JoLLE@UGA®
JOURNAL OF LANGUAGE & LITERACY EDUCATION

Leveraging Digital Spaces for Pre-Service Teachers to Practice Reading and Responding to Student Writing

Meghan E. Barnes
&
Caleb Chandler

Abstract: There is currently a dearth of research inquiring into the ways that pre-service teachers (PSTs) are prepared to teach writing, including reading and responding to student writing. Furthermore, although the benefits of a practice-based approach to teacher education are widely cited, increasing financial and legislative pressures to shorten the length of university-based teacher education programs and to migrate to online spaces present challenges for including opportunities for PSTs to practice. In this study, we inquired into the experiences of one group of PSTs as they completed a digital Pen Pal Project, wherein they were partnered with sixth grade students to learn about and practice responding to student writing. Data analysis indicated that PSTs engaged in many different types of feedback yet struggled to provide specific feedback aligned with students' competencies as readers and writers. We draw on these findings to offer recommendations to teacher educators as they leverage digital spaces to realize the benefits of practice-based learning in preparing PSTs to teach writing.

Keywords: teacher education, writing pedagogy, teacher feedback

Meghan E. Barnes is Assistant Professor of English Education at the University of North Carolina, Charlotte, where she teaches undergraduate and graduate-level courses on teaching English to secondary learners, the politics of language and writing, teacher research, and young adult literature. In her research, Meghan draws on sociocultural theory to consider pre-service teachers' developing conceptual understandings of teaching and literacy, as well as community-engaged approaches to both teaching and research. Meghan's recent work has been published in *Teaching and Teacher Education*, *Journal of Teacher Education*, *English Education*, *Journal of Adolescent and Adult Literacy*, and *English Teaching: Practice and Critique*. Contact her at: mbarne56@uncc.edu.

Caleb Chandler is a doctoral student in the Department of Educational Theory & Practice at The University of Georgia. He previously taught sixth and eighth grade English language arts in Charlotte, North Carolina. Caleb's research interests include adolescent literacy, critical pedagogy, gender and sexualities, and emotion in education. Contact him at: caleb.chandler@uga.edu.

Introduction[1]

Myriad experiences across the lifespan shape beginning teachers' conceptions about what it means to teach (Barnes & Smagorinsky, 2016). For many novice teachers, a university-based teacher education program serves as their formal introduction to the conceptual and practical tools necessary to teach their disciplines. In particular, most universities require either a single methods course or series of methods courses to prepare pre-service English Language Arts (ELA) teachers to lead instruction on reading literature and writing. Pasternak, Caughlan, Hallman, Renzi, and Rush (2017) and Smagorinsky and Whiting (1995) have conducted extensive literature reviews on the ways that ELA teacher educators organize and lead the methods course, and what topics, texts, and experiences they include. Although not specifically concerned with teacher education, research in the 1980s inquired into teachers' conceptions of and practices around providing feedback on student writing (Anson, 1989; Freedman, Greenleaf, & Sperling, 1987) and students' responses to teacher feedback (Sperling & Freedman, 1987). In the past 20 years, however, less research has attended to the ways that prospective ELA teachers are prepared to teach writing specifically, with more research focused on their preparation to teach reading and literature (see Risko, Roller, Cummins, Bean, Block, Anders, & Flood, 2008 for a review of literature on teaching reading). Among others, opportunities to learn about different elements of the writing process (Kirby & Crovitz, 2013), student-centered approaches to teaching writing (e.g., writer's workshop model [Kissel, 2017]), digital tools to support student writing (Hicks, 2009; Johnson, 2016), as well as one's own writer identity (Vetter, 2010) should all factor into a pre-service teachers' (PSTs) preparation to teach writing. Additionally, PSTs should have opportunities to read and respond to student writing during teacher education. It is this oft-overlooked and complex (Morgan & Pytash, 2014) aspect of teaching writing that we are particularly concerned with in this study.

Foundational literature in the field of writing pedagogy argues that students learn and develop writing strategies as a direct result of the feedback they receive from teachers (Applebee, 1981). To teach writing effectively, then, teachers must learn how to read and respond to student writing in ways that support students' continued growth and development (Graham, Hebert, & Harris, 2015; Teaching Works, 2016). During teacher education, PSTs need time and space to practice working with and responding to actual student writing samples (Colby & Stapleton, 2006; Friedman, Zibit, & Coote, 2004; Morgan & Pytash, 2010). However, increasing financial and legislative pressures on teacher education programs to decrease the number of hours required for a degree in education and to migrate their courses to online spaces (Blumenstyk, 2018) jeopardize opportunities for PSTs to practice. Furthermore, a gap exists in the research as to how teacher educators within this current educational landscape might create the time and space for PSTs to practice providing feedback to students (Ballock, McQuitty, & McNary, 2018; Cutler & Graham, 2008; Ferris, 2014).

To account for the above limitations on time and space in teacher education, we, one teacher educator and one 6th grade ELA teacher, developed a digital Pen Pal Project (PPP). Within this project, secondary ELA PSTs were partnered with 6th grade students to read and respond to their writing over

---

[1] We acknowledge that there is a gender spectrum and that myriad pronouns exist that we can use when referring to individuals in our writing. Throughout this article we use pronouns to refer to individuals that correspond with the pronouns that they use to refer to themselves.

the course of a semester. To consider the affordances and challenges of PSTs learning about and practicing responding to student writing within this digital space, we worked from a sociocultural perspective (Vygotsky, 1933/1935, 1978), recognizing learning and development to be social processes, mediated by the use of conceptual and practical tools. We also looked to literature on practice-based teacher education (Grossman, Hammerness, & McDonald, 2009) and teacher knowledge development (Ball, Thames, & Phelps, 2008; Shulman, 1986) as we inquired into the following research questions:

1. What kinds of feedback did pre-service ELA teachers offer to 6th grade students on their writing?

2. In what ways did PSTs differentiate their feedback to students, depending on their perceptions of students' writing competencies?

We draw on our findings from these two research questions to consider what PSTs' feedback might indicate about their developing teacher knowledge and sense of efficacy in reading and responding to student writing.

Literature Review

After at least 13 years of schooling, many ELA PSTs have developed the capacity to write in a comprehensible manner that may, at times, feel second-nature (Hayes & Olinghouse, 2015). Furthermore, research suggests that the increasing frequency and influence of standardized testing

(including state writing tests) in U. S. schools have contributed to more formulaic writing instruction (Simon, 2013). Approximately 13 years spent learning and practicing how to write a five-paragraph theme, for instance, could result in PSTs who consider the process of learning to write to be quite simple—akin to cracking a code or memorizing a formula—rather than a time-consuming and iterative process. Further, middle school students who are still in the beginning stages of learning how to write may feel the process of making and conveying meaning through writing is far less straightforward, requiring significant thought and effort. Thus, as PSTs prepare to work with student writers, they must recognize the ways that they have developed as writers over time, and how their current experiences with writing may be quite different from those of their students.

PSTs' years of experience learning how to write, practicing writing, and receiving feedback preceding formal teacher education could also contribute to a false sense of confidence in their abilities to provide meaningful and effective feedback to students (Bostock & Boon, 2012). As PSTs begin practicing providing feedback to students and learning about the realities of the classroom, this sense of self-efficacy in responding to student writing often decreases (Bostock & Boon, 2012). PSTs' sense of efficacy is important for teacher educators to consider, as it could determine the level of effort and persistence PSTs put into developing future students' writing abilities (Ciampa & Gallagher, 2018). Thus, it is necessary that teacher educators not only ensure that PSTs are provided with time and space to practice reading and responding to student writing but that they

> **"It is necessary that teacher educators not only ensure that PSTs are provided with time and space to practice reading and responding to student writing but that they simultaneously develop PSTs' sense of confidence in the process."**

simultaneously develop PSTs' sense of confidence in the process.

In their review of 20 years of literature published on the ways that novice ELA teachers are prepared to teach writing, Morgan and Pytash (2014) found only nine studies that inquired into the ways that novices learn to provide meaningful feedback to students on their writing. These studies suggested that a majority of PSTs believe the focus of teacher feedback should be on student use of grammar and conventions rather than the content of the writing. Furthermore, Beason (1993) identified three primary purposes for teacher feedback on student writing: "a) to help students correct a problem, b) to praise, and c) to provide 'reader-response' feedback without explicitly judging" (p. 402). Similarly, in his 20-year review of literature on the teaching of writing, Hillocks (1986) found that, although they may say they are providing feedback on ideas, teachers often focus more heavily on mechanics when responding to students' writing. Thus, prior to sweeping educational reforms that established increased standardized writing assessments, teachers' feedback on student writing had narrow aims: to help, to praise, or to generally respond.

Increased standardization regarding writing instruction and assessment during their own K-12 education could very well shape how PSTs respond to student writing (Applebee & Langer, 2011; Hillocks, 2002; Simon, 2013). For instance, a previous study (DiPardo, Staley, Selland, Martin, & Gniewek, 2012) found that PSTs who were learning how to provide feedback to student writers wanted highly structured, formulaic approaches to responding to student writing, consistent with their own experiences writing and receiving teacher feedback as K-12 students. Similarly, teachers at all levels have a tendency to approach student writing by focusing on what their writing *is not*, as opposed to what it *is* (Applebee & Langer, 2011; Hillocks, 2002; Simon,

2013). Although students do need corrective feedback aimed at helping them to identify weaknesses and improve, they also need praise on positive aspects of their writing (Peterson, 2010). One challenge for PSTs is to learn to balance affirming feedback that can encourage students to maintain engagement and interest in the writing process, with critical feedback. During teacher education, then, PSTs need support as they learn how to: (1) differentiate feedback that is based on student abilities and goals, (2) provide feedback on all aspects of writing (including conventions and content), and (3) develop asset-oriented feedback approaches that balance criticism and praise.

One way many teacher education programs have tried to prepare PSTs to provide meaningful and balanced feedback is by incorporating stand-alone writing methods courses into teacher education coursework (Ciampa & Gallagher, 2018; Helfrich & Clark, 2016; Morgan & Pytash, 2014). A writing methods course could provide PSTs with the time and space necessary to develop the skill of offering effective feedback. However, as university-based teacher education programs face increasing financial pressure to reduce credit hour requirements to compete with for-profit universities and organizations, fewer teacher education programs are able to offer stand-alone writing methods courses. Alternatively, some teacher education programs have embedded practice-based approaches within general methods courses to prepare PSTs to provide feedback on student writing. Coupled with this body of literature, we draw on sociocultural theoretical approaches to practice-based teacher education and teacher knowledge to consider the nature of the feedback PSTs provided to students through their participation in the digital Pen Pal Project.

Theoretical Framework

This study is situated within a sociocultural theoretical tradition that considers learning and development to be socially-mediated over time through the use of various tools (Luria, 1981; Vygotsky, 1933/1935, 1978, 1987). Ultimately, the tools that learners draw on and manipulate to make sense of new information are not generalizable but are instead tied to specific goals and social activities (Gee, 1992). These aspects of sociocultural theory provide a basis for our understandings of a practice-based approach to teacher education and teacher development.

Practice-Based Teacher Education

A practice-based approach to teacher education challenges the presumed divide between the practical and conceptual and highlights the importance of social mediation in learning to teach. In their work on practice-based teacher education, Grossman et al. (2009) argue that the teaching of pedagogical concepts and practice of pedagogical tools should happen simultaneously and over time. Many teacher education programs separate foundations from methods courses, focusing on broad pedagogical concepts and theories in the foundation courses and then honing in on practices and practical tools in the methods courses. Attempts to divorce the practical from conceptual encourage novices to focus on either one or the other, rather than developing pedagogical tools that are conceptually and theoretically-informed (Ballock et al., 2018; Grossman et al., 2009). Conversely, conceptual tools that are not also tied to practical settings "do not offer specific solutions for negotiating the dilemmas that arise in interactions with students" (Grossman et al., 2009, p. 274).

> **"Attempts to divorce the practical from conceptual encourage novices to focus on either one or the other, rather than developing pedagogical tools that are conceptually and theoretically-informed."**

We argue for a practice-based approach to teacher preparation that provides opportunities for novices to develop conceptually-informed tools that are also tied to practical settings and dilemmas. A practice-based approach includes (1) identifying the work that teachers do, (2) breaking that work into its constituent parts, and (3) engaging in approximations of practice (i.e., rehearsals with feedback) (Ball & Forzani, 2009; Grossman et al., 2009). One method of adopting a practice-based approach in teacher education has been to move either whole classes or individual projects to K-12 schools. Often, these classes or projects are organized around new teachers' concerns (managing student behavior, organizing a classroom, managing time commitments, etc.), with theory introduced in response to those issues. Instead, Grossman et al. offer an alternative approach focused on core practices.

Teaching PSTs about a core practice (e.g., responding to student work, leading class discussions, understanding student thinking, etc.) includes identifying and focusing on the distinct strategies that make up the practice and then also looking at (and practicing) how the strategies are integrated and informed by theory. Thus, in a practice-based approach focused on core practices, novices learn about and practice discrete elements of teaching, while simultaneously attending to theory. This approach challenges notions of a theory-practice divide in learning to teach, and embraces the complexity of concept development (Smagorinsky, Cook, & Johnson, 2003). To begin, novices need sheltered environments where they

can develop and rehearse skills. These "approximations of practice" (Grossman et al., 2009, p. 283) might include opportunities for PSTs to lead discussions or to develop and teach lessons to their fellow PSTs. After breaking down and rehearsing core practices with peers, PSTs move into higher-stakes environments such as student teaching in a K-12 classroom.

Not only does a practice-based approach have the potential to develop PSTs' sense of efficacy and professional identity as teachers (Dempsey, PytlikZillig, & Bruning, 2009), such an approach can also support PSTs as they learn to provide balanced and effective feedback to students (Colby & Stapleton, 2006; Kelley, Hart, & King, 2007; Wake & Modla, 2010). As PSTs practice offering feedback to students on their writing, they will also be able to discuss the theoretical frameworks guiding these pedagogical choices with teacher educators and peers. Furthermore, a practice-based approach might support PSTs as they learn about and respond to the dilemmas teachers face in responding to student writing (Grossman et al., 2000). However, even with these benefits, as teacher educators receive increasing pressure to teach methods courses online (Levine, 2011), implementing a practice-based approach to teacher education has become even more difficult.

In this study, we consider how a digital space might mitigate some of the limitations of teacher education (e.g., time and space) and still support a practice-based approach to teacher preparation. In the study we present in this paper, we provided opportunities for PSTs to practice providing feedback on student writing within a digital space that exists between approximations of practice and practice in high-stakes, K-12 environments. Preceding their interactions with their 6th grade pen pals, PSTs engaged in "approximations of practice" by reading and responding to the writing of their

PST-peers and sample middle school papers within the university-based class. To establish a lower-stakes environment, the PST-6th grade pen pals collaborated and communicated with one another virtually, rather than meeting and interacting in person, leading us to inquire into the nature of teacher knowledge that developed and functioned as PSTs practiced providing feedback.

Teacher Knowledge

Teachers need a variety of different types of knowledge to make content accessible and meaningful for students. Shulman (1986) referred to the particular knowledge needed by teachers as Pedagogical Content Knowledge (PCK), "the most useful ways of representing and formulating the subject that makes it comprehensible to others" (p. 9) that includes knowledge of students' common conceptions of the content (Ball et al., 2008). PCK represents "a kind of amalgam of knowledge of content and pedagogy that is central to the knowledge needed for teaching" (Ball et al., 2008, p. 392). Two subsets of PCK are particularly relevant to this study: Knowledge of Content and Teaching (KCT) and Knowledge of Content and Students (KCS).

KCT refers to the ways that teachers make content accessible to students. KCT entails teachers making decisions about how to appropriately sequence content and evaluating different modes of representing information for students (Ball et al., 2008). In terms of teaching writing, KCT "undergirds effective reading and responding because it helps teachers determine when and how to teach students the knowledge, skills, and strategies that can support their ongoing growth as writers" (Ballock et al., 2018, p. 65). In their research on KCT, Ballock et al. (2018) found that a novice teacher's application of KCT depends, at least in part, on the development of KCS.

KCS combines knowing about content with knowing about students. Like KCT, KCS includes knowledge of common student conceptions about content. However, in addition to concerns about what is known about students writ large (e.g., students at a particular grade/ability level), KCS attends to what is known about the particular students one is working with. Ballock et al. (2018) found that, in terms of teaching writing, KCS undergirds "effective reading and responding by helping teachers to (a) recognize novice forms of various writing features, (b) recognize that students are engaged in intentional thought processes, and (c) interpret and diagnose students' misunderstandings" (pp. 64-65). Ultimately, Ballock et al. (2018) found that as PSTs learn to respond to student writing, they must connect their knowledge of particular students with their knowledge of teaching to give effective and meaningful feedback.

Given our theoretical frameworks, one of the challenges for teacher educators is to prepare novice teachers who learn about their students and draw on that knowledge, as well as their theoretical and conceptual knowledge of teaching, to develop appropriate practical tools to support student learning and development (including lesson planning, text selection, assessment development, and providing feedback on student work). Although this is a common challenge, it is one that nevertheless involves ongoing attention from teacher educators. Therefore, it is against this backdrop that we inquire into the nature of the feedback PSTs provided to middle school student writers within a digital space.

Method

Context and Participants

This study took place at a public state university located in an urban city in the southeastern U.S. At the time of data collection, all participants were enrolled in their required capstone methods course, *Teaching English/Communication Skills to Secondary School Learners*. This course was offered through the English department and was open to both undergraduate and graduate degree students aspiring to teach middle or high school ELA. All seven PSTs enrolled in the course consented to participate in the study. All participants self-identified as women, with one identifying as Jamaican American, one Black, one Latinx, and four White.

PSTs enrolled in this methods course were also expected to spend approximately 30 hours in their year-long clinical placements (all middle and high school settings) during the semester. With the exception of two participants, all participants were placed in middle school classrooms where they were instructed to observe a classroom teacher (which this program refers to as Clinical Educators [CE]) as they taught, interacted with students, and planned and led instruction. Two participants, Janine and Dana (all names are pseudonyms), had slightly different clinical experiences. Janine was in her second year as a full-time middle school teacher, having entered the profession via Teach for America. Dana was a long-term substitute at a local high school. In comparison to their peers, Janine and Dana had more formal experience working directly with students in classrooms.

At the time of data collection, Meghan was Assistant Professor of English Education at the university. Prior to this academic school year, Meghan had taught various secondary English methods courses to both undergraduate and graduate students at a previous institution. Each methods course that Meghan taught has included a community-based collaboration (see Barnes, 2016, 2017a, 2017b, 2017c for examples). Meghan was introduced to Caleb through a mutual colleague. Caleb invited Meghan

to visit his classroom and school in the fall semester, and together, they developed the PPP. At the time, Caleb was in his third year of teaching at Ashland Middle School (a pseudonym), an urban International Baccalaureate (IB) magnet school.

According to local school district data collected at the time of data analysis, approximately 1062 students attended Ashland Middle School. Approximately 54% of the students identified as male, 45% of the students identified as female, and approximately 1% of the students identified as genderqueer. The majority of the students were Black (65%) with other racial groups representing smaller percentages of the school's population: 15% White, 10% Latinx, and 10% Asian. At the time of data collection, approximately half of the student population was considered economically disadvantaged. Accordingly, both the PST and student populations represented a range of backgrounds.

Data Collection

To attend to the sociocultural nature of learning and development, data collection methods were designed to address the ways that learning and development happen over time and through the use of various mediational tools. The primary data collected for this study occurred over the course of one semester and included the Google folders where Caleb's students shared their writing and received feedback from PSTs. Because consent was not obtained from the 6th grade students, only the PSTs' feedback to their partners is analyzed in this study. However, it is important to note that both Meghan and Caleb regularly read the 6th grade students' work and the feedback that PSTs were providing to their pen pals to ensure that feedback was both accurate, appropriate, and timely. Additionally, Meghan provided PSTs with feedback each week that guided the PSTs in offering feedback to the 6th grade students.

Each of the 29 6th grade students shared approximately 4-5 written pieces with their PST partner over the course of the semester, with PSTs commenting at least 2-3 times each week. Finally, when Caleb visited Meghan's class, although Caleb provided general information about the 6th graders as a class, he did not share any particular information about specific students to the PSTs. In other words, the PSTs were not aware of the particular learning profiles of the 6th grade students they were working with and were tasked with determining this information as they read and responded to their students' writing samples.

Throughout the semester, Meghan kept weekly field notes, which she recorded after each class meeting. In these field notes, Meghan included both information about what happened during each class meeting as related to reading and responding to student writing (e.g., the activities that made up the class time, questions posed by individual PSTs, PSTs' contributions to discussions, etc.) and her own subjective responses to those events. Meghan and Caleb also communicated regularly throughout the semester, both in-person and via email. Meghan maintained notes during all in-person meetings and collected all emails and collaborative planning documents as data for analysis. Throughout the semester, PSTs posted weekly reflections to the online course discussion board. At the conclusion of the PPP, all PSTs wrote a reflection on the overarching PPP experience. Caleb also recorded his reflections on the experience and shared those written reflections with Meghan. The primary data analyzed in this study were PSTs' comments to the 6th grade students in the Google folders, with all remaining data (i.e., field notes, emails, planning documents, PSTs' weekly reflections, and PST and researcher summarizing reflections) serving as secondary data, used to triangulate findings.

Data Analysis

To conduct our analysis of the data, we engaged in the generative and recursive process of thematic coding (Braun & Clarke, 2006). Thematic coding is aimed at developing and refining codes across the data, and then organizing those codes into appropriate categories. Primary data analysis was conducted by Meghan after the semester ended and after students received their final grades. Meghan and Caleb met periodically during and following data collection to discuss their experiences and preliminary findings. After organizing all of the data, Meghan began by reading through the field notes, all participants' (including Caleb's) reflections on the PPP, and her overarching feedback to PSTs on their feedback to students throughout the semester. As she read, she maintained a series of memos, noting aspects of the data that addressed the research questions. We drew on these data sources to contextualize the feedback PSTs left for their pen pals, which we coded and categorized.

Meghan then began reading the feedback that PSTs provided to their pen pals throughout the semester. After reading the feedback data, Meghan generated and modified codes (Tuckett, 2005) aimed at identifying the different types of feedback that PSTs provided to their pen pals, thus addressing the first research question. Codes were refined and organized into four overarching categories: *Affirmation, Probe, Connection,* and *Improvement.* The categories, their respective codes, and code frequencies are presented in Table 1. The frequencies that we report are indicative of participants' general tendencies in their feedback to students.

Affirmation. *Affirmations* included a variety of statements where PSTs (a) commented on positive aspects of students' writing or (b) encouraged students to continue writing and working on the craft of writing.

Table 1

Categories, Codes, and Frequencies

Code	Frequency
Category 1: *Affirmation* (245 Total Codes)	
Encouragement	66
Use of Details & Examples	32
Use of Text Evidence	29
Use of Literary Devices	26
Comprehension & Critical Thinking	26
Ideas & Topic	21
Organization of Writing	17
Voice & Style	15
Writing Conventions	11
Category 2: *Probe* (131 Total Codes)	
Elaboration & Description	52
Personal Opinion	28
Clarification about Student Meaning	22
Clarification about Text	13
Text Evidence	13
Writing Conventions	2
Category 3: *Connection* (89 Total Codes)	
PST-to-Student Connection	44
PST-to-Content Connection	25
Student-to-Content Connection	18
Category 4: *Improvement* (67 Total Codes)	
Writing Conventions	27
Text Evidence	21
Elaboration	18

Probe. *Probes* included primarily questions meant to push students to explore more, analyze more deeply, or consider alternative ideas/connections.

Connection. *Connections* included stated commonalities that the PSTs had or believed they had with students, and questions aimed at building a connection to the student.

Improvement. *Improvements* included specific, direct statements that explicitly named areas for improvement. Most *Improvements* were found in the summative feedback that participants provided to their student partners at the conclusion of their time together, rather than in their formative, weekly in-text comments.

Our second research question inquired into the ways that feedback differed by student. All of the 6th grade students in this study were enrolled in an inclusion class populated by students who performed multiple grade levels below average to students who performed on grade level, according to state standards for sixth grade ELA. Caleb drew on his experiences working with the students over the course of one academic year to organize them into four groups, depending on their competencies as readers and writers. We use the language of competencies here to highlight students' assets in ELA while also acknowledging students' areas for growth. We consider these categorizations to be representative of the body of work that each student completed over the course of a single academic school year and do not consider them to be fixed labels. To reiterate, the PSTs were not made aware of these competency groupings before or during their interactions with their Pen Pals and were, instead, responsible for determining students' strengths and areas for growth based on the writing samples.

Although we acknowledge differentiation among the students placed into each group, we can make some generalizations about students' assets and areas for growth. For instance, a representative student in Group 1 might be able to provide a basic synopsis of a story's plot through writing but need support to make and write about text inferences. Students in Group 1 might be able to transfer their thoughts to paper in a manner that is understandable but need support in mastering punctuation and capitalization. Students in Group 4 might incorporate significant details into their writing and be able to make and write about text inferences on their own. A Group 4 student would likely be able to structure a paragraph independently and coherently while concomitantly demonstrating a nascent mastery of appropriate grade-level conventions. Students in Groups 2 and 3 fell between the two poles of Groups 1 and 4.

Table 2

Category Frequencies by Student Competency Groupings

	Affirmation	Connection	Improvement	Probe
Group 1	57 (41%)	25 (18%)	22 (16%)	34 (25%)
Group 2	66 (43%)	27 (18%)	17 (11%)	43 (28%)
Group 3	65 (48%)	25 (19%)	18 (13%)	27 (20%)
Group 4	55 (53%)	12 (12%)	10 (10%)	27 (26%)

After organizing students into groups, we analyzed the coded data for patterns in frequency to consider whether students in different groups received certain types of feedback more or less often than others. Because the number of students assigned to each competency group was unequal, we present the data in Table 2 in percentages, so as to better compare frequencies across competency groupings.

We review our findings as they pertain to both of our research questions in the next section, before looking across all findings in light of our theoretical framework in the Discussion.

Findings

We organize our Findings by the two research questions. We begin by considering the types of feedback PSTs offered to their 6th grade pen pals, thus addressing the first research question. We then consider the second research question by analyzing how the feedback varied by the competencies of the 6th grade students.

Feedback Types

Our analysis of PSTs' feedback to their 6th grade pen pals suggests that PSTs were providing four categories of feedback: *Affirmations, Probes, Connections,* and *Improvements*. Across the data, participants provided more feedback that fell into the categories of *Affirmations* and *Probes* than either *Connections* or *Improvements*. At the conclusion of the PPP, participants reported feeling prepared to provide students with encouraging feedback on their writing, and less prepared to balance critical and positive feedback on student writing. Thus, it is not altogether surprising that the majority of the feedback the PSTs provided to their pen pals fell into the category of *Affirmations*. We review each of the feedback categories in greater detail, in order from most to least frequently coded.

Affirmation. Across the 8 codes in this category, the most commonly coded *Affirmation* was *Encouragement* (66 codes). *Encouragement* referred to those general statements where participants noted a vague or broad aspect of students' writing that was done well, or words meant to encourage the student to keep writing. For instance, Dana commented on one of the topics in one student's writing: "I especially love your writing that expresses your life, and how you feel about important things, like women's rights." Nina, on the other hand, told a student "You are a strong writer!" and did not attach her comment to a specific aspect of the student's writing. The PSTs' propensity to provide general encouragement to their pen pals could be a response to the aforementioned course readings and discussions, wherein the PSTs acknowledged the importance of nurturing young writers and encouraging their growth.

In addition to general words of encouragement, the PSTs also commented on students' use of detail in their writing (32 codes), their use of text evidence (29 codes), their use of literary devices (26 codes), and students' general comprehension and critical thinking skills (26 codes). For instance, Janine told a student, "You were able to include details and examples to help me to understand the topics that you were discussing." Similarly, Joyce commented on a student's ability to defend claims, stating "You did a good job identifying the theme and then defending it with examples from the story." Jessie noted a student's use of details, writing: "Great detail to justify your claim!" Finally, Janine complimented a student's comprehension and critical thinking, writing "great job making inferences about the character's personality." Although these four codes—*Use of Detail*, *Use of Text Evidence*, *Use of Literary Devices*, and *Comprehension and Critical Thinking Skills*—were applied an average of 28 times across the data (less than the 66 *Encouragement* codes), we find their

prevalence particularly interesting when compared to the few codes for *Writing Conventions* (only 11 codes across the data).

The least common *Affirmations* were those where participants complimented or positively commented on students' conventions in writing (i.e., spelling, grammar, and word choice). Although we included spelling, grammar, and word choice as conventions of writing here, participants only complimented students' word choice. For instance, Jessie told one student "Good word choice!" and Joyce complimented another student's use of an adjective. There are multiple possible reasons for the dearth of *Affirmations* of conventions in students' writing. First, it is quite possible that there was little for the PSTs to comment on; the students may not have exhibited conventional usage of spelling, grammar, and word choice, and so their writing did not merit affirmations. However, it is also quite possible that, given PSTs' concerns before beginning the PPP, in trying to balance feedback on writing content with feedback on writing conventions, the PSTs overcorrected and focused on content almost entirely. Regardless, the *Affirmations* that PSTs provided suggested that students were doing well with their use of detail and examples in writing and were perhaps struggling with their use of writing conventions.

PSTs' final reflections completed at the conclusion of the PPP suggest that the 6th grade students demonstrated strength in the content of their writing. When asked to identify strengths they saw in their pen pals' writing during the semester, PSTs commented that the students were open, intriguing, and opinionated. The PSTs also believed their pen

> **"Although we included spelling, grammar, and word choice as conventions of writing here, participants only complimented students' word choice."**

pals to be strong creative writers—a point they brought up during class discussions throughout the semester, as well. These strengths seemed to align with the *Affirmations* that PSTs provided their pen pals throughout the semester.

Probe. The most common code within the category of *Probe* was *Elaboration/Description* (52 codes), wherein PSTs prodded their pen pals to provide more detail in their writing. While they participated in the PPP, the 6th grade students in Caleb's class read an excerpt from *The House on Mango Street* by Sandra Cisneros (1984). In response to one of her pen pal's pieces about character development in the novel, Jessie asked, "Can you tell me why Rachel believes you are all these ages at once and what does this say about her?" Similarly, Monica asked one of her pen pals, "How does Sandra Cisneros show us Rachel's feelings? What does she do?" Later during the project, students read about Dr. Martin Luther King, Jr. and shared some of their reflections on his work. In response, Lara asked one of her pen pals, "Do you think you could give me specific examples of what MLK Jr would like in our society and what he would dislike?" Thus, the questions that the PSTs posed were all higher-level thinking questions tied to the writing prompts assigned by Caleb and aimed at encouraging students to think more deeply about the texts, to make inferences, and to develop connections between the texts and the world around them.

The least common code within this category were probes wherein participants asked students questions related to writing conventions. This code was applied only twice across the data. In response to a students' use of the pronoun "I," Monica asked

"What effect were you wanting to create by including the lowercase i? As a reader, it sticks out and makes me pay attention to those lines." Capitalization was also the focus of Jessie's probe to a student: "Do you remember what we do to titles when writing them?" When considered in light of PSTs' earlier concerns regarding how to balance feedback on content with feedback on conventions, it is interesting that PSTs provided more *Affirmations* and *Probes* regarding students' content than their use of conventions in writing.

PSTs' final reflection responses also help to shed light on this pattern of providing more *Affirmations* and *Probes* about content than conventions. Even after completing the PPP, the PSTs were fearful about providing critical feedback to students on their writing. In particular, the PSTs expressed concern about how to maintain a positive tone when giving critical feedback. Related, when asked what strategy they did or would use to differentiate feedback on student writing, the PSTs said they would frame their feedback as questions. As demonstrated in Table 1, the PSTs in this study did just that. Rather than telling students how to improve their writing (a category we review last), these PSTs asked students questions, with 131 codes so attributed (versus the mere 67 codes attributed to *Improvements*). Thus, PSTs could have been employing probes as a form of differentiation or they could have considered probes to be more palatable for students. There is also the chance that PSTs' tendency to probe came in response to the type of feedback they regularly received from Meghan on their weekly reading responses.

Regardless of the reason, the high frequency of probes could have been misleading for the students in Caleb's class. At the same time that they were receiving a significant number of *Affirmations* for their use of details, examples, and text evidence, these 6th grade students were also receiving a

similar number of *Probes* asking for more details and elaboration. However, without directly telling students to add more details, these students could likely misunderstand the PSTs' probes as supplemental and optional, rather than signifying important and legitimate areas for improvement in writing.

Connection. The category of *Connection* was subdivided into three codes: *PST-to-Content Connections* (44 codes), *PST-to-Student Connections* (25 codes), and *Student-to-Content Connections* (18 codes). The code for PST-to-Student Connections was the most frequently applied code in this category and represented statements and/or questions where PSTs either shared a connection with their pen pal or asked a question to learn more about their pen pal. PSTs' comments included current connections, such as Joyce's response to a pen pal's written piece about Christmas: "That's my favorite holiday :) Everyone is always so happy, and you get to spend time with the people you care about." Other connections represented the PSTs' reflections on themselves growing up, such as Dana's exclamation that "I also played basketball growing up!" and Monica's response to a student's *Where I'm From* poem: "My favorite line was from 'don't put too much makeup on or you will look like a witch and don't cry or your eyes will turn into frog eyes.' My mom still tells me not to wear too much makeup and I'm an adult." The comments coded as *PST-to-Student Connections* were inspired by the content of students' writing, but they were specifically aimed at building a connection between the PSTs and the students.

Codes for *Student-to-Content Connections* were the least frequently applied across the data. This code refers to those instances where PSTs asked questions or made comments that were aimed at encouraging students to develop a connection between themselves and the content of their writing. For

instance, Nina asked one pen pal "Is there an example from your own life that shows this theme?" Similarly, Monica considered a potential connection between a student and the character in her book, asking "When you have been given a task you didn't want to do, did you react similarly to Mai?" Finally, Jessie inquired into the inspiration behind a student's writing, asking "What inspired you to write this type of intense poem? Have you read a book or seen a movie recently that inspired you to write this?" The few comments aimed at engendering a sense of connection between students and the content of their writing could be attributed to PSTs' lack of familiarity with the texts that students were reading and responding to.

Through the project, Meghan and Caleb both encouraged PSTs to use the PPP as an opportunity to connect and talk with their 6th grade partners about writing. However, even against this backdrop and after repeated reminders to return to the Google docs and to check for students' responses to their feedback and questions, very few PSTs returned to the docs or replied to their pen pals. Thus, the PSTs in this study struggled to follow up on questions or engage in a dialogue, and instead posed questions that were rhetorical in nature and did not result in an ongoing, back-and-forth discussion.

Improvement. As previously mentioned, the category of *Improvement* was the least frequently coded across the data (67 codes total). Within this category the most frequently applied code was *Writing Conventions* (27 codes), wherein PSTs told their pen pals they needed to improve their spelling, grammar, and/or word choice. For instance, Dana told one student: "One area to grow in is just paying

> **"Because she never pointed out specific places where this should be done, the student would not only be surprised by the feedback but would also lack clarity about how to improve sentence length."**

attention to those red squigglies... you guys are so lucky to have those to tell you when you've misspelled." Punctuation was especially common for PSTs to comment on. For instance, Janine told a student to "make sure that you check your punctuation. There should be periods at the end of complete sentences." and Monica indicated a place where one student should add a period, "Here's a good place to put a period to break down your good example." PSTs also regularly commented on students' word choices and sentence structure.

The least frequently applied code was *Elaboration* (18 codes), wherein participants told students that they needed to explain their ideas more thoroughly and provide more details. Many of these statements were provided in summative feedback to students at the end of the PPP, rather than in the regular, weekly feedback. For instance, Nina told one student "If you elaborate a little more and add examples, it will make you an even stronger writer," and Joyce told a student, "One thing I would recommend is that as you continue to write, do not be afraid to elaborate on what you have to say." On the other hand, some PSTs were unfamiliar with the texts that students were reading and responding to, and so their questions had dual purposes: to encourage students to provide more detail and to help the PST better understand the text. For instance, Lara told a student: "I am not familiar with the text you are reading. So, tell me more about Rachel" (a character from *The House on Mango Street*).

In her weekly feedback to PSTs throughout the PPP, Meghan regularly reminded PSTs to make their feedback specific so that students would know where and how to improve their writing. However,

Meghan did not notice a shift in the types of feedback that PSTs provided over the course of the project in response to these regular reminders. Furthermore, throughout their partnerships, the PSTs regularly *Affirmed* and *Probed*, but the majority of their stated places for *Improvement* were shared in the summative feedback at the conclusion of the project. As previously mentioned, *Probes* related to *Conventions* received the fewest codes of the entire data set (only 2). Because students did not receive regular commentary about their use of conventions (spelling, grammar, and word choice), many students could have been surprised to receive a direct statement (i.e., an *Improvement*) telling them that conventions were an area for improvement in their writing and unsure about how to improve. For example, throughout the weeks, Lara provided no feedback to a particular student on sentence length or structure. Then, in her summative feedback, she recommended that he shorten the length of his sentences. Because she never pointed out specific places where this revising should be done, the student would not only be surprised by the feedback but would also lack clarity about how to improve sentence length. Thus, in addition to providing few *Improvements* to students throughout the project, the *Improvements* the PSTs did provide often lacked specificity.

Feedback by Student Competencies

To address our second research question, we analyzed feedback types in relation to student competencies (see Table 2 for all code frequencies). Regardless of competency group, the feedback type that was coded most frequently was *Affirmation*. Similarly, across all competency groupings, the feedback type that was least frequently coded was *Improvement*. The frequency of affirmation-oriented feedback increased as student competency increased, with *Affirmation* representing 41% of codes for Group 1 students and 53% of codes for

Group 4 students. Conversely, the frequency of improvement-oriented feedback decreased as student competency increased, with *Improvement* representing 16% of codes for Group 1 students and only 10% of codes for Group 4 students. The *Connection* category was applied with similar frequency across all Group 1, 2, and 3 students. However, Group 4 students received connection-oriented feedback with the least frequency (12% of codes). Similarly, the *Probe* category was applied with similar frequency across the Group 1, 2, and 4 students, with Group 3 students receiving probing feedback least frequently (20% of codes).

We further broke down the data to consider the types of codes that were applied to the data, dependent on student competency. Group 1 and 2 students received *Affirmations* in the form of general *Encouragement*, whereas Group 3 and 4 students received more specific *Affirmations*—namely commentary on their use of specific details in writing. Group 1 and 2 students received few *Affirmations* of their use of *Conventions*, whereas Group 3 and 4 students received few *Affirmations* of their *Voice and Style*. Regardless of competency grouping, students received more *PST-to-Student Connections* than any other *Connection* type. With the exception of Group 3 students who received the fewest number of *PST-to-Content Connections*, the least frequently coded *Connection* was *Student-to-Content* regardless of student competency. In the category of *Improvement*, the code for *Conventions* was the most frequently applied across all competency groupings, with the exception of Group 3 students who received *Improvements* for *Conventions*, *Elaboration*, and *Text Evidence* with equal frequency. Finally, regardless of competency grouping, students received the most *Probes* for *Elaboration* and *Description* and the fewest *Probes* for *Conventions*.

Overall, the types of feedback that PSTs provided varied minimally across the student competency groupings. *Affirmations* increased in number and specificity with student competency, and the frequency of *Improvements* decreased as student competency increased. Although there was variation in the frequency with which the code was applied, the type of improvement that was called for remained the same despite students' competency grouping: *Conventions*. We now turn to a consideration of our findings in light of the research and theoretical frameworks reviewed at the beginning of this paper to inquire more specifically into our research questions.

Discussion and Implications

In this section, we consider how the nature of the feedback that PSTs offered contributed to PSTs' developing knowledge about teaching (specifically the development of KCT and KCS [Ballock et al., 2018]) and their sense of efficacy. We then discuss challenges and affordances associated with leveraging digital spaces as a means of teaching core practices to PSTs and offer recommendations for teacher educators.

Types of Feedback

Prior research on how PSTs are prepared to respond to student writing suggested that PSTs were primarily concerned with providing corrective feedback focused on surface-level edits to grammar and conventions (Bitchener, Young, & Cameron, 2005; Ellis, 2009; Ferris, 2004; Morgan & Pytash, 2014) or that feedback falls into one of three categories: help, praise, or reader-response (Beason, 1993). The types of feedback PSTs in this study were providing to students represented a more nuanced variety than Beason's aforementioned categories and represented more than surface-level corrective feedback. In this study, help was teased apart to include both improvements and probes, which could influence student writers differently. Praise was also differentiated to include general words of encouragement, as well as affirmations of specific aspects of students' writing. More specific praise could provide students with clarity regarding which aspects of writing they are strongest at. Finally, rather than reader-response comments, we found that PSTs made comments that were aimed at building connections to students. PSTs' non-judgmental comments aimed at building connections with students could be indicative of the PSTs' attempts to learn more about the particular students they were working with, contributing to enhanced KCS (Ballock et al., 2018).

We contend that the PSTs' tendencies to provide more *Affirmations* (rather than *Improvements*) and to comment more on students' uses of elaboration and details in writing (rather than writing conventions) were in part influenced by their course-based readings and interactions with their PST peers. The assigned chapters from both course texts (Kirby & Crovitz, 2012; Smagorinsky, 2008) encouraged PSTs to consider how feedback can support student engagement in the writing process and help them to develop as writers. In their weekly reflection posts and in-class discussions (as analyzed from Meghan's field notes), PSTs evinced a shared concern about balancing critical and supportive feedback to students and about addressing the content of students' writing with greater frequency than conventions. Thus, as PSTs were learning about and practicing a discrete core practice of teaching (here, responding to student writing), they were simultaneously drawing on the theoretical and conceptual tools they were reading about and discussing as part of their teacher education coursework (Grossman et al., 2009).

In their weekly reflection posts, class discussions, and project reflections, PSTs also suggested that

they were uncertain about what types of feedback to give to their pen pals and how best to balance supportive and critical feedback. Similarly, PSTs' recommendations to students in the Google docs were often framed as questions (i.e., *Probes*), rather than explicit statements (i.e., *Improvements*). Together, PSTs' course-based reflections and probing comments to students could indicate PSTs' discomfort with providing corrective feedback, suggesting that teacher education needs to incorporate opportunities for PSTs to learn about and provide feedback on student writing samples early and often. This finding contradicts previous research that has recommended that teacher education programs adopt stand-alone writing methods courses (Morgan & Pytash, 2014), and instead suggests that learning how to read, make sense of, and then respond to student writing may happen across all of English teacher education.

Feedback by Student Competencies

Overall, PSTs' feedback varied only slightly depending on student competency grouping. As previously mentioned, at no point during the project did we provide information to PSTs regarding their pen pals' writing abilities or performance in Caleb's class. This decision was made intentionally in an effort to evade assumptions that PSTs might make of students' writing abilities.

Regardless, PSTs' weekly reflection posts and in-class discussions suggested that they were able to recognize the different competencies of their pen pals but that they struggled with how to differentiate their feedback accordingly. For instance, many PSTs indicated that they didn't know how to support their more advanced writers and that it was easy to provide feedback to those they considered struggling. Furthermore, during Caleb's visits to class, the PSTs regularly verbalized who their struggling and strong writers were. However,

at no point did they discuss or write about what specific aspects of writing these students were struggling with or excelling at. We draw from this finding to recommend that teacher educators not only help PSTs to identify students at varying competencies, but that they also work with PSTs to identify how they might differentiate for students who are still developing particular reading and writing skills. Finally, teacher educators should work with PSTs to differentiate their feedback so that it is aimed at supporting students in skill mastery. Teachers' KCS and KCT are both interrelated and interdependent (Ballock et al., 2018). How KCS and KCT are interrelated needs to be more explicitly taught to PSTs, so that PSTs might consider how teachers draw on knowledge of students' areas for growth and areas of strength to design instruction, curriculum, and feedback methods.

Digital Spaces and Practice-Based Education

Overall, the PPP offers insight into the challenges and affordances of digital spaces for PSTs to learn about and practice responding to student writing. The challenges of community-engaged research and teaching are widely known (Zenkov & Pytash, 2018), and this project was not immune to many of the challenges other researchers have experienced. Regardless of these limitations, we contend that there were a number of positive aspects of the PPP that could and should inform future work in the field of writing teacher education.

Challenges. One of the primary challenges we sought to address in this study was related to time. In an effort to accommodate PSTs who work (in addition to going to school) and to provide day time hours for PSTs to be in their practicum schools, the College of Education requires many of the capstone methods courses at the university to be held at night. As such, it was impossible for PSTs to interact with Caleb's students face-to-face during the school

day. The development of relationships between the students and PSTs was strained by the sole use of the online platform for the project. We tried to make up for the lack of in-person meetings by having the PSTs post welcome videos and share photos of themselves with their pen pals. However, we still contend that face-to-face interactions could have helped the PSTs to learn more about their pen pals' personal interests, dispositions, and meaning-making processes as writers.

We also recognize that the population of students with whom the PSTs were working could present challenges for PST learning. First, Caleb's class was considered an inclusion class, so the students represent only one subset of 6th graders. Although there was some variation among the students, the students in this class do not typically demonstrate advanced ability in terms of their academic writing. Furthermore, many of Caleb's students received services outside the mainstream classroom and were regularly pulled out for additional support and/or testing. These disruptions resulted in many of the Group 1 and 2 students missing class time dedicated to writing in the Google doc and reading the feedback they received from their PST partners. Finally, we fear that by placing PSTs with only small groups of students, we could have contributed to a false sense of confidence in their abilities to regularly read and respond to student writing. Although these PSTs had personal and school-related obligations outside this project, they did not also have 100 or more middle school students for whom they were responsible. Thus, as these PSTs have moved into their student teaching placements, where they are responsible for planning for,

> **"PSTs need to review their feedback to students, consider how students might react to that feedback, and then identify ways they might use future feedback to focus on specific and individualized areas for growth."**

teaching, and responding to over 100 students, we question how their sense of self-efficacy has been affected.

We draw from these limitations and challenges to offer two recommendations to teacher educators using a practice-based approach to prepare PSTs to respond to student writing. First, we recommend offering more formal opportunities for PSTs to reflect on individual students' patterns in writing. Specifically, PSTs need to review their feedback to students, consider how students might react to that feedback, and then identify ways they might use future feedback to focus on specific and individualized areas for growth. Furthermore, teacher educators should work with PSTs to determine and design instructional strategies that could be employed to support student writers both individually and as a class. Finally, it was outside the scope of this study to measure the effectiveness of the partnership for the 6th grade students. Although Caleb was able to provide some insight into his students' general responses to the project, we were unable to analyze the development of their writing over the course of the project. Future iterations of this project should account for the learning of both sets of students and consider the benefits and challenges of the project for all stakeholders.

Affordances. Although time and space limitations are not ideal in teacher education, we do contend that digital spaces can be leveraged to realize the benefits of practice-based learning. First, the PPP was an opportunity for PSTs to learn about some of the dilemmas that teachers face when working with

students (Grossman et al., 2009). Although Caleb's class was not necessarily representative of the myriad students enrolled in the 6th grade, they did represent a population of students many teachers will to work with at some point in their careers. Thus, this project could provide PSTs with a realistic sense of what to expect in their future classrooms.

During the PPP, PSTs also had the opportunity to learn about and experience some of the dilemmas that teachers face in terms of time. Many PSTs found that the process of regularly reading and responding to student writing was time-consuming (even when there were only 4-5 students assigned to them) and that they were unsure about what to comment on in students' writing. On one hand, we wanted the PSTs to realize that teaching is time-consuming work that regularly requires critical thinking and professional judgment. On the other hand, as more and more teachers strike and leave teaching as their responsibilities increase and their pay does not (Downey, 2018), we want to find ways to support our novice teachers as they think strategically about the work they are tasked with doing. In terms of responding to student writing, PSTs need to realize that quality and quantity matter differently in terms of their feedback to students. Whereas a large quantity of comments on student writing can be both overwhelming for students and taxing for teachers, fewer numbers of specific and focused feedback can encourage writer development and protect teachers from burnout.

In addition to helping PSTs to understand the dilemmas that teachers face in classrooms, we also find that the digital space provided PSTs with a relatively sheltered environment in which to learn about a core practice of teaching.

Because PSTs were reading and discussing theoretical and conceptual texts about responding to student writing while simultaneously reading and responding to actual student writing, they were able to develop a more interactive relationship between conceptual and practical tools. The PSTs drew on their reading to iteratively pose questions, explore dilemmas, make sense of student writing, and respond to their pen pals. The PSTs were also provided with models of teacher feedback by both the Meghan and Caleb and discussed those models during class time and in their weekly reading responses.

Finally, by providing PSTs with digital space to interact with students, all parties (teacher educators, practicing teachers, pre-service teachers, and K-12 students) can be involved to better ensure growth for both PSTs and K-12 students. We contend that as PSTs learn to provide written feedback, digital spaces can serve as an effective sheltered place for teacher educators to guide PSTs in the feedback they offer to students. Similarly, practicing teachers can intervene as necessary to ensure students are comprehending and responding effectively to quality feedback from PSTs. Ultimately, by leveraging digital spaces for PSTs to practice core skills (like providing feedback on student writing), teacher educators might better prepare PSTs to understand some of the dilemmas that practicing teachers face, to respond strategically to those dilemmas, to view practice as theoretically-informed, to draw from student knowledge to make choices about teaching, and to have confidence in their abilities to grow and develop as future teachers.

References

Anson, C. M. (1989). *Writing and response: Theory, practice, and research*. Urbana, IL: National Council of Teachers of English.

Applebee, A. N., & Langer, J. A. (2011). A snapshot of writing instruction in middle schools and high schools. *English Journal, 100*(6), 14–27.

Barnes, M. E. (2016). Recognizing spaces of dissensus in English teacher education. *English Teaching: Practice and Critique, 15*(2), 190-207.

Barnes, M. E. (2017a). Encouraging interaction and striving for reciprocity: The challenges of community-engaged projects in teacher education. *Teaching and Teacher Education, 68,* 220-231.

Barnes, M. E. (2017b). The absent dialogue: Challenges of building reciprocity through community engagement in teacher education. *eJournal of Community Engagement, 6*(2), 31-59. Retrieved March 28, 2019 from *http://www.ejournalofpublicaffairs.org/absent-dialogue/*

Barnes, M. E. (2017c). Practicing what we preach in teacher education: A Critical Whiteness Studies analysis of experiential education. *Studying Teacher Education, 13*(3), 294-311.

Barnes, M. E., & Smagorinsky, P. (2016). What English/Language Arts teacher candidates learn during coursework and practica: A study of three teacher education programs. *Journal of Teacher Education, 67*(4), 338-355.

Ball, D. L., & Forzani, F. M. (2009). The work of teaching and the challenge for teacher education. *Journal of Teacher Education, 60*(1), 497-511.

Ball, D. L., Thames, M. H., & Phelps, G. (2008). Content knowledge for teaching. *Journal of Teacher Education, 59*(5), 389-407.

Ballock, E., McQuitty, V., & McNary, S. (2018). An exploration of professional knowledge needed for reading and responding to student writing. *Journal of Teacher Education, 69*(1), 56-68.

Beason, L. (1993). Feedback and revision in writing across the curriculum classes. *Research in the Teaching of English, 27*(4), 395-422.

Bickford, D. M., & Reynolds, N. (2002). Activism and service learning: Reframing volunteerism as acts of dissent. *Pedagogy: Critical Approaches to Teaching Literature, Language, Composition, and Culture, 2,* 229–252.

Bitchener, J., Young, S., & Cameron, D. (2005). The effect of different types of corrective feedback on ESL student writing. *Journal of Second Language Writing, 14*(3), 191-205.

Blumenstyck, G. (2018, November 27). What the rise of the mega-university might mean for the rest of us. *The Chronicle of Higher Education*. Retrieved March 28, 2019 from https://www.chronicle.com/article/What-the-Rise-of-the/245165

Bostock, L., & Boon, H. (2012). Pre-service teachers' literacy self-efficacy and literacy competence. *Australian and International Journal of Rural Education, 22*(1), 19–37.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology, 3*(2), 77-101.

Ciampa, K., & Gallagher, T. (2018). A comparative examination of Canadian and American pre-service teachers' self-efficacy beliefs for literacy instruction. *Reading and Writing: An Interdisciplinary Journal, 31*(2), 457–481.

Cisneros, S. (1984). *House on Mango Street*. Houston, TX: Arte Público Press.

Colby, S. A., & Stapleton, J. N. (2006). Preservice teachers teach writing: Implications for teacher educators. *Reading Research and Instruction, 45*(4), 353–376.

Cutler, L., & Graham, S. (2008). Primary grade writing instruction: A national survey. *Journal of Educational Psychology, 100,* 907-919.

Dempsey, M. S., PytlikZillig, L. M., & Bruning, R. H. (2009). Helping preservice teachers to assess writing: Practice and feedback in a web-based environment. *Assessing Writing, 14*(1), 38–61.

DiPardo, A., Staley, S., Selland, M., Martin, A., & Gniewek, O. (2012). "Anything could happen": Managing uncertainty in an academic writing partnership. *English Education, 45*(1), 10-34.

Downey, M. (2018). Politicians' portrayals of teachers shifts with... politics. *The Atlanta Journal-Constitution*. Retrieved March 28, 2019 from https://www.ajc.com/news/local-education/politicians-portrayal-teachers-shifts-with-politics/ZNsrptQiDn2RBfNt8NEn4J/?icmp=np_inform_variation-test

Ellis, R. (2008). A typology of written corrective feedback types. *English Language Teaching, 63*(2), 97-107.

Ferris, D. R. (2004). The "grammar correction" debate in L2 writing: Where are we, and where do we go from here? (and what do we do in the meantime...?). *Journal of Second Language Writing, 13*(1), 49-62.

Ferris, D. R. (2014). Responding to student writing: Teachers' philosophies and practices. *Assessing Writing, 19*(1), 6-23.

Freedman, S. W., Greenleaf, C., & Sperling, M. (1987). *Response to student writing*. Urbana, IL: National Council of Teachers of English.

Friedman, A., Zibit, M., & Coote, M. (2004). Telementoring as a collaborative agent for change. *The Journal of Technology, Learning, and Assessment, 3*(1), 1–41.

Gee, J. P. (1992). *The social mind: Language, ideology, and social practice*. New York, NY: Bergin & Harvey.

Graham, S., Hebert, M., & Harris, K. R. (2015). Formative assessment and writing: A meta-analysis. *Elementary School Journal, 115,* 523-547.

Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching, re-imagining teacher education. *Teachers and Teaching: Theory and Practice, 15*(2), 273-289.

Hayes, J. R., & Olinghouse, N. G. (2015). Can cognitive writing models inform the design of the Common Core State Standards? *Elementary School Journal, 115,* 480-497.

Helfrich, S. R., & Clark, S. K. (2016). A comparative examination of pre-service teacher self-efficacy related to literacy instruction. *Reading Psychology, 37*(7), 943–961.

Hicks, T. (2009). *The digital writing workshop*. Portsmouth, NH: Heinemann.

Hillocks, G. (1986). *Research on written composition: New directions for teaching*. Washington, DC: NCRE and ERIC Clearinghouse on Reading and Communication Skills.

Hillocks, G. (2002). *The testing trap: How state writing assessments control learning*. New York, NY: Teachers College Press.

Johnson, L. L. (2016). Writing 2.0: How English teachers conceptualize writing and digital technologies. *English Education, 49*(1), 28-62.

Kelley, K. S., Hart, S., & King, J. R. (2007). Negotiating pedagogy development: Learning to teach writing in a service-learning context. *Action in Teacher Education, 29*(2), 94-108.

Kirby, D. L., & Crovitz, D. (2012). *Inside out: Strategies for teaching writing* (4th ed). Portsmouth, NH: Heinemann.

Kissel, B. (2017). *When writers drive the workshop: Honoring young voices and bold choices, K-5*. Portland, ME: Stenhouse.

Levine, A. (2011). The new normal of teacher education. *The Chronicle of Higher Education*. Retrieved March 28, 2019 from: https://www.chronicle.com/article/The-New-Normal-of-Teacher/127430

Luria, A. R. (1981). *Language and cognition*. J. V. Wertsch (Ed.). New York, NY: Wiley Intersciences.

Mitchell, T. (2008). Traditional vs. critical service-learning: Engaging the literature to differentiate two models. *Michigan Journal of Community Service Learning*, 50-65.

Morgan, D. N., & Pytash, K. E. (2014). Preparing preservice teachers to become teachers of writing: A 20-year review of the research literature. *English Education, 47*(1), 6-37.

Pasternak, D. L., Caughlan, S., Hallman, H. L., Renzi, L., & Rush, L. (2017). *Secondary English teacher education in the United States*. New York, NY: Bloomsbury Academic.

Peterson, S. S. (2010). Improving student writing using feedback as a teaching tool. In *What works? Research into practice* (pp. 1-4). Toronto, ON: The Literacy and Numeracy Secretariat and The Ontario Association of Deans of Education. Retrieved March 28, 2019 from http://www.edu.gov.on.ca/eng/literacynumeracy/inspire/research/WW_Improving_Student_Writing.pdf

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.

Shulman, L. (1986). Those who understand: Knowledge growth in teaching. *Educational Researcher, 15*(2), 4-14.

Simon, R. (2013). "Starting with what is": Exploring response and responsibility to student writing through collaborative inquiry. *English Education, 45*(2), 115-146.

Smagorinsky, P. (2008). *Teaching English by design: How to create and carry out instructional units*. Portsmouth, NH: Heinemann.

Smagorinsky, P., Cook, L. S., & Johnson, T. S. (2003). The twisting path of concept development in learning to teach. *Teachers College Record, 105*(8), 1399-1436.

Smagorinsky, P., & Whiting, M. E. (1995). *How English teachers get taught: Methods of teaching the methods class*. Urbana, IL: Conference on English Education and the National Council of Teachers of English.

Sperling, M., & Freedman, S. W. (1987). A good girl writes like a good girl: Written response to student writing. *Written Communication, 4*(4), 343-369.

Teaching Works. (2016). *High leverage practices*. Retrieved from http://www.teachingworks.org/work-of-teaching/high-lever- age-practices

Tuckett, A. G. (2005). Applying thematic analysis theory to practice: A researcher's experience. *Contemporary Nurse, 19*(1-2), 75-87.

Vetter, A. (2010). Positioning students as readers and writers through talk in a high school English classroom. *English Education, 43*(1), 33-64.

Vygotsky, L. S. (1987). Thinking and speech. In L. S. Vygotsky, *Collected works* (vol. 1, pp. 39-285) (R. Rieber & A. Carton, Eds; N. Minick, Trans.). New York, NY: Plenum.

Vygotsky, L. S. (1933/1935). Dinamika umstvennogo razvitiya shkol'nika v svyazi s obucheniem. In L. S. Vygotsky, *Umstvennoe razvitie detey v protsesse obucheniya* (pp. 35-52). Moscow-Leningrad: Uchpedgiz

Wake, D. G., & Modla, V. B. (2010). Language experience stories gone digital: Using digital stories with the LEA approach. In S. Szabo, M. Foote, & F. Falk-Ross (Eds.), *Mentoring literacy professionals: Continuing the spirit of CRA/ALER after 50 years* (31st yearbook of the College Reading Association, pp. 253–274). Richmond, KY: Association of Literacy Educators and Researchers.

Zenkov, K., & Pytash, K. E. (2018). *Clinical experiences in teacher education*. New York, NY: Routledge.