did we do this? And what did we learn?

Supporting Student Learning
• *What opportunities for differentiation have you considered and/or embedded in this lesson?* • *What specific supports (And for whom) are in place for this lesson?* • *Consider places where your lesson might not go as planned, what will you do about it?*
1. There are a couple ways that I will differentiate:

A. I will review key ideas/vocabulary before reading the story to support students who come in with less knowledge about American history. I may even show certain students a quick video clip the day before if they have very little knowledge of this event.

B. Certain students will read for the whole group, while other students will only read in partners. I will take volunteers for group reading. Some sections will be chorally read as well.

C. During the annotations, I will provide post-it notes with sentence starters to some students. For these students, I will pick the section that "gives the main idea" and they will have to explain why the sentence does that. I will help students who are still struggling with the primary reading skill (and be largely unnoticed by students who don't need the support)

Early Childhood & Elementary Education Learning Plan
Instructional Activity 3: Giving Feedback and Assessing Student Learning
(Practice Focus: Giving feedback, writing assessments, interpreting assessments)

Quick introduction:
Today's lesson is a short lesson about plot and structure. It involves a mini-lesson, some shared reading, and then work time for students to complete a graphic organizer applying these terms to this story.

There are several opportunities built in to assess students and provide feedback. Data is being collected in a number of ways. Some data is observational (with planned questions ahead of time), some data is written on the graphic organizer, there is a short exit ticket, and finally, there are planned conferences during work time.

I recommend using a tracking sheet to observe and record information from conferences. See sample sheet.
** Feel free to add or change the assessments for your lesson.

Embedded Practices
Primary: Checking student understanding during and at the conclusion of lessons
Teachers use a variety of informal but deliberate methods to assess what students are learning during and between lessons. These frequent checks provide information about students' current level of competence and help the teacher adjust instruction during a single lesson or from one lesson to the next. They may include, for example, simple questioning, short performance tasks, or journal or notebook entries.

Secondary: Providing oral and written feedback to students
Effective feedback helps focus students' attention on specific qualities of their work; it highlights areas needing improvement; and delineates ways to improve. Good feedback is specific, not overwhelming in scope, and focused on the academic task, and supports students' perceptions of their own capability. Giving skillful feedback requires the teacher to make strategic choices about the frequency, method, and content of feedback and to communicate in ways that are understandable by students.

Name:	Date:
School: Sylvan Park Elementary	**Grade/Subject:** 2nd/Reading
Content Standards for Learners	

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| CCSS.ELA-LITERACY.RL.2.5
Describe the overall structure of a story, including describing how the beginning introduces the story and the ending concludes the action.

CCSS.ELA-LITERACY.RL.2.3
Describe how characters in a story respond to major events and challenges. | |

Context and Structure of this Lesson
• *Describe the instructional sequence within which this lesson (these lessons) are situated?* • *How are the ideas, concepts, and/or skills related to the identified standards, being introduced, extended, applied, and/or assessed?* • *How are students grouped and organized for this lesson (these lessons)?*
1. This lesson is the beginning of a short sequence on structure and plot. It could easily bring in character as well. This will take a couple of days, as you read through the text – likely two or three. A possible extension could be have a writing activity that requires students to use the story mountain to organize their narrative, draft and revise a story. Emphasis on plot and character could carry over. 2. Today's target is around structure – narrative stories have a beginning, middle (with events and a problem), and end (solution). This is introduced in a mini-lesson, and then applied through the reading of *This Is the Dream* by Diane Shore and Jessica Alexander. Students will be assessed on their knowledge of key academic vocabulary (plot and structure), the story mountain/plot diagram, and their application of that knowledge within is a mentor text. 3. Students are working individually. This could also be done in pairs, but it may not yield as much data about individual students.

Standards-Based Instructional Goals
• *What big idea, skill, or concept is being taught?* • *What specific learning outcomes characterize this lesson, what do you want students to learn?* • *How does this content build on what your students have already learned?* • *Why are these goals appropriate for these students at this time?*

• *What specific academic language (particular words or phrases) is essential to this lesson?*

1. The big ideas for this unit are around story structure. In other words, narrative stories have a beginning & middle (with events and a problem) and end (solution). These makeup the plot of the story. Understanding plot helps us understand the story.
2. Learning Target: I can identify the structure of our story, including identifying the beginning, middle, problem, and solution.   3 and 4. This is a new mini-unit – we haven't paid explicit attention to structure yet this year, though first grade standards require students to go over plot and major events in a story (so the new stuff is around beginning, rising action, and conclusion). We have worked on summarizing and identifying the main idea in non-fiction texts.   5. The major academic language in this lesson is: **structure**   **plot**   **character**   **problem**   **solution**   Some students may need help with **introduction**/**conclusion** (and beginning/end is included to help scaffold up to these difficult words) We will need to check the text itself to determine if any key academic terms are included or any particularly difficult syntactical structures.

Assessment
• *What do you know about your students' current understanding in relation to the instructional goals?*   • *What evidence will you use to assess learning? How will this help you know if students are making progress toward your learning goals?*   • *How does the evidence you expect to collect align with your instructional goals?*   • *What are your expectations for performance?*   • *What kind of feedback will be provided to the students?*
1. Students seem to have an understanding of parts of plot and structure, though they've yet to put academic words to these concepts. They know that stories have a beginning, middle, and end—and that these parts of the story are made of events. They have practiced identifying key details, which are similar to events, but they continue to struggle in identifying important events vs less important or less relevant details. This lesson will introduce the concept of problem and solution as well as continue

practice with identifying important events, although this time framing those events within the structure of a narrative (beginning, middle, end, and problem and solution).

2. Learning will be assessed in a number of ways:

- After the mini-lesson, I will call on students to share back what they've learned. This data will be recorded. I will pick a struggling student to respond to one of the questions.
- During the turn and talk, I will pick two conversations to listen to.
- Students will complete a graphic organizer and turn in their work. The graphic organizer allows students to write and draw. Some students will be given a modified graphic organizer with sentence starters. Some students will be given a copy of the text with post-its highlighting important information in case they're not sure what evidence to pull.
- Students will turn in an exit ticket reviewing the two new academic words. This also could be differentiated by providing the words to some students.

3. This evidence aligns with my goals in a couple of ways.
- First it helps clarify what students gather from the mini-lesson, as well as what they retain over the course of the lesson (the exit ticket)
- The graphic organizer allows me to see whether they can apply these terms/concepts to a mentor text.
- Carefully selected which students to call on, listen to, and check in with during work time will allow me to make inferences about other students.

4. The levels that I expect to see are:
Above expectations: students will identify the key events that makeup the plot with no irrelevant details. Plot is clearly conveyed and fit within the components on the graphic organizer
Evidence from text is consistently provided.

Meets expectations

Below expectations

-- The students I expect to

Please complete the assessment expectations for meets and below expectations. Please also

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-- My plan for checking in with these students is:

5. In order to provide the best feedback, I will complete my own graphic organizer. This will include concrete details from the text. When I check in with students I will push them to explain what they're putting in each section of the story mountain, and how they made that choice.

I highly recommend completing the graphic organizer yourself, with words and pictures.

	ng Activities
• *Describe the pro*	*stions, management considerations, etc.*
• *Articulate the pu*	*re it aligns with stated goals and assessment.*

Time	Learning Activities	Purpose/Notes
0-3	**Launch/Hook** On the board there are four pictures. With your partner: 1. Describe what you see in each picture 2. What popular fairy tale (and movie) are these pictures of? [Have these questions written on the board/projected along with the pictures to remind students what to do] Let's review. What fairy tale do you think this is? Can someone remind me the events, or the plot, of this story?	This is a multimedia way of setting the stage for the mini-lesson. Having shared knowledge of a common story will allow us to quickly apply the story mountain to a real story (without giving away the "answers" to the graphic organizer) I've included the Cinderella pics. If you'd like to do a different launch, or do the
3-8	**Mini-lesson: Plot and Structure** Frame: Today we're going to learn about how authors structure their stories from beginning to end. We've been working on main idea for a while now, and this new knowledge will deepen our understanding about what we're reading. It is also a tool that we're going to use in the coming weeks to become write our own stories!	We're using Cinderella to help teach structure. This allows us to introduce the primary concepts, go over the graphic organizer with students (ahead of their individual work), and allows the independent work time to capture individual students' ability to perform the skill.

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For our mini-lesson today, I wanted to go over two important academic words. The first word is **plot**. Does anyone know what this one means? The plot is the major events that happen in a story The second word is **structure**. When we think about structure in writing, it means the way that the story is organized and how the story unfolds. The plot of most stories usually follows a similar structure – and we can think of this sort of like a mountain. This tool can help us explain how our story begins, how it develops, and then how the story ends. This image can help us find these parts of the story – and make sure that we know the structure of the story. Refer to story mountain – with beginning, middle, problem and conclusion. Explain each part. [*Keep this to about 4 sentences or less.*] Let's quickly practice – how does Cinderella fit on this mountain? [*If this drags, you can tell them the last two "answers" and move into independent work/independent practice more quickly*] <u>Check for Understanding:</u> Please raise your hand: What is plot? Please raise your hand: What is structure? Turn and talk: how does our story mountain help us understand the structure of most stories?	Another possible assessment is using gestures and having students associate those with Cinderella and the parts of the story mountain (sort of like summary.) I did not define problem and solution in the mini-lesson. This is included on the graphic organizer though. Add it back in if you think it's necessary.

8-16	**Read aloud: Beginning of Story** Title: *This is The Dream* by Diane Shore and Jessica Alexander Sylvia had on her best clothes. It was her first day at school. A young white boy pointed at her and yelled, "Go back to the Mexican school! You don't belong here!" That made Sylvia sad. She told her mom she did not want to go to that school. "Sylvia," said her mother. "*No sabes que por eso luchamos?*" "Don't you know that is why we fought?" Before we go on, do you notice anything special about the vocabulary in this book? What language is this (points to no sabes que quote)? What do we think it means? What is a *trenza*? Points to the pictures: Which student is Sylvia? How do you know? Three years earlier, in 1944, Sylvia and her family had moved to a farm. Her father, Gonzalo Mendez, was going to grow vegetables. Question: What do you notice about this page? How do you know that? What do the pictures show us? What did we learn about her family? Skim through the rest of the book – pauses and reading some of the pages, on other pages skip ahead and explain/summarize what happened. **This is not an interactive read aloud!** (I.e You are not using this to	During reading, pause and ask questions as you go. Students should have the modified text in front of them. Focus your questions on level 1 and level 2 questions – feel free to deviate from the questions I've listed on the left. A couple possible differentiation options – (1) you can include some pictures to go along with the words. (2) You can also modify the text further to make it easier to access (though this is risky, cause sometimes short actually makes things harder to understand) (3) Finally, you can have underlined key sections, or put a star next to them, and use those to guide struggling students to the most important parts of the story – align what you've underlined to the parts of the graphic organizer, but don't tell students which section of the graphic organizer they go with.

	build reading skills.) Though stop enough to ensure that students are following along and comprehending the story. At the end of the reading, bring back some content from before in a short review. Turn and talk: What is a summary of this book? [Push on the who/what/where/when] What is the author's purpose?	
16-22	**Discuss and Assess** Thanks for reading with me! Let's use that story to practice applying plot and structure, just like we did with Cinderella. Altogether – what is structure? I didn't hear everyone, let's all repeat it one more time. [Kid watching assessment – who is not talking? Make a note of who is not talking. – follow up with them DURING the activity] I'm handing you a graphic organizer that will help you record the structure of this story. *Either take a volunteer or call on a strong reader to read the directions that the top of the story.* [*Before giving students time to work, helpful as always, to complete the assignment/task on your own to have a "right" answer in mind, and consider what they might struggle with. This allows feedback to be more efficient in the moment*] While you're circling, conference with students about:	This section of the lesson gives you plenty of time to use assessments to both give feedback and gather data about students. Some data will come from written work, some spoken, and some from kid watching. You want to make sure that you collect information, through both student work and notes (perhaps on a tracking sheet) of what students are and are not able to do. Opportunities for differentiation in graphic organizer: 1. Some students will mostly use words 2. Some will mostly use pictures 3. Modified version of the activity includes sentence starters – use this to scaffold 4. Modified version of the story could highlight key ideas with underlining.

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1. What they're writing and drawing 2. How they know to put those answers, and what details from the story they're using 3. If students have "wrong" answers-- help them find the part in the story that would help correct the mistake 4. Once you've identified what below, at, or ahead of expectations are, you can record where students are, in the moment. Catch If you notice common errors, pull students back together and go over that section as a class. Individual errors, or mostly correct work does not have to be reviewed as a class	
22-25 **5. Closing** **Brief Discussion** Start with a think, pair share. Be sure to allow time to actually think. Cold Call students after they've had a chance to talk. Allow students to build off of each other's ideas. 1. What did we learn today? 2. How did you guys learn it? Exit Ticket: We learned two really important words about stories – on this post-it, I want you to write down our two vocabulary words and what you think they mean. (For some students, have "plot" and "structure" written already and give them those words – they just need to explain them.)	

Appendix B: Sample NT Lesson Plan

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Early Childhood & Elementary Education Learning Plan
Rehearsal Lesson Plan 1: Conducting a Think Aloud
(Practice Focus: Explaining and Modeling)

Quick introduction:
Modeling allows teachers to make the invisible work of reading and writing visible for students so that the course content is accessible to all students in the class. When modeling, the teacher thinks aloud, while publicly demonstrating a specific literary practice or process. Modeling is relatively brief (5-10) minutes and teacher led. A good model shows what experts do when they engage in a particular skill, and then helps break that down for students so they can see the why and the how of the process.

This lesson plan focuses on the frame, the use of a think aloud, the debrief of that think aloud, and the transition to student practice. The core practices on which we're focusing this time are explaining and modeling; this means that we will focus our attention on the teacher part of this lesson plan and deep dive into the decisions you make in this section.

Embedded Practices
Primary
1. Modeling and Explaining
   - scripting a think aloud that align with the objective and the standard, and includes both what and how
   - debriefing the why and how of summarizing
   - Using appropriate board work/graphics to help students learn material

Secondary
1. Eliciting and interpreting individual students' thinking
   - routines for calling on student
   - responding to students correct and incorrect answers
2. Setting up and managing small group work
3. Checking student understanding during and at the conclusion of lesson
   - Checking for understanding/readiness before releasing students to practice
   - Collecting and recording data about students' success with this strategy

Some additional resources on these core practices:
· https://www.youtube.com/watch?v=hM4z74QJQN0
·
http://www.teachingworks.org/images/files/NCTM_2016_MakingContentExplicit_FIN_shareable.pdf
· *Teach Like a Champion* – Technique 13 (google that and you'll get quite a few resources)

Name: ████████	Date: 1/ 19/ 2017

School: Sylvan Park Elementary		Grade/Subject: 2nd/Reading
Content Standards for Learners	CCSS.ELA-LITERACY.RI.2.1 Ask and answer such questions as *who, what, where, when, why*, and *how* to demonstrate understanding of key details in a text. [It would be helpful to connect this to the vertically aligned standard for 1st grade. We will want to convey to students how their second grade learning extends/connects to their first grade learning: CCSS.ELA-LITERACY.RI.1.1 Ask and answer questions about key details in a text.]	

Context and Structure of this Lesson

- *Describe the instructional sequence within which this lesson (these lessons) are situated?*
- *How are the ideas, concepts, and/or skills related to the identified standards, being introduced, extended, applied, and/or assessed?*
- *How are students grouped and organized for this lesson (these lessons)?*

1. This lesson falls within a non-fiction reading unit on the civil rights movement, where we're practicing summarizing, identifying main idea, and drawing conclusions from pictures.
We're going to be reading *Martin Luther King Jr and the March on Washington* by Frances E. Ruffin
2. Each of these major three reading skills will be introduced and practiced using think alouds. Students will get additional practice during guided reading groups. Students will have multiple chances to practice them both in the full class, as well as in pairs and small groups. These skills will be assessed during guided reading groups.
3. For today's lesson, students will be in leveled reading groups. The teacher will explain and model summarizing, and then students will practice in pairs.

Standards-Based Instructional Goals

- *What big idea, skill, or concept is being taught?*
- *What specific learning outcomes characterize this lesson, what do you want students to learn?*
- *How does this content build on what your students have already learned?*
- *Why are these goals appropriate for these students at this time?*
- *What specific academic language (particular words or phrases) is essential to this lesson?*

1. The big skill that is being working on today is summarizing. I've chosen to break down the standard to include only a part of it – who, what, where/when – and not include all why just yet.

The content that we're focusing on it the civil rights movement; we will read several books about the Civil Rights movement, and build towards informational writing at the end of the unit.
2. Today's learning target is:
I can practice summarizing a text by retelling important details.
3. This is the first reading strategy that students are practicing, although different reading groups are getting slightly different versions/texts. This is not the first time students have answered who, what, and when questions, but it is the first time they're grouped together to support the reading strategy *summarizing*.
4. These goals are appropriate for this period because they're a key part of the 2nd grade common core informational text standards. This unit is focused on building students' independence with reading, and helping them internalize certain strategies that they can use when they read.
5. Some important academic language for this lesson is: [is there any important academic vocabulary in the text that we need to consider as well?]
summary
key details
subject

Assessment

· *What do you know about your students' current understanding in relation to the instructional goals?*
· *What evidence will you use to assess learning? How will this help you know if students are making progress toward your learning goals?*
· *How does the evidence you expect to collect align with your instructional goals?*
· *What are your expectations for performance?*
· *What kind of feedback will be provided to the students?*

1. I expect that this will be challenging for students, but that they can begin practicing it own their own. [What is their current understanding?]
2. I will gather formative data while students are working in pairs about whether they correctly identify the key details in the passage they'll be practicing with. [How will this be recorded in a way that you can return to analyze learning?]
3. I think that students will be more successful with who and when, although they may struggle with what. Do you have levels of performance in mind (meets, exceeds, and below standards).
4. I will go over the answers with students after they've worked in pairs, and provide feedback during that discussion. Can you give specific examples of that feedback?

Learning Activities

· *Describe the procedures of your lesson; include key questions, management considerations, etc.*
· *Articulate the purpose of each step in the lesson to be sure it aligns with stated goals and assessment.*

Time	Learning Activities	Purpose/Notes

| 0-2 | Frame and Opening:
Good morning readers! I'm so excited to be here with you. Today we are going to continue practicing a really important strategy that we can use when we read. We're going to work on summarizing non-fiction text.

This skill really matters because it will help you remember the cool and important information you've read about, you may want to share it with your family. Also, it will help prepare you for third grade and being a great citizen. Sound good?

Hook: In front of you, you have a little puzzle. Take 30 seconds and see how your pieces can fit together.
Raise your hand – what three words are listed on your puzzle piece?
Carefully flip your puzzle over – raise your hand, what word is listed on the back of the puzzle?

This is the 100 dollar question: Turn and talk to your neighbor – why do you think I gave you this puzzle? What might it mean? | It is important to engage students in what they're working on, and why it matters.
The core practice of explaining seeks to make certain skills/habits EXPICIT; one part of this is telling students what they're learning and why. |
| 2-7 | Brief Mini-lesson
1. In order to build our skills with summarizing, I want to go over a few things that will help you practice this.

2. First of all, raise your hand, does anyone know or have a guess about what it means to make or a summary or to 'summarize' a story?
**If yes, then great! Let them tell you. If not, move on.

3. Okay, this is really important, so I want all my readers to listen up! A summary is a short description of what the story is about. [Refer to anchor chart – Summary = a short description of what the text is about]

4. This time, I want you to turn and talk to your elbow partner. What kinds of information might we put in our summaries? [Give them 30 seconds]
Cold Call – Student A, what did you and your partner talk about?

Listen closely to their answers – some possibilities, though they wont necessarily use these words: plot, setting, subject, | Review is not necessarily a crucial part of a think aloud. However, if you haven't introduced something yet, it's sometimes helpful to do a little mini lesson here instead.

i.e.
'Today we're going to be learning how to summarize a non-fiction text by recalling key details.
A summary is. . . and some of the key details we can identify are. . .
In order to help you develop this skill, I am going to model how I do it, and then we will all get |

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	how it ends, -- they also may refer to the words from the puzzle. 5. Those are really awesome answers, and help show me that you guys are ready to do this. Today we're going to practice looking at a couple of important details, specifically WHO the text is about, WHAT is happening in the text, and WHERE/WHEN the event takes place. [REVEAL/REFER FROM PREPARED BOARD WORK] 6. Check for understanding before moving on: Turn and talk: What is a summary? Cold Call: What is a summary Cold Call: What kinds of details do we pay attention to for our summaries [feel free to point to the notes on the board if students are stuck]	to do a bunch of practice together.
7-16	Think aloud 1. You guys are doing a great job learning this important material. In order to help you guys learn how to do this, I am going to read the next section of our book, and then model for you how I summarize when I read. While I'm modeling, I want you to listen closely to what I'm doing, searching for the who, the what, and the when. These are the important parts of a summary that we are learning about today. When you hear one of these, raise your puzzle piece. As I am reading, I will be marking my book with symbols to help me remember the information I find. Since it might be hard to remember what the symbols mean, please mark them now on your corresponding puzzle pieces. We will be using a circle for when, a question mark for what, and a smiley face for who. Afterwards, we're going to talk about what things you heard me think about while I was reading so that you can do this yourself to become a better reader. Check for understanding before moving on: Student X – what should you be doing while I'm reading? Student Y – after I'm done, what are we going to talk about? Thank you so much. 2. Remember, in order to show you when my think aloud starts and stops. I will wiggle my arms. This helps you see	In order to model effectively, you need to include a couple of crucial parts. 1. First, you need to determine what you actually do as a proficient "do-er" of that strategy. 2. It's very helpful to write a script that builds in elements of WHAT you're doing and WHY you're doing them. 3. While it's useful to mostly focus on the strategy you're practicing, you can include other things that help make it an authentic read. 4. DEBRIEFING the think aloud is the most important part. We tend to assume that students

when I'm thinking like a student, and when I'm coaching you as a teacher. Wiggle with me!

Okay, Martin Luther King Junior and the March on Washington, by Frances E. Ruffin, and illustrated by Steven Marchesi.

August 28th, 1963. It is a hot summer day in Washington DC. – Oh, this seems important. Knowing where and when a story takes place is a good thing. This story takes place in the summer time, almost 50 years ago, in the city of Washington. Okay. I should remember that so that when I write my summary, I can include that detail. In order to help me remember the "when" for when I write my summary I am going draw a symbol of a circle next to the "when" part of the passage, so if I forget about the "when" I am able to quickly look at my page and see the circle in order to help me remember the "when."

I'm going to keep reading. More than than 250,000 people are pouring into the city. They have come by train, by plane, by car, and by bus. Some people have walked all the way to Washington from New York City. That's more than 230 miles. Wow! That's a really long way. That seems really important and helps clue me into what this section is about. In order to help me remember the "what" for when I write my summary I am going to draw a question mark like this [demonstrate how to draw a question mark] next to the "what" in the passage.

Additionally, I am going to read between the lines to predict that this has to do with the what. So I am going to remember this for my summary. If people are willing to walk that far, there must be something going on that really matters to them. [At this point, you may refer to a picture also.]

3. Okay, before we continue reading, we are going to summarize what I've read by including our important key details. If you have forgotten any key details you can look at the notes on the side of your reading to remember. Remember, we are making our summaries better by finding specific key details- who, what, when/where.

First, this seems to be about African Americans coming to Washington DC. – [WHO – African Americans – Amanda writes] Anther key detail is the setting – when and where. This is in DC in the 1960s [WHEN – DC in 1960s] and then

understand what we were doing and why – but we need proof of that. A think aloud is ONLY AS GOOD as the debrief.

5. Using visual information can help your message land – in this case that is simply notes on the board. Visual representations or pictures are also really useful for explaining and presenting information.

	last what. I'm not totally sure, but they are gathering together. So maybe a big party or event. [WHAT – AN EVENT] So, so far, our summary is that African Americans gathered together for an event in Washington DC in the 1960s. Now that I've written a short summary, we can keep reading to learn more. 4. Debrief Do your wiggle. Wiggle with me. Think aloud is done. Before we keep reading and learning, let's talk about what you heard me doing. Turn and talk to your partner: What sorts of details did I notice while I was reading? Share out – Please raise your hand – what did you and your partner talk about? Things that could be shared: - you stopped and noticed things that seemed important - you noticed when it happened and where - you looked at the pictures, which helped you make your summary Okay, let's get this down as some steps we can all follow during our reading. When we summarize, first we look for important details about who, what and where/when. As we read, we keep updating our list and adding or adjusting our who, what, where and when. After we finish a section, we put all our details together into one summary sentence. We do this because it makes reading informational text easier and it helps us remember what we've read.	
16-22	Guided Practice I'm really curious about Civil Rights, let's keep going. But this time, I'd like your help reading, gathering and recording those details. As we read, I am going to ask for your help. When I ask a question, I want you to quietly whisper your answer to your shoulder partner.	This is early in the unit, and guided practice is the best way to help students engage in this material. Eventually they'll have to do it along, but our time today is short, and

	Okay, let's keep reading. With your shoulder partner read pages 8 and 9.

And then choose a puzzle piece that has an important detail that you can find on those pages.

[Listen in closely while students are reading, identify one group that is on point.] Cold Call: Group A, what did you guys identify from this page? Which of the important details does that connect to?

Great. Let's keep going. With your partner, read pp. 11-13. Identify a different puzzle piece and the key detail that you found from this page. It is because 100 years ago, President Lincoln helped to free the people who were slaves. It was during the civil war. President Lincoln knew that slavery had to end. Now it is 1963. There has been no slavery for a long time. But are black and white people treated equally? No. And that is why people are in Washington today. They have come to protest. They will speak out against something they think is wrong.

Listen in again, identify at least one group that has the what. And be prepared to call on them during share out.
Wow. That was an important part of the book! Group B, what did you identify? How did you know that was the what? Why does that matter?

Given all that we have talked about, with your partner on your graphic organizer, write a one sentence summary of what this book is about. Remember to include ALL your details! | working in partners is sufficient.

It's worth bringing some pad of paper, attendance sheet, or tracking sheet, and recording which students do really well answering these questions, and whether any students this struggle.

This formative assessment data can help you plan future lessons. |
| 22-25 | Closing
We did some really important work today. To close our day, I'd love to hear you tell me what your learned during today's guided reading. Do I have any volunteers to share what they've learned?
** Depending on what you heard, asking probing questions about both CONTENT and SKILL. Help students realize they worked on identifying key details in a summary and they | Closings are a SUPER important part of a lesson, and the piece that is most often forgotten. Giving students a chance to reflect on and capture their own learning is one of the best ways to ensure they remember it |

learned about civil rights, Martin Luther King Jr, President Lincoln, and the March on Washington. Thank you for your effort today. Each of you is working hard to become a stronger reader.	and can use it in the future. (A former coach of mine called it "putting the lid on the pot" which is a metaphor I really like J) Closings should offer a quick summary of what was learned and how it was learned. They can also include an exit ticket if you want to collect any additional data.

*One main question- how will you assess the learning of each student in your group?

Supporting Student Learning
· *What opportunities for differentiation have you considered and/or embedded in this lesson?* · *What specific supports (And for whom) are in place for this lesson?* · *Consider places where your lesson might not go as planned, what will you do about it?*
1. This lesson is not super differentiated because it's so early in the unit. The graphic organizer does have an option with sentence starters and an option without. [Hmm—it is likely that some of your students will still need support and extensions. For example, if you have students new to the US, they will likely be unfamiliar with the topic of Civil Rights—as well as the history that was shared. Differentiation would be needed to help those students be successful. Similarly, some of your students may go into the lesson able to identify the who, what, when—what will you do to extend their learning? 2. There are a number of supports built in for students. First – there are notes on the board that can help students who are new to the material, not fluent English speakers, or have challenge with attention or listening. There are multiple opportunities for peer support before students are asked to share. Creating a seating chart that has deliberate pairs between strong/struggling students may make the partner work even more effective. Introducing the material with a quick review and/or mini-lesson will help support struggling students, while allowing those who come in with prior knowledge to shine. 3. The intro could go very differently. I'm not sure what my students will come in knowing about summarizing. I've tried to plan for a number of different outcomes, but that might change!

Materials and Resources
· *Describe (list) the instructional materials and resources you will use.*

· *How will you adapt/modify the instructional materials to make the content relevant and accessible to your students?*

1. I need a copy of the book, I need board space/white board or paper taped to the wall. I need markers to record my thoughts. 2. I picked the books for this unit very carefully to make content relevant and accessible. All of the books fall within the appropriate lexile band, and cover content from the civil rights movement. The student/task elements are also appropriately complex and aligned to the common core. While much of that has to do with African American civil rights, I also have a book about a Mexican American girl integrating schools. These topics will be engaging for my students, and appropriate for a unit during Black History Month (and women's history month in March.) Good—and it will be important to take a critical lens with these texts. What about connections to Nashville with some of the texts?

Informing Future Planning and Teaching (Completed following implementation)
· *To what extent did students meet your learning goals/objectives; how do you know?* · *What is working? What isn't working? For whom? Why? (consider teaching and student learning with respect to content, management, and academic language concerns)* · *How does this information inform what you plan to do in future lessons?*

Appendix C: Written Reflection Questions

Rehearsal Reflection Questions (module 1)

If you presented:
1. How do you think that went? Did you feel safe/supported during your practice?
2. What are three things you learned or improved as a result of the feedback and discussion during your rehearsal? What allowed you to learn these things?
3. What is it like to watch a lesson you're teaching taught by another pair of students/professor? What did you learn from **watching** that was similar or different from **teaching**?
4. [When relevant] How are the *practices* that we're focusing on in class showing up in your work with students, if at all?

If you were audience member:
1. What are three things you learned or are thinking about as a result of watching and discussing the lesson today?
2. What embedded practices from today's lesson seem the most relevant to you? Why does this feel important? How are these growing over the course of the semester?
3. How does watching some one else teach inform your thinking about your own teaching?
4. [When relevant] How are the practices that we're focusing on in class showing up in your work with students, if at all?

If we watched video:
1. What was similar and what was different about teaching this lesson with students (versus during class)?
2. How did some of the feedback/discussion from class show up in the work this teacher did with students?
3. How did students respond to the lesson? What surprised you about students' responses, errors, and/or ways of engaging?
4. Overall, what has it been like to collaborate on teaching within this cycle (watching Amanda, rehearsing, implementing, looking at video)? Is this helping you improve your teaching?

Module 2 Reflection

Hi y'all!

So there are a couple of parts of this. First, I'd like some feedback on rehearsal. Second, I'd love feedback on where you'd like to see our third module go. Finally, if you're willing, I'd love to schedule a 15 minute interview with you about how you're learning to be a teacher (including teachers' workshop time).

So, please answer the following questions (ideally in a word document labeled with your name). Send these to me by Sunday evening (2/26). Please write as much or as little as feels appropriate.

1. Rehearsal

What are you liking and what aren't you liking about rehearsal?

[Some questions to think about in your answer: have some been more helpful than others? How come? Do Amanda and/or I talk too much? Do you like when we have discussions or do you prefer the feedback to stay really focused on the teaching moves? Do you like when there is a theme or just any kind of helpful feedback? Do you like when students jump in with questions? Do you leave feeling good about your teaching? Do you feel like you apply the ideas to your work?]

2. Module 3

We have the chance to practice one more lesson structure and core practice.
Are there things that you'd like extra help with?

I am thinking about continuing to focus in either on feedback or assessment. Do those ideas sound helpful? I'm also thinking about using the board, pacing, questioning or engaging students?

Is there a reading skill or structure you'd like help with? This could be guided reading/close reading/using evidence/having a discussion/mini-lessons etc.

****Feel free to just free associate here – I'll pull meaning from whatever in-process thinking you give me! *This could be just*: *"I'm struggling with this. . . . please help!"*

Appendix D: Semi-Structured Interview Questions

1. What do you think of rehearsal?

2. Do you feel like you learn more when you're practicing or observing your peers? Explain.

3. What do you think you've learned most about as a result of participating?

4. Do you think your classroom practice is improving as a result? Why or why not?

5. What would you change, add, or get rid of?

6. Do you feel safe during practice?

Appendix E: Lampert's (2013) Coding Scheme

Table 1. Substance Codes.

Code	Description	Example of TE interjection
Elicit and respond	Eliciting, interpreting, responding to student mathematical work or talk	"Michael said he knew 108 would come next as we're counting by 12. Ask him to explain *how* he knew that."
Representation	Representing mathematical ideas in writing and making connections between talk and representation	"Nice job annotating the array to match how you heard the student decompose the numbers."
Student engagement	Managing the intellectual and behavioral engagement of students	"An option we have here is to do a 'turn and talk' to see if we can get more students participating."
Attending to IA	Drawing attention to the structural aspects of the IA, particularly to help NT's understand the entire IA	"This would be a good time to start to ask students what they notice about all of the numbers."
Content goals	Attending to the specific mathematical content goals of the lesson	"Remember, we're pushing place value here. Raise your hand if you used tens in your strategy."
Student thinking	Attending to the details of student mathematical thinking	"Julia said she counted on from the 28 instead of starting at 1. Do you get the difference?"
Mathematics	Working on and understanding the mathematical content, particularly for NT learning	"What kind of a division problem is this? What is it that we're asking students to solve for?"
Student error	Surfacing and responding to student errors	"What if someone said 101 [an incorrect answer] instead of 110? How would you deal with that?"
Orienting students	Orienting students toward each other's mathematical ideas	"Hmm. Can someone else tell me how Ahmed knew where to stop counting?"
Process goals	Attending to the specific mathematical process goals of the lesson	"Remember we want to ask 'why' questions here to get kids to reason mathematically."
Launching the IA	Introducing and beginning student engagement with the IA	"Just a quick intro, then jump right into 3 times 4. We don't need anything lengthy here."
Assessing understanding	Assessing what a student knows and understands about the mathematics (formative assessment work)	"Check in with the group to see how many got that answer . . . What about a different answer?"
Manage timing	Moving through the lesson in a way that manages timing and pacing	"Yes, your pacing so far is great. You can always come back to the number line idea later."
Manage space	Attending to issues of classroom space while engaging students	"How could we set up the area so students can work on their white boards first and then talk in pairs?"
Body/voice use	Attending to how one uses body and voice while teaching	"It's always tricky figuring out where to stand so you don't block kids from seeing the board."
Closing the IA	Bringing the IA to an end	"Who has ideas about how we could bring this to a close? Let's get a few different ideas out."

Note: TE = teacher educator; IA = instructional activity; NT = novice teacher.

Appendix F: Code Book

Nodes

Name	Description	Files	References
Celebrations_Props	Comments at the end of rehearsal when NTs identify aspects of the rehearsal they appreciated or were impressed by	7	20
Classroom Substance Codes	Units of Analysis for Classroom Enactments. Units identified with substance codes from rehearsals	2	47
CE- Core Practices	Identifies NT enactment related to substance codes re: core practices discussed during methods rehearsal	2	2
CE - Leading a Discussion		6	12
CE - Discussion Questions		4	4
CE - Pacing		4	9
Engaging Students		6	7
CE Collecting and Responding to Student		6	12
CE - Tracking Sheet		1	1
CE Modeling and Explaining		2	6
CE - Framing Objective		0	0
CE- Domain-Neutral Practices	Identifies NT enactment related to substance codes re: domain neutral practices discussed during methods rehearsal	2	13
CE - Checking for Understanding		1	3
CE - Engaging Students		1	2

Name	Description	Files	References
CE - Framing the Teaching Point		2	3
CE- Directing Question back to Students		1	1
CE- Equitable Participation		2	11
CE - Cold Call		1	2
CE- Turn and Talk		1	2
CE- Giving Directions		2	8
CE- Student Response		2	6
CE- Using a Launch		1	1
CE- Domain-Specific Practices	Identifies NT enactment related to substance codes re: domain specific practices discussed during methods rehearsal	2	8
CE - Reading Comprehension (2)		2	3
CE - Using Pictures to help comprehension		2	3
CE Inferring		2	3
CE Main Idea vs. Supporting Details		5	7
CE Assessing Student Understanding Plot and Structure		6	12
CE Clarifying Terms		2	2
CE Conferring with Students		4	8
CE Recording Data		1	2
CE- Spelling		1	1
CE- Summarizing		1	2

Name	Description	Files	References
Important Details in a Summary		1	1
CE- Think Aloud		2	9
CE - Engaging Students During Think Aloud		2	5
CE - Important Detail When		1	1
CE - Important Detail - Where		1	3
CE - Important Detail - Who		1	2
CE - Multiple Reading Strategies		2	5
CE - Summarizing Synthesis		2	6
CE- Debrief Think Aloud		2	1
Interactive Read Aloud		3	9
CE - Excitement		2	3
CE - Readaloud Questioning		3	6
CE- Managing Behavior	Identifies NT enactment related to substance codes re: classroom management discussed during methods rehearsal	1	1
Spontaneous Response	Strong instruction that deviates from the lesson plan and classroom practice	6	18
Instructional Interruption	An instructional interruption involves any time that the instruction of the lesson is paused. It continues until instruction resumes. Some instructional interruptions include	14	167

Name	Description	Files	References
	multiple substances, ways of sense-making, or structures.		
Nature of Interruption	Q: Who interrupted and how? All instructional interruptions are coded with who interrupts the instruction and how the interruption occurs	14	330
F Affirmation	Facilitator affirming NTs and building community	7	14
F asking instructional questions	Facilitator raising questions to the presenting NT or the group about instruction	14	76
F Highlighting Strong Instruction	Facilitator or Course Instructor highlighting strong or effective instruction.	8	12
Co-T Highlighting		7	11
F offering suggestion	Facilitator making an instructional suggestion in response to a dilemma or problem of practice	10	40
NT Generated Question	Novice teacher asks a question about instruction. Questions are asked either to the group or to the facilitator (not to a specific peer).	12	28
NT Suggestion	Novice teachers generate an instructional suggestion in response to an instructional dilemma or problem of practice.	4	8
NT to NT Question	Novice teachers ask instructional questions of each other, usually in response to an instructional dilemma or problem of practice	4	5
Novice Teacher Framing	Its explaining what they were planning to practice and what support they may want	5	5
Pedagogical Technique Carried Through	Pedagogical techniques that appear after an instructional interruption and demonstrate how techniques are enacted through NT instruction	5	22

Name	Description	Files	References
Domain-Specific Instructional Practice - ELA Content	Strategies that involve delivery of ELA content	1	1
Eliciting and Responding to Student Understanding	Strategies for gathering data, responding to, and/or recording evidence of student understanding	0	0
Giving Feedback	Providing feedback to students about their performance	2	2
Pushing for Correct Answers	Strategies for telling students that their answer is not correct (rather than accepting incorrect, misleading, or partially correct answers)	1	1
Responding to Struggling Students	Strategies for responding to struggling students, including pacing, where to stand in a classroom, asking follow-up questions, moving on	2	2
Getting Students Attention	Strategies for getting students attention, usually after individual or group work	1	1
Leading a Discussion	Pedagogical techniques relevant to leading and discussion	0	0
Discussion Norms	Establishing ways and norms for participating in a discussion	1	1
Levels of Questions	Writing and using a variety of questions to help students comprehend and think critically about a story	1	1
Outloud Reading	Inviting students to read out loud, in pairs, or in unison	1	2
Pacing	Strategies for making sure that the lesson is well-timed, not moving too slowly or too quickly	2	2
Wait time	Using wait time after posing a question to generate more equitable participation	2	2

Name	Description	Files	References
Questioning Students	Not responding directly to questions — turning them back to students	2	4
Cold Call	Questioning Students using a "cold-call" strategy in which you call on students without taking volunteers.	2	2
Redirecting Question back to Student	Strategies for asking follow up questions to help students clarify or deepen their answers	2	2
Student response	Indicating how you want students to respond	2	2
Structure of Interruption	The structure of the interruption describes what kind of engagement occurred during the instructional interruption. This draws on some of the codes from Lampert, 2013, but included some additional codes. Some instructional interruptions include multiple structures (for it example, it may include an instructional suggestion, which leads to a discussion)	14	346
Changing Instruction in Response to Guidance	NT doing a brief role play or asking questions about specific instructional changes	11	23
Discussion	Instructional conversation that involves facilitator and at least two NTs	14	53
F offering suggestions	Facilitator responds to a question with suggestions — questions can be their own or student led. Typically, the nature of interruption was a question, to which NTs needed additional support	9	13
F Synthesizing	Facilitator connects multiple ideas that have been generated during the rehearsal. This is often during a discussion where different suggestions or problems of practice	7	12

Name	Description	Files	References
	are raised.		
Facilitator Only	The documents an interruption in which only the facilitator talks. This likely means that the facilitator made a suggestion or highlighted something, and then teaching quickly resumed.	6	11
NT seeking clarification	Novice teacher seeks clarification or affirmation that what they're doing is valid or makes sense	4	4
Presenting NT respond to suggestions	Instructional Conversation between presenting novice teachers and the facilitator. This is specifically in response to a suggestion, and the NT is seeking more information or clarification.	11	26
Presenting NT Responding to Question	Instructional Conversation between presenting novice teachers and the facilitator. This is specifically in response to a question, and the NT is seeking more information or clarification	13	45
Tess Self Deprecation	Downplaying experience, highlighting errors in the lesson plan	7	10
True Question v. Gotcha question		4	6
Student role playing	This code identified moments when students were role playing students	3	5
Spontaneous Student Role Play	Moments when NTs enact student roles in authentic, surpassing, unplanned ways. Typically drawing on their experiences with their own students.	2	2
Substance of Interruption	What pedagogical technique is being explored? This draws on Lampert, 2013 though includes a different set of nodes.	14	619

Name	Description	Files	References
Core Practices	Specific attention to the designed focal practices: modeling and explaining; leading a discussion, assessing and responding to student data	14	208
Collecting and Responding to Student Data	Teachers use a variety of informal but deliberate methods to assess what students are learning during and between lessons. These frequent checks provide information about students' current level of competence and help the teacher adjust instruction during a single lesson or from one lesson to the next. Choose among specific instructional strategies known to be effective in response to common patterns of student thinking. Use them to support, extend, or begin to change student thinking.	13	145
Assessing Understanding	Determining what students know, understand, and can do	12	74
Recording Data	Recording observations about student understanding	7	16
Changing Instruction in Response to Data	Teaching in responsive ways; using data about student learning/understanding to inform subsequent teaching moves. Data can be formative or summative, formal or informal	1	1
Differentiation	Offering instruction at different levels to support struggling students or accelerate students who need more of a challenge.	3	4
Responding to Wrong Answers	Strategies for knowing what to do when students are not meeting instructional outcomes (often this means wrong answers)	9	49

Name	Description	Files	References
Moving On When Struggling	Knowing what to do when students continue to struggle, having ideas for how to loop back to students who were not successful during the lesson.	2	2
Preparing Exemplar Answers and Common Misconceptions	Determining evidence of what mastery looks like, as well as preparing for common challenges students may have.	5	6
Pushing the Group To Deepen Answer	Strategies for helping move student responses from satisfactory to excellent. This often involves pushing for clarity, helping students build off each other, or asking follow up questions.	3	7
Questioning Student To Clarify	Determining all that a student understands by pushing for more clarification. This can occur in full group, small group, or individual settings.	2	5
Working with Struggling Students	Strategies for working with students who are struggling with the lesson and/or academic content.	5	15
Leading a Discussion	In a whole-class discussion, the teacher and all of the students work on specific content together, using one another's ideas as resources. The purposes of a discussion are to build collective knowledge and capability in relation to specific instructional goals and to allow students to practice listening, speaking, and interpreting. In instructionally productive discussions, the teacher and a wide range of students contribute orally, listen actively, and respond to and learn from others' contributions.	6	32
Defining Discussion	Defining what a discussion is, and	0	0

Name	Description	Files	References
	different kinds of discussions.		
Establishing Discussion Norms	Strategies for teaching students how to participate in a discussion	3	5
Initiate-Respond-Evaluate and Variations	Discussion and critique of particular questioning sequences. Particular attention was spent on alternative structures to teacher asks a question, student responds, teacher evaluates.	4	6
Levels of Questions	Writing and using a variety of question types in a discussion to engage and push students to comprehend the text and think critically about it	1	1
Modeling and Explaining	Making content explicit is essential to providing all students with access to fundamental ideas and practices in a given subject. Effective efforts to do this attend both to the integrity of the subject and to students' likely interpretations of it. They include strategically choosing and using representations and examples to build understanding and remediate misconceptions, using language carefully, highlighting core ideas while sidelining potentially distracting ones, and making one's own thinking visible	6	23
Implementing a Think Aloud	This concerns strategies for effectively implementing think alouds (which were a subcategory of modeling and explaining)	2	7
Engaging Students During a Think Aloud	Strategies for making sure that students are listening and processing the model that teachers use.	1	2
Multiple Reading Strategies		0	0

Name	Description	Files	References
Model_Explain New Content	Strategies for introducing and modeling new content. This was used primarily with teaching students how to summarize.	3	3
Student Roles during Model	Expectations for how students participate, engage, or demonstrate learning during teacher modeling and/or explaining	2	3
Domain Neutral Instruction Practice	Specific strategies and techniques that cross disciplines, grade levels, etc. Often procedural, research-endorsed practices to maintain engagement, focus, and/or clarity	14	85
Board Display	Strategies that use visuals (the board, poster paper, written directions) to augment verbal information (often time is directions, may also be guided notes or use of anchor charts)	3	5
Engaging with Objectives	Explaining learning targets to students, including students in understanding and/or reflecting on learning targets	1	1
Equitable Participation	Strategies that ensure that students participate in safe and equitable ways.	3	6
Framing Teaching Ponits	Providing a frame or rationale for the day's instructional goals and/or agenda	2	3
Getting Students Attention	Using strategies and techniques to get students attention, specifically after they've been working independently or in groups	1	1
Giving Directions	Providing directions in clear and succinct ways	5	9
Checking for Understanding	Teacher ensures that students understand the directions or model	1	1

Name	Description	Files	References
	before releasing them to work		
Maintaining Engagement	Using strategies and techniques that hold students attention and keep them interested/engaged in the learning activities. Sometimes involves questions of pacing, balancing student and teacher talk time, using various activities and participation structures	7	16
Teacher Enthusiasm	Using teacher excitement or performance to build buy-in or engagement	2	2
Turn and Talk Engagement	Building in opportunities for students to talk to each other. Support engagement and equity.	3	3
Pacing	Strategies that deal with the flow and timing of lesson delivery. Making sure that the lesson is not going to fast or too slow.	8	18
Think Time		1	1
Wait Time	Giving students time to think and process before calling on a student to answer a question.	2	3
Revoicing	Questions around whether and when to have students share out and/or revoice their contributions	3	3
Right Answer		1	1
Scaffolding Instruction	Providing instructional supports that allow students to participate more efficaciously.	3	3
Student Response	Indicating how the teacher want students to respond or engage in particular questions	2	5
Teaching without a Script	Feedback that involves teaching without reading the lesson plan	1	1
Domain Specific	Domain-specific pedagogical	13	112

Name	Description	Files	References
Instructional Practice - ELA Content	techniques. ELA content covered instructional ideas that would not be addressed in a different discipline.		
Assessing Plot and Structure	Understanding and defining the terms plot and structure. Differentiating between the two words. Helping students define and practice using these concepts with a story.	5	19
Differentiating between Main Idea v. Summary	Understanding the difference and helping students navigate the difference between the main idea of a text and summarizing a text	4	7
Leading an Interactive Read Aloud	Strategies for leading an interactive read aloud. Questions around defining a read aloud, and differentiating it from discussion more broadly.	3	19
Outloud Reading	Specific questions and discussion around how to get students to read out loud, especially in unison (choral reading)	2	5
Making Inferences	Understanding/Defining what it means to make an inference. Helping students practice and improve in their ability to make inferences.	2	8
Using evidence		1	2
Reading Comprehenion	Identifying gaps in reading comprehension. Helping support greater understanding of a story.	3	8
Clarifying Misconceptions	Strategies for helping students deepen their understanding of the text, specifically literal meaning. Clarifying common misconceptions through careful use of language.	1	1
Teaching Summarizing	Conversations about ELA content concerning how to effectively	2	3

Name	Description	Files	References
	summarize		
Equity	This node describes topics that related to issues of equity, as operationalized by Guit. two axes.	11	54
Equity - Identity	Issues of equity that had to do with foregrounding students identities in the classroom.	4	7
Equity- Access	Issues of equity that had to do with providing equal access to the curriculum — this very frequently had to do with differentiation, or discussion of who might struggle to access material.	4	6
Equity- Achievement	Issues of equity that had to do with a direct look at student responses. In addition to access, equity involves making sure that all students are actually achieving equally. Making sense of student answers is necessary.	7	19
Equity- Agency	Issues of equity that had to do with providing power to students. This could be in the moment, or in the future. Often related to issues of student choice, or the relevance of learning particular material.	1	1
Managing Behavior	Strategies for teaching students how to participate in class, managing behavior, and responding to student misbehavior	3	5
Summarizing Previous Learning	Framing rehearsal work by summarizing key take aways from previous rehearsals and/or reflections	2	2
Type of Sense-making	This node describes ways that NTs were making sense of instructional practice.	13	180

Name	Description	Files	References
Approximation of Practice	Opportunities to develop and enact strategies for meeting instructional goals. Sometimes this includes making suggestions, other times it involves enactment of either facilitator or NT generated suggestions	8	17
Verbal	Approximating practice by making verbal suggestions	8	16
Decomposition of Practice	Opportunities to question and negotiate aspects of practice that have been represented. Originally, this was understood to be separate from approximation, but sometimes approximation and decomposition happen together.	13	112
Defining	Defining aspects of particular problems of practice, tensions, etc	6	17
Negotiating Trade-offs	Embedded in negotiation is the idea that most decisions have trade-offs - they offer some things and neglect others. Making pedagogical decisions often involves making these sorts of decisions.	5	23
Directive	There is no specific "sense-making" because the feedback is directive or didactic	2	3
Representation of Practice	Opportunities to identify elements of practice. This may include: a. highlighting exemplary practice, b. highlighting a dilemma in practice, c. acknowledging a tension Representations are most frequently identified by the facilitator, though occasionally raised by NTs	12	53

Appendix G: Rehearsal Introduction and Schedule

Teachers Workshop: Rehearsals and Core Practices

I. Overview:
A. Teachers Workshop
In order to better support your preparation for student teaching next semester, this course will include 1 hour, each week of teachers' workshop. During this hour, we will deeply investigate the work of teaching, learn about core practices of successful ELA instruction, and rehearse our lesson plans together.

B. Rehearsal
Rehearsal is a pedagogical strategy that allows teachers to build skill implementing core practices of teaching. Teachers take on the role of teacher and student, teach a short lesson (usually the same one), and receive coaching from a facilitator. During the rehearsal, the facilitator will regularly interrupt the teacher to point out moments of excellence, pose questions to the presenter/group, offer suggestions, or have a teacher try something a different way. This tool allows us to regularly share out work, learn from and with each other, and build our capacity implementing particular teacher moves.

Rehearsals fall within a cycle of learning and teaching – they come after learning about and engaging with a particular topic, and the precede implementation of the same lesson with real students. This will be true for our teachers' workshop model.
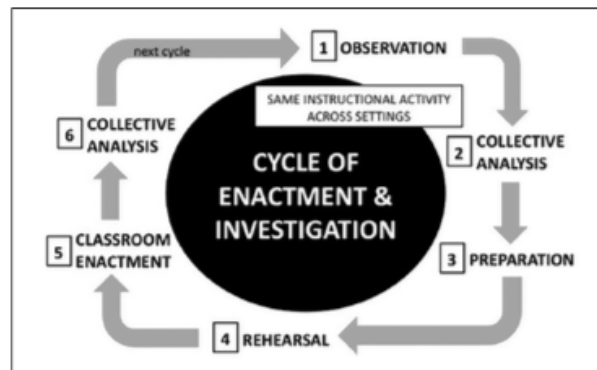
II. Expectations
A. Schedule
We will be doing three cycles of rehearsals; each cycle will focus on a different lesson plan and core practice of teaching. Each student will participate in a rehearsal in each of these cycles. Most lessons will be taught in pairs.

B. Requirements
1. Prepare for and participate in your rehearsal on the assigned date. Work productively with your partner ahead of time to plan how you will teach the lesson.

2. Send your [adapted] lesson plan to Tess by Wednesday night at 11:59 pm. **This is only relevant for students rehearsing **that week**.

3. Send your rehearsal reflection to Tess by Friday at 5 pm. **You will complete a reflection after each week of class, **regardless** of whether you were the 'teacher' or the 'student' that week. **You will get reflection questions in week 2.**

4. Video yourself implementing the rehearsed lesson as well as your adapted lesson with your Sylvan Park Students. This will mean you will have at least 6 videos of your teaching.

III. Alignment with other work/classes
A. Lesson Plans
During practicum, you will practice implementing a series of connected lessons that incorporate both reading and writing. Out of all the reading lessons that you teach, you will select your three favorite lesson plans to be included in a portfolio of work.

Some more details on what types of lessons you will be teaching are:
- Three of these lesson plans will be written for you to practice during rehearsal, and you will only need to adapt them slightly to practice with students
- Three of these lesson plans will be a modified version of the same objective/instructional delivery but with a different text, lesson sequence, checks for understanding, etc.
- Three of these lesson plans will be free choice. They can draw on work from rehearsals or other parts of class.

B. Reading and Writing
We try to find meaningful connections between this course and EDUC 3215. There will be elements of rehearsal in both classes; we hope that this lets you engage more deeply in the process, and well as helps you apply the content in both of your classes to your work with students.

Schedule: Below is an overview of the semester. This schedule presents information about all assignments, including teachers' workshop

Class	Date	Topic	Rehearsal Topic	Rehearsal Plan	Assignments (Due date day of, unless specified)
1	1/12	Intro & The Reading Process	Introduction	*Introduce Module 1* 1. Community Building and Norms 2. What are core practices? 3. First rehearsal 4. Debrief Explaining and Modeling	
2	1/19	Word Reading, Phonics, & PA	**IA:** Conducting and Debriefing a Think Aloud - Reading Strategies Mini-lesson **Core Practice:** Explaining & Modeling	1. Community Building 2. Two pairs of students rehearse	• **Lesson Plans** (due: Wed 1/18 at 11:59p) • **Reflection** (due: Friday 1/20 at 5p)
3	1/26	Comprehension Strategies & Instruction		Two pairs of students rehearse	• **Lesson Plans** (due: Wed 1/25 at 11:59p) • **Reflection** (due: Friday 1/27 at 5p)
4	2/2	Comprehension of Different Types of Texts & Engagement		*Introduce Module 2* 1. Amanda rehearses 2. Eliciting and interpreting individual student thinking	• **Video of Think Aloud** (due: Tuesday 2/7 at 11:59p)
5	2/9	Comprehension: Multimodal Reading Strategies		Video Analysis	
6	2/16	WR, Multisyllabic WR, & Emergent Lit	**IA:** Leading a Discussion: Interactive Read Aloud	1. Community Building 2. Two pairs of students rehearse	• <u>**Reading Analysis Project**</u> • **Lesson Plans** (due: Wed 2/15 at 11:59p)

					• **Reflection** (due: Friday 2/17 at 5p)
7	2/23	Vocab & Fluency	**Core Practice:** Questioning and Engaging Students/ Eliciting & Interpreting Individual Student Thinking	Two pairs of students rehearse	• **Lesson Plans** (due: Wed 2/22 at 11:59p) • **Reflection** (due: Friday 2/24 at 5p)
--	3/2	Midterm		*Introduce Module 3* 1. Amanda rehearses 2. Practice: TBD	• **Midterm** • **Video of Small Group Instruction** (due: Tuesday 3/14 at 11:59p)
8	3/9	Spring Break		Spring Break	
9	3/16	Assessment		Video Analysis	• **Independent Project Proposal**
10	3/23	SLA and ELLs	**IA:** TBD based on student need **Core Practice:**	Two pairs of students rehearse	• **Lesson Plans** (due: Wed 3/22 at 11:59p) • **Reflection** (due: Friday 3/24 at 5p)
11	3/30	Home-School Connections		Two pairs of students rehearse	• **Exemplary Lesson** • **Lesson Plans** (due: Wed 3/29 at 11:59p) • **Reflection** (due: Friday 3/31 at 5p)
12	4/6	Differentiation		Video Analysis	• **Video of Module 3** (due: Tuesday, 4/4 by 11:59 p)
13	4/13	Book Club		Video Analysis	
14	4/20	Wrap-up and Celebration			**Lesson Plan Portfolio/Independent Project Presentation**

Final Project	5/1				**Independent Project**