Preservice teachers' preparedness to teach writing: Looking closely at a semester of structured literacy tutoring

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Abstract: Preparing preservice teachers (PSTs) as teachers of writing has gained attention in recent years, but little is known about their preparedness when engaging with student writers over extended periods. We examine PSTs' preparedness to teach writing within a structured literacy tutoring experience to better understand the skills and knowledge of PSTs related to teaching writing. Results indicate PSTs contextualized writing instruction, considered clients' affect around writing, and used data to inform writing lessons. PSTs were also grappling with specific pedagogical considerations related to writing instruction, offering implications for teacher educators and researchers.

Keywords: Pedagogical Content Knowledge (PCK), Preservice teacher education, Preservice teachers (PSTs), Writing instruction

1. Introduction

Novice and veteran teachers alike suggest that writing instruction is challenging (Brindle et al., 2016; Gilbert & Graham, 2010; Myers et al., 2016). Efforts to support teachers with writing instruction across the globe include professional learning initiatives and refinements to teacher preparation programs (TPPs). The National Writing Project is one well-known U. S. organization with sustained involvement in providing quality learning experiences for teachers (National Writing Project & Nagin, 2003). While this and similar initiatives in different countries (e.g., Dix & Cawkwell, 2011) have shown positive impacts on teacher practice and student outcomes, TPPs are, arguably, the primary source of teacher preparation for writing. Over the last 25 years, teacher education in various countries, such as Ethiopia, has undergone reform to improve instructional approaches to teaching reading and writing (Barnes et al., 2018). Teacher educators in countries like Portugal and Norway have included mentoring in practicums to support PSTs with writing (Nilssen & Solheim, 2015; Pereira, 2014).

In the U.S. specifically, a recent national survey of literacy teacher educators called for greater attention to writing in TPPs; results indicated that universities rarely offer standalone writing instruction courses, requiring instructors to include writing instruction in their reading courses (Myers et al., 2016). Further, the importance of writing within and beyond K-12 classrooms is widely accepted; however, prior research highlights both in-service and pre-service teachers' (PSTs) lack of preparation for teaching writing (Cutler & Graham, 2008; Grisham & Wolsey, 2011). Writing and writing instruction have been studied for decades, and concerns about students' writing proficiency persist (Roberts et al., 2017). The stagnation of writing achievement in the U.S. has led to shifts in policy. For example, the Common Core State Standards (CCSS) refocused attention on writing across grade levels and content areas, increasing the writing expectations for students, and, therefore, teachers. TPPs are tasked with fostering PSTs' writing knowledge, skills, and self-efficacy related to teaching writing and using writing as a tool to promote learning. PSTs also need substantial training in writing assessment and writing strategies (Bomer et al., 2019; Roser et al., 2014; Street, 2003). Building PST capacity is key to improving writing instruction, and this begins with investigating how teachers and PSTs conceptualize writing and writing instruction (Bickmore et al., 2013).

Research on preparing PSTs for writing instruction has largely focused on their perceptions (Martin & Dismuke, 2015) and beliefs (Hodges et al., 2019; Hall, 2016), as well as on methods for teaching writing in TPPs (Zimmerman et al., 2014). Overall, literacy research and teacher education often prioritize reading over writing. Few studies, if any, describe the writing preparedness of PSTs as they engage with students over extended time periods, which was the aim of the current study. Additionally, in our review of the literature, we found no studies that explore

elementary PSTs' writing preparedness through a lens of Pedagogical Content Knowledge (PCK; Shulman, 1987). Because a lack of PCK is a possible barrier to sustained   quality writing instruction (Myers et al., 2016), the purpose of this study was to determine what PSTs knew and were able to do, in relation to writing instruction. Further, we looked to understand how a literacy clinic can better support PSTs with effective writing instruction. Selecting exemplary, or success (Brinkerhoff, 2003; Smith, 2021) cases, allowed us to examine PSTs' capacity for writing instruction in the best of circumstances, thus illuminating areas where all PSTs would likely benefit from further support. We used a collective case study design (Stake, 1995; Yin, 2014) to look closely at a 10-week snapshot of their planning, teaching, and reflection in our literacy clinic to understand the PSTs' PCK and preparedness for writing. This multiple case study was rooted in the following inquiry: What does a semester of structured literacy tutoring reveal about PSTs' preparedness for writing instruction? To frame our study, we considered theory and research related to PCK for writing, teacher preparedness for writing instruction, and approaches to preparing PSTs for writing instruction.

1.1   Pedagogical content knowledge related to writing

To conceptualize PSTs' preparedness for writing instruction, we looked to theory and research on Pedagogical Content Knowledge (PCK). PCK has been described as the characteristic that separates a person with content knowledge from a teacher who can support students in "com[ing] to know" the content (Shulman, 1987, p. 7). PCK for writing can be illustrated by considering the difference between an author's approach to teaching a writing lesson and a teacher's approach. While the author could thoroughly describe a topic and their own writing methods, an effective writing teacher plans lessons based on students' needs, developmentally appropriate content, and pedagogies that best suit the students (e.g., planning specific supports throughout the writing process (Graham & Sandmel, 2011)). Furthermore, evidence supports a link between PCK, effective instruction, and student achievement (Gelfuso, 2017; McCutchen et al., 2002), making PCK a valuable framework to examine teacher preparedness.

Although we aligned our research with literature that examines teacher knowledge based on specific categories (e.g., Almasi, 2003; Ball et al., 2008), we acknowledge that, in practice, teacher knowledge is not always neatly compartmentalized in   distinct ways (Griffith et al., 2015). When examining PSTs' PCK for writing, we looked at several models to honor the various combinations of knowledge, skills, and beliefs that coalesce to develop PCK (Almasi, 2003; Hill et al., 2008; Shulman, 1987). Almasi (2003) noted three different types of knowledge included in PCK - declarative (i.e., knowing what to teach related to writing), procedural (i.e., knowing how to teach writing), and conditional (i.e., knowing why, when, and under what circumstances to teach writing).

Ball and colleagues' (2008) model for teacher knowledge breaks these categories down further to include common content knowledge, specialized content knowledge, curricular knowledge, knowledge of context, general pedagogical knowledge, and knowledge of learners and learning. While common content knowledge refers to the knowledge and skills a writer employs when writing, specialized content knowledge includes a deeper understanding of writing that allows teachers to accurately represent and explain disciplinary content and understand student misconceptions about content (Ball et al., 2008). According to the National Council of Teachers of English (NCTE, 2016), specialized content knowledge for teaching writing involves 10 key concepts, found in Figure 1.

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1. Writing grows out of many purposes.
2. Writing is embedded in complex social relationships and their appropriate languages.
3. Composing occurs in different modalities and technologies.
4. Conventions of finished and edited texts are an important dimension of the relationship between writers and readers.
5. Everyone has the capacity to write; writing can be taught; and teachers can help students become better writers.
6. Writing is a process.
7. Writing is a tool for thinking.
8. Writing has a complex relationship to talk.
9. Writing and reading are related.
10. Assessment of writing involves complex, informed, human judgment.

Figure 1: NCTE Professional Knowledge for the Teaching of Writing.

In addition to knowing about the act of composing, teachers must also understand the pedagogy of teaching writing (Morgan & Pytash, 2014), which includes curricular knowledge and general knowledge of pedagogy. For example, the use of the Universal Design for Instruction (UDI; CAST, 2018) calls for making explicit connections for students between previous, current, and future learning related to writing, as well as implementing writing strategies that are engaging for students. Furthermore, when considering how PSTs might employ conditional knowledge for teaching writing, contextual factors, including knowledge of students (Morrison & Luttenegger, 2015), are of importance. This includes establishing learning environments that   prioritize student dispositions and foster writing development (Hawkins et al., 2019; Martin & Dismuke, 2015; Piazza & Siebert, 2008). The ability to synchronize these funds of knowledge into teaching and learning events for writing is no easy task. However, considering PCK for writing offers insights into what excellent writing teachers need to know and be able to do and, thus, the intricacies of preparedness for teaching writing.

1.2   Preparedness for writing instruction

Both PSTs and practicing teachers need further support with writing instruction (Brindle et al., 2016; Carter & Townsend, 2022;; Flores-Ferrés et al., 2020; Gilbert & Graham, 2010; McCarthey & Mkhize, 2013), and TPPs are a primary entity responsible for providing this support (Hillocks, 2006). Teacher educators express apprehension about PSTs' ability to teach writing effectively to PK-12 students (Brindle et al., 2016; Gallavan et al., 2007; Martin & Dismuke, 2015; Myers et al., 2016), and, while PSTs value writing, they lack confidence in many aspects of writing instruction (Hodges et al., 2019; Gallavan et al., 2007). In a case study across a three-course literacy methods sequence, Grisham and Wolsey (2011) found that PSTs lacked instructional confidence, as well as knowledge in numerous areas related to writing instruction, such as interpreting standards. PSTs in this study also failed consistently to include research-based practices when planning writing instruction, despite their expressed valuing of those practices (Grisham & Wolsey, 2011). Other areas that PSTs need further support include understanding the characteristics of quality writing (Norman & Spencer, 2005) and including instructional scaffolding in their lessons (Gibson, 2007).

Teachers across content areas and grade levels in the U.S., for example, report a lack of preparation to teach writing (Brindle et al., 2016; Carter & Townsend, 2022; Ferris, 2007; Gilbert & Graham, 2010). More specifically, 50% teachers indicated their preparation for teaching writing was not substantial (Kiuhara et al., 2009); 65% of grade 4-6 teachers stated they received minimal to no preparation to teach writing during their TPPs (Gilbert & Graham, 2010), and over one quarter (28%) of grade K-3 teachers reported that their preparation to teach writing was poor or inadequate (Cutler & Graham, 2008). In other countries, such as New Zealand, even those teachers who report feeling prepared to teach writing still lack confidence in some aspects of writing, such as their knowledge of the out-of-school writing practices (Parr & Jenson, 2016). Further, a Norwegian study report that 85% of 500+ teaching segments reviewed contained no opportunities for students to engage in sustained writing, suggesting that teachers may need support with supporting their students to write authentically (Bilkstad-Balas et al., 2018)

In some jurisdictions, teachers report receiving few professional learning opportunities for writing or writing instruction after entering the classroom (Calkins et al., 2012; Carter & Townsend, 2022; Cutler & Graham, 2008; National Writing Project & Nagin, 2003), which suggests that TPPs are largely responsible for preparing effective writing instructors. The writing success of K-12 students is related to teachers' preparation to teach writing before they enter the classroom (Hawkins et al., 2019; Hillocks, 2006). Teachers who are thoroughly prepared for writing instruction through TPPs devote more time and attention to teaching writing, feel more confident in their ability to teach writing, find more pleasure and enjoyment in teaching writing, and consider writing to be an important life skill

(Hodges et al., 2019; Bridle et al., 2016; Hsiang & Graham, 2016; Kiuhara et al., 2009; Troia & Graham, 2016). Quality writing preparation can also prevent teachers from resorting to the methods they experienced as students and, instead, promote the use of research-based writing pedagogy (Smagorinsky et al., 2011). Research points to several recommendations for preparing PSTs for writing instruction.

1.3   Approaches to preparing PSTs for writing instruction

The National Commission on Writing in America's Families, Schools, and Colleges (2003) has challenged TPPs to provide opportunities for teachers to "upgrade their writing skills and competence as writing teachers" (p. 27). To support PSTs' preparation for writing instruction, research points to the importance of intentionally bridging the gap between theory and practice, as well as university and K-12 contexts (NCTE, 2016). Grossman and colleagues (2009) provide a framework for doing so. Within this framework, PSTs engage in three pedagogies of practice - representations, decompositions, and approximations - each described with examples in Table 1. In short, representations make practices visible, while decompositions break those practices down into more understandable chunks, and approximations give PSTs some type of practice. To ensure that PSTs systematically engage in these pedagogies, TPPs must thoughtfully structure general education courses, writing methods courses, and field experiences that include writing.

Writing methods courses can deepen disciplinary knowledge and understandings about children's writing development, as well as reinforce understandings from courses on general pedagogy (Martin & Dismuke, 2015). In studies examining writing methods courses, both Collier et al. (2013) and Jahin (2012) found that PSTs' dispositions for writing improved.   Specifically, they began to identify as writers and developed more positive attitudes and motivation toward writing. Despite the benefits of writing methods courses extending to student teaching (Morgan et al., 2011) and into the first years of teaching (Grossman et al., 2000), only 28% of TPPs include a stand-alone course on writing instruction (Myers et al., 2016). Seventy-two percent of TPPs indicated that writing instruction was embedded in reading courses, ranging from one class session to 50% of the course (Myers et al., 2016). To ensure PST preparedness for writing instruction, explicit instruction in writing theory and pedagogy, as well as practical experiences, are essential.

Table 1: Key concepts for understanding the pedagogies of practice in professional education

Component	Description	Examples
Representations	Making practices clearly visible to PSTs through their evaluation of practice artifacts (e.g., lesson plans and student work), observation of best practices, or experiencing writing by taking on the role of a K-12 student	PSTs watch a writing expert (e.g., literacy teacher educator) engage in specific writing practices, such as a teacher educator modeling a mini lesson for revision. PSTs engage in an outlining activity using a mentor text (i.e., exemplar), to support their argumentative writing.
Decompositions	Breaking down complex best practices into discrete chunks to help PSTs see the value of both of the parts and the whole	PSTs use an observation tool to evaluate a mini lesson for revision and discuss the purpose and components of each lesson step. PSTs read about/listen to a detailed step-by-step explanation of an outlining activity for argumentative writing and identify why/how the lesson supports brainstorming.
Approximations	Moving PSTs from thinking about a specific practice to trying it out on a small scale (e.g., lesson planning microteaching, or role-playing)	PSTs plan a 10-minute revision mini-lesson that they teach to a small group of peers. PSTs use a rubric to evaluate several outlines of argumentative essays and write up a summary of student performance.

Note. Adapted from DeGraff, Schmidt & Waddell, 2015; Grossman et al., 2009.

A second line of research on preparing PSTs to teach writing examines field experiences. Effective components of field experiences for writing include working with a small group of students, engaging with students on a consistent basis, teaching with peers, and receiving feedback and support from multiple sources (Colby & Stapleton, 2006).

Previous studies found that well-structured field experiences can increase knowledge of writing pedagogy, improve ability to identify students' writing needs and provide meaningful feedback, and increase use of specific approaches to teaching writing (Fry & Griffin, 2010; Morgan & Pytash, 2014). Despite these potential benefits, field experiences also have several pitfalls. With PSTs being physically off the university campus, outside factors such as the mentor teacher's beliefs and practice, school norms, and outdated writing approaches, must be considered (Grisham & Wolsey, 2011; Smagorinsky et al., 2011). Additionally, research cautions

that little writing instruction occurs in some classrooms that PSTs are placed in, due to a variety of factors including a more prominent focus on reading (Grisham & Wolsey, 2011). Thus, Hoffman and colleagues (2019) suggest practical experiences with substantial design control by teacher educators. In some TPPs, PSTs engage in structured tutoring experiences for literacy, which has shown various benefits for aspiring teachers, including improved knowledge of literacy and language (Hoffman et al., 2019) and increased self-efficacy for supporting struggling students (Hodges et al., 2019).

In sum, PSTs need further support with writing instruction. Providing PSTs an opportunity to engage in writing methods courses and structured field experiences for writing is a starting point for bridging the gap between writing theory and practice. Both experiences can provide dedicated spaces for PSTs to learn about writing content, instruction, and assessment, as well as put their learning into practice.

2. Methodology and methods

To better understand PSTs' PCK and preparedness for writing, we used a collective case study design (Stake, 1995; Yin, 2014) to look closely at PSTs' planning, teaching, and reflection. Common to case study design, we sought to understand the richness and complexity of PSTs' learning related to writing instruction by "situating teacher learning within the real work of teaching" (Collet, 2013, p. 328). We chose four exemplary cases, described in the Participants section below (Brinkerhoff, 2003; Smith, 2021), to examine PSTs' capacity for writing instruction in the best of circumstances, thus illuminating areas where all PSTs would likely benefit from further support.

2.1 Context

The context for this study was a university-based literacy clinic located in the western U.S. in a small, metropolitan area. In the U.S. context, a university-based literacy clinic is a university-sponsored program that offers literacy support to children in the region. While they have been in decline in recent years, these clinics can simultaneously serve the needs of PSTs, researchers investigating literacy acquisition and teacher preparation, and the greater community, as affordable literacy intervention can be difficult to access outside of the public-school setting (Wright & Massey, 2019).

Our clinic has been active for over 20 years and has a positive reputation in the community. Each semester, PSTs tutor local children, referred to as "clients," in grades K-12. The clinic is open to community members whose children can attend, and parents are motivated to enroll children for a variety of reasons -- some have diagnosed literacy difficulties, others are lacking motivation to read, while others are still performing above grade level and hope they will continue to grow as

readers and writers. Many of the clients served by our clinic (60% on average) are English Language Learners (ELLs).

The clinic is situated within a required course at the conclusion of the TPP focused on literacy assessment and instruction. Prior to this course, PSTs have taken approximately two years of education coursework, including an introduction to literacy methods. This coursework consists of courses in comprehensive literacy, a 20-hour field experience in a literacy classroom, content-area literacy, and writing methods. PSTs take the clinic course the semester prior to what we call professional year -- a one-semester internship, followed by one semester of student teaching.

Table 2 gives the weekly foci of our lab course. The course meets twice per week for three hours. In the first five weeks of the course, PSTs learn how to administer literacy assessments and practice analyzing the data to guide instruction. In week six, tutoring begins, and PSTs meet with their client for one hour, twice a week.

Table 2: Overview of literacy clinic course

Week(s)	Focus
Weeks 1-5	Intensive coursework on literacy assessments and data analysis (three hours of class, twice per week)
Week 6	Tutoring begins with: • PSTs getting to know their clients • PSTs completing a variety of assessments, such as the Qualitative Reading Inventory (Leslie & Caldwell, 2011), the Qualitative Spelling Inventory (Bear, Invernezzi, Templeton, & Johnston, 2016), and on-demand writing samples (Calkins, 2015)
Weeks 7-13	Tutoring continues (totaling approximately 18 hours per semester) with: • PSTs plan lessons in reading, writing, and word study based on clients' needs and formative assessments • PSTs teach two one-hour lessons per week
Week 14-15	Parent conferences and Final Report wrap up

In this first week, PSTs collect literacy assessment data and use class time to analyze and identify instructional goals for their client in reading, writing, and word study. Beginning in week seven, PSTs write two lesson plans each week targeting their clients' goals. PSTs are required to tutor in reading, writing, and word study (i.e., spelling and vocabulary) each week, but the time spent on each subject is allowed to vary based upon client needs. Formal lesson plans are prepared for each session that include an explanation of what the PST and client will do in the lesson and the dialogue the PST will use. PSTs are explicitly instructed to write out explanations as dialogue. While PSTs are not required to read dialogue verbatim, this level of planning allows for precise use of language during tutoring. Each of the tutors'

lesson plans is reviewed by a lab supervisor (a current or previous K-12 teacher), and detailed feedback is provided based on the lesson planning rubric. The rubric prioritizes the detailed explanation of modeling and guided practice, as well as specificity to the text type   being taught. Additionally, each PSTs' tutoring session is observed no fewer than once every other week, and written feedback is provided on one or more areas (e.g., reading, writing, word study). PSTs are expected to demonstrate implementation of that feedback in each subsequent lesson plan. Toward the end of semester, PSTs write formal reports for the clients' family explaining assessment results, instruction, and recommendations. These reports are finalized in week fifteen and are distributed to families.

2.2   Selection criteria and participants

As these PST participants were students in our course, we took special precautions to ensure that participation was voluntary. At the beginning of the semester, a faculty member, unaffiliated with the course, spoke to the entire class about the research project, distributed consent forms, and provided an opportunity to ask questions. That same faculty member collected the consent forms and guaranteed the professors would not know who was willing to be a participant and who was not until grades had been submitted at the end of the semester. Therefore, the research team collected data from all PSTs and their clients throughout the semester and selected our success cases when consent forms were returned to us after final grade submission.

All 28 students in the course consented, and we used purposeful sampling methods (Palinkas et al., 2015) to choose a subset of four exemplary cases for this study. Exemplary case study is a systematic approach to selecting outliers to better understand students, teachers, schools, and communities (Smith, 2021). This is a useful approach to document stories of impact and to develop an understanding of the factors that enhance or impede impact (e.g., Gadd & Parr, 2017). We used criterion and intensity sampling (Miles & Huberman, 1994; Patton, 2002) to identify success (Brinkerhoff, 2003), or ''information-rich'' cases (Palinkas et al., 2015, p. 534). "Success" means the participant met specific criteria that could show the complexity of instances of success. Criterion sampling considers participants based on predetermined criteria, which for this study simply included being a PST/tutor in our course and completing an internship the following semester. This allowed us to examine PSTs nearing the end of their TPP.

Beyond these criteria, we used intensity sampling, which seeks excellent or rich examples of the phenomenon of interest. Our inclusion criteria included PSTs who were:

▪ Tutoring in our clinic as part of a required literacy course.
▪ Completing their internship the following semester.
▪ Working to improve their writing practice (e.g., requested additional feedback).

- ▪ Excelling at planning writing lessons based on the provided lesson plan rubric.
- ▪ Succeeding at teaching writing based on supervisors' observation notes.

The research team revisited all data from this semester to identify PSTs who: 1. showed an interest in improving their writing practice based on supervisor communication and 2. excelled at lesson planning and teaching based on rubric scores. We each made a list of PSTs that we felt met these requirements, and then we discussed our list to narrow down to the four PSTs who we agreed were the *most* dedicated to improvement and effective at planning and teaching.

Table 3: Participant descriptions

Teacher Candidate	Client	Literacy Experiences Prior to Tutoring	Concerns About Tutoring	Personal Goals for Tutoring
Morgan	5th Grade ELL	Administering fluency assessments, where she learned that repeated timed measures can impact motivation	Time management Lack of client growth	Planning appropriate writing tasks for client needs Teaching lessons that meet client goals
Kate	5th Grade ELL	Leading reading Centers (1st grade), where she learned that choice in reading impacts motivation	Appropriate support for client Teaching that would help client "think on her feet"	Using reading assessment data Communicating with parents
Sophia	3rd Grade ELL	Working as a reading buddy (kindergarten), where she learned that students learn at different paces	Behavior and time management Lesson planning	Planning effective lessons Communicating with parents
Natalie	3rd Grade ELL	Tutoring for reading and writing (K-2 ELLs)	Determination of where to begin instruction	Communicating with parents Lesson planning

In other words, we combined our lists, ranked the PSTs from most to least dedicated and effective, and then discussed these rankings and reviewed data as needed until consensus was met. We identified four white, female PSTs as the participants for this study - Morgan, Kate, Sophia, and Natalie (pseudonyms), described in Table 3.

2.3 Data sources and analysis

According to Shulman (1987), effective evaluation of teachers cannot include only a single measure. Thus, consistent with case study research, we collected multiple data sources (Yin, 2014) to examine patterns of both action and thinking through PSTs' writing practice, teaching reflections related to writing, and self-evaluation of writing practice. Table 4 describes each data source. To explain the writing preparedness of PSTs as they engaged with students over an extended period, we completed within-case and cross-case analyses (Merriam, 2009), using a thematic approach (Braun & Clark, 2006) that was informed by our theoretical framework of PCK (Shulman, 1987).

To begin, case study tables (Miles & Huberman, 1994) were created for each of the four participants. Each researcher took one participant at a time and reviewed all their data sources, beginning with those that highlighted PST practice (e.g., lesson plans and observation notes). Next, we moved to reflection, and lastly to self-evaluation. While most data sources included information on reading, writing, and word study instruction, our data analysis considered writing only. We completed line-by-line open coding (Saldana, 2009) of all data sources.

The focus of our open codes was identifying any evidence of PCK related to writing. More specifically, if the PST indicated, in their lesson plans, in our observation feedback, etc. that they were using PCK related to writing, we captured that with a descriptive open code.   As we completed within case coding, we placed data in a priori categories (Crabtree & Miller, 1992) based on Ball and colleagues' (2008) model for teacher knowledge -- common content knowledge (e.g., topic details and examples), specialized content knowledge (e.g., relationships between big ideas within a discipline), general pedagogical knowledge (e.g., planning and classroom management), and knowledge of learners and learning (e.g., student misconceptions and strategy use). The purpose of doing so was to provide a framework for categorizing instances of PCK for each PST that could be later collapsed across all four PSTs. Several examples of coding and categorization are included in Table 5 below. During and after the coding processes, the researchers met to discuss selected examples of coding. Additionally, coding by each researcher was reviewed by all researchers in the categorization process of cross-case analysis. In other words, each researcher's coding was reviewed by the another researcher to ensure agreement, and all disagreements were discussed until consensus was met.

Table 4: Data collection

Focus	Data source	Description	Number per PST
Teaching practice	Lesson plans	Formal plans for each tutoring session that include learning targets and assessments, as well as what the PST and client would doing throughout the lesson and scripted teacher dialogue	6
	Supervisor observation notes	Written feedback from lab supervisors who informally observed PSTs (in person) during their tutoring sessions; a schedule was used to ensure PST received feedback at least once a week from various supervisors; a template was used for feedback that included which part of the lesson was observed, one thing the tutor should continue doing, and one the thing the tutor should work on	Varied (7-15)
	Final tutoring reports	Descriptive reports written by PST for parents at the end of tutoring describing assessment results, tutoring lessons, and recommendations for at-home practice with the child	1
Reflection and self-evaluation	Midterm goal reflections	PST written evaluation and revision of client learning goals (determined at the beginning of tutoring based on initial assessment data) at the mid-point of the semester	1
	Final tutoring reflections	PST written reflections on their own learning and teaching completed at the end of the semester	1
	Literacy teaching self-evaluation	PST self-evaluation of their writing instruction with ratings on specific aspects and written explanations of those rating	1
	Surveys	PSTs answer questions about their confidence with and beliefs about teaching writing, both at the beginning and the end of the semester	2

While analysis began by considering each case individually, we prioritized cross-case analyses in reporting. To begin, we created a master table to capture data from all participants. The researchers looked across all the PCK categories from within-case analyses to collapse the codes into new categories that were representative of the full data set. In other words, instead of simply presenting which PCK categories were represented, we collapsed the coded data from within-case PCK categories to determine what themes were commonly present when considering all participants. To do so, the researchers created, discussed, and revised outlines until agreement

was met on if/how the data were accurately represented. The following categories were determined when looking across all cases: contextualizing/explaining the importance of a lesson to clients, planning and implementing data-driven instruction, understanding client progress, rooting instruction in data and goals, assessing based on expectations set (rubrics), scaffolding, using specific supports/resources, and requiring client explanation and application. A tab was created in the master data analysis table for each category. The researchers individually read through the data in each tab and created an outline of possible themes. When discussing our outlines, we confirmed possible themes by listing participant quotes and counterevidence. Based on our discussions, it was apparent that PSTs were grappling with planning and implementing individualized and scaffolded instruction.

Table 5: Examples of coding and categorization

Participant	Data Source	Quote From Data Source	Open Code	Category
Nicole	Observation feedback	"I really enjoyed your sequencing activity and how you used the graphic organizer as a vehicle to organize ideas as well as combine sentences."	Effective graphic use	General pedagogical knowledge
Morgan	Lesson plan 4	"After she has a few paragraphs formed, we will look at her transition words, add more detail (voice), and create strong verbs (word choice)."	Quality revisions	Specialized content knowledge
Sara	Midterm goal reflection	"The first practice we did, she was able to use capital letters for the beginning of the sentence and the word I with 100% accuracy. This leads me to believe that she only needs a few reminders within the rest of the tutoring sessions."	Decision making based on progress	Knowledge of learners
Kate	Observation feedback	"When you explain paragraph structure, you thoroughly explain each part, providing examples and referring to the graphic."	Scaffolding	General pedagogical knowledge

To establish trustworthiness in this study, several techniques were employed. First, we triangulated PSTs' perspectives by looking at seven different types of data from multiple points throughout the semester. Thus, our data collection was robust

and included representation of various PST perspectives. Additionally, purposeful sampling and thick detail in our results promote transferability. We also gathered data systematically from a variety of sources over time. To ensure credibility, we detail the steps taken during data analysis above (Yin, 2014). Further, the researchers met regularly to discuss emergent findings during data collection and analysis. To ensure inter-rater reliability, an initial portion of data was coded and discussed. Two of the researchers coded each data source for one of the PSTs. Before meeting, we reviewed each other's codes in their entirety. We then met to talk through our codes and make final decisions for moving forward based on all discrepancies. One example of how we revised our analysis processes was to determine and add a clear description of each component of PCK to our data analysis spreadsheets. Additionally, in the categorization stage, each researcher's coding was reviewed by the other researcher to ensure agreement. All disagreements were discussed until consensus was met.

3. Results

To examine PSTs' preparedness to teach writing during a semester of structured literacy tutoring, we investigated their planning of and reflection on writing instruction. Our analysis indicated that PSTs' strengths included contextualizing their writing instruction, considering their clients' affect around writing, and using data to inform their writing lessons.

3.1 Contextualizing writing instruction

PSTs contextualized writing lessons for their clients by making explicit connections across content and by describing the purpose of the lesson, which related to writing with the audience in mind. Connections were made as a way to situate the clients' writing progression and connect each writing lesson to the previous and the next. PSTs also explained why their lesson was valuable to making their clients' writing more comprehensible and engaging to their audience.

Connecting to previous and future writing and learning when planning

When planning their writing lessons, PSTs described explicit connections for their clients in several ways. One way PSTs made connections was by reviewing a skill or topic they had worked on days or weeks earlier. In a lesson focused on using prepositions to make her client's writing clearer, Natalie compared the lesson at hand to a previous lesson. She wrote,

> The last thing I'm going to have you do today is very similar to what you did Tuesday. I am going to show you a new picture, and you're going to write a story based on what you think is happening in the picture. On Tuesday you had to include the prepositions

"on", "in", and "at". Well, today you are going to learn a new preposition that I want you to include in your writing. This preposition is "to".

Natalie described how her client was engaging in repeated practice by using images to generate ideas for practice with prepositions. She also explained how the lesson built on the previous by reminding the client of the prepositions he had already practiced and then introducing a new preposition.

Another example was Sophia explaining to her client how she was going to release control gradually (Pearson & Gallagher, 1983), based on previous writing lessons. Sophia reminded her client of a prior writing lesson where she had modeled how to complete a graphic organizer including a topic, main ideas, and details. Next, she reminded her client of the previous session, in which they had collaboratively brainstormed ideas for a topic. Then she explained what her client would be doing and how it was going to build on the last lesson. She wrote, "So today, you are going to make an idea web all by yourself. Last time, we did it together, but today you are going to do it by yourself."

Not only did PSTs make connections to previous lessons, but they also made connections to the writing that would happen in future sessions. For example, in one lesson where Kate was supporting her client with understanding informative writing structure, she stated, "On Thursday, we are going to write a paragraph together using what we know about the topic, supporting, and concluding sentences." Within this lesson, Kate and her client used a mentor text to practice identifying paragraph components and discussing their purpose. Kate then connected this activity to a future lesson where her client would create a paragraph with those same components. Likewise, at the conclusion of a revision lesson, Morgan described what her client would do in the next session and why it was important. She wrote, "Next week we will take a closer look at word choice in your writing. This will enhance your writing and really pull the reader in." Overall, we identified that PSTs had knowledge of how to make connections across time for their clients in relation to their writing, as well as how to support their clients with connecting to their audience.

Connecting to the audience

PSTs contextualized writing lessons by planning out client-friendly descriptions of the purpose of the writing and how it related to the audience, or reader, of the text. For example, in one of her lesson plans, Morgan stated:

> We all experience and perceive events and things in life very differently. Those differences are what set us apart and make us unique. That means that our writing is unique and offers readers a little glimpse into who we are as a person.

During their voice and word choice work, Morgan supported her client with considering the audience when drafting. Several representative lesson plan

examples are included in Table 6 that highlight ways Morgan supported her client with the goal of connecting to the reader when drafting.

Natalie also incorporated the audience in dialogue by describing the purpose of the day's writing lessons. In another preposition lesson plan, she wrote, "I am having you learn prepositions because they appear in writing all the time! They are important to learn how to use because they let our reader see how different things are related to each other." Additionally, Kate emphasized the importance of writing in logical order so the reader can make sense of the writer's ideas. Kate used a hamburger graphic to support her client's understanding of paragraph structure. In one lesson, she explained:

> The first sentence in a paragraph is called a topic sentence. A topic sentence introduces the reader to the subject or focus for the paragraph. If we were thinking of a hamburger, this sentence would be the top bun. This is the first thing on a hamburger, and so is the topic sentence.

Table 6: Representative examples from Morgan for connecting to the reader

Writing Trait	Representative Quote
Word Choice	"Next week we will take a closer look at word choice in your writing. This will also enhance your writing and really pull the reader in."
	"Today, we're going to briefly learn about word choice. Word choice is a crucial trait to writing in that it creates clarity, ensures understanding, and creates pictures in the reader's mind."
	"Word choice brings writing to life and helps the reader paint a picture in their mind as they read."
	"Do you remember why transition words are important in our writing? They connect all of our ideas throughout our writing to make the message clear to the reader."
	"Let's now read through your swimming writing piece and I want you to highlight words you would like to change or spots where you could easily add a few more details and your message will be more clear, concise, and paints vivid pictures in the reader's mind."
Voice	"The next writing trait we looked at was voice. We discussed how voice makes your writing authentic and captivates your audience."
	"Your audience should hear [your] voice in every paragraph."
	"Today, we will specifically focus on verbs and how they impact voice. Strong verbs add more detail and paint a more vivid picture in the reader's mind."
	"When voice is strong in a piece of writing, [readers] often feel the emotions of the author and/or the characters in the story."
	"Strong verbs in writing really create a good mental picture for the reader."

Lastly, Sophia planned to discuss the purpose of a lesson on adding details into writing to make the writing clearer to the reader. In her lesson plan, she stated, "What is the purpose of adding details to our writing? Relative ideas and details make our writing more descriptive. It helps our readers more clearly see what we are trying to get across." In explaining the purpose of writing lessons to their clients, PSTs consistently discussed how the lesson would make the writing more comprehensible and engaging to their readers and benefit their clients' writing skills.

Although PSTs regularly made connections for writing across time and to the reader, they did not frequently demonstrate an ability to explain the connection between writing and other aspects of literacy. For instance, Kate was observed moving from reading instruction to writing instruction without summarizing the lesson or providing an adequate transition to support the client's thinking. More specifically, her supervisor noted, "Then you move on to writing. Provide her with explicit transitions between learning experiences. Sum up her work on retelling before moving forward so the transition is not so abrupt." Similarly, on two occasions, Morgan was observed moving from a writing lesson on voice to a word study lesson without debriefing or reminding her client how the lessons were related. These were missed opportunities to show the client how she might connect what she learned in one literacy domain to support another. Sophia also missed an opportunity to situate her writing lesson by relating it to the reading lesson for the day. When finishing up a brainstorming lesson, Sophia wrote in her lesson plan that she would have her client practice independently. However, she abruptly moved to her reading lesson for the day without reviewing the purpose of the writing lesson or its connection to the upcoming reading activity. While PSTs demonstrated how to make connections between future and previous writing lessons and make connections to the audience, they were still grappling with making connections across literacy components.

3.2   Considering client affect around writing

During tutoring, PSTs provided individualized writing instruction by considering client affect for writing. Below, Sophia's reflection on her new understanding of writing motivation is representative of realizations around client affect that PSTs had throughout the semester:

> I now see that literacy instruction hinges on students being motivated... As teachers, we need to foster that love by making literacy a positive experience. While we must still cover the [basics], making sure students love to read and write is the most important. Once they develop a love for reading and writing, they will want to work to be better at it so they can continue to do it. After this semester, I truly believe that motivation is the biggest key in literacy instruction.

It was clear that PSTs understood the importance of frequent encouragement and engagement when supporting clients' writing to foster motivation. Below we discuss how PSTs incorporated clients' interests and choice to promote writing engagement. We then explore how PSTs encourage clients throughout the writing process.

Using interests and choice to promote writing engagement

Each PST worked to engage their client during writing by considering client interests and allowing choice. PSTs often gave their clients total or structured choice on writing topics in hopes of increasing their engagement and motivation to write. For example, when reflecting on her writing practice, Natalie explained how she presented her client with funny and engaging pictures to choose from and write about. She reflected on the importance of incorporating pictures to help prompt and engage her client in the writing process. Similarly, Sophia gave choice in prompts while administering writing assessments. She wrote, "To collect a writing sample, I gave her three pictures to choose from. She chose the picture of the unicorn for her prompt." In this lesson, Sophia was praised for the engagement that her supervisor observed and attributed to the topic she chose for her client. Furthermore, while offering her client complete choice on writing topics, Sophia would come to tutoring prepared with topics for her client in case she had trouble choosing her own topic. The topics Sophia brainstormed were based on her client's interests, including school, unicorns, and sea otters. Morgan also offered her client options for writing prompts for their semester-long writing project. In her final report to the parents, Morgan explained the importance of client choice, stating "Freedom of choice brings the fun and excitement back into writing." When clients were not given a choice of topics, PSTs chose topics that were related to their clients' interests. One example of this includes Natalie's discussion of how she assessed her client's writing progress by using a writing prompt based on whales and sharks, since she had learned that her client loved ocean animals. Overall, PSTs understood the importance of client choice and engagement when planning for writing lessons.

Encouraging clients throughout the writing process

In addition to considering engagement, PSTs often considered their clients' affect by encouraging them to identify as writers, specifically by offering encouragement during the writing process. This praise came primarily in the form of general feedback that promoted a positive disposition toward writing (i.e., feedback that may not specifically relate to the lesson at hand). For instance, during a writing lesson, Kate praised her client for her hard work and complimented her perseverance during the writing process. By the end of the semester, Morgan and Kate began including possible encouragement for their clients' writing in their

lesson plans. Based on previous lessons, Morgan planned her dialogue for upcoming lessons to include concrete reasons her client was successful throughout the writing process. Morgan also included dialogue to build excitement around the client's narrative, which they had worked on all semester. Morgan's supervisor's observation notes complimented her for being present and encouraging: "As she writes, you are right there with her, actively engaged, and encouraging her." Natalie and Kate also planned praise for their clients based on their "hard work" during writing. In planning how to discuss her client's rough draft, Kate planned to "pick one to two positive comments on her writing process and one to two positive comments on her actual writing."

Based on their lesson plans and observation feedback, PSTs honored the writing process and the work clients put in; however, their encouragement sometimes lacked specificity. Their encouragement of the writing process was primarily related to writing dispositions, as opposed to providing specific positive feedback to indicate what writing behaviors should be replicated. While Kate was observed giving specific verbal praise in most writing lessons, she was occasionally vague with her feedback by saying things like, "You're so smart." When teaching a lesson on informative writing, she received feedback to "Be sure to compliment her also on the specifics in her writing that align with the expectations that were set." Similarly, Morgan's observation feedback noted that she sometimes commented on "how easy" a task should be due to previous practice with the strategy, not offering the client specific praise on what she had accomplished thus far to make the task less challenging.

In sum, integrating client choice in an engaging writing environment demonstrated that PSTs understood the importance of considering how their clients felt about writing and their writing abilities. However, PSTs were still grappling with providing specific feedback on their clients' writing.

3.3   Using data to plan writing lessons

As the semester ensued, PSTs planned and implemented their lessons based on data. PSTs demonstrated their ability to use assessment data from previous sessions, as well as to use reflections on their practice. They showed that they were able to determine their clients' progress in writing at the conclusion of each session. That progress was used to plan lessons that build on one another. PSTs also evaluated the effectiveness of their instructional decision-making around writing instruction.

Building on client progress

PSTs identified client growth towards their writing goals and determined specific next steps to build on client progress. Early in the semester, Morgan used her client's opinion writing sample to explain strengths and thus determine next steps for drafting. Morgan reflected, "Her ideas are great, but more details would help

paint a more vivid picture in the reader's mind as they read [her] piece." Morgan's next lesson was focused on using details to further develop her client's opinion in her writing. Similarly, Kate evaluated her client's progress on paragraph structure in the middle of the semester:

> We have been working on writing paragraphs for several weeks. [My client] does not have a strong understanding of the components of a paragraph and how she can demonstrate them herself. She relies heavily on sentence frames to help her write her paragraphs, but doesn't understand the sentence's purpose. She needs a deeper explanation of the components and needs to practice writing them.

After this lesson, Kate took a step back and spent two lessons identifying paragraph structure in mentor texts with the support of a graphic organizer. In the next lesson, she had the client use the same graphic organizer to write a paragraph. Another example of PSTs building on their clients' progress was Natalie realizing her client was ready to build on his understanding of prepositions. In her lesson rationale she wrote, "[My client] has used the prepositions "on' and "in" in his writing. He has used those prepositions proficiently." After this lesson, she had her client use all the prepositions they had practiced in one writing piece.

In addition to planning individual lessons rooted in client progress, three of the PSTs demonstrated their understanding of planning consecutive lessons that built on client progress. Table 7 shows learning targets from the lesson plans of Morgan, Sophia, and Kate. Based on a specific focal area for their clients' writing (e.g., voice), the PSTs planned multiple lessons to build on client progress. For example, Sophia began by ensuring that her client understood the importance of details. Next, she supported her client in putting details into a graphic organizer. Finally, she had her client independently include details in her writing.

While Natalie's learning targets did not necessarily show a clear trajectory, her reflections indicated that she was responsive when her client needed additional support. She realized her client did not understand the main idea and details, so she decided to do a mini lesson on these topics and then modeled how to complete a corresponding graphic organizer.

PSTs used their evaluation of their clients' writing progress to guide their lesson planning, and they began having their clients evaluate their writing toward the end of the semester. On her end-of-semester reflection, Kate stated she had started talking with her client to identify "what she did well and what she could improve." Observation notes from the end of the semester also indicated that Kate tried a few strategies to have her client evaluate her writing. In a later tutoring session, one supervisor noted: "You have her read the paragraph aloud and when she finishes, and you have her evaluate her writing against your expectations."

Table 7: Consecutive learning targets to build on client writing progress

PST Name	Focus	Learning Targets
Morgan	Voice	At the end of today's lesson, Ella will be able to explain and identify voice in writing.
		After today's lesson, Ella will be able to identify strong and weak verbs used in writing.
		At the end of this lesson, Ella will have a good understanding of how to use her voice to make her writing authentic.
		At the end of this lesson, Ella will be able to read other client's work and highlight where their word choice is strong.
Sophia	Supporting Details	She will be able to explain why writing is better with details.
		With my prompting, she will include details in her paragraph by referring to the details in her idea web.
		She will be able to include a main idea with two supporting details in her paragraph.
Kate	Paragraph Structure	I can highlight the components of a paragraph in a passage by using my Parts of a Paragraph graphic.
		I can write a paragraph with the help of supports, modeling, and my parts of a paragraph graphic.

On the other hand, Morgan's lesson plans and observation notes did not evidence work with her client to evaluate the client's writing against any type of stated expectations. However, Morgan had her client evaluate other grade-level writing samples. Morgan also considered the value of rubrics retrospectively when reflecting at the semester's end. She stated, "A rubric would have provided a detailed visual of expectations," which Morgan thought would be helpful to her client during the writing process, as well as when looking at the client's finished drafts. Overall, this showed PSTs had knowledge of using client progress to plan future lessons but were not as proficient in providing their clients with opportunities to self-evaluate their progress.

Evaluating writing instruction

PSTs contemplated their success in implementing specific writing strategies and activities, as well as the impact of those strategies and activities on their clients' writing. Sophia's end-of-semester reflection described a shift in her thinking about

the importance of planning lessons that account for depth and not breadth, which was representative of how her peers also evaluated their writing instruction:

> At the beginning of the semester, I think I subconsciously believed that literacy instruction was a progression of single lessons with one practice lesson in the middle. What I mean by this is that the teacher would teach one lesson about a specific piece of literacy, allow one lesson space for practice, and then move on to the next lesson...Now that I have worked with a student over a long period of time, I realize that students often need more than one practice. Depth is a lot more important than breadth.

Morgan's evaluation of instructional decision-making also showed her understanding of providing sustained practice. She noted that despite taking multiple instructional approaches to support her writing with organization, her client was not progressing toward her learning goal of being able to "organize her thoughts in a graphic organizer and then arrange them to create a cohesive paragraph, using strong transition words to connect ideas." Evaluating her approach to this goal mid-semester, Morgan realized it was too extensive for the time allotted. Morgan stated that working toward the goal had been "a little overwhelming." She decided to take a step back; she allowed her client to choose a piece of writing previously completed and revise it to focus on organization. Morgan first spent time supporting her client in adding a few needed paragraphs. After several sessions, they shifted to revising for transition words. Morgan evaluated her goal, her approach to the goal, and her client's progress, eventually adjusting her instruction to better meet the client's needs.

Kate also evaluated her writing instruction and specifically her graphic organizer use when working on paragraph organization. In her final report, Kate stated that graphic organizers helped her client to use topic, supporting, and concluding sentences more independently. However, Kate described this success as related to instructional variety, as she used several different approaches to graphic organizers. For example, she would often transcribe her client's ideas into the organizer to practice idea generation and later have the client fill out a similar graphic organizer independently. As she evaluated her instructional choices, Kate began to understand the contexts in which her client would benefit from specific uses of graphic organizers.

As PSTs worked with clients, they showed an understanding of using data to inform their teaching. They identified their clients' progress to plan consecutive lessons that built on one another. They also evaluated their writing instruction. In closing, Morgan's thoughts at the end of the semester demonstrate how PSTs used data to plan their writing lessons: "Seeing how each lesson played an integral part into the overall success made me much more aware of how necessary it is to plan, come prepared, and reflect on all the pros and cons of each lesson."

4. Discussion

We examined PSTs' preparedness to teach writing through the lens of pedagogical content knowledge (PCK). To look at authentic engagement with writing instruction, we focused on structured literacy tutoring in a university-based clinic. Because little is known about the PCK of PSTs, as related to writing, we used a multi-case study which allowed for an in-depth consideration of the intricacies of PSTs' preparedness to teach writing. Based on the sampling process employed, our results represent the preparedness of PSTs whom we considered success cases in our clinic.

Findings indicated that PSTs helped their clients contextualize writing lessons. They also understood the importance of considering clients' affect toward writing. Finally, they began using data to inform their writing instruction. However, not surprisingly given the literature documenting the challenging nature of writing instruction (Bomer et al., 2019; Carter & Townsend, 2022; Ferris, 2007; National Writing Project & Nagin, 2003; Street, 2003), PSTs were "grappling" with aspects of their writing instruction, which are described below and provide insights on their PCK related to writing. We first situate our findings in relation to other research. Next, we describe how the context of this study (i.e., a university-based literacy clinic) may help to foster PSTs' PCK for writing.

4.1 Alignment with previous literature

Contextualizing writing instruction

PSTs supported their clients with connecting writing from one session to the next and with connecting their writing to the audience, both of which are in alignment with Universal Design for Instruction (UDI; CAST, 2018). Helping clients relate their learning for the lesson at hand to learning from previous and future lessons strengthens the connections among the material learned (Resenshine, 2012). Explicitly reviewing content and strategies, as well as connecting to what is to come, can support students with "recall[ing] words, concepts, and procedures effortlessly and automatically," which aids in "solv[ing] problems or understand[ing] new material" (Resenshine, 2012, p.13). Additionally, providing an authentic audience beyond the PST/tutor allowed clients to experience relevance and authenticity with their writing.

Considering affect towards writing

Our PSTs worked to understand and use their clients' affect for writing (Piazza & Sibert, 2008), and they encouraged the writing process (Graham & Sandmel, 2011), both of which research identifies as key tenants of successfully facilitating students' writing development. Also, in alignment with UDI (CAST, 2018), PSTs used interests

and choice to promote writing engagement. UDI principles suggest that allowing choice in how learning targets are met can develop determination, pride, and connectedness to learning (CAST, 2018). Previous research shows that while PSTs value choice as part of writing instruction, they rarely include choice in their lesson plans (Grisham & Wolsey, 2011). However, our PSTs optimized their clients' autonomy related to writing and promoted clients' positive dispositions toward writing by using interests to inform their planning and allowing clients to choose their own writing prompts and topics (Piazza & Siebert, 2008). The body of research on writing instruction strongly suggests that one barrier to effective writing instruction is teachers oftentimes having negative dispositions toward writing and writing instruction (Gallavan et al., 2007; Myers et al., 2016). While we did not analyze data on our PSTs' dispositions, finding that our PSTs prioritized their clients' disposition toward writing was both surprising and refreshing.

Using data to inform planning
Our data indicated that PSTs consistently evaluated their clients' writing performance, and they used this information to make instructional decisions, including planning lessons that built on progress from previous sessions. This finding extends previous research documenting the impact of consistent, sustained, and supported practice with writing assessment (Ars   han et al., 2018; Dappen et al., 2008; Demsey et al., 2009). Dempsey and colleagues (2009) found that having PSTs look deeply at a few writing samples to practice assessing student writing, which our PSTs did, showed gains in their knowledge of writing assessment and self-efficacy for assessing writing. However, we noticed one area our PSTs needed support was using research-based rubrics to guide instruction and using client self-evaluation tools to support clients with evaluating their own writing.

Possibly related to their inexperience with rubrics, PSTs struggled to provide specific feedback for their clients' writing, both in-the-moment and after tutoring. They offered praise while their clients were writing, but this was primarily general feedback promoting positive dispositions toward writing. Parr and Timperley (2010) suggest that quality response to student writing must extend beyond generalities to include: information about students' performance relative to the desired performance, key features of the desired performance, and necessary steps to achieve the desired performance. When supporting PSTs with giving this type of feedback, previous research notes the value of engaging with explicit frameworks that concretely show what makes writing good or poor (Dempsey et al., 2009). However, assessment practice in their study, as well as writing evaluation in our study, included both expert and peer feedback, such as that the PSTs received in our literacy clinic.

4.2   Using literacy clinics as a space to foster PSTs' PCK for writing

Like previous research (McGrath & Erwin, 2015), our findings indicate that structured field experiences, specifically university-based clinics, can impact the PCK of PSTs. While the power of writing methods courses (Martin & Dismuke, 2015), field experience with writing (Hoffman et al., 2019), and literacy clinics (Dunston, 2007) have been documented in the literature, clinics have been on the decline for decades (Morris, 1999). However, we argue that these spaces are a valuable tool in fostering PST's PCK for teaching writing.

Our PSTs contextualized their writing lessons and supported clients with connecting writing across sessions and to the audience. We argue that this indicates PSTs' specialized content knowledge of writing and their general pedagogical knowledge (Ball et al., 2008), or their understanding of what to teach and how to teach it (i.e., declarative and procedural knowledge) (Almasi, 2003). Additionally, PSTs' conditional knowledge (Almasi, 2003) of teaching writing, or knowing why, when, and under what circumstances to employ specific writing practices, was developing (Morrison & Luttenegger, 2015). They showed an understanding of clients by considering affect around writing and by using data to plan lessons. Despite this evidence of emerging PCK, we use the term "grappling" in this paper to acknowledge that, while promising, our findings note areas PSTs were struggling with PCK related to writing.

Areas where PSTs were grappling were primarily related to responding in-the-moment during writing instruction. Considering a teaching cycle of planning, instruction/assessment, and reflection (Arshan et al., 2018), our observation notes and PSTs' reflections rarely mention in-the-moment decision making, or responsiveness around their clients' needs while writing (Griffith et al., 2015). However, research documents that teachers, and even teacher educators, struggle with in-the-moment responsiveness and feedback (Paulick et al., 2019). Previous studies (Griffith et al., 2015) recognize that this type of decision-making necessitates teachers using their conditional knowledge (Almasi, 2003), which requires drawing upon multiple facets of PCK.

We argue that our findings highlight the value of literacy clinics, which allow the space and support for PSTs to engage with students and practice their in-the-moment responsiveness for writing. Clay (2003) described teaching as the "interactions of child with task, of teacher with child, and child with child, and how those [complex and contextually bound] interactions need to be different for different children" (p. 46). In literacy clinics, PSTs are not merely learning about writing instruction, but they are learning how to enact writing practices in dynamic situations.

5. Implications

Our findings shed light on the intricacies of PST preparedness for writing instruction by looking at a snapshot of their practice in our literacy clinic. Findings also offer insights to TPPs more broadly, as they ensure their PSTs are prepared to teach writing effectively before they begin teaching. To situate our findings within this broader context, we return to Grossman and colleagues (2009) and suggest several additions, found in gray in Figure 2 below, to their three key concepts for understanding the pedagogies of practice in professional education. Figure 2 illustrates the cyclical nature of PST learning and breaks that learning down into conceptualization, representation, decomposition, approximation, implementation, and analysis and reflection.

5.1   Conceptualization of writing and writing instruction

We argue that before PSTs begin to understand representations of best practices for writing, they must thoroughly engage with the common and specialized content knowledge of writing (Ball et al., 2008), or declarative knowledge (Alamasi, 2003). Because the professional knowledge for writing instruction (see Figure 1) is vast (NCTE, 2016), PSTs should be given time to contemplate this knowledge (e.g., genre study curriculum such as Calkins, 2013, writing traits instruction (Coe et al., 2011), etc.). Thus, we add *conceptualization* to this model. This choice is partly rooted in the structure of our institution's approach to preparing PSTs for writing instruction. Unlike many TPPs, our candidates are fortunate to take a required writing methods course (Grisham & Wolsey, 2011). This course targets specialized content knowledge related to writing, such as constructs of exemplary writing and children's writing development and diversity, as well as explores PSTs' self as writers. Our clinic course builds on the writing methods course and provides a space to put that learning into practice, particularly as related to writing assessment and instruction. With that said, we credit writing methods courses as the foundation of PSTs' preparation for teaching writing, as they support conceptualization of specialized content knowledge for writing and exploration of evidence-based writing practices.
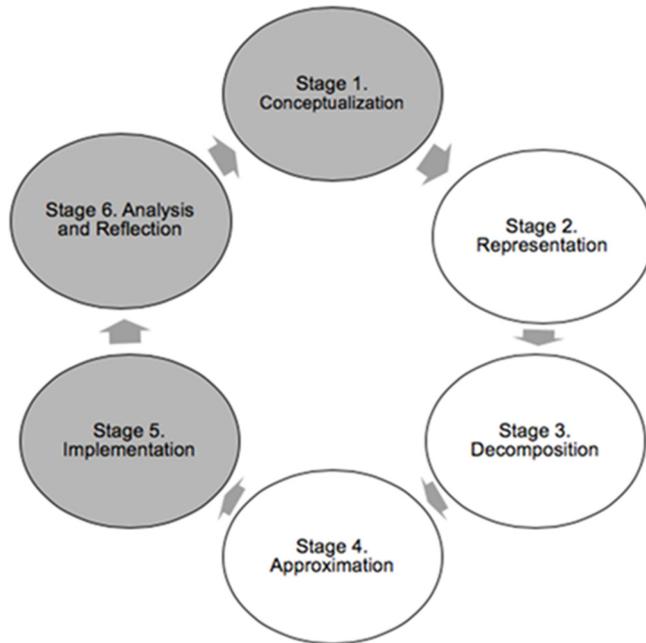
Figure 2: Pedagogies of practice for writing instruction model

5.2 Representation, decomposition, and approximation of writing instruction

Representation, *decomposition*, and *approximation* of specific writing practices are helpful (Paulick et al., 2019) before PSTs implement writing lessons with K-12 students. During these stages, PSTs begin to grapple with procedural knowledge (Alamasi, 2003) of writing instruction. As TPPs consider these key steps in PST learning, we should contemplate how PSTs might experience: 1. exploring related research and theory; 2. modeling of instructional practices with engagement in the experiential role of writers (Martin & Dismuke, 2015); 3. evaluating and decomposing examples of instructional practices (Paulick et al., 2019); 4. analyzing student writing samples using rubrics and student self-evaluation tools (Dappen et al., 2008; Demsey et al., 2009); and 5. simulating teaching moments that allow practice with in-the-moment decision making, feedback, and support (Hume, 2012). As part of these simulations, PSTs should collaborate to provide effective feedback and support students as they write based on in-the-moment decision-making (Griffith et al., 2015). Particularly decomposition and approximation offer PSTs opportunities to brainstorm and discuss how they will respond to specific student needs before they actually work with students.

5.3   Implementation of writing instruction

After the first four stages in the Pedagogies of Practice for Writing Instruction Model, we also added an implementation stage. When PSTs move into the implementation stage, they should try out the specific practices from the previous stages. In other words, before a PST implements a lesson on argumentative writing structure, they should spend time conceptualizing related content, as well as engaging in representations and decompositions of that practice, and then approximating the practice in some way (See Table 1 for examples). Based on our findings, as well as research on teacher knowledge, having PSTs engage in supported implementation of writing lessons is vital. Our PSTs taught writing for 10 weeks with systematic support and feedback. Yet, they still grappled with certain aspects of writing instruction. PSTs were grappling with how to make in-the-moment decisions that best served their clients. Having opportunities to implement writing lessons is the most authentic way to support PSTs as they practice being responsive to student writers. This allows PSTs to develop their conditional knowledge (Alamasi, 2003), or their understanding of the circumstances under which decisions around writing should be made based on their students' needs. We argue that approximations of practice alone would not offer the opportunities that implementation, as well as reflection and analysis do, in preparing PST to teach writing.

5.4   Analysis of and reflection on writing instruction

Finally, we added an *analysis and reflection* stage. During the reflection and analysis stage, PSTs first evaluate their writing instruction to determine instructional moves that were effective by reviewing their anecdotal notes, feedback from supervisors, and instructional videos. Part of this self-evaluation should involve a close look at the success of feedback, in-the-moment-responsiveness, and the use of rubrics and student self-evaluation tools. If PSTs are teaching multiple lessons, a systematic way to reflect should also be in place. In our clinic, we have tried a progress monitoring spreadsheet. After each tutoring session, PSTs analyze their clients' progress in relation to learning targets, and they evaluate their own practice. As part of this stage, PSTs should also collaboratively assess student writing samples. This analysis should be guided by research-based rubrics (e.g., Calkins, 2015) and should involve both peer discussion and instructor feedback. Based on our findings, we added "Inquiry Groups" after each tutoring session in our clinic. During this time, PSTs meet with peers to debrief on the session and discuss problems of practice. This time is used to look at evidence of what the client can do and what they are ready to learn, as well as to determine the next instructional steps. Finally, PSTs should consider what their writing sample(s) tell them about future teaching and learning. Whether planning theoretically or planning lessons that will be taught, using data to consider lessons that build upon the student's progress is important to PSTs'

understanding of both instructional planning and writing development. In sum, we perceive the suggested Pedagogies of Practice for Writing Instruction Model to be a useful tool as TPPs determine the best ways to support PSTs with writing instruction.

6. Conclusions

When considering the results of this study, previous research, and the Pedagogies of Practice for Writing Instruction Model, we offer several recommendations for other university-based literacy clinics, TPPs more broadly, and future research. The proposed model, and adapted versions, can be used to inform literacy course design. We argue that giving PSTs the opportunity to engage in the six suggested stages (i.e., conceptualization, representation, deconstruction, approximation, implementation, and analysis and reflection) is likely impossible without writing methods courses and structured practical literacy experiences. Having PSTs engage in implementing, analyzing, and reflecting on writing lessons during their professional year exclusively is a disservice. Thus, the model is most powerful when considered programmatically. We encourage university administrators to examine their curriculum to ensure opportunities are available for offering courses, both methods and practice-based, devoted to preparing PSTs to teach writing. Ensuring that these courses, and related field experiences, allow PSTs to engage in the six stages of pedagogies of practice is a promising way to support PSTs with connecting theory and practice related to writing. In Figure 3, we illustrate how both methods and practice-based courses align with the six suggested stages. TPPs that offer both types of courses are more likely to provide PSTs a chance to engage in all six stages before they enter the field of teaching.

Conceptualization	Representation	Deconstruction	Approximation	Implementation	Analysis and Reflection
Writing methods courses					
		Courses with practical experiences for writing			
			Professional year		

Figure 3: Possible programmatic use - Pedagogies of practice for writing instruction model.

Positive change in the K-12 context requires that TPPs closely examine how we are preparing PSTs and what knowledge PSTs are taking away from our programs, which requires further examination of PSTs' PCK. Qualitative studies examining the PCK of PST, such as the current study, are largely absent from the literature. Future research should include interviews and video recordings of writing lessons to provide a more nuanced look at how PCK for writing instruction transforms

throughout a semester of structured tutoring. We also hope to look at PSTs' preparedness for writing instruction across numerous universities to further identify gaps in PCK, as well as examine the longitudinal impact of clinic classes on PSTs' effectiveness as writing teachers.

To conclude, we know that PSTs and teachers across grade levels and content areas find writing instruction to be challenging (Hodges et al., 2019; Brindle et al., 2016; Gilbert & Graham, 2010). More importantly, we know that student writing achievement is stagnant and is related to the variability of teachers' practice (Troia et al., 2011). Thus, we challenge both TPPs and researchers to continue closely examining PST preparedness for writing instruction and approaches for preparing PST for writing instruction. Improving writing in the K-12 context relies, in large part, on our PSTs leaving TPPs equipped to support student writers.

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