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Student reading achievement is an ongoing concern for educators, researchers, and policymakers due to continually low proficiency scores. One response to this on-going need is to examine qualities effective teachers possess to prepare effective preservice teachers. In this grounded theory study, one specific component of effective teaching, in-the-moment decision-making, was examined. Activity theory was utilized to examine the in-the-moment decisions made, the rationales cited for these decisions, and the influence of personal experiences, courses, internships, and planning on those decisions and rationales. The participants were six special education preservice teachers enrolled in a special education reading methods course where they tutored elementary students with reading difficulties or disabilities in a Title I public elementary school after school. The participants video-recorded themselves providing reading instruction three times over the semester. The videos were used to collect observational data by the researcher and were watched by the participant and researcher during video-stimulated recall interviews. Other collected data included lesson plans, belief and demographic survey, course assignments (i.e., assessment case study, intervention plan, and course syllabus. The surveys and interviews were analyzed using constant comparative methods across three stages (i.e., initial, focused, selective). The preservice teachers made twelve different types of in-the-moment decisions and cited nine different rationales for the decisions. Furthermore, the findings indicate that although the influences varied across participants, in-the-moment decisions were heavily influenced by courses and internships

while a lack of planning influenced the rationales. Implications for research and practice are also discussed.

INVESTIGATING PRESERVICE TEACHERS' INSTRUCTIONAL DECISION-MAKING FOR READING

by

Hanna Moore

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CHAPTER I

INTRODUCTION TO THE PROBLEM

The most recent National Assessment of Educational Progress (NAEP) report found that 35% of all fourth-grade students were reading at or above the "proficient" level, a statistically significant drop from the previous assessment year in 2017 (NAEP, 2019). The drop in reading scores occurred across subgroups (e.g., all race/ethnicity groups except Hispanic, male and female, students eligible and not eligible for free and reduced lunch) and across regions of the United States. Furthermore, the percentage of students within specific subgroups (e.g., students of color, students with disabilities, English language learners) reading at the "proficient" level is significantly lower. English language learners and students with disabilities are the two lowest-scoring subgroups at 10% and 12% proficiency, respectively. Notably, the percentage of "proficient" fourth graders with disabilities, which includes all categories of disabilities, has only increased 1% in the past 9 years (NAEP, 2019).

Students must "integrate and interpret texts and apply their understanding of the text to draw conclusions and make evaluations" (NAEP, 2019, p. The NAEP Reading Achievement Levels by Grade section??) to be *proficient*. More specifically, students must be able to (a) identify main ideas, themes, and supporting details, (b) judge elements of author's craft, (c) analyze character roles, actions, feelings, and motives, (d) demonstrate an understanding of text features and their purposes, and (e) explain cause-

and-effect relationships and draw a conclusion. Since the NAEP assessment only addresses comprehension skills, it is unclear what area or areas of reading (e.g., decoding, vocabulary, comprehension) students' have difficulty with, resulting in the low scores. However, the stagnation or decrease in reading scores remains clear.

This stagnation or decrease occurred despite improving reading achievement is a high priority for educators, researchers, and policymakers. For example, the Every Student Succeeds Act (ESSA) directs teachers to use evidence-based practices and teach to high academic standards to improve student outcomes (ESSA, 2015). Many states have adopted more rigorous standards such as the Common Core State Standards (CCSS; Common Core State Standards Initiative, 2019) or created similar standards for their state (e.g., North Carolina Standard Course of Study; North Carolina Department of Public Instruction, n.d.). Effective practices for reading instruction for all students, including those with disabilities, have also been identified (Kudo et al., 2015; Swanson, 1999), but research suggests that research- and evidence-based practices are not consistently implemented (Burns & Ysseldyke, 2009; Cook & Odom, 2013). Thus, despite implementing more rigorous standards, a growing body of literature on reading practices for students with reading difficulties or disabilities (Brownell & Leko, 2014), and providing professional development to teachers (Borko, 2004; Desimone, 2011), current efforts to universally improve reading achievement lack the desired results (Gross et al., 2009; Shippen et al., 2006) and the urgent need to improve reading instruction remains.

One response to this need has been to examine what qualities effective reading teachers possess. A common finding is that effective reading teachers use assessment to

inform instruction and are responsive to student needs (Duffy et al., 2008; Duke et al., 2015, Fairbanks et al., 2010). In other words, effective reading teachers make decisions based on information they have (e.g., assessment, knowledge of student) during planning and during instruction. In-the-moment decision-making reflects the adjustments teachers make during instruction to address the social, cultural, linguistic, or instructional needs of their students (Parsons et al., 2018) and is widely considered a fundamental aspect of effective teaching (Darling-Hammond & Bransford, 2005; Fairbanks et al., 2010). Making effective in-the-moment decisions requires teachers to reflect in the moment, take advantage of teachable moments, and further students' understandings. Although helpful in identifying effective practices, these types of studies do not provide enough information on how to prepare preservice teachers better, especially special education teachers, to be effective.

Special education preservice teacher preparation is a complex task that has historically lacked research (Anders et al., 2000). Special education preservice teachers must understand child development (CEC, 2015), characteristics of diverse learners and how those characteristics influence student learning (Brownell et al., 2008), identify individual learning needs and select appropriate strategies (CEC, 2015), collaborate with general education teachers and related service providers (Shepherd et al., 2016), and navigate the challenges of special education paperwork (Mehrenberg, 2013). Additionally, special education preservice teachers must demonstrate mastery and pedagogical understanding of core content areas such as reading (Mastropieri et al., 2017; Phelps & Schilling, 2004).

Of the studies conducted, the complexity in improving teacher preparation often leads to comparative research studies that seek to find the most effective ways to prepare teachers by comparing various practices or preparation routes. One such study, Nougaret et al. (2005), found that traditionally prepared special education teachers (i.e., completed a state-approved teacher education program with student teaching) taught significantly better on all subscales of measurement (e.g., classroom atmosphere, planning and preparation, and instruction) than alternatively prepared teachers (i.e., completed a bachelor's degree in an area other than education and currently enrolled in a licensure program). However, the 40-teacher sample came from five different states, with each program varying in the number of courses required and types of required courses. Additionally, each participant in the nontraditional programs entered with previously earned bachelor's degrees in different areas, highlighting the different backgrounds and previous experiences. The variety in programs, state licensure expectations, and participant backgrounds in comparative studies make understanding what aspects of teacher preparation are effective more difficult, thus limiting the contributions these studies have on teacher education reform efforts (Kennedy, 1991).

Alternatively, Zeichner and Conklin (2005), representing an American Educational Research Association (AREA) panel on research and teacher education, suggested that research be conducted on teacher preparation that focused on substantive aspects of teacher education programs (i.e., program components, settings, preservice teachers) and the contexts (e.g., geographical) in which the programs exist. Zeichner (2005) further noted that research that (a) connected to theoretical frameworks, (b)

connected teacher characteristics, teacher education, teacher learning, and teacher practice, and (c) examined teacher education students and the instructional context of teacher education would be beneficial for the field. This type of design, Humphrey and Weschler (2007) argue, supports a more nuanced understanding of participants' experience in their preparation program through the interaction of their prior knowledge and beliefs, skills, dispositions, field experiences, and coursework than basic comparison studies (e.g., Nougaret et al., 2005). This understanding can be used to help teacher educators learn more about how special education preservice teachers develop and provide guidance for improving teacher preparation.

Conceptual Framework: Activity Theory

One framework on teacher learning that is particularly suited for research on teacher learning and allows examination of interactions between preservice teachers, their knowledge, and their practice is activity theory (Fairbanks & Merritt, 1998; Grossman et al., 1999). Activity theory focuses on the integration of knowledge and practice and asserts that "a person's framework for thinking is developed through participation and problem solving in specific environments that are themselves shaped by present and historical contexts" (Valencia et al., 2009, p. 306). In other words, according to activity theory, a preservice teacher's understanding is developed through learning environments such as their previous experiences, courses, and field experiences. The preservice teacher's specific beliefs, skills, and understandings shape these environments and their influence. Thus, there is a continual transformational process between preservice teachers' understanding and their environments—as preservice teachers grow in their

understanding, how they interact with their environment changes, which then influences their understanding. For example, as preservice teachers learn to provide reading instruction, they come to understand the process better, which in turn affects the way they teach, which affects their performance and so on. This transformational process is critical to the activity theory idea of learning.

Engestrom (1987) extended the idea of activity theory to include an activity system, which he argued should be the unit of analysis. The activity system, the performance of a conscious action, is represented as a triangle. The activity system involves a subject (i.e., individual engaged in the activity and the central character of the activity), the object of the activity (i.e., physical or mental product sought), the tools used in the activity (e.g., software, books, mental models), and the actions and operations performed that affect the outcome. Operations are automatic, whereas actions require more conscious effort to perform, but actions can become operations with practice and internalization. Additionally, rules, community, and division of labor within each context influence the production of the object (Jonassen & Rohrer-Murphey, 1999).

Utilizing the activity system extension of activity theory as described by Engestrom (1987), a conceptual framework for this study was created (Figure 1). Special education preservice teachers, personified with their prior knowledge, experiences, beliefs, and dispositions engage with contexts of their teacher preparation program (e.g., coursework, internships, planning) that each has specific communities and norms. The contexts of the program and individual preservice teachers are influenced by each other and then impacts learning (Fairbanks & Merritt, 1998). Then, while providing reading

instruction, each special education preservice teacher (i.e., the subject) takes their knowledge and planning and applies it when working on instructional reading goals (i.e., the object) with students to improve the reading ability of students with reading difficulties or disabilities (i.e., the goal). During instruction, the preservice teacher makes an in-the-moment decision (i.e., the activity), utilizing tools for their actions and operations.

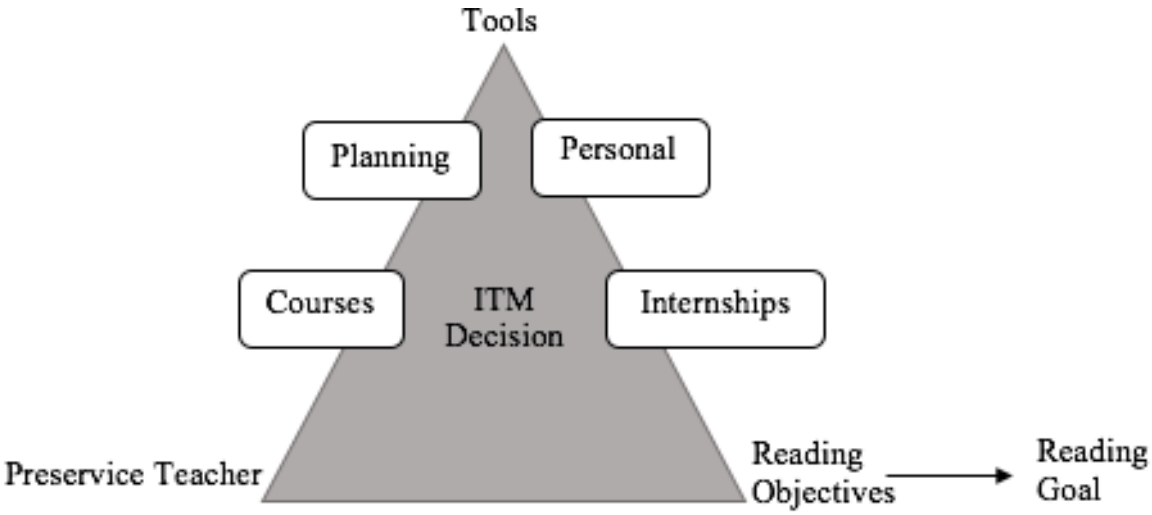

Figure 1. Conceptual Framework of In-the-Moment Decision-Making Activity System.

Utilizing activity theory, it is clear there are many influences on the in-the-moment instructional decisions that preservice teachers make. Indeed, Fairbanks et al. (2010) argued that the "overlapping and competing worlds" (p. 166) of the preparation program, internships, personal characteristics and knowledge, and planning contribute to how specific practices are maintained, resisted, transformed, or performed. However, few studies examine these interactions. By examining the interactions, teacher educators may be better able to understand preservice teacher learning and development. This

understanding is especially needed in the area of reading, which accounts for at least 75% of all referrals to special education (National Center for Education Statistics [NCES], 2011), especially since special education preservice teachers report feeling unprepared to teach reading (Fenty & Uliassi, 2018; McCombes-Tolis & Feinn, 2008; Nougaret et al., 2005).

Thus, this study sought to add to the existing literature by examining the interactions within the use of an element of effective pedagogy, in-the-moment decision-making, by special education preservice teachers during reading instruction. By examining the in-the-moment decision-making, an understanding can be gained of why preservice teachers make the decisions they do, thus allowing teacher educators to understand where additional development may be needed. In the following chapter, these concepts are explored in greater detail. Research on instructional decision-making and its influences are discussed. Next, in Chapter III, the methodology of this study is thoroughly described, including the participants, study design, procedures, measures, and analysis techniques. Chapter IV consists of the findings and the core concept generated from this study. In Chapter V, the findings and core concept is discussed more broadly in terms of the implications of the findings, limitations of the study, and recommendations for future research.

CHAPTER II

LITERATURE REVIEW

Introduction

The goal of special education teacher preparation is for preservice teachers to leave their undergraduate experience being as effective a teacher as possible (Juarez & Purper, 2018). A review of research has found that high-quality and effective special education teachers have deep knowledge of learning and learners, content and curriculum, and teaching (Mastropieri et al., 2017). Specifically, effective special education teachers understand the characteristics of diverse learners and how those characteristics impact learning (Brownell et al., 2008; Fueyo et al., 2008), have mastery of content subject matter and knowledge of a variety of instructional materials to teach it (McCombes-Tolis & Feinn, 2008; Piasta et al., 2009), and general pedagogical skills (Brownell et al., 2009). Additionally, researchers have found that the most effective teachers can flexibly use that understanding and knowledge in a variety of contexts to make instructional decisions that support student learning (Darling-Hammond & Bransford, 2005; Fairbanks et al., 2010).

These skills are especially important when teaching reading, an area where at least 75% of students with disabilities receive services (Moats et al., 2010; NCES, 2011). There is a strong body of research that identifies practices such as differentiating explicit and teacher-directed instruction in multiple areas of reading (i.e., phonemic awareness,

phonics, fluency, vocabulary, comprehension), providing specific feedback, using authentic text, providing numerous opportunities for engagement, teaching a cluster of strategies, and asking open-ended and intellectually challenging questions about texts as effective for teaching reading to students with disabilities (Brownell et al., 2009; Brownell & Leko, 2014; Duke et al., 2015; Purcell-Gates et al., 2016; Rupley et al., 2009). However, there is a dearth of literature on how to teach special education preservice teachers to develop into highly effective reading teachers who use their knowledge flexibly when making instructional decisions (Brownell & Leko, 2014; Haverback & Parault, 2008).

To know how to support preservice teacher development, teacher educators need to understand what instructional decisions special education preservice teachers make during reading instruction and the thought process behind their decisions. Furthermore, teacher educators need to understand the role context (e.g., beliefs, experiences, and understanding of content and pedagogy) plays in the preservice teachers' decisions. Exploring these matters will help preparation programs understand where preservice special education teachers currently are and provide implications for what preparation programs might need to focus on to graduate effective teachers. Thus, the purpose of this literature review is to review the evidence on these issues.

Before the review, this chapter briefly discusses instructional decision-making. Next, the research on influences on instructional decision-making is reviewed. The third section reviews research on the decisions made during planning. These decisions directly affect the decisions made in-the-moment, which are reviewed in the fourth section.

Lastly, the chapter concludes with a summary that links the reviewed literature with the research questions addressed in this study.

Although the goal of the current research study is to examine the literature on the decision-making of special education preservice teachers in the content area of reading, few such studies exist. As a result, this literature review includes studies that focused on in-service and preservice teachers in general education and special education. Whenever possible, studies relevant to special education preservice teachers in reading are highlighted.

Instructional Decision-Making

Instructional decision-making has been studied for decades under a variety of terms. A research synthesis conducted by Parsons et al. (2018) found that "decision-making" was the first used term in the seventies. Since then, other terms such as adaptive teaching, responsive teaching, reflective teaching, and dialogic teaching have also been used. Parsons et al. found that despite the variation in terms, the researchers operationalized the concept similarly with a focus on a teacher response to stimulus and supporting student needs. In this review, the term "decision-making" will be used throughout for continuity and clarity unless another term is necessary for context.

Instructional decision-making takes place within each of Jackson's (1968) three phases of teaching: pre-active (planning), interactive (teaching), and post-active (reflecting). These phase distinctions were first used in decision-making and teacher thought process research based on the hypothesis that the thinking that teachers do during classroom interaction would be different than the thinking they do before and after it.

While accurate, researchers have found that pre-active and post-active thoughts are often cyclical and therefore are often subsumed in research under the category of "teacher planning" as reflections on lessons can cause teachers to adjust or re-plan subsequent lessons (Clark & Peterson, 1986). Thus, many researchers utilize Borko et al.'s (1990) model of decision-making that focuses on teacher decisions made during planning and teaching. It is important to understand the decisions that take place during planning as they shape what is likely to occur during teaching (Clark & Peterson, 1986). Deliberate and thoughtful planning makes teaching and in-the-moment decisions easier (Griffith & Lacina, 2017).

An essential assumption in teacher decision-making research is that there is a relationship between thought and action (Borko et al., 1990). More specifically, the assumption is that teachers' thoughts, judgments, and decisions guide their behavior. Adding to the complexity, teachers' behavior, thoughts, judgments, and decisions are also influenced by constraints and opportunities (e.g., physical settings and curriculum; Clark & Peterson, 1986). Thus, before reviewing the decisions made during planning and teaching, the literature on the influences that impact decision-making is reviewed.

Influences on Instructional Decision-Making

According to activity theory, the instructional decisions made during the three stages of teaching are developed through participation in various environments and settings (Grossman et al., 1999; Valencia et al., 2009). Thus, preservice teachers' backgrounds and characteristics (i.e., prior experiences, prior knowledge and skills, beliefs, dispositions) influence their decisions. Additionally, they are also influenced by

the preparation program in which they are enrolled and the context in which they teach (i.e., internships; O'Brien & Norton, 1991). These influences then impact planning, which includes knowledge of students, knowledge of content, and knowledge of the curriculum. Notably, all influences (i.e., personal, courses, internships, planning) can either be positive (e.g., knowledge of student guides a decision) or negative (e.g., lack of planning leads to poor instruction).

Personal Influences on Preservice Teachers

Several personal factors can influence the instructional decision-making of special education preservice teachers. Parsons et al. (2018) found that prior experiences, prior knowledge, beliefs, skills, and disposition are all factors for influencing in-service teachers. The following sections review pertinent literature on these topics.

Prior Experiences

Preservice teachers bring their prior experiences of their own K-12 schooling with them when they begin teaching. These experiences can have a powerful effect on their learning and knowledge during teacher preparation (Calderhead & Robson, 1991). The experiences are the foundations of the preservice teachers' beliefs about education, as they have had little first-hand experiences as teachers (Rich & Hannafin, 2008). Often, preservice teachers tend to teach the way they were taught unless their preparation program makes direct attempts to address any misconceptions (Fang, 1996; Yoo, 2005). Roe and Vukelich (1998) found through surveying over 300 preservice teachers that school experiences influenced their use or avoidance of specific classroom practices. For example, the preservice teachers were overwhelmingly positive about utilizing read-

alouds and independent reading time but reported wanting to avoid round-robin reading and basal workbooks.

A dependence on previous experiences can be problematic for decision-making as preservice teachers can enter their preparation programs with an inflated sense of expertise. An examination of 22 preservice teachers' personal metaphors about teaching (e.g., bridge builder, teacher as an artisan) and the adjustments made to the metaphors over a year revealed that many preservice teachers began the year with "naïve optimism" regarding their future teaching performance and experiences (Bullough & Stokes, 1994, p. 212). Additionally, preservice teachers often hold more traditional views of teaching where they, the authority, dispense information to passive, receiving students (Harlin, 1999). By relying on their prior experiences in what Lortie (1975) deems "the apprenticeship of observation," preservice teachers are unable to grasp the complexity of teaching and what happens within the unobservable teacher thought process domain (Clark & Peterson, 1986). This was evident when O'Brien and Stewart (1990) found that preservice teachers believed that reading instruction, and teaching in general, is common sense and able to be understood from their own experiences when in fact being a good reader has been proven not to be enough to understand and teach reading content (Phelps, 2009).

Reliance on prior experiences can be more challenging for special education preservice teachers as they were likely general education students during their own education, resulting in limited personal experiences with special education (Pugach, 2005). A study involving 131 preservice teachers on beliefs and perceived skills found

that while the preservice teachers believed all learners had the right to an equitable education, only half reported having a meaningful interaction with a person with a disability (Taylor & Sobel, 2001). When experiences are available, however, they are heavily relied upon. A study of six preservice teachers found that the five participants who had background experiences with students with disabilities used it when making instructional decisions (McElwee et al., 2018). Furthermore, two participants did not mention utilizing coursework at all for their decisions, only their prior experiences. This finding supports previous findings that prior experiences and the beliefs that are formed from those experiences can be more powerful than the knowledge learned in coursework (Calderhead & Robson, 1991; Cook, 2007).

Prior Knowledge and Skills

In addition to the prior experiences, prior knowledge and skills held by preservice teachers can directly impact their instructional decision-making. When Duffy and Atkinson (2001) followed 22 preservice teachers during one year of their program, they found 59% of preservice teachers reported relying exclusively on their personal knowledge as a basis for providing instruction while 36% relied on a combination of personal, practical, and professional knowledge. Unfortunately, many studies (Bos et al., 2001; Duffy & Atkinson, 2001; Leader-Janssen & Rankin-Erickson, 2013; Spear-Swerling & Bruckner, 2003) have found that prior knowledge and skills that preservice teachers have are lacking and incomplete. In Duffy and Atkinson's study, the reliance on prior knowledge led to some misunderstandings regarding reading instruction principles and practices such as a student believing whole language instruction was a part of

phonics and another citing constructivism as a reason to have whole- and small-group instruction.

Meeks et al. (2016) conducted a review of the literature that found when examining preservice teachers' prior knowledge, researchers focus on knowledge of basic language constructs, phonemic awareness, and phonics. None of the studies reviewed measured preservice teachers' comprehension prior knowledge. Bos et al. (2001) assessed 252 preservice teachers on their knowledge of early reading using the 20-question Teacher Knowledge Assessment: Structure of Language (TKA:SL; Mather et al., 2001) assessment. The TKA:SL examined knowledge of the structure of the English language at the word and sound level (e.g., phonemes, vowels, syllables). On average, the preservice teachers demonstrated limited understanding; they were only able to answer correctly half of the questions with some questions (e.g., identify the words that begin with the same sound) answered correctly by almost all, while other questions (e.g., how many speech sounds are in the word box) being answered correctly by only 8% of the participants.

A few years later, Spear-Swerling and Brucker (2003, 2004) found that the 90 preservice teachers they studied demonstrated low levels of content knowledge about word structure through the assessment Test of Word-structure Knowledge (Spear-Swerling & Brucker, 2003), meaning they lacked content knowledge about word structure (e.g., how to segment words by phonemes) that is important in teaching word-level reading skills. The average scores were 9.8 out of 16, 5.6 out of 14, and 6.6 out of 20 for phoneme segmentation, syllable types, and regular and irregular words,

respectively. More recently, Leader-Janssen and Rankin-Erickson (2013) administered the word analysis and comprehension subtests of the Content Knowledge for Teaching Reading (CKT-R) test (Phelps & Schilling, 2004), as well as Moat's (1994) Informal Survey of Linguistic Knowledge (ISLK) to 33 elementary and special education preservice teachers and found a lack of content knowledge. Out of a total of 35 points, the average score on the CKT-R word analysis subtest was 20.02, and the average score on the CKT-R comprehension subtest was 26.29 out of a possible 42 points. Additionally, the students scored an average of 58.66 on the ISLK out of a possible 128.

Often studies focus on preservice teacher knowledge rather than discrete skills (e.g., Leader-Janssen & Rankin-Erickson, 2013). However, one important pedagogical skill that has been studied with preservice teachers is *noticing* (Sherin, 2001). Noticing skills, or skills identifying what is important within a classroom situation or lesson, making connections between the specifics of the observation and broader teaching principles, and using what one knows about the context to reason about the events (van Es & Sherin, 2002) is foundational to making instructional decisions (Kilie, 2018). Three studies of preservice teachers' noticing skills were conducted in mathematics and found that without training, preservice teachers have generally weak noticing skills (Kilie, 2018; Morris, 2006; Star & Strickland, 2008). Specifically, the studies found that preservice teachers focused on basic or surface features (e.g., classroom environment, teacher presentation of material) rather than student thinking or making connections between instruction and student learning.

Beliefs

The belief system held by preservice teachers is the foundation they will use to perceive and process information in the classroom and ultimately make decisions (Barnyak & Paquette, 2010; Gill & Hoffman, 2009; Johnson, 1992b; Pajares, 1992). The belief system, or the internal organization of beliefs (Green, 1971), is formed through personal experiences with school, instruction, and formal knowledge (Grisham, 2000; Risko et al., 2008), which can lead to overly simplistic beliefs or misconceptions until instructional or situated events help preservice teachers understand otherwise (Fazio, 2000, 2003; Stevens, 2002).

Narkon et al. (2009) discovered misconceptions in preservice teachers' beliefs in a case study where they examined the perceptions of factors that aid and impede reading for students who do and do not struggle in reading. Three of the five preservice teachers viewed reading instruction for struggling readers through a deficit model (i.e., focused on students' weaknesses rather than capabilities) and focused on the children's disability rather than their role as a teacher. Similarly, the preservice teachers focused on the abilities of their non-struggling readers, reporting beliefs that the students were capable of being self-directed learners and did not need additional reading instruction.

Brodeur and Ortmann (2018), Leko and Mundy (2011), Nierstheimer et al. (2000), and Scharlach (2008) found similar beliefs about the teacher's role in teaching struggling readers. The preservice teachers in these studies all reported believing that sources outside of school caused children's reading problems (e.g., limited access to books, not being read to at home, motivation, socioeconomic status). Furthermore, three

of the studies (i.e., Leko & Mundy, 2011; Nierstheimer et al., 2000; Scharlach, 2008) also found that the preservice teachers believed addressing the reading difficulties were the responsibility of someone else (e.g., reading specialist, interventionist, parent).

Lastly, a recent study compared preservice teachers' expressed beliefs in reading instruction for students with disabilities to their beliefs in use (Leko, Kulkami, et al., 2015). Leko, Kulkami, et al. found that the preservice teachers' expressed beliefs emphasized the concepts of student affect, the role of families, individualization, and approaches to reading instruction. The most frequently expressed belief was that reading instruction should be fun and motivating, and the least frequently expressed beliefs were specifics regarding how to teach reading. When the preservice teachers responded to vignettes, videotaped lessons, and student cases, Leko, Kulkami, et al. found that the teachers applied more specific beliefs regarding reading instruction such as individualization, explicit instruction, and utilizing the five areas of reading. At the end of the study, the preservice teachers shared that their beliefs, which were influenced by personal experiences, practical experiences, and coursework, did not change throughout the semester. Indeed, five months after the end of the study, Leko, Kulkami, et al. found that any reading-specific changes noticed during the study had dissipated. They concluded the changes in beliefs highlighted how beliefs can be malleable when new knowledge is gained, but without reinforcement, the changes may not be permanent.

Dispositions

According to Schussler et al. (2008), dispositions are a "two-way filter affecting how teacher candidates are inclined to receive information and experiences and then

process this knowledge and make decisions regarding their actions" (p. 106). One critical aspect of disposition is reflection, both in-action (e.g., current actions; Schön, 1983) and on-actions (e.g., past actions; Madsen & Olson, 2005). The reflection process should compare what is occurring in the classroom with the teacher's knowledge base. This reflection enables the teacher to "apply knowledge about the students, content, the curriculum, instruction, assessment, and the school and local communities" (Loucks-Horsely et al., 1998, p. 32). A high level of critical reflection can be difficult for preservice teachers, though, due to their developmental stage and lack of pedagogical and content knowledge. Additionally, fostering reflection is not a high area of concern for many recent preservice teachers (Clark & Byrnes, 2015).

Reddy and Menkveld (2000) found in an examination of 71 preservice teachers' written reflections that most reflections were technical, discussing issues such as teaching methods, class size, and school resources. Only 37% of the preservice teachers' responses could be categorized as practical reflections, with none being considered critical reflections. This is not true of all preservice teachers, though, as Richards and Morse (2002) found. Richard and Morse conducted a case study of Alisha. Alisha, who they described in part as "positive and reflective" (p. 6) based on their findings, worked within a classroom with special education and general education students. Richards and Morse found that despite having no previous teaching experiences, Alisha's reflectiveness regarding her students' individual needs and how that guided her instruction was a key factor in her teaching.

Schussler et al. (2010) also found preservice teachers whose dispositions led them to be more inclined to reflective thinking. There was a range of reflectiveness within their 35 preservice teachers, but those who were most aware of their own dispositions also had the greatest capacity to question their own thinking, balance focus between themselves and their students, and adopt multiple perspectives. This type of reflective disposition, Schussler et al. argued, is what effective teachers need to achieve good teaching—taking knowledge of self, students, and content, and making decisions within the complex environment of a classroom (Parsons et al., 2018).

Preparation Programs

Preparation programs are intended to help preservice teachers build on their prior knowledge, experiences, beliefs, skills, and dispositions to develop theoretical and practical knowledge that can be used to make decisions in their classroom (Leader-Janssen & Rankin-Erickson, 2013; Meuwissen, 2005). When the two main ways preparation programs use to prepare students—coursework and field placements—align, preservice teachers learn teaching strategies more effectively and enhance their commitment to using those strategies when making instructional decisions (Hanline, 2010; Leko & Brownell, 2011).

Coursework

Several studies have demonstrated that coursework positively impacts preservice teachers' knowledge in reading. In their study, Duffy and Atkinson (2001) found that after two reading education courses, their participants improved in their ability to integrate their knowledge to inform their reading instruction, decreased their

misunderstandings regarding reading instruction, and increased their ability to examine reading instruction critically. Spear-Swerling and Brucker (2006) found that preservice teachers who received direct instruction on word structure demonstrated significant gains in their knowledge from pre- to post-test. Brodeur and Ortmann (2018) also saw a growth in preservice teachers during their reading methods course. The preservice teachers shifted in knowledge from naming instructional materials and general instructional practices when asked about teaching reading to struggling readers to naming specific instructional strategies by the end of the semester. Additionally, more preservice teachers noted the importance of understanding the students' skills and abilities to provide individualized instruction.

Studies have also found that coursework positively impacts preservice teachers' understanding and application of assessment, an important aspect of decision-making (Davis et al., 2019). In reading, and especially for struggling readers, assessment is key to providing instruction that meets students' specific needs (Mayor, 2005) and requires explicit instruction and practice to plan for and administer (Ferguson, 2017). Campbell and Evans (2000) found that despite a course in assessment, preservice teachers struggled to plan for assessing their students properly. Furthermore, although the majority (81%) of preservice teachers acknowledged the importance of assessment, 19% of the plans did not include any measure of it, leading the authors to suggest further research to investigate possible reasons for the discrepancy. Positively, though, Duffy and Atkinson (2001) and Nierstheimer et al. (2000) found that through instruction coupled with experience,

preservice teachers who tutored struggling readers increased their understanding of assessment and how to utilize it to support students.

Additionally, Ferguson (2017) found that preservice teachers believed using simulation to practice reading assessments improved their knowledge of and confidence in giving reading assessments. Importantly, the practice also helped them develop and learn strategies for teaching reading based on the information gained from the assessments. Coursework can also have a positive impact on preservice teachers' perceptions. After participating in a reading methods course, the preservice teachers' beliefs in two studies (Leko & Mundy, 2011; Nierstheimer et al., 2000) shifted from believing others (e.g., reading specialists, parents) were responsible for helping struggling readers, to believing that they were responsible for student learning.

Internships

Internships, or field-based placements, play an important role in preservice teacher development (Maheady et al., 2007). Hanline (2010) found that preservice teachers who were able to successfully implement early childhood special education practices they had learned about in coursework in the field reported feeling a sense of confidence as well as a commitment to the effective practices. Leko and Brownell (2011) found the core concept for preservice teachers' decision to use effective reading strategies in special education was the opportunity to practice in classrooms.

The placements are impacted by school context, a factor that can have both a negative and positive impact on instructional decision-making (Parsons et al., 2010). Griffith et al. (2013) found that school context determined the amount of instructional

decision-making flexibility given to teachers, which can impact the flexibility given to preservice teachers. Importantly, Griffith et al. (2013) also found the more teachers could make independent decisions, the more those decisions were made based on student needs. Variables that impact the school context of the preservice teachers' field-based placements, and thus the preservice teachers' decisions, include standards-based curriculum and accountability, adopted and/or mandated programs, and mentor teachers (Parsons et al., 2018).

Standards-based Curriculum and Accountability. Assessments, especially high-stakes ones, can be a constraint to decision-making when teachers feel they must move quickly through content to cover what will be on the test (Coburn et al., 2010). The goal of the national standards-based reform movement and subsequent policies that called for high standards for all students (Swanson & Stevenson, 2002) was to have school systems provide instruction based on agreements of what every student should know and be driven by student data (American Federation of Teachers, 2009). The standards describe what students should know and the quality of work students are expected to do. Policies (e.g., Reading First, Race to the Top) were enacted, encouraging the use of scientifically based materials and professional development to ensure fidelity of implementation as well as linking curriculum to progress monitoring assessments (Coburn et al., 2010). Additionally, states and districts often provide pacing guides and specific programs to teachers to help deliver content in a specific order and timeframe. These guides and programs often limit teachers' and their preservice teachers'

professional decision-making and their ability to adapt instruction to best meet students' needs is removed (Parsons & Harrington, 2009).

Studies that investigated the impact of policy, accountability, and standards-based education on instructional decision-making typically focused on in-service teachers. One study that compared veteran and beginning teachers found that standards-based curriculum and adopted programs were viewed favorably by novice teachers as it provided structure, while veteran teachers lamented their loss of autonomy (Winkler, 2002). A case study of a first-year elementary teacher found that the standards and expectations to stay with the district pacing guide caused the novice teacher to feel uncomfortable in making instructional decisions that adapted to her students' needs (Souto-Manning & Dice, 2007). Additionally, Madsen and Olson (2005) found as part of their examination on practicum experiences that one student-teacher reported teaching a science concept that she knew her students would not understand because it would be tested on a district benchmark, and she did not feel she could question the required content.

Adopted Programs. Before the era of high stakes testing and accountability, curriculum was often transformed in the planning process by teachers and their emphasis and interpretations (Clark & Peterson, 1984). However, the scripted teaching materials, high-stakes assessments, and essentialist curriculums that are common today leave teachers with little room to engage in flexible thinking for decision-making (Hoffman & Duffy, 2016). Like the studies regarding standards-based curriculum and accountability, the studies regarding adopted programs focus on in-service teachers. Leko, Roberts, and

Pek (2015) examined the types of decisions five teachers made when using a district-mandated, computer-based remediation reading program, *System 44*. All five teachers reported feeling conflicted as they attempted to use the mandated program with fidelity while attending to specific student needs. The adaptations made were intended to reconcile perceived mismatches between the program and students' needs, contextual factors (e.g., technological issues), or their own teaching characteristics. Leko, Roberts, and Pek (2015) noted that more skilled teachers made adaptations to better meet their students' needs while the less-skilled teachers' adaptations focused on working around issues, compensating for lack of reading content knowledge, or making implementation easier.

Another study that examined instructional decisions regarding *System 44* (Siuty et al., 2018) compared teachers' who were mandated to use it and teachers who had no mandated curriculum. Siuty et al. found that the teachers who did not have a curriculum made decisions based on their beliefs, assumptions, and prior experiences rather than students' needs. The teachers who used *System 44* followed the program with fidelity and did not make many instructional decisions. Interestingly, the teachers who used *System 44* reported a higher self-efficacy about teaching reading than the comparison teacher group, indicating the structure and use of a scripted curriculum helped teachers feel they were providing better instruction. Bishop et al. (2010) highlighted a similar finding in their study of beginning special education teachers. The teachers reported appreciating a designated curriculum that structured their lessons and did not require them to create instruction by pulling together various materials.

These findings contrast with a Smagorinsky et al. (2002) study that found teachers were unhappy with their newly mandated curriculum because of their loss of autonomy but were reluctant to challenge it. Rather, the teachers acquiesced to the program, waiting for it to morph into "something more palatable" (p. 202). A highlighted teacher within the study, Andrea, reflected on how the curriculum was particularly frustrating as she felt she had to compromise her beliefs about good teaching that she developed in her undergraduate program with what was expected of her at her school. Overall, these studies on standards-based curriculum, accountability, and adopted programs highlight that there may be a disconnect between what preservice teachers are being taught in their coursework and what they see in their field-based placements with teachers who are constrained by programs, timelines, and testing (Athanases et al., 2015).

Mentor Teachers. The relationship between the mentor teacher in the field-based placement and the preservice teacher is critical for building preservice teachers' confidence to make instructional decisions (Cook, 2007; Leko & Brownell, 2011; McElwee et al., 2018; O'Brian et al., 2007). In Cook's (2007) study, the mentor relationship was rated by the preservice teachers as more important than coursework or previous experience, and they identified the mentor teacher as the "primary basis for their decision-making regarding lesson plan content and format, teaching style, behavior management techniques, and handling of a difficult moment" (p. 123). Similarly, the preservice teachers in McElwee's study perceived the relationship with the mentor teacher to be one of the most influential aspects of their practicum experience with the most positive experiences being with those mentor teachers who provided opportunities

to connect coursework to practice. Both Leko and Brownell (2011) and O'Brian et al. (2007) found that positive relationships between preservice teachers and their mentors supported the development of skills and knowledge to make instructional decisions.

However, when the beliefs of the cooperating teacher or school placement do not align with the beliefs or practices shared within the preparation program, preservice teachers can feel torn to appease both forms of authority (Harlin, 1999). In Leko and Brownell's (2011) study, three of the six participants were required to use basal readers in their field-based placements, which resulted in minimal opportunities to provide explicit and systematic reading instruction and little confidence in, or commitment to it for struggling readers, despite the emphasis of it in their coursework. Similarly, Cook (2007) and McElwee et al. (2018) found that preservice teachers followed their mentor's lead in decision-making if there was a conflict between their placement and their coursework.

Planning

Planning plays a fundamental role in bridging curriculum to instruction (Brya & Coulon, 1994) and is impacted by knowledge of students, the nature of the instructional task, context of instruction, and level of experience (Borko et al., 1990; Ruppar et al., 2015). For experienced teachers, Borko et al. (1990) argue, planning is often done to reduce teacher anxiety, plan for instruction, guide the process of instruction, work through potential problems, and possibly to meet requirements from the administration. In-service teachers' planning is often thorough, even if it is done mentally rather than on paper. Teachers report focusing primarily on content and activities when planning before

considering materials, goals, objectives, or evaluation procedures (Borko et al., 1990). Many of the decisions that special education teachers made in Lawson and Jones's (2018) study occurred during planning, such as decisions about curriculum activity/tasks, expectations of students, organization of adults (e.g., teachers, aides), grouping of students, and organization of classroom space and resources.

In contrast to the more thorough in-service teachers, preservice teachers can have difficulty knowing where to begin and understanding the need to think through every step of the lesson (Schmidt, 2005). Brya and Sherman (1993) found that less experienced preservice teachers planned their lesson plans while seeking minimal information (e.g., learner backgrounds, available materials). Similarly, Ho and Liu's (2005) study found that preservice teachers considered a smaller scope of information to integrate into their lessons than expert teachers. The lack of planning by preservice teachers can lead to less effective lessons, such as in Brya and Coulon's (1994) study. When comparing planned lessons and unplanned lessons delivered by preservice teachers, Brya and Coulon found that students spent more time off-task and less time engaged in cognitive activities during the unplanned lessons. Additionally, preservice teachers presented the subject matter clearer and provided more specific feedback in the planned lessons. Thus, planning is important, especially for less experienced preservice teachers, as it can act as a rehearsal for what might happen during the lesson.

One decision that can be challenging during planning is how to integrate different types of knowledge. This skill is particularly challenging for preservice teachers (Penso & Shoham, 2003; Westerman, 1991). Penso and Shoham noted that the 21 beginning

teachers in their study had difficulty integrating their knowledge of strategies with the content. They made decisions during planning with varying frequency: what teaching methods and skills to use (57%), how to structure and organize the lesson (23%), what content to cover (18%), and how to manage the classroom (2%). However, the preservice teachers struggled to think about the larger picture of the lesson and how their decisions would fit together, causing disjointed lessons. Westerman (1991), similarly, found that novice teachers focused on meeting the lesson objectives with little consideration of connecting the lesson to prior knowledge. Additionally, Westerman noted that preservice teachers focused on curriculum guidelines, personal values and beliefs, and lesson objectives over student needs, content knowledge, and pedagogy when making planning decisions.

When planning for reading specifically, decisions made during planning can relate to student grouping, text selection, lesson focus, strategy instruction, book introduction, ways to support comprehension, and possible teaching points (Griffith & Lacina, 2017). Davis et al. (2019) found this to be true in their study of decisions made before, as well as during guided reading. Davis et al. found that their 12 preservice teachers reported making 147 planning decisions over 48 guided reading lessons (i.e., four lessons per teacher). Of those planning decisions, 65% pertained to text selection, 20% to supporting word solving strategies, and 10% to eliciting student involvement. The remaining planning decisions included making teaching points throughout the lesson (4%) and pacing (1%). These findings contrast with Westerman's (1991), as these preservice teachers relied on knowledge of the students to make many of these decisions,

such as considering their students' reading levels, goals, and individual needs and interests when selecting a text.

In summary, there are several influences on instructional decision-making for both in-service and preservice teachers. Preservice teachers have the additional complexity of being amid developing their knowledge and balancing what they learn in their preparation program and what they see in their field-based placements. These influences will first impact the decisions that are made during planning. Then, the decisions made in planning, as well as the other influences, will inform the in-the-moment decisions.

In-the-Moment Decisions

Being able to consider, analyze, and execute an in-the-moment decision during a lesson is considered one of the cornerstones of effective teaching that can enhance student learning (Corno, 2008; Darling-Hammond & Bransford, 2005; Fairbanks et al., 2010). Teachers make decisions in-the-moment to question, assess, encourage, model, manage, explain, give feedback, challenge, or make connections (Parsons et al., 2018). These can be difficult tasks, however, because teachers must use their knowledge of the students, pedagogy, and content to monitor the students' understanding while monitoring their own thinking to determine how to adjust instruction quickly (Parsons et al., 2018; Vaughn, 2015). The cognitive load required by this can make it difficult for non-expert (e.g., preservice and novice) teachers to manage, resulting in minimal effective in-the-moment decisions (Fogarty et al., 1983; Gibson & Ross, 2016, Johnson, 1992a). Thus, many studies examining in-the-moment decisions and rationales focus on expert or high-

quality teachers. Additionally, some studies (e.g., Duffy et al., 2008; Parsons et al., 2010) go a step further and distinguish between reactionary decisions that require minimal consideration and high-quality decisions that require considerable thought, reflection, and a choice between multiple alternatives.

A common theme within the studies on expert teacher in-the-moment decisions is their use and integration of pedagogical knowledge and pedagogical content knowledge with their knowledge of students (Griffith et al., 2015; Gün, 2014). Parsons et al. (2018) found in their synthesis that all reported antecedents of in-the-moment decisions related to thinking about and reflecting on the needs of students. Specifically, they found that teachers' decisions responded to student understanding, motivation or interest, or behavior. In their study, Griffith and colleagues found that in all reading instructional contexts (i.e., whole-group lessons, small-group lessons, individual conferences), the elementary teachers' in-the-moment decisions focused on motivation and engagement of students as they applied pedagogical and pedagogical content knowledge. Regarding their pedagogical content knowledge, the teachers primarily focused on comprehension and problem-solving strategies for various areas (e.g., decoding, fluency, vocabulary). The specific decisions varied by context, demonstrating cognitive flexibility; more student-specific decisions (e.g., teaching specific strategies) and assessments were made in small-group or individual conferences while whole-group lesson decisions typically focused on developing comprehension and making connections to other content areas. Gün's (2014) study of expert language teachers contained similar pedagogical themes. Gün noted that during the lesson, the teachers made decisions to refer to previously taught content,

provide background knowledge, alter lessons based on student responses and emerging needs, and utilize teachable moments. The teachers referred to their knowledge of students and lesson material as the most important information they considered when making their decisions.

The theme of student-focused decisions continued in studies of expert teachers in special education. Bartelheim and Evans (1993) conducted an early study of in-the-moment decisions in special education using Schön's (1983) theory of reflective practice. Bartelheim and Evans found that of the three components of reflective theory, indicators of personal responsibility were the most frequent, thus demonstrating that the in-the-moment decisions were most likely to represent the teachers' assumption of responsibility to ensure their students understood the material. In their study, Stough and Palmer (2003) found that the central phenomenon of in-the-moment decisions was teacher concern about student performance; the participants in the study had an "impressive" knowledge base about their students that they used to guide their decisions (p. 213). The teachers in this study also utilized knowledge about educational practice (e.g., curriculum, strategies, school culture) and closely monitored and assessed their students to make on-going adjustments.

Additionally, expert special education teachers in an inclusive classroom reported balancing knowledge of the whole class with knowledge of specific students when making their decisions (Paterson, 2007). Teachers who worked with students with significant intellectual disabilities named knowledge of students and experience as the largest influence on in-the-moment decisions (Lawson & Jones, 2018). In that study, the

in-the-moment decisions often included types of questions asked, responses made to students' behaviors or vocalizations, positioning of self to students, and the amount of prompting/support given.

When examining the quality of the decisions expert teachers make in literacy, as well as the rationales they gave for making those decisions, Parsons et al. (2010) used the term "adaptations" and defined the in-the-moment decisions as "(a) non-routine, proactive, thoughtful, and invented; (b) included a change in professional knowledge or practice, and (c) was done to meet the needs of students or instructional situations" (p. 222). The 24 elementary teachers, deemed "high-quality" by their administrators, only averaged two adaptations per lesson, which the authors partly attributed to the definition they used for adaptations. The most common adaptations were inventing an example or analogy and changing how they met the objectives. Most of these adaptations were rated as minimally thoughtful; the most consistently thoughtful adaptation was inserting a mini-lesson, which was 8% of the adaptations. Most rationales (65%) that teachers provided were rated as minimally thoughtful, with the most common rationale being the lesson objectives were not met. Consistent with other studies, though, Parsons et al. (2010) found that the additional most common rationales (i.e., to make connections, altering instruction to meet specific needs) relied on knowledge of the needs of the students.

A similar study examined the quality and quantity of in-the-moment decisions of in-service teachers and compared them to the decisions of preservice teachers in literacy (Duffy et al., 2008). The study found that in-service teachers made more decisions and

higher-quality decisions than preservice teachers. The six preservice teachers, selected due to the thoughtful adaptive teaching focus of their program, made 27 adaptations over 36 lessons, with just one rated as considerably thoughtful. The two in-service teachers, meanwhile, made 15 adaptations over 12 lessons with four decisions being considerably thoughtful. The most common decision for all teachers was inventing examples, analogies, or metaphors with the most common rationale being to help students make connections to prior knowledge. The data for decisions and rationales are not disaggregated for pre- and in-service teachers, however, making it difficult to see specific differences between the novice and expert teachers.

Three other studies have examined preservice teachers' in-the-moment decisions compared to expert teachers. In these studies, the major differences between the expert and novice teachers were their knowledge base and their integration of that knowledge into practice. A foundational study in this area by Fogarty et al. (1983) found that elementary expert teachers used a wider variety of instructional cues in-the-moment that utilized prior knowledge of content, student history, and pedagogy. Similarly, Westerman (1991) found that one of the most notable differences between expert and novice teachers was in the integration of knowledge into the lessons. During their in-the-moment instructional decisions, expert teachers situated new knowledge into prior knowledge and made decisions based on what they had previously taught, whereas the novice teachers did not. Westerman also found that expert teachers fluidly adapted their lessons in response to student reactions, while novice teachers taught what they had planned and only reflected on student reactions after the lesson. These findings are consistent with a

study conducted by Ho and Liu (2005), who examined the differences between expert and novice teachers within the three stages of decision-making. During the interactive stage, Ho and Liu found that novice teachers mostly made behavioral or managerial decisions rather than instructional ones, like expert teachers.

While comparison studies of in-service and preservice teachers highlight the differences between expert and novice teachers, such as expert teachers' selective attention to issues of instructional significance and student needs (Borko et al., 1990), they fail to provide an in-depth look at the preservice teachers, their decisions, and their development of expertise (Rich & Hannafin, 2008). Thus, studies that exclusively examine preservice teachers' decision-making are necessary but limited. One study that did examine preservice teachers, Brya and Sherman (1993), compared less and more experienced preservice teachers' interactive decision-making and found that more experienced preservice teachers were more likely to adjust their lessons if it was not going well, demonstrating that preservice teachers' decision-making skills grow throughout their program and experiences. Brya and Sherman also examined why the preservice teachers made their in-the-moment decisions and found the more experienced preservice teachers cited teacher instruction and learner performance most frequently as reasons for their in-the-moment decisions, while less experienced preservice teachers cited learner noncompliance. Thus, the more experienced preservice teachers had begun to think more like an expert teacher by considering the students' instructional needs when making decisions.

Another study examining preservice teachers' in-the-moment decisions demonstrated that preservice teachers often focus their decisions on getting correct responses and maintaining the flow of instructional activity (Johnson, 1992a). Johnson found that observed in-the-moment decisions (e.g., explaining a concept or procedure, checking for understanding, encouraging student initiations) were more likely to come after a teacher elicited response than a student initiation or error. Johnson posited the cognitive load of making an interactive decision after a student initiation or mistake was too much for some preservice teachers. She also noted that the teachers did not frequently extend the instruction to new concepts. When the preservice teachers discussed why they made the decisions, the most frequent considerations were to increase student understanding and motivation and check the appropriateness of the current teaching strategy. The preservice teachers rarely recalled considering student-specific needs, abilities, or lesson content.

Rich and Hannafin (2008) examined what in-the-moment decisions preservice teachers focused on while watching themselves teach and the thinking behind those decisions. The two major themes of the decisions were employing teaching strategies (e.g., asking questions, assessment, modeling, wait time) and managing classroom needs (e.g., gaining attention, ensuring participation, rewarding students). The major themes for the decision rationales were pedagogy, engagement, administration, and assessment. The findings in this study are partly in contrast to Johnson's (1992a) findings in that a frequently reported reason for employing specific teaching strategies was to address individual learning needs. However, the finding of a focus on student engagement,

participation, and classroom management is consistent with previous studies on preservice teachers and their desire to manage the flow of activity.

A more recent study that examined preservice teachers' in-the-moment decisions during reading instruction through written reflection found that the most common self-identified decisions were made to support or assess comprehension, motivation and engagement, and decoding skills (Griffith, 2017). Griffith noted that these decisions reflected the preservice teachers' developing understanding and use of pedagogy and content knowledge. There were some preservice teachers, however, who noted that they did not need to alter their plans at all because they did not have any issues, indicating that some preservice teachers may lack the understanding that effective teaching includes making in-the-moment decisions.

Lastly, Davis et al. (2019) found 12 preservice teachers made 60 in-the-moment decisions over 48 lessons (i.e., four lessons per teacher). The decisions were responses to unexpected student behaviors and responses during one-on-one guided reading lessons and utilized knowledge of the student. Of the in-the-moment decisions, 46% were related to decoding an unknown word, 46% related to assessing or extending comprehension, and 8% related to reinforcing the readers' actions.

Summary

With many students in special education receiving services for reading (NCES, 2011), preservice special education teachers must enter the workforce as effective in teaching reading as possible to meet students' needs. To be effective, the preservice teachers must acquire and use knowledge and understanding of reading content and

general pedagogy when making instructional decisions (Griffith et al., 2015). While some research has been conducted on instructional decisions made by both in-service and preservice teachers as well as potential influences on those decisions, research has yet to focus on special education preservice teachers in the area where they will likely spend most of their day teaching (Fenty & Uliassi, 2018). Teacher educators must understand what decisions preservice teachers are currently making and why to provide instruction that can improve the effectiveness of preservice teachers' decisions.

CHAPTER III

METHODOLOGY

Research Purpose and Questions

The purpose of this study was to gain a better understanding of what decisions special education preservice teachers are currently making in the context of reading instruction and why they are making those decisions to improve special education teacher preparation and the development of responsive and effective novice teachers in reading. This study utilized the following definitions:

- In-the-moment decision: conscious act during instruction that occurs when at least two alternatives (i.e., the choice to change behavior vs. the choice not to change behavior) are available (Sutcliffe & Whitfield, 1979).
- Preservice teacher: an undergraduate student enrolled in a teacher preparation program

Empirical data were collected from special education preservice teachers providing reading instruction to students with reading difficulties or disabilities to develop grounded theory (Charmaz, 2014; Glaser & Strauss, 1967). Using grounded theory helped further understanding of the interaction among special education preservice teachers, their knowledge and understanding of content and pedagogy, and their delivery of reading instruction. The specific questions asked were:

1. What in-the-moment instructional decisions do preservice teachers make during reading instruction?
    a. What influences the in-the-moment instructional decisions?
2. What are the rationales for why preservice teachers make in-the-moment decisions during reading instruction?
    a. What influences the rationales for in-the-moment decisions?

Theoretical Background

The theoretical perspective of this study was constructivism, which embraces relativism and focuses on specific constructed realities (Lincoln et al., 2018). A foundational belief in constructivism is that meaning is not found but constructed by humans (e.g., the researcher and participants) as they engage in the world they are interpreting (Crotty, 1998). Constructivism was appropriate for this study as its inquiry aim—to understand—aligned with the proposed research questions and methodology of constructivist grounded theory. Furthermore, constructivism aligns with the study's conceptual framework, activity theory. A position of activity theory is that learning is situated within various learning contexts (Fairbanks & Merritt, 1998). Thus, each participant's understanding is situated within his or her own context and experiences. By utilizing constructivism as the theoretical perspective, the participants were viewed as the experts, and their experiences and understandings are of interest.

In this study, it was assumed that the special education preservice teachers' knowledge about reading instruction for students with reading difficulties or disabilities is a result of their previous experiences and participation in their teacher preparation

program. Based on the constructivist theoretical perspective, it was also assumed that the knowledge construction of reading instruction for students with reading difficulties or disabilities by the special education preservice teachers varied due to their individual contexts and understanding.

Constructivist Grounded Theory Design

To address the research questions of this study, qualitative methods, specifically constructivist grounded theory methodology (Charmaz, 2014), was used. Grounded theory is set apart from other qualitative designs by the focus on building substantive theory or elaborating on an existing theory (Corbin & Strauss, 2015), which can then benefit practice (Merriam & Tisdell, 2016). The generation of theory for practice is what made grounded theory optimal for this study, as there was limited information on the topic.

Grounded theory is a method to systematically analyze qualitative data and serves as a way to learn about the world we study (Charmaz, 2014). Additional defining components of grounded theory include simultaneous data collection and data analysis, constructing codes and categories from the data rather than preconceived hypotheses, using the constant comparative method, and memo-writing (Glaser & Strauss, 1967). Constructivist grounded theory (Charmaz, 2014) adopts grounded theory's inductive and emergent approach and Strauss's (1987) iterative logic and dual emphasis on action and meaning. However, it departs from Glaser and Strauss's (1967) original conception of grounded theory by highlighting the method's flexibility and acknowledging researcher subjectivity and researcher involvement in the construction and interpretation of the data.

Constructivist grounded theory assumes that social reality is processual and constructed; thus, the resulting theory from the study is an interpretation that depends on the researcher's view (Charmaz, 2014). Thus, my view is discussed next.

Subjectivity Statement

During my first year of teaching, a new student qualified for special education services. Daniel (all names are pseudonyms) was a quiet, bespectacled first-grader who loved science and struggled with reading and writing. I started seeing him one hour a day, every day, and continued to see him daily for the next 5 years—every year that I taught at Riverdale Elementary. I left the classroom to become a full-time Ph.D. student the same year that Daniel moved to middle school. I watched Daniel grow and learn for 5 years; he became more knowledgeable about animals than his peers or even teachers. But I also watched him struggle to read. No matter what we did, the decoding portion of reading never truly clicked for him, much to our mutual frustration. It was disheartening to watch such a smart student struggle so sincerely with decoding and recognizing words. I left the classroom wanting to be a better educator and to help support other educators for the Daniels in the world. I wanted to learn more about reading, teaching reading, and teaching teachers ultimately to support more students.

The desire I began the program with 4 years ago still drives me and shapes my research interests. I chose to study preservice teachers to learn more about, and hopefully eventually improve, teacher preparation. I focused on reading because I am passionate about teaching it and helping students of all ability levels become readers. My training and experience as a teacher and current work as a Ph.D. candidate in special education

impacts the beliefs I have, and, as a result, the way I approach my research (Popkewitz, 1984). First, I believe that teacher education can and does make an effective difference in the preparation of novice teachers, but there is always room for improvement. I believe that teacher education is crucial to helping novice teachers be as proficient as possible when they enter the classroom. To be an effective teacher is not easy; it is multi-dimensional and requires utilizing knowledge of pedagogy, content, and students. I also believe that reading is a complex skill to teach, and for students with reading difficulties or disabilities, reading is best taught directly and explicitly. These strongly held beliefs have shaped my research interests to improve teacher education and help support preservice teachers provide better reading instruction to all students.

In research, I believe that some knowledge is relative and contextual and is dependent upon experiences, and therefore, the researcher and participants should share control between them (Lincoln et al., 2018). In my research, I sought to determine preservice teachers' decisions, their knowledge, and their truth, and their voices should be heard as well as mine. There is a tension, however, because despite my desire to share the knowledge creation, I have already altered the direction of knowledge by my ability to determine the participant selection criteria and methodology, discussed below (Patiño & Goulart, 2016).

Participant Selection

Purposeful sampling (Patton, 2015) is necessary when the researcher wants to discover, understand, or gain insight, and thus must use a sample that can provide the most information-rich cases. Criteria for inclusion were used to achieve purposeful

sampling. The first criterion was that participants must be special education preservice teachers, as the purpose of the study was to understand the decisions special education preservice teachers make. To understand the decision-making process within the context of reading for students with reading difficulties or disabilities, the selected preservice teachers needed to be providing reading instruction to a student with those needs. Lastly, the selected preservice teachers needed to be enrolled in a reading methods course focused on instruction for students with disabilities (i.e., SES 469) to ensure they had knowledge of providing such reading instruction, as knowledge is a key aspect in understanding the decision-making process. The special education preservice teachers who met these criteria were approached during their SES 469 class to request their consent to participate.

The recruited participants were seniors with one of the three following majors: special education, special education and general education, or professions in deafness with a concentration in education. By the time they were enrolled in SES 469, the dual major (i.e., special education and general education) participants had already taken two courses in reading instruction (i.e., TED 320: Language Arts Education, TED 420: Reading Education) and participated in three internship placements. The participants in the special education and professions in deafness programs had not had any reading courses but had participated in two internship placements.

Participant and Tutoring Placement Information

Preservice Teachers

Based on the results of the selection criteria and recruitment process, six Caucasian preservice teachers participated in this study. The following sections provide information on the six participants' demographic information and brief descriptions of their prior experiences. Table 1 provides a summary of the information. Pseudonyms have been used in place of all names.

Table 1

Participant Summary

Participant	Age	Program	Grade of Tutee
Abigail	29	General Education, Special Education	Pre-Kindergarten
Adam	21	Special Education	Third
Cassie	22	General Education, Special Education	Kindergarten
Darlene	38	General Education, Special Education	First
Emily	24	Professions in Deafness	Second
Felicia	21	Professions in Deafness	Second

Five of the participants were women, and one was male; participants' ages ranged from 21 to 38, with an average age of 25.8 years of age. Three of the participants were in the general education and special education dual program, two were in the professions in deafness program with an emphasis on K-12 education, and one was in the special education program. Their assigned tutees ranged from pre-kindergarten to third grade. Due to an unequal number of preservice teachers and elementary students, two participants co-taught their student with a colleague.

Abigail

Abigail was a 29-year-old enrolled in the general education and special education program. During tutoring, Abigail worked with a pre-kindergarten student one-on-one; this was her first time working with someone of such a young age. Additionally, the tutoring experience was also the first time Abigail was responsible for creating and providing reading instruction in a one-on-one setting; her previous experiences involved providing whole group language arts lessons and reading aloud to nieces and nephews. Abigail believed the best way to teach a child to read is by giving them a model and opportunities to practice.

Adam

Adam was a 21-year-old student enrolled in the special education program. During tutoring, Adam worked one-on-one with a third-grade student. Adam had an internship placement that semester in a high school and worked at making his instruction fun and developmentally appropriate for a younger student after working with high school students during the week. Adam believed the best way to teach reading is to allow students to have choices to keep them engaged.

Cassie

Cassie was a 22-year-old enrolled in the general education and special education dual program who worked with a kindergarten student during tutoring. The tutoring experience was the first time that Cassie had taught a student to read without a scripted program. In her previous internship experiences, Cassie used Imagine It! and Reading Mastery. Cassie believed that the best way to teach reading is to start with things the

students enjoy and stay strictly on their ability level to avoid frustration or discouragement. She also believed it was best to teach reading using explicit instruction with phonics and phonemic awareness.

Darlene

Darlene, the third participant enrolled in the general education and special education program, was a 38-year-old working one-on-one with a first grader. Darlene had previous experience with her student due to working in his class the year before for an internship placement. Before working with her first-grade student, Darlene also had experience working with her son and nephews on reading. Darlene believed first and foremost that reading should be fun. Although she knew that explicit guided teaching is important, she was concerned that too high expectations, too much structure, and too many assessments might damage a student's love of reading. Additionally, she believed in creating a culture of reading to keep students interested and providing texts where children can see themselves predominately within the material.

Emily

Emily was a 24-year-old student enrolled in the professions in deafness with a concentration in education program. Emily co-taught a second-grader with a peer and also had previous experiences two tutoring children in reading through her mother's educational business. Her tutoring focused on sight words, decoding, and letter sounds. When it came to providing reading instruction, Emily believed reading and words could be taught without having to decode. Rather, reading should be taught by reading aloud to children and doing shared reading to increase exposure to new vocabulary and concepts.

Felicia

Felicia was a 21-year-old student enrolled in the professions in deafness with a concentration in education program and co-taught a second grader with a peer. When Felicia was in high school, she also had experience tutoring a kindergarten student in reading using picture books to practice decoding. When providing reading instruction, Felicia believed the best way to teach reading is to find material that the student is interested in to keep them engaged with the lesson.

Tutoring Placement

In SES 469, the participants provided one-on-one reading instruction in an after-school tutoring setting to students in a local Title I elementary school. Of the school's approximate 440 students in pre-kindergarten through fifth grade, 68.5% came from low-income families (North Carolina Department of Public Instruction, n.d.). Fifty-nine percent of the students were White, 25% were Hispanic, 8% were Black, and 8% were two or more races. In the most recently reported school report card, the EOG proficiency for both reading and math was 39.1% (North Carolina Department of Public Instruction). The proficiency rate in reading for students in minority subgroups was even lower. For example, students of color, economically disadvantaged students, and students with disabilities had EOG proficiency rates of 28%, 29.5%, and 7.7%, respectively.

Procedure

Data Collection

To generate strong, grounded theory, rich data needed to be collected that was detailed, focused, and full that could help provide insight into the participants' views,

intentions, actions, and contexts (Charmaz, 2014). As grounded theory methodology can use a wide variety of data, including observations and interviews (Merriam & Tisdell, 2016), the methods used were selected after careful consideration of the conceptual framework, theoretical background, and research questions. In considering the previously mentioned factors, observations, interviews, a belief survey, and artifacts were collected and analyzed to answer the study's research questions. Multiple data sources were used to support conceptual depth (Glaser, 1992). All collected data were de-identified and stored securely in Box. See Appendix A for a review of which data sources used to answer each research question.

Observations

The first source of data was video-recorded observations. The purpose of the observations was to record the participants providing reading instruction to a student with reading difficulties or disabilities. The observations allowed me to observe the in-the-moment decisions that the participants made during instruction as well as the tools they used, which is a critical aspect of the activity theory framework. Furthermore, the video-recorded observation allowed the participants to watch their teaching and participate in video-stimulated recall (Lyle, 2003) of their practices and decisions during the follow-up interview session.

As participants provided reading instruction, they video-recorded their hour-long lesson. The participants submitted three video-recorded observations and their corresponding written lesson plans throughout the semester, roughly at the beginning, middle, and end of the semester. Both participants who had a co-teacher took turns

leading lessons, and their submissions were scheduled around the lessons they led. The submissions were uploaded to a secure folder in Box shared by myself and the participant, and the dates of submission were scheduled ahead of time (see Appendix B for data collection timeline). While the entire lesson was submitted, each observation corresponded to a different section of their lesson (i.e., beginning, middle, end) and lasted approximately 20 minutes.

While watching the video-recorded observations, the detailed observation field notes were taken on a laptop computer using an observation protocol (Appendix C). When completing the field notes, the focus was on the perceived in-the-moment decisions that the participants made, the tools they used during the decisions, and the context of their decisions (e.g., what happened previously, student responses). The observation was guided by first reading the submitted lesson plan to review what the preservice teacher planned to do, watching for deviations, challenges, and elaborations.

Interviews

The second source of data was semi-structured interviews that utilized video-stimulated recall within one week of each submitted video-recorded lesson in a mutually agreed-upon location. Video-stimulated recall is an introspective method that is considered suitable for examining processes, including decision-making (Hodgson, 2008). Video-stimulated recall has been frequently used in educational research (Lyle, 2003). Video-stimulated recall consists of a participant viewing a recorded interaction or event to stimulate recall of their cognitive behavior at the time (Hodgson, 2008).

The interviews were important within the activity theory framework as they allowed a better understanding of the participants and the contexts of their learning. The interviews allowed a joint construction of understanding of what in-the-moment decisions are made, the context of the decisions, and the thought process or rationale behind them. The participant and I watched the video-recorded observation, which either stopped to discuss each in-the-moment decision, which aligned with the constructivist nature of the study. To encourage the preservice teachers' participation in the knowledge construction, I deferred to the participants to pause the video. However, if a decision that was perceived during the observation occurred and the participant did not pause the video, I paused the video and began the interview protocol. For each decision, the interview protocol was used. The interview protocol (Appendix D) was developed based on the literature review and a previously completed pilot study. The interviews lasted an average of 25 minutes and were recorded and transcribed.

Beliefs and Demographics Survey

The third source of data was a demographic and belief survey (Appendix E). The survey was administered at the beginning of the study. It was important within the activity theory framework as it supported an understanding of the context in which the participant was situated when delivering reading instruction to students with reading difficulties or disabilities. The survey had demographic questions and open-ended questions about previous experiences in schooling and beliefs about reading instruction.

Artifacts

The last source of data was collected artifacts. As previously mentioned, for each video-recorded observation, the participants submitted their corresponding written lesson plan. The lesson plan served as data triangulation to see what decisions were planned before the lesson while conducting the observation. The lesson plan was also used as a discussion point during the interviews, if appropriate.

Two assignments (i.e., assessment case study, intervention plan) that the participants completed during the semester in their class were also collected. The assignments were a source of data triangulation as they were a reference of the participants' knowledge of their tutees, as well as the instructional goals and objectives the participants were working on with their tutees.

The final collected artifact was the syllabus for the reading course in which the participants were enrolled. The syllabus served as data triangulation and provided the learning objectives, topics covered, and materials (e.g., textbooks, reading assignments) used in the course.

Data Analysis

The data were analyzed using constructivist grounded theory methods, which is a method to analyze qualitative data systematically using explicit procedures (Charmaz, 2000; Strauss & Corbin, 1998). The systematic procedures used in constructivist grounded theory provides enough evidence for researchers to support their claims and rigor for which other qualitative methodologies do not always account (Charmaz, 2006). In constructivism, reality is subjective and is the result of the observer's biases,

experiences, and interests (Charmaz, 2006). Thus, constructivist grounded theory is based upon the participants' experiences that are grounded in the data.

The theory generated from the grounded theory methods is developed after the data have been decontextualized, reassembled, and reorganized, which is achieved through stages of coding and constant comparative methods (Glaser & Strauss, 1967). Constant comparative methods were used to make comparisons within and across participants at each level of analytic work. Specifically, I coded a participant's first and second interviews and then compared the codes from the second interview to the first interview. Then, after coding the third interview, I compared the codes to interviews one and two. Next, I coded a second participant's interviews in the same manner (i.e., first, second, compare, third, compare) and then compared the second participant to the first. This continued until all 18 interviews and six participants had been coded and compared.

The stages in which the data were coded were initial coding, focused coding, and theoretical coding (Charmaz, 2014). These stages reflect an updated take on Strauss and Corbin's (1998) open, axial, and selective coding. Throughout data analysis, I engaged in analytic memo writing for other data sources (e.g., demographic data, artifacts) and to reflect on the process, support code development and refinement, hypothesize about connections between developing categories, and begin theory development (Glaser & Holton, 2004). For example, I wrote analytic memos regarding the data the participants presented about their student in their class assignments (i.e., assessment case study, intervention plan) and used them to support my developing understanding as I coded and recorded their interviews. For instance, a participant noted the assessment results of their

student highlighted the need for instruction on sequencing. I then re-reviewed submitted lesson plans, another artifact, and confirmed the participant had not planned to teach sequencing, which highlighted a disconnect between their knowledge of the student and their planning.

Initial coding of the interview and open-ended survey data was conducted line-by-line using ATLAS.ti 8 for Windows. Initial coding, like open coding, breaks down the data into discrete parts, examining and comparing them for similarities and differences to remain open to all theoretical possibilities (Charmaz, 2014). The codes used remained as close to the data as possible with a focus on process or action to begin analysis from the participants' perspective (Charmaz, 2014). As each additional piece of data was read and initially coded, new codes were added to a master list to help visualize the work in progress (Strauss & Corbin, 1998), and individual pieces of data were revisited to compare, refine, and collapse codes (Glaser, 1965).

In the second stage, focused coding took place. Focused coding is using the most significant or frequent earlier codes to synthesize and analyze large amounts of data to develop salient categories (Charmaz, 2014). Focused coding is a streamlined adaptation of grounded theory's axial coding as it does not focus on properties and dimensions of the categories or use an explicit frame for analysis (Saldaña, 2015). Rather, focused coding encourages the formation of conceptual categories and potential subcategories through emergent strategies and constant comparisons to verify and elaborate emerging hypotheses (Charmaz, 2014). Thus, during the second stage, the initial codes were assessed by comparing codes to data, and codes to codes to refine codes, create

categories, and advance the theoretical direction of the study. See Appendix F for a complete codebook.

In the last stage, theoretical coding took place in which a central or core category was found that could explain what the research is about (Strauss & Corbin, 1998). In other words, theoretical coding synthesizes the categories to substantively create or elaborate on an existing theory (Saldaña, 2015). During this stage, the focused codes and analytic memos were analyzed to find the core category. To increase the credibility of the theory, I looked for negative cases or outliers and attempted to explain these cases as variations.

Trustworthiness and Validity

In constructivist qualitative research, enhancing trustworthiness increases validity (Lincoln et al., 2018). Trustworthiness was established through rigor, sincerity, and credibility (Tracy, 2010). The rigor of the study was supported through the systematic procedures of constructivist grounded theory (El Hussein et al., 2014). Sincerity was achieved through self-reflexivity and an audit trail (Tracy, 2010). A reflective journal was kept allowing reflection, the examination of personal impact on the research and personal opinions, and opportunities to write analytic memos (see Appendix G for excerpts). The journal also served as an audit trail of research decisions and activities (Creswell & Miller, 2000).

Validity was further achieved through data triangulation, peer debriefing, utilizing external auditors, and thick description (Tracy, 2010). Data triangulation was achieved by collecting multiple pieces of evidence (i.e., observations, interviews, surveys, concept

maps, artifact data). During the data collection and analysis, I used peer debriefing and met regularly with my committee chair. After an in-depth examination of the data, a thick description of the participants and contexts was provided. The initial findings were also verified using external auditors; they independently coded a random selection of interviews during the initial and focused coding. The first three randomly selected interviews during initial coding were used to help refine the codebook. Initial inter-coder agreement was 50% over the three interviews (i.e., 83 agreements out of 166 codes). After meeting and discussing the inconsistencies, 100% agreement was reached, and the codebook was refined accordingly. Three more interviews were selected to be double-coded; inter-coder agreement for the second three were 80%, 85%, and 82%, for an average agreement of 82.3% (i.e., 130 agreements out of 158 codes). After meeting again to discuss the coding, 100% agreement was reached. Three final interviews were selected for inter-coding agreement of the focused codes, which resulted in agreements of 87%, 92%, and 95%, for an average agreement of 91.3% (i.e., 134 agreements out of 147 codes).

CHAPTER IV

FINDINGS

The purpose of this chapter is to (a) describe the findings of the in-the-moment decision activity systems of six special education preservice teachers providing one-on-one reading instruction to students with reading difficulties or disabilities, and (b) present a grounded theory on the in-the-moment decisions, rationales for making those decisions, and the influences of those reasons and decisions made by special education preservice teachers during reading. First, an overview and description of the in-the-moment decisions and rationales provided for those decisions are presented. Additionally, the tools utilized when making the decisions and the component of reading addressed by the decisions of all participants are described. Then, the activity systems are discussed by examining what influenced the decisions and rationales. Finally, the core concept developed from the findings is presented.

Activity Systems

The conceptual framework for this study, based on Engestrom's (1987) activity systems, suggests that the in-the-moment decisions made by preservice teachers are influenced by knowledge gained from personal experiences (e.g., prior knowledge, experiences, beliefs, dispositions), contexts within the preparation program (i.e., courses, internships) and planning (e.g., knowledge of student, knowledge of reading content, knowledge of curriculum). It is by examining how these influence decisions and

rationales that teacher educators may be able to understand preservice teacher development better.

In the context of reading, the in-the-moment decisions were made when addressing comprehension, decoding, letter identification, phonemic awareness, phonics, print concepts, vocabulary, and writing. Table 2 provides a summary of the in-the-moment decisions and rationales. Specifically, the first two columns of Table 2 list the 12 types of in-the-moment decisions and the frequency with which that decision was made overall. The third and fourth columns depict the rationales that were cited for each decision and the number of times the rationale was cited. The remaining columns highlight the tools used when implementing each decision, the reading component addressed in the decision, and the participants who made each decision at least once.

As noted in Table 2, participants made 12 kinds of in-the-moment decisions during reading instruction. First, participants acknowledged student input by responding to and furthering student-initiated comments. Participants also corrected student behavior through physical or visual prompts. Prompting students for a response, either through questioning, comments, or physical cues, was another decision. Additionally, participants created a verbal example or drew a visual cue to help with understanding and provided explicit instruction (e.g., modeled thinking, used direct instruction). Participants also made decisions to modify their lessons in some way.

Table 2

Summary of In-the-Moment Decisions and Cited Rationales

Decision	Frequency	Cited Rationale	Frequency	Tools Used	Reading Focus	Participants
Acknowledging student input	9	Encouraging engagement Fostering connections Noticing student error	7 1 1	Language Lesson materials	Letter identification Reading comprehension Vocabulary	Abigail Cassie Darlene Felicia
Correcting student behavior	2	Encouraging engagement Noticing student frustration	2 1	Language Physical movement	-	Abigail Adam
Creating an example or visual cue	16	Noticing student error Lack of student knowledge Noticing student frustration Encouraging engagement	15 3 2 1	Language Lesson materials	Letter identification Phonemic awareness Phonics Vocabulary	Abigail Adam Cassie Darlene Emily Felicia
Modifying expectation in activity	6	Encouraging engagement Noticing student error Assessing student knowledge Fostering connections	3 3 1 1	Language Lesson materials	Letter identification Phonemic awareness Reading comprehension Vocabulary	Adam Cassie Darlene Emily
Modifying implementation of activity	5	Encouraging engagement Assessing student knowledge Noticing student error Noticing student frustration	2 1 1 1	Lesson materials	Phonemic awareness Phonics	Cassie Darlene
Modifying structure of lesson	17	Encouraging engagement Noticing student error Managing instructional time Assessing student knowledge Noticing student frustration Lack of student knowledge Lack of content knowledge	6 5 4 2 1 1 1	Language Lesson materials Physical movement	Decoding Letter Identification Phonemic Awareness Phonics Print concepts	Abigail Cassie Darlene Emily Felicia

Table 2

Cont.

Decision	Frequency	Cited Rationale	Frequency	Tools Used	Reading Focus	Participants
No Action	4	-	-	-	Letter identification Phonics Phonemic awareness	Abigail Cassie Emily
Prompting student for response	34	Noticing student error Fostering connections Assessing student knowledge Encouraging engagement Noticing student frustration Lack of content knowledge Lack of pedagogical knowledge Lack of student knowledge Managing instructional time	17 8 6 4 3 2 1 1 1	Language Lesson materials Physical movement	Decoding Letter identification Phonemic awareness Phonics Vocabulary Writing	Abigail Adam Cassie Darlene Emily Felicia
Providing explicit instruction	31	Noticing student error Lack of student knowledge Fostering connections Assessing student knowledge Encouraging engagement Noticing student frustration Lack of content knowledge Lack of pedagogical knowledge	21 8 7 2 2 1 1 1	Language Lesson materials Physical movement	Letter identification Phonemic awareness Phonics Print concepts Reading comprehension Vocabulary Writing	Abigail Adam Cassie Darlene Felicia
Questioning for engagement	10	Encouraging engagement Fostering connections Managing instructional time	8 3 1	Language Lesson materials	Phonemic awareness Phonics Print concepts Reading comprehension	Abigail Adam Cassie Darlene

Table 2

Cont.

Decision	Frequency	Cited Rationale	Frequency	Tools Used	Reading Focus	Participants
Questioning to check for understanding	39	Assessing student knowledge Noticing student error Lack of content knowledge Managing instructional time Lack of student knowledge	34 6 4 3 2	Language Lesson materials Physical movement	Letter identification Phonemic awareness Print concepts Reading comprehension Vocabulary Word identification Writing	Abigail Adam Cassie Darlene Emily Felicia
Questioning to guide connections	5	Fostering connections Encouraging engagement	5 1	Language Lesson materials	Phonemic awareness Reading comprehension Vocabulary	Abigail Darlene Emily Felicia

Note. More than one rationale could be cited for each decision, resulting in higher rationale frequencies total than decision frequencies

Specifically, participants modified (a) their expectation of what the student was to do during an activity, (b) how the activity would be implemented, (c) and the structure of the lesson (e.g., reordering activities, skipping activities). Three of the decisions involved questioning. Participants asked questions to engage their student (e.g., "What special did you have today?"), check for understanding (e.g., "What does 'm' say?"), and guide connections between the activity, text, or background knowledge (e.g., "Remember what you wrote for /s/ over here?"). Lastly, participants occasionally decided not to act after assessing the situation.

Participants provided nine rationales for their decisions. First, participants acted to assess their student's understanding of the text or activity and encourage their engagement in the lesson. Participants also cited fostering connections, or helping their students create conceptual conceptions between the text, activity, or lessons as a rationale. Three rationales involved a lack of knowledge, including (a) pedagogical knowledge of strategies, tools, or techniques, (b) reading content knowledge, and (c) knowledge of student's present level of performance. Participants also cited the need to manage instructional time as a rationale as well as noticing the student becoming frustrated. Lastly, participants cited noticing the student's error or confusion as a reason they made an instructional decision. The four types of tools utilized during the in-the-moment decisions were language (i.e., speech only), lesson materials, and physical movement. Refer to Table 3 for a summary of all these descriptions.

As previously mentioned, it is by examining the activity system of the in-the-moment decisions and rationales that teacher educators may be better able to understand

preservice teacher development. Therefore, the following sections will review the influences and the effect they had on the in-the-moment decisions and rationales on each participant. In Table 4, the influences on individual preservice teachers' in-the-moment decisions and rationales are summarized.

Table 3

Descriptions of Decisions, Rationales, Tools, and Reading Components

Content	Description
In-the-moment decisions	
Acknowledging student input	Responds to and furthers student-initiated comment (e.g., "What about this illustration make you think he is a villain?")
Correcting student behavior	Physically or verbally prompts students to correct behavior (e.g., removes item student is playing with)
Creating example or visual cue	Creates a verbal example or draws a visual cue to assist with student understanding
Modifying expectation in activity	Changes expectation of what student is to do during activity (e.g., student answers questions verbally rather than in writing)
Modifying implementation of activity	Changes how the activity will be implemented (e.g., uses white board and markers rather than paper and pencil)
Modifying structure of lesson	Changes the structure of the lesson (i.e., inserting new activity, reordering activities, skipping activities, stopping activity early)
No action	Takes no action after assessing situation
Prompting for response Providing explicit instruction	Prompts response using questions, comments, or physical cues Emphasizes specific content, models thinking or activity, provides suggestions or direct instruction

Table 3

Cont.

Content	Description
In-the-moment decisions (cont.)	
Questioning to check for understanding	Asks questions that assess student's knowledge
Questioning for engagement	Asks questions to engage the student (e.g., asks about student's day)
Questioning to guide connections	Asks questions to facilitate student connections between the activity, text, or background knowledge (e.g., "Remember when we read the book about Gandhi? What type of book was that?")
Rationales cited for decisions	
Assessing student knowledge	To assess if the student is understanding the activity or material
Encouraging engagement	To positively encouraging student's confidence, engagement, or behavior
Fostering connections	To help student create conceptual connections between the text or activity and previous experiences or lessons
Lack of content knowledge	Teacher lacked sufficient knowledge about developmentally appropriate reading content
Lack of pedagogical knowledge	Teacher lacked sufficient knowledge of strategies, tools, or techniques for teaching reading
Lack of student knowledge	Teacher lacked enough knowledge of student's present level of performance
Managing instructional time	Too much, or not enough, time left in lesson for planned activities
Noticing student frustration	To alleviate student frustration
Noticing student error	To respond to student error or confusion

Table 3

Cont.

Content	Description
Tools used in implementing decisions	
Language	Speech only (e.g., asked questions, described example)
Lesson materials	Teacher provided lesson materials (e.g., whiteboards, markers, playdoh, paper/pencil)
Physical movement	Physical cues and gestures
Reading Components	
Comprehension	Processing and understanding text
Decoding	Translating print into speech by matching letter or letters to their sounds
Letter identification	Correctly identifying upper- or lower-case letters in print
Phonemic awareness	Hearing and manipulating individual distinct units of sound
Phonics	Relationship between letter or letter combinations in writing to individual sounds in spoken language
Print concepts	Understanding print is organized in a particular way (e.g., print goes left to right, words consist of letters, spaces appear between words)
Vocabulary	Understanding meanings or definitions of words
Writing	Basic writing skills (e.g., letter formation, spelling, punctuation, sentence structure)

Table 4

Influences on Individual Preservice Teachers' In-the-Moment Decisions and Rationales

	Decisions and Rationales					
Influence	Abigail	Adam	Cassie	Darlene	Emily	Felicia
Personal	Modifying structure of lesson Providing explicit instruction	Correcting student behavior Creating example or visual cue Modifying expectations in activity Fostering connections*	-	Encouraging engagement* Noticing student frustration*	Modifying structure of lesson Modifying expectation in activity Encouraging engagement* Noticing student frustration*	Modifying structure of lesson Encouraging engagement*
Courses	Acknowledging student input Correcting student behavior Creating example or visual cue Modifying structure of lesson Prompting for response	Prompting for response Providing explicit instruction Questioning for engagement Questioning to check for understanding	Acknowledging student input Creating example or visual cue Modifying expectations in activity Questioning for engagement	Acknowledging student input Modifying expectations in activity Modifying structure of lesson Prompting for response	Questioning to check understanding Questioning to guide connections Assessing student knowledge* Encouraging engagement*	Acknowledging student input Prompting for response Providing explicit instruction Questioning to check understanding

Table 4

Cont.

	Decisions and Rationales					
Influence	Abigail	Adam	Cassie	Darlene	Emily	Felicia
Courses (cont.)	Providing explicit instruction Questioning for engagement Questioning to check understanding Assessing student knowledge* Encouraging engagement*	Assessing student knowledge* Encouraging engagement* Fostering connections*	Questioning to check understanding Assessing student knowledge* Encouraging engagement*	Providing explicit instruction Questioning for engagement Questioning to check understanding Assessing student knowledge* Encouraging engagement*		Questioning to guide connections Assessing student knowledge* Fostering connections*
Internships	Prompting for response Providing explicit instruction Encouraging engagement*	-	Acknowledging student input Creating example or visual cue Prompting for response Providing explicit instruction	Creating example or visual cue Providing explicit instruction	Creating example or visual cue Prompting for response Questioning to check understanding	Acknowledging student input Creating example or visual cue Prompting for response Providing explicit instruction

Table 4

Cont.

	Decisions and Rationales					
Influence	Abigail	Adam	Cassie	Darlene	Emily	Felicia
Internships (cont.)			Encouraging engagement*		Questioning to guide connections Fostering connections*	Encouraging engagement* Fostering connections*
Planning	Modifying structure of lesson Fostering connections* Lack of content knowledge* Lack of pedagogical knowledge* Lack of student knowledge* Managing instructional time* Noticing student error*	Modify expectations of activity Prompting for response Providing explicit instruction Encouraging engagement* Lack of content knowledge* Managing instructional time* Noticing student error*	Modifying implementation of activity Modifying structure of lesson Prompting for response Encouraging engagement* Fostering connections* Lack of pedagogical knowledge* Lack of student knowledge*	Acknowledging student input Creating example or visual cue Modifying implementation of activity Questioning to guide connections Encouraging engagement* Fostering connections* Lack of student knowledge*	Modifying structure of lesson Lack of student knowledge* Managing instructional time* Noticing student error*	Prompting for response Lack of student knowledge* Noticing student error*

Table 4

Cont.

	Decisions and Rationales					
Influence	Abigail	Adam	Cassie	Darlene	Emily	Felicia
Planning (cont.)			Managing instructional time* Noticing student error* Noticing student frustration*	Noticing student error* Noticing student frustration*		

Note. * Denotes rationales

Personal

Personal influences include such things as prior experiences, dispositions, beliefs, and prior knowledge (Parsons et al., 2018). Analysis suggested that while personal influences did influence decisions and concomitant rationales, they had less influence than courses, internships, and planning. Decisions that were influenced by participants' personal domains included (a) correcting student behavior, (b) creating example or visual cue, (c) modifying expectations in activity, (d) modifying structure of lesson, and (e) providing explicit instruction. Influenced rationales included (a) fostering student connections, (b) noticing student frustration, and (c) encouraging student engagement.

Adam

Adam cited personal influences more than any other influence and more than any other participant. Adam frequently drew upon his personal experiences when he chose to use examples or visual cues, which was the most frequently made decision within this knowledge source. Adam explained that for him, "Examples and visuals do a better job explaining for me. Just because when you get to see a picture, or someone do it, I think it sticks a little better" (10.10.19). Additionally, Adam also modified a lesson activity to have his student write out vocabulary definitions because, "They say if you just go over something or type it up, you don't remember it as well as if you write it down" (10.10.19). When asked about these decisions, Adam discussed the importance of helping his student foster connections between his background knowledge and what they were learning, "That way he has a point of reference of what it is" (10.24.19) and "I'd give him a way to relate it back to something he knew about" (10.10.19).

Adam also cited personal influences when correcting student behavior and modifying expectations in an activity. According to his survey responses, Adam believed that a key to teaching reading is ensuring the student is engaged. Specifically, Adam noted, “Once I got to middle school and high school, I didn’t enjoy reading as much because I never got to choose what I was reading” (11.17.19). Therefore, when his student appeared uninterested in an activity, Adam decided not to require it, saying, for example, “He didn’t want to write that [word] down . . . so, I just gave him an example” (10.10.19). Adam also switched chapter books from week to week when the student did not want to read the current one.

> We had another R. L Stine book from the week before, but he said he didn’t want to read it… Next week we might read a different book if he doesn’t want to read that one; we can read something else. I figure if he picks the book, there’s a chance he’ll be better engaged. (10.24.19)

This resulted in his student never completing more than a few chapters from each book. Additionally, Adam avoided overtly correcting his student’s behavior and incorrect answers to avoid making the student “put off from what we are doing or make him not want to come back” to tutoring (10.24.19). Instead, Adam tried to remove items that caused distraction or asked questions “rather than just telling him its wrong” to “create a positive relationship in the space that we have” (11.14.19).

Abigail

Abigail cited personal influences for three decisions but did not cite it at all for her rationales. When Abigail was providing explicit instruction, she reported being influenced by watching her sister work her four nieces and nephews. Abigail reflected

that her in-the-moment explicit instruction of activities for her student partially came from watching her sister model activities and skills for her four children, stating, “She’ll do stuff at home that she wants them to do and she’ll show them, ‘This is how we do it’” (10.9.19). Another previous experience, this one with a peer, also influenced Abigail’s decisions. At the end of her first lesson, Abigail decided to skip a sight word activity and instead focus on letter sounds and letter identification. Abigail cited a discussion with a peer about Elkonin boxes when reflecting on her in-the-moment decision.

> I didn’t think he was, with the letters, strong enough to move into sight words . . . one of my peers had a game where you had boxes for the sounds and then you had to identify the sounds . . . I thought that was something I could do. (10.9.19)

Abigail frequently noted her inexperience with a student so young, making comments such as “I don’t know where to go with him” (10.9.19) and “This is such a struggle. I’m used to having students who have some type of background” (10.23.19). During the interviews, Abigail reflected on her lack of experience and how she struggled to know what to do with her student. Even after working with her student all semester, Abigail commented, “It’s been challenging to do [tutoring] with him . . . I have to remember that he’s not where [previous students] are and that’s been the hardest part” (11.13.19).

Cassie

Cassie similarly noted that teaching someone as young as kindergarten was a “really different” experience for her. “Little ones aren’t my forte. I’m more comfortable with high school” (10.7.19). Furthermore, in her end of semester reflection, Cassie noted,

"I had never worked with students that young before and didn't know how to approach teaching him" (12.7.19). This lack of experience with young children may be a reason why Cassie never cited personal experiences for any of her decisions and rationales.

Emily

Emily, on the other hand, reported in her survey having experience providing reading tutoring to younger students through previous employment (10.10.19). Emily also reported previous experiences with d/Deaf students that were influential in her decision-making. For example, during her first lesson, Emily modified the structure of her lesson by adding an activity of saying phonemes while simultaneously providing the American Sign Language (ASL) sign for the corresponding letter, stating, "One thing I really wanted to do with her is visual phonics, which is something we use a lot for d/Deaf kids to help them decode and see what sounds might feel like. And just how you produce it." However, Emily soon decided to end the activity early, stating, "I thought it might be good for her, but it ended up not working at all" (10.1.19). It was also Emily's previous experiences with other students and her desire to build their confidence that influenced her second decision to modify the expectations of an activity in-the-moment. Emily decided to provide her student with three reading comprehension questions to write answers to rather than have her student come up with three sentences independently. "I had wanted her to independently write three sentences, but she was floundering a little bit like, 'What do I do?' So I asked her the questions instead" (10.22.19). Similarly, Emily cited this personal influence when discussing the rationales of noticing student frustration and encouraging student engagement. When discussing her student's struggles, Emily

noted that she did not want to "break her spirit" (10.1.19). Emily's sensitivity to her student's confidence was the reason for her three decisions to provide examples or visual cues.

Felicia

Felicia was the last participant to cite personal influences for a decision. It only influenced one decision to modify the structure of a lesson and one rationale for encouraging student engagement. Felicia wrote on her survey that she "enjoyed working with teachers that provided hands-on activities and were patient and understanding." This preference appears to have informed Felicia's beliefs on teaching as she believed the best way to teach reading was to "find material that the student is interested in" to keep students engaged (10.16.19). The importance Felicia placed on engagement influenced her decision to modify the structure of the lesson and end an activity early. When discussing the decision, she noted, "He was just dragging on. He was reading slow, didn't seem to be enjoying it" (10.15.19). Furthermore, Felicia's rationale for ending the lesson—encouraging student engagement—was based on her previous reported experiences. "I have a lot of experiences with kids. I've been a babysitter, I've been a camp counselor, an intern in classrooms. If I'm sitting next to someone and they seem bored, I'll notice it" (10.15.19).

Darlene

Darlene also cited her previous experiences three times when discussing the rationale encouraging student engagement. Specifically, Darlene described working with her own 11-year-old son:

> He has ADHD and it's pretty profound. If something fascinates him, he's got that hyper focus. But if it doesn't . . . he's all over the place. Anything and everything. I don't know if that's what [the student] has, but his actions remind me of [my son]. I'm like, "I know what works in that situation, let's try it here." (10.24.19)

Notably, while her personal experiences influenced her rationale to encourage student engagement, analysis suggests it did not influence any of her in-the-moment decisions.

Courses

Courses were cited as an influence at least once for 11 out of the 12 decisions; the decision not to act was the only one not influenced by this knowledge source. Rationales, on the other hand, were not as widely influenced and only (a) assessing student knowledge, (b) encouraging student engagement, and (c) fostering student connections were influenced by courses. Notably, assessing student knowledge accounted for over half of the rationales that were influenced by courses.

Darlene

Darlene had previously taken two reading courses and a course on assessment as part of her program. Her courses were strongly influential in her in-the-moment decisions, influencing over two-thirds of her decisions. Courses also influenced almost one-third of her rationales between two different types of rationales. Darlene's most frequent in-the-moment decision was prompting for a response, such as asking, "We have a 'B' and a 'D' here. What is different about them?" (10.8.19) or pausing a read-aloud to have her student fill in the next word (10.31.19). Darlene cited learning about the importance of helping students foster connections in her courses as influential for her

prompting. “Professors have worked hard on making connections . . . Helping students transition skills rather than just applying them within a certain lesson” (10.24.19).

Darlene asked two questions to assess student knowledge, notably less than the rest of the participants. Assessing her student in-the-moment was talked about “a lot of times, in various classes” and influenced her to assess her student’s knowledge of the letter “w” (10.8.19). Darlene also asked, “What do you see on the cover?” to assess what her student knew about a book they were about to read (10.31.19). Darlene additionally once utilized a question to engage her student, asking, “Otters like what?” and immediately answering, “Otters like water” (10.24.19).

Darlene’s assessment class influenced her in other ways, such as when she made the decision to modify her lesson. After her student identified five uppercase letters, Darlene decided in-the-moment only to have him make one letter out of play-doh and to let him choose which one to make. “I wanted to see which one he would pick to make, to see if there was one he was more comfortable with” (10.8.19).

Courses also influenced Darlene’s decision to provide explicit instruction. For example, when her student was having difficulty sounding out the word “beaver,” Darlene said, “I’m going to make out the ‘a’ in this ‘ea’ because they are working together and the ‘ea’ will say /ee/” (10.24.19). Darlene credited “all the reading classes” for being “very clear” on teaching vowel groupings. Lastly, courses influenced Darlene’s decisions to modify her lessons when necessary.

Abigail

Abigail's courses, including two previous reading courses, were heavily influential in her decisions. Courses influenced over two-thirds of her decisions between seven different types of decisions. Courses were most influential regarding Abigail's decision to question. Abigail's decisions to question were due to assessing student knowledge or encouraging engagement, both of which were also influenced by courses. Abigail frequently gathered information about her student's present level of performance and asked questions like, "Do you know what fierce means?" (10.23.19). Abigail cited a previous assessment course when asking this question and noted she asked a lot of questions, because "I still don't know what he does and doesn't know." Additionally, Abigail asked questions to assess her student's comprehension during activities such as "What letter does jetpack start with?" (10.9.19) and "Where did the skunk sit?" (11.13.19) during read-alouds. For these more content-related questions, Abigail relied on knowledge from her previous reading courses. Lastly, Abigail also asked questions to engage her student because of class discussions on engagement. For example, when reading the book, *The Big Stink*, Abigail asked, "What do you smell?" (11.13.19). Abigail also discussed engagement when acknowledging her student's input because she had learned from courses that "What the student has to say is important if it was important enough for them to say it" (11.13.19).

When she noticed her student struggling, Abigail would sometimes decide to prompt or create an example, both of which she attributed to her courses. "He was struggling, and I felt he needed a little more support . . . I have learned about that in my

classes; giving them more support when it is needed" (11.13.19). Therefore, Abigail provided examples of words that start with j, "What about jet and jacket?" (10.9.19) and prompted using lesson materials to help her student identify the letter "I" (11.13.19).

Cassie

Cassie's prior courses influenced approximately one-third of her decisions and specifically influenced five different types of decisions. Analysis suggests courses had less of an influence on Cassie's rationales, only influencing two rationales (i.e., assessing student knowledge, encouraging student engagement). Courses had the greatest influence on Cassie's decision to question her student to check for understanding to assess student knowledge. Cassie asked questions such as, "What is the final sound in tent?" (10.7.19) and "Who is the robber in this picture? How do you know he is the robber?" (10.22.19) because "professors have talked about making sure you're assessing [students] so you know what to do next" (10.22.19). Cassie also asked questions to encourage engagement. For example, while her student was marking out incorrect answers, Cassie asked him about the letter sounds of the incorrect answers to "keep him engaged so it's not redundant" (10.7.19). Engagement was a common theme throughout Cassie's interviews. She discussed engagement when acknowledging her student's initiations (10.22.19) and when modifying the implementation of their lesson to provide her student with options. When discussing her decision to let her student choose between using paper and pencil or whiteboard and markers, Cassie said, "I thought he'd be more engaged . . . I thought that might lighten it up a little bit. There is a little more choice in the matter" (10.7.19). Interestingly, Cassie noted that in courses they had only talked about "whole class

engagement, not really specific one-on-one student engagement or small group" (10.22.19). Lastly, courses influenced Cassie's decision to create examples. When her student was having difficulty coming up with words with particular ending sounds, Cassie said, "If I say, 'The book is over there by the shelf,' what word ends in 'y'?" (10.22.19) due to learning about examples in a previous reading course.

Emily

Emily, who had not had any previous reading courses in her professions of deafness program, was strongly influenced by their programs' emphasis on language and expansion. As such, half of Emily's total decisions were to question her student to either (a) guide connections or (b) check understanding, and were guided by the rationales of the course-influenced (a) assessing student knowledge and (b) fostering student connections. Emily asked questions to assess such as, "What do you think 'a mouse in a million' means?" and "Why shouldn't they hop on him?" (10.22.19). When she asked questions such as "The character in the book is eating popcorn while watching television. Do you like eating popcorn when watching television?" (10.22.19) Emily frequently cited learning about d/Deaf students' struggles with theory of mind and helping students make connections in her courses as an influence.

For her other course-influenced rationale, encouraging student engagement, Emily cited her behavior supports course and learning about providing students choice. "Giving [students] autonomy makes them feel more in control and makes them more engaged" (10.22.19). Therefore, she twice encouraged her student's engagement by making

modifications to her lesson and providing her student with the autonomy to change the lesson.

Felicia

Like Emily, Felicia was also strongly influenced by her program and courses' emphasis on language. Felicia cited coursework as influential for six types of decisions. Her decisions to question and prompt accounted for almost half of her total in-the-moment decisions. Courses also influenced three types of rationales.

Felicia noted that she frequently made in-the-moment decisions that focused on questions, prompts, or acknowledging and expanding upon her student's initiations regarding vocabulary words because "A big thing in d/Deaf education is expansion because usually there are language differences . . . So, a big thing is to expand on everything . . . to make sure my students are understanding. That expansion is something we've been drilled in." Thus, Felicia asked questions like, "What do you think is fiercer, a Viking or a kitten?" and "Would a really nice day or really rainy day be glorious?" (10.1.19). Felicia also prompted her student to determine unknown words by saying things like, "If I were royalty, and my dad was a king, what would I be?" (10.15.19). When her student would provide an incorrect answer, Felicia would encourage her student by acknowledging the attempt before providing an example, such as saying, "Maybe, but I'm not sure that makes sense. What about 'grind your teeth'?" (10.29.19). Notably, the only time courses influenced Felicia's in-the-moment decision to provide explicit instruction was when she provided the definition of another vocabulary word, sprout (10.29.19).

Adam

For Adam, who also had never taken a reading course before in his special education program, courses influenced four types of decisions. Most of his course-influenced decisions were questioning, which was his second most frequent decision overall. Only once did courses influence his decision to prompt or provide instruction. Courses also influenced two types of rationales. When discussing his prompting and instruction, Adam reflected on the experience of creating lessons for a mock learner in previous methods courses. “You have to do what’s best for your student . . . we’ve learned about that in so many classes, just catering to your learner” (11.14.19). Adam used this knowledge when he worked to describe nouns and verbs “in a way [the student] would understand it better” and prompt his student on how to find and correct his error in his sentence structure. Additionally, Adam frequently cited coursework when asking questions to check his student’s understanding and assess his student’s knowledge. Adam specifically noted a math methodology course he took that emphasized making student-based decisions and the importance of knowing your student. “You have to check what they’re not understanding, what they’re not getting, and then find a way to better suit it to them” (10.24.19). Thus, Adam asked questions like, “Do you know what an autobiography is?” (10.10.19) and “Why do you use the word ‘ate’ instead of ‘eat’? Do you know why?” (11.14.19). When Adam asked questions to encourage student engagement, such as “What special did you have today?” (10.10.19) or foster student connections, it was also because of his courses. Adam reported learning from many professors that, “if he’s not engaged, it’s hard to learn” (10.24.19).

Internships

Two-thirds of the time, internships influenced either providing explicit instruction or prompting for a response. However, other decisions influenced by internships included (a) questioning to check understanding, (b) creating example or visual cue, (c) acknowledging student input, and (d) questioning to guide connections were also influenced at least once. Only two rationales, (a) encouraging student engagement and (b) fostering student connections, were influenced by internships.

Adam

When Adam began his one-on-one tutoring, he had already completed two internships in special education settings and was enrolled in a third. Adam briefly mentioned his current internship placement during the third interview, stating,

> I'm in a high school setting, so the way I would talk to a high schooler, "A noun is a person, place, or thing" and they know what that is. I had to think about what age range I was working with [in tutoring] and kind of put it in a way that he would understand. (11.14.19)

However, Adam never cited any of his internship experiences, or knowledge gained from those experiences, as influences for his decisions or rationales.

Darlene

Darlene only cited internships twice for decisions. Notably, either courses or planning dually influenced these same decisions. Thus, analysis suggests internships solely influenced no in-the-moment decision. Furthermore, Darlene never cited internships as an influence for a rationale. Darlene's two decisions influenced by internships were both influenced by a previous internship in kindergarten. "I saw some

good teachers model in internship with the whole scaffolding process" (10.8.19) and used modeling when demonstrating how to make the letter "w" for her student. Darlene was also influenced by the internships' use of *LetterLand*, a curriculum that utilizes different characters for different phonemes when creating a visual cue for the short and long "a" for her student (10.24.19).

Cassie

Cassie had completed three internships before tutoring. Those internships influenced three different types of decisions and one type of rationale. Notably, every time that Cassie made the in-the-moment decision to provide explicit instruction, she cited what she had observed and learned in her internships rather than courses. For example, when discussing her decision to provide explicit instruction on vocabulary words, Cassie reflected on explicit instruction she provided to other students, saying, "I was thinking about my first graders when I talk about words they don't know. They ask repeatedly, 'What does this word mean?' . . . that was probably still on my mind" (10.7.19). Other examples of explicit instruction include when Cassie wrote out words on a dry erase board so the student could see how to spell it (10.28.19) and providing direct instruction on letter sounds (10.7.19) because of what she had seen modeled by her supervising teachers.

Two of Cassie's decisions, acknowledging student input, came from watching her mentor teacher read a book aloud to the class and to encourage engagement, the one rationale that was influenced by internships. Cassie used this in her own lessons during a read-aloud, such as when the student commented, "He looks like a bad guy" and Cassie

responded, “Maybe. That is why we read books; to find out more” (10.22.19). When Cassie was prompting her student for a response, such as when Cassie asks, “What sound does a bee make?” when her student is having difficulty coming up with a word that ended with the sound “/z/” (10.22.19), Cassie pulled her knowledge from her internship in first grade where she had recently had a conversation with her mentor teacher about the necessity prompting.

Abigail

Like Cassie and Darlene, Abigail had also completed three internships as of tutoring. These internships influenced two different types of in-the-moment decisions and one rationale. One decision, prompting student for a response, was frequently used after seeing it done in her internship classroom. Abigail utilized prompting and pointed to a word and said, “What is the first letter? What sound does it make? So, what do you think that word is?” (10.23.19) when she noticed her student’s confusion. Abigail also sang the alphabet song to help her student locate where the letter “t” was in a dictionary sticker book (10.9.19). Abigail also cited internships as an influence when providing explicit instruction in-the-moment. “My [supervising teacher] is really good at modeling for her students this semester” (10.9.19). Observing this modeling influenced Abigail’s in-the-moment decisions to physical model task expectations (10.9.19, 11.3.19) and provide direct instruction for print concepts and one-to-one correspondence (10.23.19) after she saw her student’s errors. Lastly, Abigail also discussed learning about engagement in her internships. Interestingly, Abigail mentioned being influenced by both positive and negative experiences in internships regarding engagement. “I’ve seen teachers go with

[engagement] and then some that don't. And I've seen the student . . . not say anything for the rest of the lesson" (11.13.19). Observing teachers provide encouragement, and seeing the consequences of not, influenced Abigail to make in-the-moment decisions like acknowledging student input, modifying lessons, and asking questions for engagement.

Emily

Emily had completed two internships before tutoring. As previously noted, Emily was strongly influenced by the courses and internships in her professions in deafness program and their emphasis on language. Her decisions to (a) question to check for understanding and (b) question to guide connections were dually influenced by courses and internships. Her decisions to (a) create an example or visual cue and (b) prompt for response were solely influenced by her internships, resulting in just over half of her decisions being at least partially influenced by internships. When Emily provided her student prompts, she cited her time in a kindergarten placement. "From an internship last year, I give a lot of wait time before giving suggestions. My OSTE (on site teacher educator) did this kind of thing" (10.29.19). Emily used this knowledge on five different occasions for her in-the-moment decision-making, such as when a student misread "thing" and Emily turned to a page where the student had it correctly and said, "What does this say?" (10.22.19). She also created examples when her student had trouble coming up with words that contained a given sound, like when she suggested the word "wave" because it has the /v/ sound. Emily mentioned, "I was trying to give her an example because she was not understanding" (10.1.19).

Notably, throughout the three observed lessons, Emily never provided explicit instruction as an in-the-moment decision. She was the only participant never to make this decision; she instead relied on questioning, examples, and prompts to help foster the connections for her student, a rationale she said that internships influenced. “We do a lot of [connecting] with d/Deaf kids . . . Getting them to generalize things is a really big deal. We try to help them make the connections themselves because they’re deeper and more meaningful” (10.22.19).

Felicia

Felicia had completed two internships before tutoring. As previously noted, Emily and Felicia were strongly influenced by the courses and internships in their professions in the deafness program. Her internships solely influenced none of Felicia’s decisions. Rather, internships and courses influenced four types of decisions (i.e., acknowledging student input, creating example or visual cue, prompting student for response, and providing explicit instruction). Her decision to provide explicit instruction, however, was more heavily influenced by internships over courses. Additionally, Felicia cited internships and the classroom’s emphasis on helping students make connections when discussing the rationales of fostering student connections and encouraging student engagement.

Felicia provided in-the-moment explicit instruction because of her internships, all of which included providing direct instruction of an unknown vocabulary word (e.g., princess, twirled, ghoul, spout). For example, in her second lesson, when her student misread “ghoul,” Felicia said, “I’m going to give you a hint” and acted out being a ghost.

Her student correctly guessed ghost, and Felicia said, “Yes. And this word is a synonym for ghost. It’s the word ‘ghoul’” (10.15.19). Interestingly, Felicia reflected that her experience in internships and the emphasis on spoken language might have made it more difficult to provide some reading instruction. “Most of the time I don’t normally do reading activities with my kids, it’s mostly spoken-language-based. Sometimes it just doesn’t come naturally to say, ‘Okay, let’s sound it out’” (10.15.19).

Planning

Planning (e.g., knowledge of content, curriculum, students) influenced the decisions to (a) modify the structure of the lesson, (b) prompt for response, (c) not act, (d) modify the implementation of the activity, (e) provide explicit instruction, (f) acknowledge student input, (g) modify expectations of the activity, (h) create example or visual cue, and (i) question to guide connections. Planning influenced all the rationales except assessing student knowledge. Furthermore, planning influenced over one-half of the total rationales.

Cassie

Cassie’s knowledge of the content, curriculum, and student influenced approximately one-fourth of her decisions. Cassie relied on her knowledge of her student when modifying her lessons and created in-the-moment modifications that would meet her student’s needs. In her first lesson, Cassie had her student use a whiteboard and marker rather than paper and pencil because “I knew he wanted to color and that could make it feel like coloring” (10.7.19). Cassie also stopped a worksheet halfway through

because “You could see he was kind of over it at this point . . . I knew it was only going to get worse from there” (10.7.19).

Cassie also used her knowledge of planning and curriculum when prompting for a response. Cassie often referenced what they had previously worked on, or what she knew her student used in class when prompting her student. For example, Cassie asked, “What does odor mean? We talked about it last week” (10.22.19). In one instance, however, a lack of knowledge about her student’s classroom influenced her decision. During a phonics mini-lesson, Cassie’s student starting to refer to the beginning and ending sounds as the “outside” sounds. “I noticed he started saying ‘outside’ for beginning or end, and I’ve never heard him do that before. I don’t know if they’ve started something in school that the ‘outside’ is at the beginning” (10.28.19). Thus, although she knew it would be helpful for him to use the correct terminology, Cassie decided in-the-moment not to address it (10.28.19).

Cassie’s planning had a much larger role in why Cassie made the decisions she did than what decisions she made. Over two-thirds of her rationales were due to planning. Planning was an influence for Cassie when she used her knowledge of her student to foster connections by using his classroom curriculum to provide explicit instruction “Q like queen. Q, queen, /kw/” (10.7.19) or ask questions, “What *LetterLand* character is ‘f’?” (10.28.19). A lack of planning, however, influenced most of Cassie’s rationales. Multiple times Cassie needed to modify how she was implementing the activity or modifying the structure of the lesson entirely due to student error or managing instructional time. For example, Cassie had planned to write a vowel and have the student

write the beginning and ending sound of CVC word (e.g., Cassie would write “o” and her student would write “d” and “g” after being dictated “dog”). Cassie did not plan how to explain this explicitly, however. “This confused him, so I just let him take over” (10.7.19). In another lesson, Cassie added an activity for her student to write dictated CVC words because she thought the previous activities would take more time. “I needed something to fill in the time . . . this was something to get him to still want to do something” (10.28.19). Additionally, all but two of Cassie’s in-the-moment decisions to provide explicit instruction were made because she noticed student error, student frustration, or realized she did not know whether her student knew the information or not such as when Cassie wrote graphemes in varying colors because she saw “He was struggling a little more. [The colors] point it out to him and help a little bit” (10.28.19).

Abigail

Like Cassie, Abigail did not plan explicitly. Two times Abigail made an in-the-moment decision influenced by planning, she had to modify the structure of her lesson (i.e., repeat an activity, remove an activity) because she realized in-the-moment that the activities were, as presented, too difficult for her student and she had not planned for contingencies. When repeating the activity, Abigail noted, “He had trouble with it. I kept trying to repeat it because I thought if I would say it, he would get it. But he didn’t” (10.9.19). In the same lesson, twice Abigail noticed her student’s confusion but decided not to act, possibly due to a lack of knowledge. First, Abigail noticed her student continually confusing “j” and “t.” Upon reflection, Abigail stated, “I didn’t do anything in the moment, but I did notice it.” Second, Abigail also reflected on her lack of action

when continually showing the letters of the student's name in random order. "I did realize in-the-moment it would have made more sense to put it in order, but I kept saying 'This is this letter, this is this letter' all over the place versus just focusing on his name" (10.9.19).

Over half of Abigail's rationales were because of planning with noticing student error being the most cited. Indeed, noticing student error was the cited rationale for a variety of decisions (i.e., creating an example, modifying the structure of a lesson, prompting, providing explicit instruction, questioning to check understanding). For example, Abigail taught one-to-one correspondence when her student kept identifying two separate words (i.e., "dear" and "zoo") as one word (i.e., "dearzoo"). "He didn't say the words, he said the whole thing. So, I went back and showed him: this is 'dear,' and this is 'zoo'" (11.13.19). Abigail also shared that many of her decisions were a result of not knowing how to or what to teach her student, stating, "This is such a struggle. I'm used to having students who have some type of background [knowledge]" (10.9.19) and "With him, I just don't know . . . I struggle with what out of the alphabet he does know or doesn't know" (10.23.19). She used what she did know about her student, however, to try to assist him in fostering connections. Abigail knew, for example, that his class used *LetterLand*. Therefore, when prompting him to identify letters in his sticker dictionary, she said, "We're looking for 'i.' Have you heard of Impy Ink?" (11.13.19). Lastly, Abigail made decisions to manage instructional time, like when she prompted her student on where to find particular letters in the book. "Instead of letting him go through all the letters, I decided to change the page, so he didn't have to flip through the whole book" (10.9.19).

Adam

Planning and knowledge of student, content, and curriculum also played a large role in Adam's rationales, but a small role in his in-the-moment decisions. Planning influenced three types of decisions for Adam and five rationales. Two times Adam provided planning influenced explicit instruction in-the-moment was to address vocabulary, such as when Adam used his knowledge of previously covered content when stating, "Remember that book we read last week about Gandhi? That is a biography because it was about Gandhi but not written by him" (10.10.19).

The four other decisions influenced by planning related to Adam's knowledge of his student and what he believed his student could do. Adam prompted his student with questions to guide him to an answer rather than provide explicit instruction. For example, when Adam's student was writing sentences and wrote, "The running pumpkin is broken," Adam asked, "Does that work? Can a pumpkin run?" When discussing the decision, Adam elaborated that his student, ". . . is a smart kid. He knows that a pumpkin cannot run" (11.14.19), so he decided to prompt him to the answer. Adam also modified his expectation of his student's participation in a task, ultimately deciding he did not need to complete it because it would be too easy, stating, "I didn't really think it was one we needed to practice. It kind of felt like that one would be an easier one" (10.10.19).

Adam's knowledge of his student and his ability to notice his student's errors and frustration was also the impetus fifteen of Adam's decisions, accounting for over half of his decisions. Although Adam was able to positively use his knowledge of his student to notice his needs and make in-the-moment decisions to address them, these decisions were

necessary due to a lack of planning. Adam himself noted the lack of planning, announcing before the first interview, “I hadn’t planned a lot here; I was more flying the plane as I built it during this lesson” (10.10.19) and at the end of the semester, “My plans had been thrown together very quickly” (12.1.19). Three times, a lack of planning led to mismanaging instructional time. When discussing his decision to ask comprehension questions after reading, Adam noted, “I was hoping to get through chapter 3 by the end of the lesson, but we didn’t have time . . . so I was just trying to ask him some basic questions” (10.24.19). A lack of planning was also reflected in a lack of content knowledge when Adam had to make in-the-moment decisions because of not planning grade-appropriate content, such as when he stated, “I think I’m [planning vocabulary words] that are his grade level, but they’re too hard” (10.10.19). Lastly, it is notable that Adam frequently shared his knowledge of his student throughout the interviews, making statements such as, “He can read really well, but he reads really fast . . . he doesn’t know what he’s reading, but he doesn’t slow down to realize it” (10.10.19), and “sequencing in stories is something he has some trouble with” (10.24.19) but did not plan instruction to meet those needs.

Darlene

Darlene, on the other hand, used her knowledge of her student extensively in her lessons. Darlene was strongly influenced by planning and had previously worked with her student in a prior internship. Her background knowledge of her student and knowledge of the content and curriculum influenced one-fourth of her decisions and almost two-thirds of her rationales. All of Darlene’s decisions came specifically from her

knowledge of curriculum or her student. Darlene knew, for example, that her student had been on a hayride the previous year. Thus, when they were reading about a wagon, Darlene said, “I have been on a wagon with you when we went to the pumpkin patch last year to help create connections with a text (10.31.19). She also knew they used *LetterLand* in his classroom and drew a character when creating a visual cue for long and short /a/. “I thought if I could give him something to remember, maybe that would help” (10.24.19).

From her experience with her student, she also knew that he was easily frustrated when making errors. “When I see his little eyebrows scrunch up and he pulls his head back, I think, ‘Okay. He’s about to get frustrated.’” (10.31.19). Darlene made in-the-moment decisions to engage her student because of his propensity for frustration. Darlene acknowledged and encouraged any student initiation or comment and modified her lessons to keep him engaged. When discussing that she reduced the number of digraphs and blends she asked him to read, she remarked, “We were covering a lot and it would probably be pushing him too much to do those” (10.8.19).

Felicia

Only one of Felicia’s in-the-moment decisions (i.e., prompting for response) was influenced by planning and was also specifically influenced by her knowledge of her student. After her student misspelled a word, Felicia prompted him with material from earlier in the lesson to reference how to spell it correctly.

> I’m practicing look backs with him . . . I think it would help a lot with his spelling, especially if has the book in front of him. He doesn’t look back; he

> doesn't use his resources to spell. That's why I explicitly said, "Look, it's here. Use it." (10.29.19)

Noticing her student's errors was one of the two rationales that were influenced by planning, with the second being lack of student knowledge. Together, these rationales were cited for approximately half of her decisions. Noticing her student's errors was the impetus for her at least one of her decisions to acknowledge student input, prompt for a response, providing explicit instruction, and question to check for understanding. These decisions were also due to her lack of knowledge about her student, where she often noted she had assumed he would know the material. For example, during a lesson, Felicia was having her student build words with tiles and then put the word in a sentence in a later activity. Her student had built the word "spout" but wrote a sentence for "sprout." Felicia noted, "He sometimes made words that weren't real, but then when he made words that did exist, I didn't think to clarify . . . I didn't think he would build words that he doesn't know" (10.29.19). Lack of knowledge, in this case, resulted in an in-the-moment providing direct instruction on the difference between "spout" and "sprout."

Emily

Emily was influenced by planning the least out of all participants. Only three of her decisions, two of which were to modify the structure of the lesson, and one was not to act, were influenced by it. Furthermore, only one-third of her rationales were influenced by planning between three different rationales. Her one use of the rationale of managing instructional time was for an in-the-moment decision to modify the structure of her first lesson. "The goal was to get through all the cards. But then after we finished making the

word list, time was just gone" (10.1.19). Her second decision to modify her lesson involved adding an activity to assess student knowledge. "I've noticed she has trouble reading back what she writes . . . so I wanted her to read the sentences back to me to see if she could read it" (10.29.19).

As previously noted, Emily never provided explicit instruction as an in-the-moment decision. When she noticed her student's errors, it resulted in her (a) creating an example or visual cue, (b) modifying what she expected her student to do within the activity, (c) modifying the structure of the lesson, (d) prompting for a response, or (e) asking a question to assess her student's understanding further. In one such instance, Emily commented, "Her face just went blank and she seemed confused to me. It was her face and she was just like, 'Uhm . . .' So, I was trying to meet her." Furthermore, Emily noted on one occasion that after noticing her student's errors, she did not know what to do to help her and ultimately took no action. "I really thought this was going to be an easy sort of first thing we did together, and she struggled with it a lot more than I thought she would . . . I just had no; I just went completely blank" (10.1.19).

Grounded Theory

The next section presents a grounded theory on special education preservice teachers' in-the-moment decisions and rationales for making those decisions while providing reading instruction to students with reading difficulties or disabilities. The grounded theory emerged from data that focused on the influences (i.e., personal, courses, internships, planning) and how they influenced the in-the-moment decisions and rationales. In the previous sections, these influences on the individual preservice teachers

were discussed. The grounded theory, however, was developed through examination across preservice teachers. The grounded theory consists of the overall interactions between (a) the four influences involved in the in-the-moment activity systems and (b) the influences, in-the-moment decisions, and rationales. For a complete list of the interactions between the influences and the in-the-moment decisions and rationales, refer to Table 5.

Table 5

Interactions Between Influences and In-the-Moment Decisions and Rationales

Influences	Decisions	Rationales
Personal	Creating an example or visual cue Modifying structure of lesson Providing explicit instruction Modifying expectations in activity Correcting student behavior	Encouraging engagement Fostering connections Noticing student frustration
Courses	Questioning to check understanding Prompting for response Providing explicit instruction Questioning for engagement Acknowledging student input Modifying structure of lesson Creating an example or visual cue Questioning to guide connections Modifying expectations in activity Correcting student behavior Modify implementation of activity	Assessing student knowledge Encouraging engagement Fostering connections
Internships	Providing explicit instruction Prompting for response Questioning to check understanding Creating an example or visual cue Acknowledging student input Questioning to guide connections	Encouraging engagement Fostering connections

Table 5

Cont.

Influences	Decisions	Rationales
Planning	Modifying structure of lesson Prompting for response Modifying implementation of activity No action Providing explicit instruction Acknowledging student input Modify expectations of activity Creating an example or visual cue Questioning to guide connections	Noticing student error Fostering connections Lack of student knowledge Encouraging engagement Managing instructional time Lack of content knowledge Noticing student frustration Lack of pedagogical knowledge

The grounded theory is illustrated in Figure 2. In the figure, the single- or double-sided arrows of varying widths (i.e., bold, semi-bold, regular, dashed) highlight the strength and direction of the interactions between the components. The bold arrows indicate the strongest interactions, and the dashed arrows indicated the weakest. It is within these interactions that the core concept, or main theme of the study, was discovered. The core concept pertains to specific interactions between planning, courses and internships, in-the-moment decisions, and rationales. First, when preservice teachers made in-the-moment decisions, the knowledge gained through coursework and internships were strong influences. Second, planning frequently influenced the reasons for the in-the-moment decisions (i.e., knowledge of student, content, curriculum) or a lack of planning. Lastly, the influence that lack of planning had on preservice teachers relates to the weak interaction that courses and internships had on planning. In other words, preservice teachers did not consistently use what they learned in their courses and

internships (i.e., their preparation program) when planning, which resulted in the need to adjust their lessons in-the-moment, where they used knowledge from their preparation program.

Figure 2 also illustrates several other interactions (i.e., internships and rationales, personal and decisions, personal and rationales, planning and in-the-moment decisions) that complete the grounded theory. These interactions accounted for less than 20% of the decisions and 13% of the rationales and were dominated by a portion of participants. Therefore, although they are a part of the grounded theory, they are not part of the core concept and will not be discussed at length.

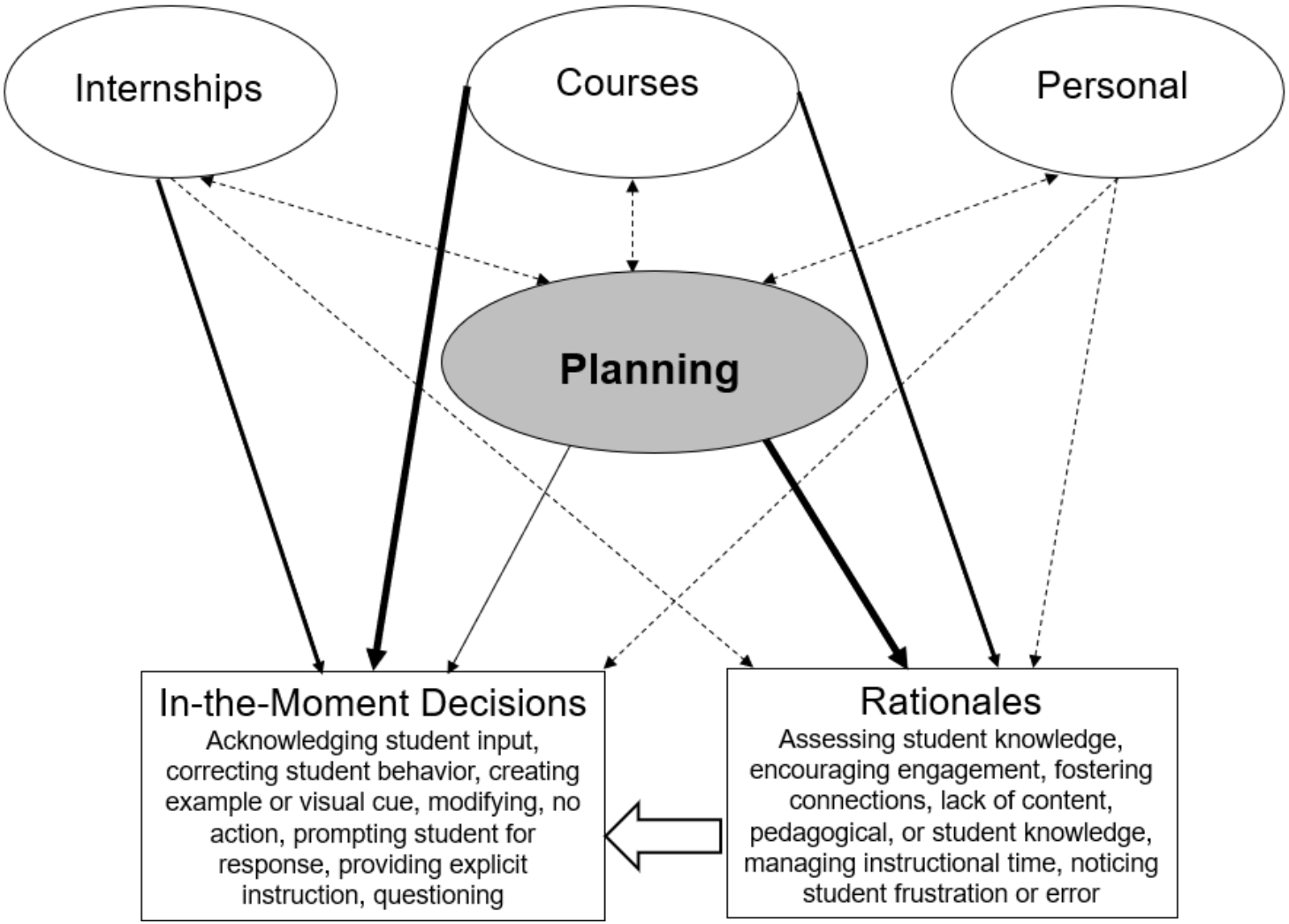

Figure 2. Grounded Theory.

Core Concept

The core concept is depicted in the center of Figure 2 by (a) the shaded oval containing "planning" connected to "courses" and "internships" with a dashed bi-directional arrow, (b) "planning" connected to "rationales" with a single-sided bold arrow, (c) "courses" connected to "in-the-moment decisions" with a single-sided bold arrow, (d) "internships" connected to "in-the-moment decisions with a single-sided arrow, and (e) "rationales" connected to "in-the-moment decisions." As previously noted, courses and internships influenced planning and vice versa, but on a limited basis. For example, during the first interview, Darlene reflected:

> When my student is reading, he always approaches words one word at a time. I was trying to get him to think more "together" or "squished." So, when [the professor] showed us the Elkonin boxes in the lecture, I was like, "That's exactly what I need!" (10.8.19)

Darlene's preplanned use of the Elkonin boxes (i.e., a tool to assist with segmenting and blending sounds) in subsequent lessons illustrates an interaction between planning and courses; she knew what her student needed (i.e., knowledge of student), she learned about a resource in class, and then applied it to her planning. In another example, Felicia planned for and used a vocabulary strategy, Text Talk, with her student that she learned about in a deaf education class. "Based on his assessments . . . comprehension was where we wanted to work. Since comprehension [is the focus], we need to make sure he understands the words, make sure he understands them in context and in general" (10.1.19). Like Darlene, Felicia knew what her student needed, considered a strategy she had learned in class, and utilized that strategy to meet her student's needs. Emily, who

knew her student also had difficulty with comprehension, used what she learned her work in the Professions in Deafness program about the importance of language when planning her lessons (10.22.19).

These interactions were atypical, however. Much more frequently, preservice teachers would not plan to utilize strategies they knew about and discussed during interviews. For example, three preservice teachers learned about higher-order thinking questions in a previous reading foundations course and completed an assignment where they "had to do a read-aloud lesson and plan all the questions in advance and write them out on sticky notes and put them where we wanted to ask them" (10.22.19). During tutoring, however, none of them pre-planned any questions. Instead, they wrote plans like, "I will stop periodically and ask questions" (10.6.19) or did not plan for comprehension at all. Similarly, all preservice teachers had been required to write in-depth lesson plans for their internships previously in their program, but during tutoring they wrote lessons that had minimal explicit planning in it, such as, "discuss beginning and ending sounds using worksheet" (10.22.19) or "read until we reach a good stopping point" (10.25.19) and lacked specificity on how instruction would take place.

Furthermore, the lack of specificity was compounded by preservice teachers' emphasis on encouraging student engagement. All six preservice teachers cited their program when discussing the importance of engaging their student and planning their lessons around their students. However, preservice teachers' desire to engage their students affected their instruction; they planned to provide options throughout the lesson but did not make explicit plans for each potential option (e.g., allowed students to select

which book they read, but did not plan vocabulary instruction for any of the books). Preservice teachers were also willing to put aside what plans they did have if their students requested something else to engage them, which resulted in them "coming up with everything on the spot" (10.22.19). This lack of interaction (i.e., not using knowledge from their preparation program) or misguided interaction (i.e., using knowledge unproductively) between courses and internships and planning is critical because it resulted in ineffective planning.

Altogether, planning influenced 58% of all the rationales for in-the-moment decisions and was cited 146 times. Furthermore, it was the most influential knowledge source for rationales for five of the six preservice teachers. Planning was effective when preservice teachers used it to help foster student connections and encourage engagement when appropriate; effective planning accounted for approximately 18% of the rationales. Ineffective planning, which was the impetus for over 40% of the total in-the-moment decisions, was reflected in their cited rationales of lack of content knowledge, lack of pedagogical knowledge, lack of student knowledge, managing instructional time, noticing student error, and noticing student frustration. Not every instance of student error or frustration was the result of ineffective planning, certainly, but it did occur. Emily, for example, reflected on how ineffective planning contributed to her student's errors and frustration, saying:

> The more we kept going, the harder I was finding it to say, "No, that's not right." I didn't want to break her spirit . . . I really thought [the activity] was going to be an easy first thing we did together, and she struggled with it a lot more than I thought she would. (10.1.19)

Complicating the issue was that Emily then lacked the content and pedagogical knowledge to discern what to do next, stating, “I just had no idea. I went completely blank.” Positively, out of all the times that ineffective planning resulted in an in-the-moment decision, there were only five instances that no decision was made to address the issue. Preservice teachers typically implemented something they had previously learned in-the-moment as Abigail did during her lesson:

> We did a worksheet and I thought he’d understand [the direction] “Circle this or this.” But I had to start over and do the “I do, we do, you do” I’ve learned in my classes. I should have planned that, but I didn’t even think about it. (11.3.19)

Similarly, after asking her student to talk about what he saw on the cover of their story, Darlene noted, “I really probably should have put it in the lesson plan, but I didn’t think about it until we sat down” (10.31.19). These experiences highlight the crux of the core concept: preservice teachers did not use knowledge from their preparation program during planning despite having it.

Summary

Personal influences, preparation program influences (i.e., courses and internships), and planning influences interacted differently for each of the six participants and their in-the-moment decisions and rationales when providing reading instruction to students with reading difficulties or disabilities. By looking across the different interactions, however, a grounded theory emerged. The core concept of the theory was that preservice teachers did not consistently use what they learned in their preparation program when planning, resulting in the need to adjust their lessons in-the-moment using

knowledge from their preparation program. The participants' lack of effective planning and the influence it had on their in-the-moment decisions and instruction is an important consideration in improving teacher preparation. The implications of these findings are discussed in the following chapter.

CHAPTER V

DISCUSSION AND IMPLICATIONS

Research has examined what makes teachers effective in addressing the ongoing low reading proficiency scores for elementary students, including those with reading difficulties or disabilities. One practice that has been found to be a cornerstone of effective teaching is in-the-moment decision-making (e.g., Duffy et al., 2008; Duke et al., 2015). However, little is known about how to help preservice teachers develop effective teaching skills such as in-the-moment decision-making. Therefore, this study sought to examine the current in-the-moment instruction decision-making actions of special education preservice teachers during reading instruction to gain an understanding of why they make the decisions they do, thus allowing teacher educators to understand where additional development may be needed.

This study used activity theory as the conceptual framework to examine the in-the-moment decisions made by special education preservice teachers, the rationales they cited for those decisions, and what influenced those decisions and rationales. The study found that a wide variety of reading components were addressed when the six preservice teachers made 12 different types of in-the-moment decisions. The preservice teachers cited nine different rationales as the impetus for these decisions. Personal influences, courses, internships, and planning influenced the decisions and rationales in varying

degrees. For example, courses and internships influenced 80% (*n*=167) of the decisions, and planning influenced 58% (*n*=146) of the rationales.

Based on these findings, a theory on special education preservice teachers' in-the-moment instructional decision-making in reading was generated. Specifically, the findings suggest that although influences impacted each participant differently, a lack of influence of courses and internships on planning (i.e., knowledge of student, content, and curriculum) led to ineffective planning, which was the main influence for why preservice teachers made in-the-moment decisions. Then, knowledge from courses and internships influenced the in-the-moment decisions that were necessary due to their lack of influence on planning. Personal influences (e.g., prior experiences, beliefs), on the other hand, played a minimal role in both decisions and rationales.

This chapter discusses these findings and generated theory in the context of the current literature base and possible implications for teacher preparation and future research. First, how the findings fit within and extend the existing literature is examined. Next, the limitations of the study are addressed. Finally, the implications of this study for the research community and teacher educators are discussed.

Discussion

The current study defines an in-the-moment decision as a conscious act during instruction that occurs when at least two alternatives are available to allow all possible actions to be examined. Although this decision contrasts with two frequently cited studies on the topic (Duffy et al., 2008; Parsons et al., 2010), it does align with the broader

research base. Furthermore, this decision is in alignment with a recent synthesis of studies on in-the-moment decision-making (Parsons et al., 2018).

The synthesis of 64 studies examined in-the-moment decisions by in-service teachers across subject areas and found the most common were questioning, assessing, encouraging, modeling, managing, explaining, giving feedback, challenging, and making connections (Parsons et al., 2018). Other in-the-moment decisions found in the literature include teaching specific strategies (Griffith et al., 2015), providing background knowledge and utilizing teachable moments (Gün, 2014), and creating examples and changing how objectives are met (Parsons et al., 2010). Furthermore, these in-the-moment decisions are frequently made (a) because of their knowledge of student and content, (b) to foster connections, or (c) in response to student understanding, motivation, engagement, or behavior (Griffith et al., 2015; Gün, 2014; Parsons et al., 2018; Stough & Palmer, 2003). Considering these studies all examined in-service teachers, it is notable that there is an overlap with the preservice teachers' decisions and rationales in the current study. They, too, made in-the-moment decisions to question, provide explicit instruction (i.e., model and explain), create examples, and make lesson modifications and cited encouraging student engagement, assessing student knowledge, and fostering student connections. The current participants did not, however, utilize teachable moments to extend instruction.

Questioning, and specifically questioning to check for understanding, was the most frequent in-the-moment decision made in this study. Continually checking for understanding assisted the preservice teachers in building their knowledge of the learner,

a critical component of teacher knowledge that could allow them to make appropriate in-the-moment adjustments and provide tailored instruction (Griffith & Lacina, 2017; Stough & Palmer, 2003). In the current study, the participants provided explicit instruction using some of their knowledge of their student gained through assessment. Critically, in contrast to previous studies with in-service teachers, providing explicit instruction was most frequently a reaction to noticing a student error or not knowing whether a student understood a concept or not rather than proactive instruction to meet their students' needs. Moreover, noticing student error was the most frequently cited rationale for in-the-moment decision-making, highlighting the reactionary nature of preservice teachers' decisions. This is important, as reading demands complex skills and strategies that require effectively planned direct instruction, modeling, and practice (Afflerbach et al., 2008). This is even more essential for students with reading difficulties and disabilities (Brownell & Leko, 2014). Students strongly benefit from being explicitly taught clusters of strategies for skills such as decoding, determining means of unknown words, and comprehension (Purcell-Gates et al., 2016) and supported in using them through a model of a gradual release of responsibility (Duke et al., 2011). Notably, in the current study, the decision to prompt for a student response was made more frequently than to provide explicit instruction. This supports findings from research on preservice teacher decision-making, where preservice teachers focused on getting correct responses and maintaining the flow of instructional activity, sometimes at the expense of instruction (Johnson, 1992a).

Students with reading difficulties or disabilities also benefit from teachers providing examples of content (e.g., vocabulary words) or situations when specific strategies would be effective to help generalize the provided information (Rupley et al., 2009). Creating examples is one of the more thoughtful in-the-moment decisions made by in-service teachers (Duffy et al., 2008; Parsons et al., 2010) and requires more automaticity of knowledge to handle the necessary cognitive load. Possibly due to the cognitive load required, this type of in-the-moment decision was made infrequently in the current study. Its lack of use would support findings that preservice teachers may lack the automaticity to make more thoughtful decisions (Fogarty et al., 1983; Gibson & Ross, 2016; Johnson, 1992a).

Another in-the-moment decision made in the current study was making lesson modifications such as (a) modifying expectations of student in activity, (b) modifying the implementation of the activity, and (c) modifying lesson structure. The in-the-moment adjustments to lessons to meet the learning objective, whether through adding or removing activities or altering how the activity will be implemented or completed, are consistent with previous research (Duffy et al., 2008; Parsons et al., 2010). Duffy et al. (2008) and Parsons et al. (2010) listed managing time, promoting student engagement, and anticipation of upcoming difficulty as reasons cited by teachers in their study. They did not, however, delineate what rationales influenced what specific decisions, thus making further comparison difficult. In the current study, lesson modifications were made to encourage student engagement, assess student knowledge, manage instructional time, or because of noticing student error or frustration. These align with the rationales

from previous research, but it is impossible to determine if these are the rationales cited specifically for lesson modifications.

Encouraging student engagement is a frequently cited rationale in both the current study and previous literature. In-service teachers often make decisions in response to student interest, motivation, or behavior (Griffith et al., 2015; Parsons et al., 2018). Furthermore, studies on novice teacher decision-making (e.g., Brya & Sherman, 1993; Ho & Liu, 2005) and noticing skills (e.g., Kilie, 2018; Morris, 2006; Star & Strickland, 2008) have found novice teachers are more likely to notice and make in-the-moment decisions regarding classroom management or student behavior because behavioral issues are easier to notice. Since the preservice teachers in the current study worked one-on-one with their students, there was likely a reduced need for typical class-wide behavior management decisions (e.g., walking around the classroom). However, many in-the-moment decisions were a result of participants noticing student behavior as they cited encouraging student engagement as a rationale. In other words, participants made in-the-moment decisions to address what they perceived to be disengaged student behavior.

The decision to not act in the current study also aligns with previous research on novice or preservice teachers. Brya and Sherman (1993) found more experienced preservice teachers were more likely to adjust their lessons if it was not going well. The findings in this study support Brya and Sherman's findings, as the participants who were in their final semester before student teaching only decided not to act four times across the study. Furthermore, these decisions were due to a lack of knowledge rather than the belief that it was preferable to follow the lesson without adaptations (Griffith, 2017).

Lack of content, pedagogical, or student knowledge were rationales cited in the current study but do not appear in studies conducted with in-service teachers. This is unsurprising, as most in-service teachers in studies about in-the-moment decision-making were selected because of their noted effectiveness in the classroom, which requires vast teacher knowledge (Griffith et al., 2015). Griffith and Lacina (2017) defined this as knowledge of content, pedagogy, pedagogical content, student, and educational goals and values. The discrepancy between the current study and research on in-service teachers, however, does highlight the important issue of special education preservice teachers entering student teaching, and subsequently, their own classroom, lacking critical teaching knowledge.

This discrepancy is one of the ways this study's findings and grounded theory meaningfully extend the literature base, given the dearth of literature on special education preservice teachers' instructional in-the-moment decisions, rationales, and what influences them. Second, this study not only examines what in-the-moment decisions are made and what rationales are cited, but it also notes the relationships between them. This extends previous research that examined decisions and rationales but did not relate them (e.g., Parsons et al., 2010). By discussing the relationships between the rationales and decisions, issues or patterns can be identified and explored. For example, of the 16 times the decision to create an example or visual cue was made, noticing student error was cited 15 times. Thus, these findings suggest creating an example was reactive and ultimately used to compensate for ineffective initial instruction rather than to take advantage of a teachable moment to extend instruction.

Third, previous literature has examined what influences preservice teachers, such as their courses, internships, planning, or prior experiences. For example, research has found that the opportunity to practice effective strategies helps preservice teachers feel more confident in using them (Hanline, 2010; Leko & Brownell, 2011). There is also extensive research on how these contexts and experiences influence preservice teacher beliefs (e.g., Garmon, 2004; Hall, 2005; Richardson, 2003). However, research is minimal in how they influence preservice teachers' practices or decisions (Cochran-Smith et al., 2015; Juarez & Purper, 2018). This study extends the research by examining how they are influencing specific decisions and rationales.

Limitations

There were several limitations to the study that should be noted. First, the preservice teachers attended a university and tutored students in central North Carolina, therefore limiting the generalizability to the larger population of all special education preservice teachers. Additionally, the participants were chosen based on their willingness to participate and the selection criteria. As a result, it was a possibility that the resulting participants could be homogenous. Furthermore, it was inevitable that some preservice teachers were excluded from the study.

Second, it is recommended that video-stimulated recall interviews happen as soon as possible after the event, so participants have the greatest chance of recall (Hodgson, 2008; Lyle, 2003). However, with preservice teachers attending class immediately after tutoring and the course taking place at the end of the week, the interview could not occur immediately. Instead, all interviews took place within one week of the lesson.

Third, the study did not follow the preservice teachers beyond their one semester of tutoring. The data, therefore, were collected over a limited amount of time in one portion of their coursework that focused on one-on-one instruction. The findings may have been different if (a) the study had continued during the preservice teachers' student teaching, or (b) the preservice teachers were providing small group or whole-class instruction. Despite these limitations, the findings of the study provide information on special education preservice teachers' in-the-moment decision-making that can be used within teacher preparation and as a basis for future research.

Implications for Practice

The findings from this study highlight several aspects of special education preparation for teacher educators to consider. This study found that despite creating lesson plans for mock learners in previous classes, creating lesson plans in internship experiences, and being expected to write explicit lesson plans for tutoring, the participants did not plan effectively. It is noteworthy that despite repeatedly assessing their students and gathering data through questioning, the preservice teachers were creating lessons and providing instruction that resulted in numerous student errors and the need for prompting or other in-the-moment adjustments such as providing explicit instruction, creating examples, and lesson modifications. This finding suggests that planning had not become a well-developed skill by the fall semester of their senior year. Therefore, teacher educators should consider how to embed more authentic lesson planning instruction and practice throughout the preparation program, such as more required lesson plans during internship experiences.

Another implication for teacher educators is that this study found that some of the in-the-moment decisions preservice teachers make (e.g., questioning, assessing) are like those made by in-service teachers for similar reasons (i.e., to improve knowledge of student). Other decisions, however, such as making connections and taking advantage of teachable moments, are not being made. Although research has indicated preservice teachers may sometimes lack the automaticity to take advantage of those opportunities in-the-moment, it would benefit them to receive instruction on recognizing those occasions.

The last implication for teacher educators is the usefulness of video-stimulated reflection. Critical reflection can be difficult for preservice teachers (Clark & Byrnes, 2015). Many participants found watching themselves to be effective in reflecting on their lessons and considering what they could have done differently. However, these reflections were not always used to improve future lessons. Thus, teacher educators should consider using video recordings to help preservice teachers reflect and then guide them on how to use these reflections in future lessons. These skills will be critical when they enter the classroom as the teacher of record and need to consider how best to meet the needs of all their students, especially if they are given a guided or scripted program to use.

Implications for Research

This study confirms findings from previous teacher preparation studies that found variability within preparation programs at the preservice teacher level (Boyd et al., 2006; Humphrey & Weschler, 2007; Leko & Brownell, 2011). Even for the participants who were in the same program (i.e., Emily and Felicia; Abigail, Cassie, and Darlene), there

were differences in how their courses and internships influenced them. Although a theory was generated by looking across participants, the variability in the participants' experiences supports the suggestions that more research be conducted on essential aspects of teacher education programs (Humphrey & Weschler, 2007; Zeichner & Conklin, 2005).

Research should also examine the influence of courses on preservice teacher adoption of practices. Previous research has primarily focused on how courses influence preservice teacher beliefs (Garmon, 2004) or knowledge (Phelps, 2009). This study highlighted the discrepancy between the preservice teachers' use of knowledge of strategies from their courses and internships reactively in-the-moment but not proactively in their planning. This discrepancy illustrates the need for a greater understanding of how courses influence the understanding and use of practices, such as explicit planning and strategies by preservice teachers.

More research also needs to be conducted on preservice teacher in-the-moment instructional decision-making, the corresponding rationales, and what influences the decisions and rationales. There is a limited number of studies that examine preservice teachers' in-the-moment decision-making, but there are no studies outside of this current one that examine it for special education preservice teachers. Furthermore, no studies examine the relationships between the decisions and rationales of preservice teachers' in-the-moment decision-making. By examining what in-the-moment decisions special education preservice teachers make and the rationales they cite in different contexts (e.g., whole classroom, secondary education, with students with more severe disabilities), the

grounded theory presented here could be expanded and refined. Lastly, research should examine the usefulness of the decisions used by preservice teachers in context. While this study began to examine what decisions were made and why, additional research could use a more critical lens to further understand and support preservice teacher development.

Conclusion

In this study, I sought to examine special education preservice teachers' use of in-the-moment decision-making, a practice considered a cornerstone of effective teaching (Darling-Hammond & Bransford, 2005; Fairbanks et al., 2010). Specifically, I sought to examine what in-the-moment instructional decisions special education preservice teachers made during reading instruction, what rationales the cited for their decisions, and what influenced those decisions and rationales using activity theory as a conceptual framework. This study contributes to research designed to understand special education preservice teacher development through examination of essential aspects of teacher preparation programs (Zeichner & Conklin, 2005) ultimately to improve teacher preparation. This is important because it is critical to have teachers enter the classroom being as effective as possible to help improve student outcomes for all students, especially in the area of reading where only 35% of all students, and 12% of students with disabilities, are reading at a proficient level (NAEP, 2019). Moreover, of the students who receive special education services, 75% receive special education services for reading (Moats et al., 2010; NCES, 2011).

The results indicate that personal influences and influences of coursework, internships, and planning vary across participants, but in-the-moment decisions are

heavily influenced by the preparation program (i.e., courses and internships) and are made due to ineffective planning. Effective planning is critical for preservice teachers to help ensure effective instruction. Therefore, how to help students plan effectively and apply knowledge from the preparation program warrants further investigation. Additionally, the interactions between influences, decisions, and rationales within this study show that research in special education teacher preparation is complex and deserves nuanced research to explore these complexities to develop a deep understanding of how to develop effective novice teachers.

REFERENCES

Afflerbach, P., Pearson, P. D., & Paris, S. G. (2008). Clarifying differences between reading skills and reading strategies. *The Reading Teacher, 61*(5), 364–373. https://doi.org/10.1598/RT.61.5.1

American Federation of Teachers. (2009). *The instructional demands of standards-based reform.* American Federation of Teachers: https://www.aft.org/sites/default/files/instructionaldemands0609.pdf

Anders, P. L., Hoffman, J. V., & Duffy, G. G. (2000). Teaching teachers to teach reading: Paradigm shifts, persistent problems, and challenges. In M. L. Kamil, P. B. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research* (vol. 3, pp. 719–742). Lawrence Erlbaum.

Athanases, S. Z., Bennett, L. H., & Wahleithner, J. M. (2015). Adaptive teaching for English language arts: Following the pathway of classroom data in preservice teacher inquiry. *Journal of Literacy Research, 47*(1), 83–114. https://doi.org/10.1177/1086296X15590915

Barnyak, N. C., & Paquette, K. R. (2010). An investigation of elementary preservice teachers' reading instructional beliefs. *Reading Improvement, 47*(1), 7–17.

Bartelheim, F. J., & Evans, S. (1993). The presence of reflective-practice-indicators in special education resource teachers' instructional decision making. *The Journal of Special Education, 27,* 338–347. https://doi.org/10.1177/002246699302700305

Borko, H. (2004). Professional development and teacher learning: Mapping the terrain. *Educational Researcher, 33*(8), 3–15. https://doi.org/10.3102/0013189X033008003

Borko, H., Livingston, C., & Shavelson, R. J. (1990). Teachers' thinking about instruction. *Remedial and Special Education, 11*(6), 40–49. https://doi.org/10.1177/074193259001100609

Bos, C., Mather, N., Dickson, S., Podhajski, B., & Chard, D. (2001). Perceptions and knowledge of preservice and inservice educators about early reading instruction. *Annals of Dyslexia, 51,* 97–120. https://doi.org/10.1007/s11881-001-0007-0

Boyd, D., Lankford, H., Grossman, P., Loeb, S., & Wyckoff, J. (2006). How changes in entry requirements alter the teacher workforce and affect student achievement. *Education Finance and Policy, 1*(2), 176–216.

Brodeur, K., & Ortmann, L. (2018). Preservice teachers' beliefs about struggling readers and themselves. *Mid-Western Educational Researcher, 30*(1-2), 1–27. https://www.mwera.org/MWER/volumes/v30/issue1_2/V30n1_2-Brodeur-FEATURE-ARTICLE.pdf

Brownell, M. T., Bishop, A., Gersten, R., Klingner, J., Penfield, R., Dimino, J., . . . Sindelar, P. T. (2009). The role of domain expertise in beginning special education teacher quality. *Exceptional Children, 75*(4), 391–411. https://doi.org/10.1177/001440290907500401

Brownell, M. T., & Leko, M. M. (2014). Preparing special educators to teach literacy. In P. T. Sindelar, E. D. McCray, M. T. Brownell, & B. Lignugaris/Kraft (Eds.),

Handbook of research on special education teacher preparation (pp. 255–270). Routledge.

Brownell, M. T., Leko, M. M., Kamman, M., & King, L. (2008). Defining and preparing high-quality teachers in special education: What do we know from the research? In T. E. Scruggs & M. A. Mastropieri (Eds.), *Personal preparation: Advances in learning and behavioral disabilities* (vol. 21, pp. 35–74). Emerald.

Brya, M., & Coulon, S. C. (1994). The effect of planning on the instructional behaviors of preservice teachers. *Journal of Teaching in Physical Education, 13*(2), 123–139. https://doi.org/10.1123/jtpe.13.2.123

Brya, M., & Sherman, M. A. (1993). Preactive and interactive decision-making tendencies of less and more experienced preservice teachers. *Research Quarterly for Exercise and Sport, 64*(1), 46–55. https://doi.org/10.1080/02701367.1993.10608778

Bullough, R. V., & Stokes, D. K. (1994). Analyzing personal metaphors in preservice teacher education as a means for encouraging professional development. *American Educational Research Journal, 31*(1), 197–224. https://doi.org/10.3102/00028312031001197

Burns, M. K., & Ysseldyke, J. E. (2009). Reported prevalence of evidence-based instructional practices in special education. *The Journal of Special Education, 43*(1), 3–11. https://doi.org/10.1177/0022466908315563

Calderhead, J., & Robson, M. (1991). Images of teaching: Student teachers' early conceptions of classroom practice. *Teaching & Teacher Education, 7*(1), 1–8. https://doi.org/10.1016/0742-051X(91)90053-R

Campbell, C., & Evans, J. A. (2000). Investigation of preservice teachers' classroom assessment practices during student teaching. *The Journal of Educational Research, 93*(6), 350–355. https://doi.org/10.1080/00220670009598729

Charmaz, K. (2000). Grounded theory: Objectivist and constructivist methods. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 509–535). Sage.

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis.* Sage.

Charmaz, K. (2014). *Constructing grounded theory* (2nd ed.). Sage.

Clark, S. K., & Byrnes, D. (2015). What millennial preservice teachers want to learn in their training. *Journal of Early Childhood Teacher Education, 36*(4), 379–395. https://doi.org/10.1080/10901027.2015.1100148

Clark, C. M., & Peterson, P. L. (1986). Teachers' thought processes. In M. C. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 255–296). Macmillan.

Coburn, C. E., Pearson, P. D., & Woulfin, S. (2010). Reading policy in the era of accountability. In M. L. Kamil, P. D. Pearson, E. B. Moje, & P. P. Afflerbach (Eds.), *Handbook of reading research* (4th ed., pp. 561–593). Routledge.

Cochran-Smith, M., Villegas, A. M., Abrams, L., Chavez-Moreno, L., Mills, T., & Stern, R. (2015). Critiquing teacher preparation research: An overview of the field, part

II. *Journal of Teacher Education, 66*(2), 109–121. https://doi.org/10.1177/0022487114558268

Common Core State Standards Initiative. (2019). *Preparing America's students for success.* Common Core State Standards: http://www.corestandards.org/

Cook, L. (2007). When in Rome . . .: Influences on special education student-teachers' teaching. *International Journal of Special Education, 22*(3), 118–130. https://files.eric.ed.gov/fulltext/EJ814521.pdf

Cook, B. G., & Odom, S. L. (2013). Evidence-based practices and implementation science in special education. *Exceptional Children, 79*(3), 135–144. https://doi.org/10.1177/001440291307900201

Corbin, J., & Strauss, A. (2015). *Basics of qualitative research.* Sage.

Corno, L. (2008) On teaching adaptively. *Educational Psychologist, 43*(3), 161–173. https://doi.org/10.1080/00461520802178466

Council for Exceptional Children. (2015). *What every special educator must know: Ethics, standards, and guidelines* (7th ed.). CEC.

Creswell J. W., & Miller, D. L. (2000). Determining validity in qualitative inquiry. *Theory into Practice, 39*(3), 124–130. https://doi.org/10.1207/s15430421tip3903_2

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process*. Sage.

Darling-Hammond, L., & Bransford, J. (Eds.). (2005). *Preparing teachers for a changing world: What teachers should learn and be able to do.* Jossey-Bass.

Davis, A., Griffith, R., & Bauml, M. (2019). How preservice teachers use learner knowledge for planning and in-the-moment decisions during guided reading. *Journal of Early Childhood Teacher Education, 40*(2), 138–158. https://doi.org/10.1080/10901027.2018.1534161

Desimone, L. (2011). A primer on effective professional development. *Phi Delta Kappan, 92*(6), 68–71. https://doi.org/10.1177/003172171109200616

Duffy, A. M., & Atkinson, T. S. (2001). Learning to teach struggling (and non-struggling) elementary school readers: An analysis of preservice teachers' knowledges. *Literacy Research and Instruction, 41*(1), 83–102. https://doi.org/10.1080/19388070109558359

Duffy, G. G., Miller, S., Kear, K., Parsons, P., Davis, S., & Williams, B. (2008). Teachers' instructional adaptations during literacy instruction. In Y. Kim & V. Risko (Eds.), *57th Yearbook of the National Reading Conference.* National Reading Conference.

Duke, N. K., Cervetti, G. N., & Wise, C. N. (2015). The teacher and the classroom. *Journal of Education, 196*(3), 35–43. https://doi.org/10.1177/002205741619600306

Duke, N. K., Pearson, P. D., Strachan, S. L., & Billman, A. K. (2011). Essential elements of fostering and teaching reading comprehension. In S. J. Samuels & A. E. Farstrup (Eds.), *What research has to say about reading instruction* (4th ed., pp. 51–93). International Reading Association.

El Hussein, M., Hirst, S., Salyers, V., & Osuji, J. (2014). Using grounded theory as a method of inquiry: Advantages and disadvantages. *The Qualitative Report, 19*(27), 1–15. https://nsuworks.nova.edu/tqr/vol19/iss27/3

Engestrom, Y. (1987). *Learning by expanding: An activity theoretical approach to developmental research.* Orienta-Konsultit Oy.

Every Student Succeeds Act of 2015, Pub. L. No. 114-95 (2015).

Fairbanks, C. M., Duffy, G. G., Faircloth, B. S., He, Y., Levin, B., Rohr, J., & Stein, C. (2010). Beyond knowledge: Exploring why some teachers are more thoughtfully adaptive than others. *Journal of Teacher Education, 6*(1-2), 161–171. https://doi.org/10.1177/0022487109347874

Fairbanks, C. M., & Merritt, J. (1998). Preservice teachers' reflections and the role of context in learning to teach. *Teacher Education Quarterly, 25*(3), 47–68. https://www.jstor.org/stable/23478092

Fang, Z. (1996). A review of research on teacher beliefs and practices. *Educational Research, 38*(1), 47–65. https://doi.org/10.1080/0013188960380104

Fazio, M. (2000). Constructive comprehension and metacognitive strategy instruction in a field-based teacher education program. *Yearbook of the College Reading Association, 22,* 177–190.

Fazio, M. (2003). Constructive comprehension and metacognitive strategy reading instruction in a field-based teacher education program: Effecting change in preservice and inservice teachers—participant one. *Yearbook of the College Reading Association, 25,* 23–45.

Fenty, N., & Uliassi, C. (2018). Special educator teacher candidate preparation in reading: A statewide examination. *Learning Disabilities: A Multidisciplinary Journal, 23*(1), 1–9. https://doi.org/10.18666/LDMJ-2018-V23-I1-8568

Ferguson, K. (2017). Using a simulation to teach reading assessment to preservice teachers. *The Reading Teacher, 70*(5), 561–569. https://doi.org/10.1002/trtr.1561

Fogarty, J. L., Wang, M. C., Creek, R. (1983). A descriptive study of experienced and novice teachers' interactive instructional thoughts and actions. *Journal of Educational Research, 77*(1), 22–32. https://www.jstor.org/stable/27540012

Fueyo, V., Koorland, M. A., & Rasch, K. (2008). A conceptual framework for analyzing issues and dilemmas in the preparation of special education teachers. In T. E. Scruggs & M. A. Mastropieri (Eds.), *Personnel preparation: Advances in learning and behavioral disabilities* (vol. 21, pp. 1–34). Emerald.

Garmon, M. A. (2004). Changing preservice teachers' attitudes/beliefs about diversity: What are the critical factors? *Journal of Teacher Education, 55*(3), 201–213. https://doi.org/10.1177/0022487104263080

Gibson, S. A., & Ross, P. (2016). Teachers' professional noticing. *Theory Into Practice, 55*(3), 180–188. https://doi.org/10.1080/00405841.2016.1173996

Gill, M. G., & Hoffman, B. (2009). Shared planning time: A novel context for studying teachers' discourse and beliefs about learning and instruction. *Teachers College Record, 111*(5), 1242–1273.

Glaser, B. (1965). The constant comparative method of qualitative analysis. *Social Problems, 12*(4), 436–445. https://doi.org/10.2307/798843

Glaser, B. (1992). *Basics of grounded theory analysis: Emergence vs forcing.* Sociology Press.

Glaser, B. G., & Holton, J. (2004). Remodeling grounded theory. *Forum: Qualitative Social Research, 5*(2), art. 4. http://www.qualitativeresearch.net/index.php/fqs/article/view/607/1315.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research.* Sage.

Green, T. (1971). *The activities of teaching.* McGraw-Hill.

Griffith, R. (2017). Preservice teachers' in-the-moment teaching decisions in reading. *Literacy, 51*(1), 3–10. https://doi.org/10.1111/lit.12097

Griffith, R., Bauml, M., & Barksdale, B. (2015). In-the-moment teaching decisions in primary grade reading: The role of context and teacher knowledge. *Journal of Research in Childhood Education, 29*(4), 444–457. https://doi.org/10.1080/02568543.2015.1073202

Griffith, R., & Lacina, J. (2017). Teacher as decision maker: A framework to guide teaching decisions in reading. *The Reading Teacher*, *71*(4), 501–507.

Griffith, R., Massey, D., & Atkinson, T. S. (2013). Examining the forces that guide teaching decisions. *Reading Horizons, 52*(4), 305–331.

Grisham, D. L. (2000). Connecting theoretical conceptions of reading to practice: A longitudinal study of elementary school teachers. *Reading Psychology, 21,* 145–170. https://doi.org/10.1080/02702710050084464

Gross, B., Booker, T. K., & Goldhaber, D. (2009). Boosting student achievement: The effect of comprehensive school reform on student achievement. *Educational Evaluation and Policy Analysis, 31*(2), 111–126. https://www.jstor.org/stable/25478689

Grossman, P. L., Smagorinsky, P., & Valencia, S. (1999). Appropriating tools for teaching English: A theoretical framework for research on learning to teach. *American Journal of Education, 108*(1), 1–25. https://www.jstor.org/stable/1085633

Gün, B. (2014). Making sense of experienced teachers' interactive decisions: Implications for expertise in teaching. *International Journal of Instruction, 7*(1), 75–90. https://files.eric.ed.gov/fulltext/EJ1085243.pdf

Hall, L. A. (2005). Teachers and content area reading: Attitudes, beliefs and change. *Teaching and Teacher Education*, *21*(4), 403–414. https://doi.org/10.1016/j.tate.2005.01.009

Hanline, M. F. (2010). Preservice teachers' preparations of field experiences in inclusive preschool settings: Implications for personnel preparation. *Teacher Education and Special Education, 33*(4), 335–351. https://doi.org/10.1177/0888406409360144

Harlin, R. P. (1999). Developing future professionals: Influences of literacy coursework and field experiences. *Reading Research and Instruction, 38*(4), 351–370. https://doi.org/10.1080/19388079909558301

Haverback, H. R., & Parault, S. J. (2008). Preservice reading teacher efficacy and tutoring: A review. *Educational Psychology Review, 20*(3), 237–255. https://doi.org/10.1007/s10648-008-9077-4

Ho, S., & Liu, K. (2005). *A qualitative study of decision-making of expert and novice teachers in teaching students with intellectual disabilities.* The 17th Asian Conference on Mental Retardation, Yogyakarta, Indonesia.

Hoffman, J. V., & Duffy, G. G. (2016). Does thoughtfully adaptive teaching actually exist? A challenge to teacher educators. *Theory Into Practice, 55*(3), 172–179. https://doi.org/10.1080/00405841.2016.1173999

Hodgson, V. (2008). Stimulated recall. In R. Thorpe & R. Holt (Eds.), *The SAGE dictionary of qualitative management research* (pp. 211–212). Sage.

Humphrey, D., & Wechsler, M. (2007). Insights into alternative certification: Initial findings from a national study. *Teachers College Record, 109*(3), 483–530.

Jackson, P. W. (1968). *Life in classrooms.* Holt, Rinehart & Winston.

Johnson, K. (1992a). The instructional decisions of preservice English as a second language teachers: New directions for teacher preparation programs. In J. Flowerdew, M. Brock, & S. Hsia (Eds.), *Perspectives on second language teacher education*. City of Polytechnic.

Johnson, K. E. (1992b). The relationship between teachers' beliefs and practice during literacy instruction for non-native speakers of English. *Journal of Reading Behavior*, *24*(1), 83–108. https://doi.org/10.1080/10862969209547763

Jonassen, D. H., & Rohrer-Murphey, L. (1999). Activity theory as a framework for designing constructive learning environments. *Educational Technology Research and Development, 47*(1), 61–79. https://doi.org/10.1007/BF02299477

Juarez, S. W., & Purper, C. (2018). Toward a model of learning and transfer: A review of instructional methods and learning outcomes in special education teacher preparation. *Teacher Education and Special Education, 41*(4), 292–307. https://doi.org/10.1177/0888406417727041

Kennedy, M. (1991). Some surprising findings on how teachers learn to teach. *Educational Leadership, 49*(3), 14–17.

Kilie, H. (2018). Preservice mathematics teachers' noticing skills and scaffolding practices. *International Journal of Science and Mathematics Education, 16,* 377–400. https://doi.org/10.1007/s10763-016-9784-0

Kudo, M., Lussier, C., & Swanson, H. L. (2015). Reading disabilities in children: A selective meta-analysis of the cognitive literature. *Research in Developmental Disabilities, 40,* 51–62. https://doi.org/10.1016/j.ridd.2015.01.002

Lawson, H., & Jones, P. (2018). Teachers' pedagogical decision-making and influences on this when teaching students with severe disabilities. *Journal of Research in Special Educational Needs, 18*(3), 196–210. https://doi.org/10.1111/1471-3802.12405

Leader-Janssen, E. M., & Rankin-Erickson, J. L. (2013). Preservice teachers' content knowledge and self-efficacy for teaching reading. *Literacy Research and Instruction, 52*(3), 204–229. https://doi.org/10.1080/19388071.2013.781253

Leko, M. M., & Brownell, M. T. (2011). Special education preservice teachers' appropriation of pedagogical tools for teaching reading. *Exceptional Children, 77*(2), 229–251. https://doi.org/10.1177/001440291107700205

Leko, M. M., Kulkarni, S., Lin, M., & Smith, S. A. (2015). Delving deeper into the construct of preservice teacher beliefs about reading instruction for students with disabilities. *Teacher Education and Special Education, 38*(3), 186–206. https://doi.org/10.1177/0888406414557677

Leko, M., & Mundy, C. A. (2011). Understanding preservice teachers' beliefs and their constructions of knowledge for teaching reading to struggling readers. *Kentucky Teacher Education Journal: The Journal of the Teacher Education Division of the Kentucky Council for Exceptional Children, 1*(1), 1–19. http://digitalcommons.wku.edu/ktej/vol1/iss1/1

Leko, M. M., Roberts, C. A., & Pek, Y. (2015). A theory of secondary teachers' adaptations when implementing a reading intervention program. *The Journal of Special Education, 49*(3), 168–178. https://doi.org/10.1177/0022466914546751

Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2018). Paradigmatic controversies, contradictions, and emerging confluences, revisited. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (5th ed., pp. 222–264). Sage.

Lortie, D. C. (1975). *Schoolteacher; a sociological study*. University of Chicago Press.

Loucks-Horsley, S., Hewson, P. W., Love, N., & Stiles, K. E. (1998). *Designing professional development for teachers of science and mathematics.* Corwin Press.

Lyle, J. (2003). Stimulated recall: A report on its use in naturalistic research. *British Educational Research Journal, 29*(6), 861–878. https://www.jstor.org/stable/1502138

Madsen, A. J., & Olson, J. K. (2005). Student teachers' use of learning theories to diagnose children's learning difficulties. *Journal of Elementary Science Education, 16*(1), 55–68. https://www.jstor.org/stable/43155765

Maheady, L., Jabot, M., Rey, J., & Michielli-Pendl, J. (2007). An early field-based experience and its impact on preservice candidates' teaching practice and their pupils' outcomes. *Teacher Education and Special Education, 30*(1), 24–33. https://doi.org/10.1177/088840640703000103

Mastropieri, M. A., Scruggs, T. E., & Hauth, C. (2017). Special education teacher preparation. In J. M. Kauffman, D. P. Hallahan, & P. C. Pullen (Eds.), *Handbook of special education* (pp. 40–51). Routledge.

Mather, N., Bos, C., & Babur, N. (2001). Perceptions and knowledge of preservice and inservice teachers about early literacy instruction. *Journal of Learning Disabilities, 34*(5), 472–482. https://doi.org/10.1177/002221940103400508

Mayor, S. (2005). Preservice teachers' developing perspectives on assessment and remediation of struggling readers. *Reading Improvement, 42*(3), 164–178.

McCombes-Tolis, J., & Feinn, R. (2008). Comparing teachers' literacy-related knowledge to their state's standards for reading. *Reading Psychology, 29*(3), 236–265. https://doi.org/10.1080/02702710801982258

McElwee, C. B., Regan, K., Baker, P. H., & Weiss, M. P. (2018). Preservice special education teachers' preparations: The influences of university coursework, context, and relationships, during the clinical teaching experience. *Teacher Educators' Journal, 11,* 91–104.

Meeks, L., Stephenson, J., Kemp, C., & Madelaine, A. (2016). How well prepared are preservice teachers to teach early reading? A systematic review of the literature. *Australian Journal of Learning Difficulties, 21*(2), 69–98. https://doi.org/10.1080/19404158.2017.1287103

Mehrenberg, R. L. (2013). Red tape and green teachers: The impact of paperwork on novice special education teachers. *International Journal of Special Education, 28,* 80–87. https://files.eric.ed.gov/fulltext/EJ1013680.pdf

Merriam, S. B., & Tisdell, E. J. (2016). *Qualitative research: A guide to design and implementation* (4th ed.). Jossey-Bass.

Meuwissen, K. W. (2005). Maybe someday the twain shall meet: Exploring disconnections between methods instruction and "life in the classroom." *The Social Studies, 96*(6), 253–258. https://doi.org/10.3200/TSSS.96.6.253-258

Moats, L. (1994). The missing foundation in teacher education: Knowledge of the structure of spoken and written language. *Annual of Dyslexia, 44,* 81–102. https://doi.org/10.1007/BF02648156

Moats, L., Carreker, S., Davis, R., Meisel, P., Spear-Swerling, L., & Wilson, B. (2010). *Knowledge and practice standards for teachers of reading*. International Dyslexia Association.

Morris, A. K. (2006). Assessing preservice teachers' skills for analyzing teacher. *Journal of Mathematics Teacher Education, 9,* 471–505. https://doi.org/10.1007/s10857-006-9015-7

Narkon, D. E., Black, R. S., & Jenkins, A. (2009). Factors that aid and impede reading programs of students with and without learning disabilities: Five preservice teachers' perceptions. *Learning Disabilities, 15*(4), 161–170.

National Assessment of Educational Progress. (2019). The NAEP reading achievement levels by grade. (2020, April 11). Retrieved from https://www.nationsreportcard.gov/reading/nation/scores/?grade=4

National Center for Education Statistics. (2011). The Nation's Report Card Reading 2011 (NCES 2012-458). Institute of Education Science, U.S. Department of Education.

Nierstheimer, S. L., Hopkins. C. J., Dillon, D. R., & Schmitt, M. C. (2000). Preservice teachers' shifting beliefs about struggling literacy learners. *Literacy Research and Instruction, 40*(1), 1‑16. https://doi.org/10.1080/19388070009558331

North Carolina Department of Public Instruction. (n.d.a). *K-12 Standards, curriculum, and instruction.* North Carolina Department of Public Instruction: http://www.dpi.state.nc.us/curriculum/

North Carolina Department of Public Instruction. (n.d.b). *North Carolina school report cards.* Retrieved from https://ncreportcards.ondemand.sas.com/src/school?school=760332&year=2018&lng=en

Nougaret, A. A., Scruggs, T. E., & Mastropieri, M. A. (2005). Does teacher education produce better special education teachers? *Exceptional Children, 71*(3), 217–229. https://doi.org/10.1177/001440290507100301

O'Brian, M., Stoner, J., Appel, K., & House, J. J. (2007). The first field experience: Perspectives of preservice and cooperating teachers. *Teacher Education and Special Education, 30*(4), 264–275. https://doi.org/10.1177/088840640703000406

O'Brien, D., & Stewart, R. (1990). Preservice teachers' perspectives on why every teacher is not a teacher of reading: A qualitative analysis. *Journal of Reading Behavior*, *22*(2), 101–129. https://doi.org/10.1080/10862969009547699

O'Brien, K., & Norton, R. (1991). Beliefs, practices, and constraints: Influences on teacher decision-making processes. *Teacher Education Quarterly, 18*(1), 29–38. https://www.jstor.org/stable/23475078

Pajares, M. F. (1992). Teachers' beliefs and educational research: Cleaning up a messy construct. *Review of Educational Research, 62*(3), 307‑332. https://doi.org/10.3102/00346543062003307

Paterson, D. (2007). Teachers' in-flight thinking in inclusive classrooms. *Journal of Learning Disabilities, 40*(5), 427–435. https://doi.org/10.1177/00222194070400050601

Patton, M. Q. (2015). *Qualitative evaluation and research methods.* Sage.

Parsons, S. A., Davis, S. G., Scales, R. Q., Williams, B., & Kear, K. A. (2010). How and why teachers adapt their literacy instruction. *The 31st Yearbook of the Association of Literacy Educators and Researchers,* 221–236.

Parsons, S. A., & Harrington, A. D. (2009). Reading the script. *Phi Delta Kappan, 90,* 748–750.

Parsons, S. A., Vaughn, M., Scales, R. Q., Gallagher, M. A., Parsons, A. W., Davis, S. G., . . . Allen, M. (2018). Teachers' instructional adaptations: A research synthesis. *Review of Educational Research, 88*(2), 205–242. https://doi.org/10.3102/0034654317743198

Patiño, J. F., & Goulart, D. M. (2016). Qualitative epistemology: A scientific platform for the study of subjectivity from a cultural-historical approach. *International Research in Early Childhood Education, 7*(1), 161–181. https://doi.org/10.4225/03/584fa3e2a9779

Penso, S., & Shoham, E. (2003). Student teachers' reasoning while making pedagogical decisions. *European Journal of Teacher Education, 26*(3), 313–328. https://doi.org/10.1080/0261976032000128166

Phelps, G. (2009). Just knowing how to read isn't enough! Assessing knowledge for teaching reading. *Educational Assessment Evaluation Association, 21,* 137–154. https://doi.org/10.1007/s11092-009-9070-6

Phelps, G., & Schilling, S. (2004). Developing measures of content knowledge for teaching reading. *Elementary School Journal, 105*(1), 31–46. https://doi.org/10.1086/428764

Piasta, S. B., Conner, C. M., Fishman, B. J., & Morrison, F. J. (2009). Teachers' knowledge of literacy concepts, classroom practices, and student reading growth.

Scientific Studies of Reading, 13(3), 224–248. https://doi.org/10.1080/10888430902851364

Popkewitz, T. (1984). *Paradigm and ideology in educational research: The social functions of the intellectual*. Falmer Press.

Pugach, M. (2005). Research on preparing teachers to work with students with disabilities. In M. Cochran-Smith, & K. M. Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 549–590). Erlbaum.

Purcell-Gates, V., Duke, N., Stouffer, J. (2016). Teaching literacy: Reading. In D. H. Gitomer & C. A Bell (Eds.), *Handbook of research on teaching* (vol. 5, pp. 1217–1267). American Educational Research Association.

Reddy, C., & Menkveld, H. (2000). Teaching students to reflect: An exploratory study of the introduction of reflection practice in a preservice teacher education course in a university environment. *South African Journal of Higher Education, 14*(3), 177–185.

Rich, P. J., & Hannafin, M. J. (2008). Decisions and reasons: Examining preservice teacher decisions-making through video self-analysis. *Journal of Computing in Higher Education, 20*(1), 62–94. https://doi.org/10.1007/BF03033432

Richards, J. C., & Morse, T. E. (2002). One preservice teacher's experiences teaching literacy to regular and special education students. *Reading Online, 5*(10), 1–18. https://files.eric.ed.gov/fulltext/ED469947.pdf

Richardson, V. (2003). Preservice teachers' beliefs. In J. Raths & A. McAninch (Eds.), *Teacher beliefs and classroom performance: The impact of teacher education* (pp. 1–22). IAP.

Risko, V. J., Roller, C. M., Cummins, C., Bean, R. M., Block, C. C., Anders, P. L., & Flood, J. (2008). A critical analysis of research on reading teacher education. *Reading Research Quarterly, 43*(3), 252–288. https://doi.org/10.1598/RRQ.43.3.3

Roe, M. F., & Vukelich, C. (1998). Literacy histories: Categories of influence. *Literacy Research and Instruction, 37*(4), 281–295. https://doi.org/10.1080/19388079809558271

Rupley, W. H., Blair, T. R., & Nichols, W. D. (2009). Effective reading instruction for struggling readers: The role of direct/explicit teaching. *Reading & Writing Quarterly, 25*(2-3), 125–138. https://doi.org/10.1080/10573560802683523

Ruppar, A. L., Gaffney, J. S., & Dymond, S. K. (2015). Influences on teachers' decisions about literacy for secondary students with severe disabilities. *Exceptional Children, 81*(2), 209–226. https://doi.org/10.1177/0014402914551739

Saldaña, J. (2015). *The coding manual for qualitative researchers* (3rd ed.). Sage.

Scharlach, T. D. (2008). These kids just aren't motivated to read: The influence of preservice teachers' beliefs on their expectations, instruction, and evaluation of struggling readers. *Literacy Research and Instruction, 47*(3), 158–173. https://doi.org/10.1080/19388070802062351

Schön, D. A. (1983). *The reflective practitioner: How professionals think in action.* Basic Books.

Schussler, D. L., Bercaw, L. A., & Stooksberry, L. M. (2008). Using case studies to explore teacher candidates' intellectual, cultural, and moral dispositions. *Teacher Education Quarterly, 35*(2), 105–122. https://files.eric.ed.gov/fulltext/EJ817313.pdf

Schussler, D. L., Stooksberry, L. M., & Bercaw, L. A. (2010). Understanding teacher candidate dispositions: Reflecting to build self-awareness. *Journal of Teacher Education, 61*(4), 350–363. https://doi.org/10.1177/0022487110371377

Schmidt, M. (2005). Preservice string teachers' lesson-planning processes: An exploratory study. *Journal of Research in Music Education, 53*(1), 6–25. https://doi.org/10.1177/002242940505300102

Shepherd, K. G., Fowler, S., McCormick, J., Wilson, C. L., & Morgan, D. (2016). The search for role clarity: Challenges and implications for special education teacher preparation. *Teacher Education and Special Education, 39*(2), 83–97. https://doi.org/10.1177/0888406416637904

Sherin, M. G. (2001). Developing a professional vision of classroom events. In T. Wood, B. S. Nelson, & J. Warfield (Eds.), *Beyond classical pedagogy: Teaching elementary school mathematics* (pp. 75–93). Erlbaum.

Shippen, M. E., Houchins, D. E., Calhoon, M. B., Furlow, C. F., & Sartor, D. L. (2006). The effects of comprehensive school reform models in reading for urban middle school students with disabilities. *Remedial and Special Education, 27*(6), 322–328. https://doi.org/10.1177/07419325060270060101

Siuty, M. B., Leko, M. M., Knackstedt, K. M. (2018). Unraveling the role of curriculum in teacher decision making. *Teacher Education and Special Education, 41*(1), 39–57. https://doi.org/10.1177/0888406416683230

Smagorinsky, P., Lakly, A., Johnson, T. S. (2002). Acquiescence, accommodation, and resistance in learning to teach within a prescribed curriculum. *English Education, 34*(3), 187–213. https://pdfs.semanticscholar.org/c516/2ed30b2f5839f53a661242191014b97585e6.pdf

Spear-Swerling, L., & Brucker, P. (2003). Teachers' acquisition of knowledge about English word structure. *Annals of Dyslexia, 53,* 72–103. https://doi.org/10.1007/s11881-003-0005-5

Spear-Swerling, L., & Brucker, P. (2004). Preparing novice teachers to develop basic reading and spelling skills in children. *Annals of Dyslexia, 54,* 332–364. https://doi.org/10.1007/s11881-004-0016-x

Spear-Swerling, L., & Brucker, P. (2006). Teacher-education students' reading abilities and their knowledge about word structure. *Teacher Education and Special Education, 29,* 116–126. https://doi.org/10.1177/088840640602900204

Souto-Manning, M., & Dice, J. L. (2007). Reflective teaching in the early years: A case for mentoring diverse learners. *Early Childhood Education Journal, 34*(6), 425–430. https://doi.org/10.1007/s10643-007-0151-1

Star, J. R., & Strickland, S. K. (2008). Learning to observe: Using video to improve preservice mathematics teachers' ability to notice. *Journal of Mathematics Teacher Education, 11,* 107–125. https://doi.org/10.1007/s10857-007-9063-7

Stevens, L. P. (2002). Making the road by walking: The transition from content area literacy to adolescent literacy. *Reading Research and Instruction, 41*(3), 267–278. https://doi.org/10.1080/19388070209558370

Stough, L., & Palmer, D. (2003). Special thinking in special settings: A qualitative study of expert special educators. *The Journal of Special Education, 36*(4), 206–222. https://doi.org/10.1177/002246690303600402

Strauss, A., & Corbin, J. (1998). *Basics of qualitative research. Grounded theory: techniques and procedures for developing grounded theory* (2nd ed.). Sage.

Sutcliffe, J., & Whitfield, R. (1979). Classroom-based teaching decisions. In J. Eggleston (Ed.), *Teacher decision-making in the classroom: A collection of papers.* Routledge & Kegan Paul.

Swanson, H. L. (1999). Reading research for students with LD: A metaanalysis of intervention outcomes. *Journal of Learning Disabilities, 32*, 504–532.

Swanson, C. B., & Stevenson, D. L. (2002). Standards-based reform in practice: Evidence on state policy and classroom instruction from the NAEP state assessments. *Educational Evaluation and Policy Analysis, 24*(1), 1–27. https://doi.org/10.3102/01623737024001001

Taylor, S. V., & Sobel, D. M. (2001). Addressing the discontinuity of students' and teachers' diversity" A preliminary study of preservice teachers' beliefs and perceived skills. *Teaching and Teacher Education, 17*(4), 487–503. https://doi.org/10.1016/S0742-051X(01)00008-7

Tracy, S. J. (2010). Qualitative quality: Eight “big-tent” criteria for excellent qualitative research. *Qualitative Inquiry*, *16*(10), 837–851. https://doi.org/10.1177/1077800410383121

Valencia, S. W., Martin, S. D., Place, N. A., & Grossman, P. (2009). Complex interactions in student teaching: Lost opportunities for learning. *Journal of Teacher Education*, *60*(3), 304–322. https://doi.org/10.1177/0022487109336543

van Es, E. A., & Sherin, M. G. (2002). Learning to notice: Scaffolding new teachers’ interpretations of classroom interactions. *Journal of Technology and Teacher Education*, *10*(4), 571–596.

Vaughn, M. (2015). Adaptive teaching: reflective practice of two elementary teachers’ visions and adaptations during literacy instruction. *Reflective Practice, 16*(1), 43–60. https://doi.org/10.1080/14623943.2014.944143

Westerman, D. A. (1991). Expert and novice teacher decision making. *Journal of Teacher Education*, *42*(4), 292–305. https://doi.org/10.1177/002248719104200407

Winkler, A. (2002). Division in the ranks: Standardized testing draws lines between new and veteran teachers. *Phi Delta Kappan, 84*(3), 219–225. https://doi.org/10.1177/003172170208400310

Yoo, S.-Y. (2005). The study of early childhood teachers’ beliefs related to children's literacy at South Korea. *Reading Improvement*, *42*(3), 137–148.

Zeichner, K. M. (2005). A research agenda for teacher education. In M. Cochran-Smith, & K. M. Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 737–760). Lawrence Erlbaum.

Zeichner, K. M., & Conklin, H. G. (2005). Teacher education programs. In M. Cochran-Smith, & K. M. Zeichner (Eds.), *Studying teacher education: The report of the AERA panel on research and teacher education* (pp. 645–736). Lawrence Erlbaum.

APPENDIX A

RESEARCH QUESTIONS AND DATA SOURCES

Research Questions	Data Sources
RQ1: In-the-moment decisions	• Observations • Interview (Question 1)
RQ2: Reasoning for decisions	• Interview (Questions 2 – 4) • Survey

APPENDIX B

DATA COLLECTION TIMELINE

Dates	Action
Pre-Study	Obtain approval of school district Obtain principal permission Obtain IRB approval
August 26 – September 30	Recruit Obtain preservice teacher consent Send home parent consent Conduct demographic, prior experiences, and belief survey Collect course syllabus
October 1 – October 11	*Preservice teachers begin tutoring instruction Sept. 26* Round 1 of Interviews Collect video-recorded observations and lesson plans Conduct interviews within 1 week of receiving video Collect case study assignment
October 12 – October 26	Round 2 of Interviews Collect video-recorded observations and lesson plans Conduct interviews within 1 week of receiving video Collect assessment case study assignment
October 27 – November 14	Round 3 of Interviews Collect video-recorded observations and lesson plans Conduct interviews within 1 week of receiving video
December 9	Collect reader intervention plan assignment

APPENDIX C

OBSERVATION GUIDE

Date:	**Participant:**	
Focus of lesson: (word work, reading comprehension, writing) **Describe basic activities and learning objectives:**		
Notes		
Time Stamp	**Context**	**Perceived Decision**

APPENDIX D

INTERVIEW PROTOCOL

Introduction

- *Thank you for meeting with me; I know your time is valuable. This interview should last about 30 minutes, and I will be recording it so that I can pay more attention to the conversation instead of focusing on my notes. I am interested in the decisions you made while you were teaching and the reasoning why you made those decisions. For today, we are focusing on the* (word work/reading/writing) *portion of your lesson.*

Interview Questions

- *Before we begin, tell me a little about how tutoring is going so far.* [This question is to help build rapport with the participant and to gain an understanding of their perception of providing reading instruction to a student with reading difficulties/disabilities thus far.]

- *Thank you for sharing. As I said, I am most interested in the decisions you made during instruction, why you made them, and what you were thinking about at the time. We are going to watch the portion of your lesson, and you may pause the video at any time to share a decision you made in the moment.*

- [I will watch the video with the participant and defer to them pausing the video to discuss decisions. However, if I see a decision and the video is not stopped by the participant, I will pause the video. For each pause, the following questions will be asked. Additional potential follow-up questions may be asked as necessary for clarification.]

    - *What decision did you make here?* [This will allow me to hear the decision in their own words]
    - *What did you see here during the lesson?* [This will allow me to understand what the participant perceived during the lesson.]
    - *What were you thinking about here?* [This will allow me to learn more about their thought process.]
    - *Why do you think you thought about that?*

Thank you for talking with me today! Is there anything else you would like to share that you think about be helpful for me to understand your decision-making?

APPENDIX E

DEMOGRAPHICS, PRIOR EXPERIENCES, AND BELIEF SURVEY

Please fill out the following information. Write in or circle your answer as instructed.

1. Name: _____ (for data collection purposes only; will be de-identified and given a pseudonym.)
2. Age: _____
3. Gender (circle one):
    a. Male
    b. Female
    c. Other (please specify): _____
    d. Prefer not to say
4. Race (circle one):
    a. Caucasian or White
    b. African American or Black
    c. Hispanic or Latino/a
    d. Asian or Pacific Islander
    e. Multiple (please specify): _____
    f. Other (please specify): _____
    g. Prefer not to say
5. Major: _____
6. What were your K-12 schooling experiences like (what type of school(s) did you attend, what types of teachers did you have, etc.)?

7. Do you have any experiences teaching children to read? If yes, please describe.

8. Do you have any experiences working with students with disabilities? If yes, please describe.

9. What are your beliefs on the best way to teach reading?

APPENDIX F

CODEBOOK

Open Codes	Axial Codes	Selective Codes
acknowledging student input	assessing student understanding	influence of courses
anticipating student frustration	considering purpose of activity	influence of internships
asking questions for engagement and understanding	considering student needs	personal influences
asking questions to assess (no pause)	courses	influence of planning
asking questions to assess engagement	creating example or visual cue	in-the-moment decision rationale
asking questions to assess student understanding	discussing knowledge of content	reading component
asking questions to building rapport	discussing knowledge of curriculum	tool
asking questions to encourage engagement	discussing knowledge of student	
asking questions to establish rapport - transition to work	discussing planning	
asking questions to prompt	discussing previous experiences	
asking student to assess engagement and understanding	discussing teacher needs	
assuming student knowledge	documenting	
changing vocabulary to provide direct instruction	encouraging concepts of print	
connecting assessment to planning	encouraging decoding	
connecting to student preference	encouraging elaboration	
considering purpose of activity	encouraging letter identification	
considering student needs	encouraging phonemic awareness	
correcting behavior	encouraging phonics	
correcting off task behavior	encouraging reading comprehension	
	encouraging student	
	encouraging vocabulary development	
	encouraging word identification	
	encouraging writing	

Open Codes	Axial Codes	Selective Codes
creating visual cue	encouraging writing	
discussing planning	mechanics	
documenting student work	expecting growth in student	
emphasizing specific	understanding	
content	feeling discouraged	
encouraging concepts of	field experiences	
print, emphasizing specific	fostering student	
content	connections	
encouraging elaboration	managing instructional time	
encouraging phonemic	modeling	
awareness	modify lesson	
encouraging safe learning	no decision	
environment	noticing student ability	
encouraging student	noticing student	
behavior	engagement	
encouraging student	noticing student	
confidence	preferences	
encouraging student	outside source	
engagement	planning	
evaluating activity	previous experiences	
effectiveness	prompting	
expecting growth in student	questioning	
understanding	questioning in-the-moment	
extending student made	decision	
connection	recognizing importance of	
feeling discouraged	feedback	
foreshadowing text	reflecting on benefits of	
fostering connections	activity	
fostering connections	responding	
between curriculum and	searching for student	
activity	motivation	
fostering connections	student frustration	
between plan and future	student misunderstanding	
plans	teacher needs	
fostering connections-	teaching	
between known and	theorizing reason for	
unknown	student confusion	
fostering connections-	unknown	
sound/symbols	using language	
going completely blank	using lesson materials	
ignoring materials problem	using noticing for future	
inserting new activity	using physical movement	

Open Codes	Axial Codes	Selective Codes
knowledge of student	using storybook	
knowledge of student-	using student curriculum	
knowledge of print concepts	using student preferences	
lack of curriculum knowledge	using video noticing for future	
lacking confidence in decision	using writing utensil	
lacking confidence in planning		
learning modeling from sister		
making decision not to act		
managing instructional time		
modeling		
modifying activity		
modifying activity due to student error		
modifying expectations of student within activity		
modifying implementation of activity		
modifying structure of lesson		
modifying structure of lesson		
noticing student ability		
noticing student engagement		
noticing student error		
noticing student error		
noticing student frustration		
noticing student misunderstanding		
noticing student preferences		
physical or verbal prompting		
prompting - asking questions		
prompting - physical or verbal		

Open Codes	Axial Codes	Selective Codes
prompting and direct instruction using paper and pencil		
providing context		
providing direct instruction		
providing example		
pulls out a reader with a “window”		
questioning - asking questions		
questioning in-the-moment decision		
recognizing importance of feedback		
re-engaging with lesson		
reflecting change for future		
reflecting on benefits of video		
reflecting on lesson		
reflecting on ways to improve lesson		
reorganizing sequence of activity		
repeating instruction		
searching for student motivation		
seeking resources		
skipping activity		
stopping activity		
struggling with content		
struggling with student ability level		
student understanding		
surprised by students' lack of knowledge		
teacher lacking confidence in decision		
theorizing reason for student confusion		
trying to understand student thinking		
using field experiences		

Open Codes	Axial Codes	Selective Codes
using knowledge of content		
using knowledge of curriculum		
using knowledge of future plans		
using knowledge of materials		
using knowledge of student		
using knowledge of student needs - behavior		
using knowledge of student to plan		
using knowledge of student-lack of letter identification skills		
using lesson materials to prompt		
using previous experiences		
using student preferences		
using video noticing for future		

APPENDIX G

EXCERPTS OF REFLECTIVE JOURNAL

September 30, 2019

Although I tried to even out my observations and interviews by staggering the interviews with 4 and 3, the plan has already fallen apart a bit. I reached out to the 4 participants I had planned to observe this week and after multiple emails, only 1 responded to say they didn't teach a lesson on the 26th. However, one student I had planned for next week uploaded their video and out of the other two students from the next week I reached out to, 1 responded and offered to upload her video. Thus, I only have 2 interviews scheduled this week when I hoped for 4 and none of the students I had anticipated are the ones I am interviewing. I will then need to interview 5 students next week --- the trouble may be getting a hold of them and getting them to respond.

Of the two lessons I observed, one only taught "word work" for 5 minutes and one taught the entire lesson as "word work." For the lesson that used all 50 minutes for "word work," I watched 15 minutes, or approximately 1/3 of the lesson, as I would have if the lesson plan had followed the typical lesson plan format. I regretted that the first lesson only had 5 minutes of word work, but as I had decided to only focus on each section per interview, it will likely be a shorter interview. Overall, I thought the lesson went well for a first one; the teacher took advantage of some teachable moments. The second lesson (i.e., the longer one) was of low quality, which made in-the-moment decisions hard to perceive. Even when there were teachable moments, the teacher did not take them. The only decisions I perceived were making up examples. I watched the lesson with regret that I could not share my concerns with either instructor of the class—I felt frustrated that a student who needs tutoring received such a poor lesson. I do hope, however, that the lessons will improve throughout the semester.

October 1, 2019

I just completed my first interview and it went well. The participant, Felicia, was very willing to stop and pause the video and discuss her in-the-moment decisions. I realized quickly that all of the decisions that I had perceived were actually planned decisions. In the end, she stopped the video at 2:41, 3:07, 3:30, and 3:40, only one of which overlapped with mine (3:07). She shared that document with me, which led to a fruitful discussion of why she had planned to use the strategy with her student. I found Felicia to be thoughtful and reflexive. She had clearly thought about her lesson already.

For example, she mentioned, “I don’t think this strategy worked as well as planned” and had decided to tweak it for the next lesson. She also shared how some of her in-the-moment behavior reflected what had been ingrained in her from her Deaf Ed classes (e.g., constant expansion). After our interview, she also mentioned she is considering getting her masters in reading. I am looking forward to working on the transcript and digging more into the conversation.

This afternoon, I met with my second participant, Emily. Emily was also very willing to stop the video on her own. She stopped it is 2:23 and 5:28 and agreed with my 4 additional stops. It was interesting to note that at one point she mentioned her mind went blank on what to do on how to make the lesson better. So, is that from lack of knowledge? It seemed she didn’t have any knowledge to pull from on how to recognize her lesson was struggling and fix it. Additionally, she mentioned, “Watching this now I see...” which indicated to me that she didn’t/wasn’t able to reflect in the moment, but now she saw her errors. This is something to think more about as I work through her transcript.

As I did these interviews and documented when the participants stopped the videos, I realized I needed to think of a way to include this data, as the times they stopped are not in my observation sheet. Therefore, I have decided to go back to my observation sheets for each participant after their interview and update them to reflect the times that the participant stopped and what the context and decision was. This will allow me to have a quick reference for the transcripts.

October 2, 2019

I transcribed the first interview (i.e., Felicia’s) today. As I was transcribing, I noticed a few spots in the conversation where I could have asked a follow-up question to further probe her thinking. Specifically, I noticed I did not probe enough on the why of her decisions. This is an important part of my study and I need to do a better job moving forward. Luckily, I have only done 2 interviews thus far and am aware of the problem now.

December 10, 2019

Analyzing transcripts. Abigail continues to mention how hard it is to work with her student — someone who is much younger than someone she is used to working with. This difficulty seems to reflect a lot of her decisions that she makes in the moment, realizing that what she had planned might not work. This highlights the importance of knowing your student — even if you know your reading content and pedagogical content

(which, Abigail seems to have some grasp on, but admits to struggling there), it won't be as helpful if you don't know what your student actually needs. I added a few new codes in this one, such as "acknowledging student input" and a few more professor modeling codes. I continue to use the "prompting" code a lot, which I may need to break down into smaller codes at some point and differentiate the different types of prompting that is going on. I'll see after my next round of interviews. I do wonder, though, if the amount of "prompting" codes reflects the poor planning or lack of knowledge about student and/or reading content. Would as much prompting be necessary if the instruction was better planned??

After initially finishing Abigail, I went back and gave definitions and examples (if necessary) to all of my codes. That helped me start to weed out certain codes. For example, if I couldn't differentiate between two codes, I realized I just needed to combine them and reword. This only happened once or twice but did help me get rid of 2 codes. I also realized that many of my codes reflected why Abigail did things (e.g., assessing for understanding) but didn't reflect WHAT she did to do it. So, I went back and re-coded for all of that. They were almost all "asking questions." She used a lot of questions to prompt and assess. I am ending Abigail with 52 codes that I think will be a great start for the next round of interviews.

December 16, 2019

Like Abigail, Cassie also shared that working with such a young student is something she is not used to. Her practicum placements have been in high school and young students "aren't her forte." Because her student is a bit older than Abigail's, there is a bit more content that she is familiar with that can be worked with. During the first interview, I introduced the code "using knowledge of curriculum" and realized that I had been remiss in not coding it in Abigail's interviews. So, after finishing the first Cassie interview, I went back and coded all of Abigail's for knowledge of curriculum. For both participants, this mostly revolved around their knowledge that the school uses *LetterLand* and helping the students make those connections.

While coding Cassie's second interview, it comes to my attention I need to add the code of "providing examples" and go back and re-code for this. Furthermore, I need to differentiate explicitly between "providing examples," "providing direct instruction" and "prompting"

Prompting: Asking questions or providing comments that can help student get to the answer

Providing direct instruction: providing student with the answer/concept

Providing examples: not providing the direct answer, but synonyms or examples

I have completed coding Cassie's interview. My big takeaway is she seemed really flexible in working with her student, but it may have come at the cost of good instruction. She was very aware of encouraging phonics and phonemic awareness skills, but at times her lack of planning or willingness to go along with what her student wanted (e.g., switching to a completely different book) made it harder for her to really emphasize the content.