Resources Preservice Teachers Use to Think about Student Writing

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This article identifies five categories of resources that preservice teachers drew on as they considered student writing and planned their own approaches to assessing and teaching writing. Identifying these resources helps us better understand how beginning writing teachers think about student writing—and better understand mismatches that commonly occur between what teacher educators teach and what new teachers actually do. Our study builds on literature that considers how writing teachers are prepared, extends research about how preservice teachers use what they learn, and adds layers of detail to literature about the resources that beginning teachers draw upon to aid and support them in their work. The pedagogical and research projects described in this study stem from a communities-of-practice framework. Our methods surfaced preservice teachers' claims about writing and the resources they drew upon to support those claims. Drawing upon our rhetorical view of writing, we worked inductively to identify these claims and resources, using grounded analysis of transcripts from preservice teachers' VoiceThread conversations to develop a taxonomy of 15 resources grouped into 5 categories: understanding of students and student writing; knowledge of context; colleagues; roles; and writing. This research has implications for educators and researchers working in teacher preparation. Scaffolded instruction is essential to help beginning teachers use particular resources—and to employ resources in ways connected with rhetorical conceptual frameworks. To that end, the taxonomy of resources can be used as a tool for individual and programmatic assessment, as well as to facilitate scaffolded instruction.

Writing teacher educators often notice puzzling disconnects between what we teach preservice teachers and what happens when they plan lessons, coach students, and respond to writing. We wonder: “We constantly emphasized rhetoric. Why is he tallying comma errors?” And ponder: “We immersed them in writing workshop. Why are her students writing only for homework?” And lament: “Why assign a five-paragraph theme?”

When we designed this teacher research project, we were curious: Where do beginning teachers get their ideas about writing and writing instruction? In this
article, we identify five resource categories—fifteen individual resources—that preservice teachers (PSTs) drew on as they considered student writing. Identifying these resources helps us better understand how beginning writing teachers think, and better understand some of the mismatches between what we teach and what they do. In turn, this understanding can inform our efforts to shape effective programs, course work, practicums, and induction support for beginning teachers. We discuss the resources by category, while also considering questions and surprises that arose during the project. Analyzing which resources our PSTs drew upon—and how they employed them—raised questions about our own curriculum and instruction, prompting us to reconsider how writing teachers are taught.

Resources in Writing Teacher Preparation and Practice
Our research builds on literature that considers how writing teachers are prepared, how they use what they learn, and which resources they draw upon.

What Writing Teachers “Get Taught”
We know of no U.S. or international studies about what (and how) writing teachers “get taught” (in the spirit, for example, of Smagorinsky & Whiting, 1995). Hochstetler (2009) found that in California, writing pedagogies were typically taught in comprehensive undergraduate English methods courses encompassing writing, reading, linguistics, ESL, and grammar. In Ohio, Tulley (2013) found that many programs offered a course to prepare secondary writing teachers; topics included writing process, theories, teacher comments, ESL, reading-writing relationships, and grammar. As Hochstetler (2007) observed, diverse regional policies and trends cause significant variation.

In their review of the 1990–2010 research on U.S. K–12 writing teacher preparation, Morgan and Pytash (2014) found “only 31 published studies focused on preparing PSTs to teach writing” (p. 30), including 5 on methods courses designed to help develop PSTs’ writing identities and abilities. A sampling of publications beyond those reviewed by Morgan and Pytash indicates that writing teachers may also be taught to read for writing (Bishop, 1995); to understand writer’s workshop, scaffolded instruction, and writing processes (Whitney et al., 2008); to assess writing (Dempsey, PytlikZillig, & Bruning, 2009); to evaluate language ideologies (Orzulak, 2013); to wield their authority as writers (Whitney, Zuidema, & Fredricksen, 2013); and to consider how digital literacies and social media transform writing (Grabill & Hicks, 2005). The National Council of Teachers of English’s (2006) guidelines for teacher preparation emphasize that teachers should understand writing as inquiry and as a rhetorical, recursive, and reflective act.

While this list may appear representative, diverse theoretical paradigms within English education and composition mean that seemingly ubiquitous practices (such as “teaching grammar”) emerge quite differently across contexts or situations, depending on the theoretical underpinnings. Thus, PSTs must be equipped—ideally within “conceptually unified” programs—to navigate critically the sometimes competing, sometimes complementary theories and practices they will encounter.
(Bickmore, Smagorinsky, & O’Donnell-Allen, 2005). This critical approach, at work in our own programs, troubles the idea that teachers passively “get taught”; it instead uses constructivist methods and negotiation of meaning within communities of practice (Wenger, 1998) to help PSTs build coherent frameworks for learning, teaching, and writing. The goal is to equip beginning teachers to make sense of the many pedagogical concepts and practices they will encounter as they turn to various resources.

Despite teacher educators’ best efforts to prepare new teachers, some graduates believe they were underprepared to teach writing (Read & Landon-Hays, 2013), and we know that analyses relying only on “inputs” are flawed (Darling-Hammond, 2013). Therefore, we must look not only at what teacher educators teach; we must also study what our students learn and do.

**What Writing Teachers Use from Teacher Preparation**

Beginning teachers draw on tools learned in teacher preparation. In their research, Grossman, Valencia, Evans, Thompson, Martin, and Place (2000) found that conceptual tools provided beginning writing teachers with guiding frameworks, principles, and heuristics (e.g., scaffolding and writing process). To implement conceptual frameworks, teachers also employed practical tools (such as journal writing and writer’s workshop). Teachers’ application of tools developed over time, was affected by context, and often involved partial appropriation—from the use of a name, to surface features implemented without connecting to the tool’s conceptual underpinnings, to understanding “the theoretical basis that informs and motivates the use of a tool” and trying that tool in new situations (Grossman, Smagorinsky, & Valencia, 1999, p. 17). More recently, McQuitty (2012) traced one teacher’s understanding of writing and sociocultural influences on her teaching, finding that she brought together ideas and beliefs from her education, teaching context, and experience in an “emergent, nonlinear” (p. 381) manner to “create pedagogies that fit, to varying degrees, the goals and values of multiple stakeholders at once” (p. 382).

A case study by Johnson, Smagorinsky, Thompson, and Fry (2003) revealed how an early-career writing teacher drew from her schooling. Her preparation focused on literature, not writing—and she therefore “emerged without a strong conceptual framework for critiquing the five-paragraph theme or developing a rationale for teaching writing in other ways” (Johnson et al., 2003, p. 167). She turned to earlier school memories to inform her teaching, believing that the five-paragraph theme had worked well for her as a student and therefore deciding to teach it. This case illustrates how, for better or worse, writing teachers may draw on their writing experiences as a resource to guide teaching; therefore, they should experience a depth and breadth of writing opportunities, and be guided in reflecting on those experiences to better understand how writing works. This idea is operative in our own programs, classrooms, and scholarship (Letcher et al., 2013; Whitney et al., 2013), as well as in pedagogical arguments and accounts in writing teacher education (Cremin, 2006; Cremin & Baker, 2010; Morgan, 2010; Reid, 2009; Wirtz, 2013). However, in this area educators rely more on intuition than on empirical
evidence; as a field, we have yet to identify which writing and reflection experiences best influence future writing teachers (Morgan & Pytash, 2014).

**Resources**

Taken together, these studies demonstrate that tools introduced through teacher preparation can be useful to writing teachers, and that teachers also draw upon concepts and practices from sources beyond their preparation programs. Teachers’ uptake of concepts and practices is complicated, yet our field tends to discuss influences on teachers in broad terms (course work, practicums, policies). What does research show about where teachers turn as they learn, employ, argue for, and develop conceptual and practical tools for teaching writing? In other words, what do we know about the resources writing teachers use?

We define a resource as “an aid or source of evidence used to help support claims; an available supply that can be drawn upon when needed.” Adapting a Random House dictionary definition, we also draw from composition-rhetoric and incorporate the language of argument (e.g., evidence and claims). We locate our research alongside studies identifying resources that inform teachers’ decision making and practices. Hedges (2012) found that “funds of knowledge” from everyday experiences may help teachers make sense of “professional knowledge” garnered during preparation (p. 21). Pardo (2006) identified “knowledge sources” that three beginning writing teachers drew upon—including “prior experiences, teacher education, trial and error, professional development experiences, and self-reflection and […] their own beliefs and attitudes” (p. 381). These fit within three knowledge sources described by Kennedy (2002): craft knowledge “acquired through experience”; systematic knowledge “acquired through undergraduate preparation, reading journals, and continuing professional development”; and prescriptive knowledge “acquired through institutional policies” (as cited in Pardo, 2006, p. 388). Pardo (2006) suggested that beginning writing teachers draw upon the same knowledge sources as experienced teachers—while they are also learning to navigate identity, policies, teaching tools, students, community, colleagues, and materials. Read and Landon-Hays (2013) found that for beginning teachers, heavy workloads, time constraints, scheduling, and curricular requirements all impeded their implementation of research-based methods for teaching writing.

Given the contextual complexities of teaching, no teacher “simply” draws upon particular knowledge sources. Teachers make choices as they navigate daily dilemmas (Lampert, 1985). A community of practice can point teachers to resources that help them build a repertoire of tools, concepts, and routines (Wenger, 1998) meshed within their own theoretical frameworks (Bickmore et al., 2005). We see from Parr’s (2011) study of teachers learning to assess writing that teaching repertoires may be practiced, learned, taken up, and applied uniquely by individuals, but they are developed and negotiated over time within communities of practice.

Ours is not the first study to examine resources that writing teachers use, but it takes a different tack. By identifying specific resources that PSTs draw upon and organizing them into broader categories, we locate actual and potential sources for the concepts and practices writing teachers “take up” within and beyond prepara-
tion programs. We consider how often—and how—the PSTs in our study used these resources.

Our study expands upon that by Grossman et al. (2000): working back from their findings about how beginning teachers used what they learned, we investigate where teachers located sources of their understanding—from within their teacher preparation programs and beyond. We also build upon research and arguments about the importance of teachers’ own writing experiences (Bizzaro, Culhane, & Cook, 2011; Johnson et al., 2003; Wirtz, 2013), adding an empirical layer about teachers’ experiences (as students and writers) as underused wellsprings that can inform their teaching of writing.

**Methods Course Contexts: Learning Conceptual and Practical Tools in a Community of Practice**

Our research was designed alongside our collaborative teaching project, which provided PSTs with practice in assessing writing. PSTs from Boise State University collaborated with peers from Dordt College. Using VoiceThread.com tools (Figure 1), teams followed the Collaborative Assessment Conference protocol to read student writing, state observations, raise questions, make claims about students’ learning and struggles, and suggest next teaching steps (McDonald, Mohr, Dichter, & McDonald, 2007).

Our pedagogy and research rested on the theory that people can learn by participating in communities of practice (Lave & Wenger, 1991). Communities of practice (a) engage mutually in an activity, (b) bind through a joint enterprise, and (c) develop a shared repertoire for practice. Moreover, as communities of practice engage in their work, they negotiate meaning together (Wenger, 1998). In
the teams we studied, this process of negotiation—which was conducted through the VoiceThread conversations—allowed us to see which resources PSTs turned to as they thought together about students’ writing.

So that our PST teams would work as communities of practice, we prompted them (a) to engage mutually in reading and discussing secondary students’ writing, (b) to bind through the joint enterprise of collaboratively composing response letters to partnering teachers, and (c) to develop a shared repertoire of claims about student writing and support for those claims. Each team was asked to offer descriptive assessments of individual students’ writing, make inferences about what students were working on as writers, and suggest instructional plans. To build agreement, teams had to think aloud and negotiate meaning—particularly because members were from two institutions, did not know each other, and could not assume common perspectives.

Through these interactions, PSTs developed working theories of practice for using conceptual and practical tools that had previously been introduced through course readings and activities. Both our courses emphasized that effective writing teachers share from their own practices, helping students to develop writing strategies and rhetorical understandings (of genre, audience, purpose, situation). Our PSTs were asked to read studies and theories of rhetoric, of writing processes, and of learning to write (e.g., Bawarshi, 2003, pp. 159–160; Booth, 1963; Ede & Lunsford, 1984; Graff, 2010; Perl, 1980; Rose, 1980; Sommers, 1980).

In Leah Zuidema’s comprehensive methods course, PSTs participated in activities and discussions informed by their close reading of Kittle’s (2008) workshop-centric *Write Beside Them*, as well as selections on conferring and on teaching grammar in context (Anderson, 2000), on teaching struggling writers (e.g., Graham & Harris, 2005, pp. 13–20; Sipe, 2008) and on expanded views of language and writing (e.g., Ehrenworth & Vinton, 2005; Kajder, 2007).

In Jim Fredrickson’s writing methods course, PSTs participated in professional reading groups. Jim gave PSTs a menu of options; each group chose one book about teachers sharing from their own practices in workshop environments (e.g., Fleischer & Andrew-Vaughan, 2009; Hicks, 2009; Kittle, 2008), one about teaching grammar in context (e.g., Anderson, 2005; Weaver, 2008), and one about developing students’ revising repertoires (e.g., Gilmore, 2007; Heard, 2002; Murray, 2001).

In both courses, PSTs were continually asked to apply and reflect on principles and practices from across course readings. Activities included:

- designing writing curricula—tailored for a particular class profile, yet standards-aligned—with an emphasis on writing as a recursive, rhetorical process;
- writing, practicing, and critiquing scaffolded lesson sequences for a writing workshop context, with attention to process and product as well as to rhetorical strategies and learner development;
- practicing conferences in role-play with “students” with differing needs; and
responding to diverse samples of student writing with written assessments, coaching comments, and grades.

The VoiceThread conversations described in this study were woven into these contexts, and were therefore both opportunity and catalyst for PSTs to negotiate meaning (Lave & Wenger, 1991) that was emerging from their encounters with conceptual and practical tools. To support claims made in their VoiceThread discussions of student writing samples, PSTs had to identify their assumptions, values, and beliefs. As teacher educators, we hoped that PSTs would think carefully about theory-practice connections by explaining their ideas to others. As teacher-researchers, we hoped to better understand why PSTs responded to student writing as they did. The community of practice framework allowed us to meet both goals.

Research Context and Methods

Our study was guided by these questions: What resources did preservice teachers turn to in order to support their claims about student writing and writers? As a community of practice, how often did they use these resources, and in what ways?

Setting, Curricular Context, and Participants

So that our classes could participate in a wider community of practice for writing instruction, we connected the 8 preservice English teachers in Leah’s comprehensive methods course at Dordt College (a private Christian college in a small rural town) with the 26 students in Jim’s writing methods course at Boise State (a public metropolitan research university). All PSTs had completed several English and teacher education courses, including a pre- or co-requisite writing workshop course for teachers. Our programs required PSTs to observe secondary classrooms before or during their methods course work—50 practicum hours for Boise State University students and 80 hours for Dordt College students.

To facilitate PSTs’ learning, we also partnered with an eighth-grade public school teacher in Idaho and a ninth-grade private school teacher in Indiana, who sent us their students’ completed writing and corresponding prompts. Each month, our PSTs received student writing:

- September: letters from eighth graders to their principal regarding a new dress code.
- October: essays from ninth graders to their teacher about the rules in their homes.
- November: “The Mystery of the Missing ______”—eighth graders’ fiction about a missing object that prohibited them from finishing a big assignment.

When our PSTs reviewed these packets, they individually sorted papers into groups (stronger, in-between, and weaker). Next, PSTs tried to develop consensus with teams at their own institutions about how to group the papers and why. PSTs
then worked online in groups of eight or nine members, with two Dordt College students in each group. Group membership remained the same throughout the semester. PSTs were given the option to use pseudonyms during the VoiceThread conversations and as participants in our study; none chose to do so.

Every month, each group chose a student writing sample as the focus of their VoiceThread conversation. We previewed the project with the following overview:

Each round will progress in complexity and will highlight more sophisticated dilemmas that you’ll face as a teacher of writers.

- **Round 1:** *categorize* (stronger, in-between, weaker) and *justify* (Why those rankings? What criteria place a piece of writing into a particular category?)
- **Round 2:** *categorize, justify,* and *prioritize* (same as Round 1, but also group the criteria into categories, and then prioritize those categories to determine which criteria seem to matter most to you and your group)
- **Round 3:** *categorize, justify, prioritize,* and *apply* (same as Round 2, but also suggest a pedagogical plan of action for instructing students)

We did not explicitly direct PSTs to vocalize which resources they drew upon. However, we did encourage them to explain why they thought as they did about the student writing—presenting arguments, justifying claims, and negotiating meaning about assessing student writing. We trusted the communities-of-practice paradigm to elicit resource-rich conversations like those we would hope to see among thoughtful teachers, and we were pleased to see that PSTs did, in fact, name resources they drew upon to warrant their claims about eighth and ninth graders’ writing.

**Researchers’ Roles**

The two of us taught the courses at our respective institutions, simultaneously taking the stance of teacher-researchers. During the semester, our weekly video-conference meetings were pedagogical: we reflected on PSTs’ learning and planned next teaching steps. We told PSTs about our conversations in order to model collaborative reflection. After the semester ended and we received participants’ informed consent, we analyzed data.

**Data Collection and Analysis**

Data were collected by transcribing the three rounds of password-protected VoiceThread conversations, in which the four teams (34 PSTs) wrote and spoke about how to assess and respond to students’ writing.

We read the 12 transcripts chronologically and discussed what we noticed, what questions PSTs’ work raised for us, what we thought they were working on, and what all of this made us think about. During this close reading process, we noted our observations and speculations. We identified key questions and developed preliminary coding categories as we asked: *What did our students comment on in these conversations, and how did they explain themselves?* This question was motivated by our interest in rhetorical approaches to composition, so we gave careful
attention to the arguments and claims PSTs made, to the evidence and warrants they used, and to which sources of support they seemed to find credible or useful.

Drawing upon this rhetorical framework, we inductively developed coding labels, definitions, and examples (Miles & Huberman, 1994), which we tested and refined through collaborative analysis of one transcript. Having developed our preliminary coding dictionary, we then analyzed the remaining 11 transcripts:

1. One researcher coded a transcript and wrote an analytic memo.
2. The other read the coded transcript and memo, noting disputed or missing codes, questions, and observations.
3. We discussed, developing full consensus on codes and adding further analytic comments to memos.

Working through all transcripts, we refined codes and definitions and sorted codes into categories, checking that coded excerpts matched definitions. Through this process, we shifted from a set of 3 resource categories (based loosely on time) to 5 categories (comprising 15 total codes) focused on rhetorical factors at play in PSTs’ discussions (Figure 2).

<table>
<thead>
<tr>
<th>Preliminary Coding Tree</th>
<th>Final Coding Tree</th>
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<tbody>
<tr>
<td>CLAIMS ABOUT THE</td>
<td>CLAIMS ABOUT THE</td>
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<tr>
<td>• WRITER</td>
<td>• WRITER</td>
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<tr>
<td>• WRITING (as artifact and process)</td>
<td>• WRITING (as artifact and process)</td>
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<tr>
<td>• Writer-writing RELATIONSHIP</td>
<td>• RELATIONSHIP between</td>
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<tr>
<td>RESOURCES</td>
<td>- Writer and writing</td>
</tr>
<tr>
<td>• PAST experiences</td>
<td>- Writing task/context and writing</td>
</tr>
<tr>
<td>• PRESENT textual evidence</td>
<td>- Student writer, writing, and teacher</td>
</tr>
<tr>
<td>• IMAGINATION</td>
<td>- Reader, writer, and writer’s intent</td>
</tr>
<tr>
<td>MAINTENANCE</td>
<td>RESOURCES</td>
</tr>
<tr>
<td>• CONTEXT beyond VoiceThread</td>
<td>• Understanding of students and student writing</td>
</tr>
<tr>
<td>• Clarification of a TASK</td>
<td>- Experience as a student writer</td>
</tr>
<tr>
<td>• Comment on VoiceThread</td>
<td>- Imagining students and abilities</td>
</tr>
<tr>
<td>TECHNOLOGY</td>
<td>• Knowledge of context</td>
</tr>
<tr>
<td></td>
<td>- Rhetorical GAPS (genre, audience, purpose, situation)</td>
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<td></td>
<td>- Writing task</td>
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<td></td>
<td>• Colleagues</td>
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<tr>
<td></td>
<td>- Class discussion/activity</td>
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<td></td>
<td>- Small-group colleagues</td>
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<td></td>
<td>- Professional reading</td>
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<tr>
<td></td>
<td>- More experienced teachers</td>
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<tr>
<td></td>
<td>• Roles</td>
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<tr>
<td></td>
<td>- Writer role</td>
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<td>- Reader role</td>
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<td></td>
<td>- Teacher role</td>
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<td></td>
<td>• Writing</td>
</tr>
<tr>
<td></td>
<td>- Imagined ideal writing</td>
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<td></td>
<td>- Comparisons across students’ writing (general)</td>
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<td></td>
<td>• Whole text</td>
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<td></td>
<td>- Text excerpt</td>
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<tr>
<td></td>
<td>MAINTENANCE</td>
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</table>

**Figure 2. Preliminary and final coding categories**
Findings and Discussion
We found 5 categories of resources that PSTs used in 435 instances (Figure 3) to support the 627 claims they made about the eighth and ninth graders’ writing. The categories:

- Understanding of students and student writing (9% of instances)
- Knowledge of the context (10%)
- Colleagues (11%)
- PSTs’ roles as writers, readers, and teachers (17%)
- PSTs’ ideas and observations about writing (54%)

<table>
<thead>
<tr>
<th>Resource</th>
<th>Round 1</th>
<th>Round 2</th>
<th>Round 3</th>
<th>Total</th>
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<td>Group 1</td>
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<td>Group 2</td>
<td>4</td>
<td>9</td>
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<td>16</td>
</tr>
<tr>
<td>Group 3</td>
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<td>5</td>
<td>2</td>
<td>11</td>
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<tr>
<td>Group 4</td>
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<td>2</td>
<td>2</td>
<td>5</td>
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<tr>
<td>Knowledge of Context</td>
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<td></td>
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<tr>
<td>Group 1</td>
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<td>3</td>
<td>2</td>
<td>9</td>
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<td>Group 2</td>
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<td>Group 4</td>
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<td>4</td>
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<tr>
<td>Colleagues</td>
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<td></td>
</tr>
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<td>15</td>
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<td>Group 2</td>
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<td>7</td>
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<td>Group 4</td>
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<td>Roles</td>
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<tr>
<td>Group 4</td>
<td>14</td>
<td>19</td>
<td>16</td>
<td>49</td>
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Figure 3. Resource use by category, group, and conversation round
Although we discuss the categories separately, PSTs often used two or more resources or categories to support the same claim. The number of claims spiked for all groups in the final round (Figure 4a). However, there was no correlation between the number of claims per round and the number of resources used to support those claims (Figure 4b).

The categories and specific resources are defined and illustrated in the coding dictionary (Figure 5). We offer a wide-angle, “landscape” view of resources used across our classes, ordering our discussion from the category used least often to that used most often. We caution that a resource category that PSTs used more often is not necessarily more important. It is our view, supported by a second in-process study of this data, that each resource category is significant—that writing teachers who draw on the full range of categories have access to a broader, deeper, more nuanced and precise repertoire of concepts and practices to guide their teaching of student writers.

PSTs varied greatly in numbers of resources used: 1 PST used only 1 category of resources, 14 used 2–3 categories, and 18 used 4–5 categories. No PSTs used all 15 specific resources. On average, individual PSTs used 6.4 specific resources, with one PST on the high end at 13 resources and one PST on the low end at 2 resources. Comparisons of PSTs—even among those who used the same categories—require nuanced discussion; we have reserved this for the second study of our data, which offers a close-up, “portrait” view of individual teachers’ use of the resources. For the current study, we take a communities-of-practice focus, considering which resources PSTs used as a group—and which they used with a stance consonant with the rhetorical conceptual framework we emphasized.

Figure 4a. Claims per group by conversation round (left) and 4b. Instances of resource use per group by conversation round (right)
CLAIM: an assertion

RESOURCE: a source of aid or support used to help support claims; an available supply that can be drawn upon when needed

1. Understanding of students and student writing: ideas, beliefs, or perceptions about students and student writing (based upon experience, observation, or otherwise) as the basis for making claims
   a. Experience as a student writer: processes, strategies, or ideas that stem from one's own past experiences as a student writer ("I know that I used to . . . ;" "I remember something that I learned when I was writing . . . ;")
   b. Imagining students and abilities: speculations about the student writer's capacities, thoughts, or feelings ("The writer is nervous about . . . ;" "This student probably doesn't understand . . . ;" "I was wondering if she thought of . . . ;" "I think that at this grade level, students can . . . ;" "Kids have a hard time with . . . ;" "If the student knew . . . ;")

2. Knowledge of context: factors that could affect the process or product of students' writing as the basis for making claims
   a. Rhetorical GAPS (genre, audience, purpose, situation): considerations including the writing's genre, audience, purpose—as determined by the writer or teacher—and/or situation ("This letter seems more like a . . . ;" "Since this paper was written to . . . ;" "Depending on the purpose of the assignment . . . ;" "Because this was a rough draft . . . ;")
   b. Writing task: the assignment instructions or requirements ("Did [not] contain all the required elements . . . ;" "Part of the assignment was . . . ;" "For this paper, they were supposed to . . . ;")

3. Colleagues: ideas or practices from others in education—preservice teachers, teachers and administrators, professors, researchers, writers, etc.—as the basis for making claims
   a. Small-group colleagues: reference or connection to ideas raised by others in the group during online conversations or in face-to-face discussions ("____ said . . . ;" "When ____ suggested . . . ;" "When ____ and I looked at this writing earlier . . . ;" "There was some discussion about . . . ;" "I think we can connect two of our ideas . . . ;" "I really liked _____'s idea . . . ;")
   b. More experienced teachers: another teacher outside of the class ("My mentor teacher . . . ;" "A professor I had . . . ;")
   c. Class discussion/activity: a conversation or learning activity from a course ("As we talked about in class . . . ;" "The activity we did in class today . . . ;")
   d. Professional reading: publications intended for teachers ("When I read . . . ;" "The woman who wrote . . . ;")

4. Roles: a particular identity (writer, reader, or teacher) as the basis for making claims
   a. Writer role: one's own current identity as a writer or ongoing writing actions ("As a fiction writer . . . ;" "When I write . . . ;")
   b. Reader role: the identity of reader, the action of reading, or one's own reaction to reading the text ("As I read it . . . ;" "When I read it several times . . . ;" "I found it distracting . . . ;" "I wasn't bored . . . ;" "The effect on the reader is . . . ;")
   c. Teacher role: the identity of teacher, the action of teaching, or suggested courses of teaching action ("As a teacher, I would . . . ;" "I think it would be beneficial to . . . ;" "Maybe they could . . . ;" "I wonder if this student should . . . ;" "One way to teach . . . ;")

5. Writing: writing processes or written products that serve as the basis for making claims
   a. Imagined ideal writing: comparing or measuring writing against one's beliefs about what should occur in "good writing" (e.g., absence of grammatical error) or to make a text or type of writing successful ("If the ____ were better . . . ;" "This paper exhibits the fundamental qualities of a ____ essay . . . ;" "The writer does X instead of Y . . . ;" "The writer should have added a conclusion that . . . ;")
   b. Comparisons across students' writing: comparing the writing to writing by others who completed the same assignment or to writing by others at or beyond the same age or grade level ("Compared with many of the other papers in this set . . . ;" "Like many of the other papers . . . ;" "Compared with other eighth-grade papers that we saw . . . ;")
   c. Whole text: references to full compositions by one or multiple students; may include observations about a particular issue with a paper—such as organization or tone—without noting a specific instance or location where it occurs ("The papers seem to . . . ;" "Some of the authors did . . . ;" "Paper X is a good example of this . . . ;" "In many essays . . . ;" "In this paper, the tone is . . . ;" "This piece was . . . ;")
   d. Text excerpt: comments on particular instances or examples within a composition ("For instance, when the student wrote that . . . ;" "I noticed _____, especially in the last [sentence, paragraph, section, etc.]")

FIGURE 5. Resources coding dictionary
Category 1: Understanding of Students and Student Writing as a Resource

PSTs drew least often upon their knowledge of students and student writing. As Figure 3 illustrates, they used this category in 40 instances (9% of their total resource uses), drawing upon their own experiences as student writers (6 instances) and their imagination about students’ abilities, thoughts, and feelings (34 instances). This infrequently used category may be one where PSTs need assistance in learning to attend to resources that are readily available to them.

Our findings in this category were limited, in part because PSTs did not observe or interact with the eighth and ninth graders. We can imagine benefits that might have transpired had we designed the project that way. Notably, our findings do not include a resource that we believe teachers should use: knowledge based on observing and interacting with students.

PSTs named their own experiences as student writers as a resource only 6 times, referring to processes, strategies, or ideas that stemmed from past student-writing experiences, and using signal phrases such as “I know that I used to . . .” and “I remember I learned when I was writing that . . .” PSTs in the two groups using this resource described how they had responded to various teaching tactics and what they did or did not know as eighth and ninth graders; they drew from these memories to predict how students might respond to instruction.

More often, PSTs relied on imagining students and their abilities: in 34 instances, PSTs speculated about student writers’ behaviors, capacities, thoughts, or feelings. Often they wondered about an individual (e.g., “I think the writer is nervous about . . .”; “This student probably doesn’t understand . . .”; “I wonder if she thought . . .”; “If the student knew . . .”). A few also generalized (e.g., “I think that in grade ___, students can . . .”). PSTs used this resource in every VoiceThread discussion, identifying significant moves or patterns in a student’s writing and then imagining what logic, goals, emotions, or developmental factors might have influenced the writer. For example, when Corina observed sentence structure issues, she wondered what the student had been taught. Then she imagined:

Or is this student coming from another country? That also makes me wonder based on how the sentences were written. . . . This student probably has very, very minimal amount of understanding how a sentence structure goes, and if she or he doesn’t understand sentence structure, then they’re going to have a difficult time understanding the flow of one sentence to another, one paragraph to another paragraph, and relating ideas throughout the paper.

It is our experience that when teachers imagine what students might know, think, and feel, they can develop empathy. They can imagine a range of reasons for student writers’ choices, which can in turn prompt them to observe closely and learn what a student thinks good writing is or should be. Teachers’ imaginations can motivate observational discoveries about students’ mental models for writing.
Category 2: Knowledge of Context as a Resource

This second category may be another that PSTs need further assistance in learning to use. PSTs drew upon knowledge of context about as often as the first category—42 times (Figure 3)—nearly 10% of their total references to resources. To employ contextual knowledge as a resource, PSTs discussed rhetorical influences on the students’ writing (genre, audience, purpose, and situation), as well as the influence of the writing task given by the teacher.

Over half these references—24 of the 42—were to a contextual resource that we termed rhetorical GAPS—consideration of the genre, audience, purpose, and situation of the writing. These signal phrases were typical:

- “This letter seems more like a . . . ”
- “Since this paper was written to . . . ”
- “Depending on the purpose of the assignment . . . ”
- “Because this was a rough draft . . . ”

One PST, Tim, highlighted this resource when he discussed an eighth grader’s letter to a principal:

More importantly, the tone in the letter is inappropriate for the target audience, which is an adult and a professional at the school. I believe strongly that in addition to the act of writing a piece, being mindful of its purpose as a tool and the intended audience are the most important considerations to be taken when submitting any writing.

Tim points to an understanding of rhetorical GAPS as essential for judging the effectiveness of a writer’s work. We agree: teachers who overlook this resource are in danger of reducing writing to a mere exercise while ignoring its importance for communication. Although all groups referenced rhetorical GAPS to back claims in at least two of the three VoiceThread conversations, we would hope to see teachers use this resource more extensively.

Three of the four groups also justified claims by referring to the writing task—the instructions or assignment requirements given to students. In the 18 instances where they used this resource, PSTs cited the writing task by naming “required elements,” things that students were “supposed to do,” and the teacher’s intent. Some used this resource to justify evaluative decisions, as when Shawnna wrote, “I gave paper C the top score because it contained all the required elements and was HILARIOUS!” At times, PSTs used their knowledge of the writing task simplistically, such that their assessments of student writing were nearly mechanistic (i.e., judgments were based solely on matches between the writing and criteria for length, paragraphing, grammar, etc.). Yet in other instances, PSTs’ assessments were nuanced and insightful, combining references to the writing task with knowledge of rhetorical GAPS, of students, and of writing. For example, one group concluded that a poorly designed prompt could lead to poor writing, and that a well-designed task could foster good writing. As Russell explained, “If the students are tasked with writing an essay in a unit on ‘perspectives’ they could then clumsily try to refer to
perspective directly.” When PSTs thought in nuanced ways about the writing task, they pointed to it as more than a measure: they also characterized a writing task as something the teacher was responsible for designing rhetorically and that had the potential to fuel or thwart student writers’ growth.

**Category 3: Colleagues as Resources**

This category surprised us the most, because we had expected these resources to be used much more frequently. PSTs drew support from colleagues in 47 instances—about 11% of their references to resources (Figure 3). The specific kinds of colleagues included small-group peers (31 instances), more experienced teachers (8 instances), class activities/discussions (7 instances), and professional readings (1 instance).

When they turned to colleagues as resources, PSTs most often referenced ideas raised by small-group colleagues. These 31 instances usually included a VoiceThread peer’s name or a personal pronoun:

- “_____ said . . .”
- “When ____ and I looked at this writing . . .”
- “There was some discussion about . . .”
- “I think we can connect two of our ideas . . .”
- “I really liked _____’s idea . . .”

These signal phrases were more than conversational segues. PSTs pointed to others as sources for ideas used to develop and support their claims, as illustrated here:

**Vanessa** (Dordt College): I like what Justin asked about if the students had planned their story ahead or not. That makes me also wonder if they have talked at all about process writing. I wonder if they are required to turn in a rough draft and then reread what they have written and work with their writing—rather than just writing and turning in.

**Justin** (Boise State University): I think Vanessa’s really on to something about focusing on the process of the writing in rough drafts. Maybe not a rough draft per se [. . .]. But at least something like an outline of OK, they’re going to defend them or not defend them, with the main points why. So there’s some pre-thought before they start writing. I think that would be a pretty solid exercise for one of our 3–5 activities leading into the next assignment.

Though small–group peers were the colleagues most often turned to as resources, PSTs in four of the conversations did not cite small-group colleagues. This was unexpected. We assumed group members would build on each other’s ideas since they had been asked to develop consensus. Perhaps timing mattered: three discussions where this resource went unused occurred in Round 1, and one of these groups continued this pattern in Round 2. This occurred despite our instructions to PSTs to “engage with a comment posted by another reader.” In early rounds, PSTs tended to interact socially and to mention peers in “maintenance” discourse.
to foster smooth group function (as described in Zemelman & Daniels, 1988, pp. 47–68). This did not necessarily lead group members to use each other’s ideas as resources.

Colleagues also functioned as resources when PSTs looked to more experienced teachers, but only 8 times. Three of the four groups pointed to ideas from more experienced teachers, using signal phrases such as “My mentor teacher . . .” and “A professor I had . . .” We were surprised at how infrequently PSTs named this resource, given that they had spent hundreds of hours learning with professors and with mentor teachers from field experiences and course partnerships. We wondered how often PSTs used ideas from more experienced educators without naming where they had learned them.

More questions emerged when we noticed how infrequently PSTs pointed to activities and discussions from our classes as they negotiated how to assess student writing. There were only 7 instances (from three groups) where PSTs supported claims by pointing to course experiences (sometimes signaled with “In class . . .”). All occurred in the final round (where PSTs had to suggest teaching steps as a new task), but at least half of the time, PSTs used this resource to perform the same kinds of tasks they had completed in Rounds 1 and 2. Given our extensive practice and discussion of assessment during class, why did PSTs wait to use this resource until Round 3? Perhaps they required a developed understanding of course concepts before they were prepared to cite them—working from receptive knowledge to productive knowledge. Or did PSTs initially assume that references to class activities were “off limits” or unhelpful for cross-institutional conversations?

Our questions were underscored by the final tally of PSTs’ use of professional readings as a resource. Although they had employed resources 435 times overall, only 1 PST, Nicholia, referenced a professional text:

> Recently we had to read a book relating to writing. I read *Write Beside Them*. The woman who wrote this book [Kittle, 2008] thinks it very important for students to get their thoughts out and then to work on the grammar aspect of the paper. I agree. I think too many students have a lot to say but are worried about the grammar aspect so they don’t write anything. I hope that I can work with students on getting their thoughts down first and then work on the grammar portion.

We were perplexed that more PSTs didn’t refer or allude to professional texts, which featured prominently in our courses and programs. Considering the value that English teachers place on discussing and citing texts, we had expected to see multiple textual references. Perhaps PSTs were not using professional texts as resources, but another explanation is also possible. Elsewhere, our research has demonstrated that teachers place high value on claims validated by citing experiences from teaching—and may shy away from citing research and publications because they worry about undermining their credibility with teaching peers (Whitney et al., 2013). Perhaps PSTs drew upon professional texts, but cited them only indirectly—either through references to class activities and discussions, or by mentioning text-based ideas without attribution.
Category 4: Roles as Resources
On the surface, PSTs seemed well prepared to use this category: every group used roles to support claims in every discussion. PSTs used roles in 72 instances—nearly twice as often as each of the other resource categories discussed so far, accounting for nearly 17% of their total resource uses (Figure 3). However, PSTs’ use of differing roles was uneven: they rarely drew from their roles as writers (6 instances), relying more often on the roles of reader (36 instances) and teacher (30 instances).

The 6 instances where PSTs used the writer role were characterized by references to a PST’s current writing identity or ongoing writing actions. PSTs used signal phrases such as “As a fiction writer . . .” and “When I write . . .” Although all PSTs took writing courses and in our classes had participated in readings, discussions, workshops, and activities about teachers sharing their writing practices with students, the PSTs rarely backed claims by drawing on what they knew and did as writers. This resource was available to all PSTs, but was used by only two groups in a total of four conversations.

Instead, PSTs turned often to the reader role. In 36 instances, they supported claims by referencing the identity of reader, the action of reading, or their own reactions to a text. This resource was employed by all groups and used in 11 of 12 conversations. In almost all instances, PSTs used the first-person singular and their personal reactions to a text to justify claims. PSTs surfaced the reader role with phrases like “As I read it . . .”; “When I read it several times . . .”; “I found it distracting . . .”; “I liked . . .”; and “I wasn’t bored . . .” In two cases, PSTs instead commented about how “the reader” would respond, as when Kait remarked, “The tone is almost angry, and the reader feels kind of yelled at,” and Shane offered, “There is a lack of voice in the letter that leaves the reader with some questions about the author.” Although Kait and Shane referred to “the reader” in the third person, their comments still drew primarily upon their own reactions. PSTs did not verbalize other possible responses to the texts. Ideally, in taking on the reader role, teachers can guide students rhetorically in writing effectively for diverse audiences, including readers whose responses differ from their own (as discussed with PSTs in our courses and illustrated by Whitney et al., 2013). Since PSTs assumed good writing would effectively communicate to actual readers (albeit themselves), we anticipate that with further instructional scaffolding, PSTs could learn to use the reader role to include reader perspectives beyond their own.

Another role PSTs used nearly as often was the teacher role. They drew on this resource in 30 instances, referring to the identity of teacher, the action of teaching, or suggested teaching methods. PSTs in all groups employed this role, using it in 11 of 12 discussions to support claims about what instructional approaches might help (or hinder) student writers. PSTs signaled their use of the teacher role with phrases like “As a teacher, I would . . .” and “I wonder if this student should . . .” When PSTs used the teacher role, they highlighted strengths that students brought to their writing, along with potential areas for growth.
Category 5: Writing as a Resource
This final category was by far the most popular: PSTs referenced ideas and observations about writing as a resource in 234 instances (Figure 3)—about 54% of their total references. Within this category, PSTs discussed their imagined ideal writing (29 instances), comparisons across students’ writing (67 instances), whole texts of student writing (92 instances), and text excerpts from student writing (46 instances). Sometimes PSTs referred to writing as process or action; elsewhere they referred to writing as product or artifact.

In 29 instances, PSTs drew on imagined ideal writing as a resource, comparing or measuring writing against their beliefs about “good writing.” PSTs compared students’ writing to criteria they believed would make the writing successful:

- “If the _____ were better . . .”
- “This paper exhibits the fundamental qualities of . . .”
- “The writer does _____ instead of . . .”
- “The writer should have . . .”

When PSTs used imagined ideals as the sole resource to support a claim, they often took a rigid, unrhetorical view of writing—citing “rules” as though they applied to every genre and situation. PSTs expressed some ideals vaguely (a piece was “distracting” because “it felt a bit forced rather than normal”) and some precisely (“no new information should be introduced in the conclusion paragraph”). PSTs repeatedly held up the absence of error as an ideal (a piece was satisfactory because “there are no outstanding grammatical errors or poor word choices”). Many seemed to accept the myth that there is one correct English or that “Standard English” is the same in all communities and situations (Wolfram, Adger, & Christian, 1999, p. 14).

Not all PSTs defined good writing as adherence to universal dos and don’ts. PSTs used the imagined ideal resource effectively when they connected it with a rhetorical framework—acknowledging conventions for genre while also considering writers’ rhetorical options for achieving their purposes with a given audience. For example, Tim remarked on “grammar/syntax/word choice problems” in a piece—implying some ideal standards for language use. But Tim also connected these issues with rhetorical GAPS, arguing that the writer’s wording “lowered the paper’s ability to persuade its reader.” By focusing on effects for the audience, Tim framed “problems” as departures from rhetorical conventions or expectations, rather than as violations of absolute rules.

PSTs also turned to comparisons across students’ writing as a resource, benchmarking a writing sample against others for the same assignment—or against writing by students of the same grade level or age. PSTs cited these comparisons as resources in 67 instances, using signal phrases such as “Like many of the other papers . . .” and “Compared with other eighth graders’ writing . . .”

PSTs’ use of this resource varied: one group used it 2 times, another, 31 times. Some were reflective about using comparisons, such as Justin:
If this is the best but you still have problems with it, how do you grade it [. . .]? Is this an A paper because we thought it was the best, against the rest? Or, is it a C because, yeah it’s okay, but it could be better? Do you grade it on its own merits, or do you have to weigh the rest of the class?

PSTs commented on writings that impressed them and on those that worried them. When they noticed patterns (and outliers) emerging across a class set, PSTs used comparisons to consider what students had learned and what lessons they might need. For example, Larissa stated:

[This paper] also did a good job at addressing the motive, means, and opportunity without actually using those words. Most of the other papers, such as paper B, had trouble with this. [. . . ] I think this shows that the writers are trying to incorporate the elements of motive, means, and opportunity into their stories, but need assistance in how to show it and not tell it.

Making comparisons enabled PSTs to reflect on students’ diverse developmental abilities, and also to imagine varied ways in which students might take up an assignment or be helped in advancing their skills.

A third way PSTs used writing as a resource was to consider whole texts. They drew upon this resource in 92 instances, more than any other resource. Every group used this resource repeatedly in every conversation, observing “on the whole” how a paper or set of papers worked:

- “The papers seem to . . .”
- “Some of the authors . . .”
- “Paper X is a good example of . . .”
- “This piece was . . .”

PSTs used observations about whole texts to support many claims: about rhetorical effectiveness, students’ abilities, merits and limitations of assignment prompts, and kinds of instruction that might benefit students. When Allison concluded that a student didn’t see the assignment as “legitimate” and “didn’t really take it seriously,” she drew on holistic observations:

They seem to be writing as though they were talking to a peer, or friend, not the principal of the school. To me this letter seems more like a journal entry or a free write. [. . . ] I agree, it really does seem like stream of consciousness.

Allison noticed genre and tone. Both were regular focal points for PSTs, as were holistic observations about how students organized texts, supported arguments, paced narratives, made transitions, and used grammar. Sometimes these observations supported claims about rhetorical effectiveness; other times, PSTs’ observations compared or contrasted student writing with “rules” for imagined ideal texts.
PSTs used one final type of resource, text excerpts, to support claims by locating and remarking on specific writing moves by the eighth and ninth graders. In these 46 instances, signal phrases often included metadiscourse markers (e.g., “For example…” or “For instance, when the student wrote that…”) and drew attention to particular occurrences (e.g., “I noticed ________, especially in the last [sentence, paragraph, section, etc.]”). A basic way in which PSTs used text excerpts was to list a series of them, weighing their conclusions about each as a strength or weakness that contributed to a summary judgment. For example, Tracy stated:

I think this paper is decent, but not the best. I did like the metaphor of the pizza, however it should have probably been brought in as a whole before talking about the separate parts. I think I would probably have this writer think a little more on their fourth paragraph. I think maybe they should explain why they believe being happy with what you have connects to how communication is a breeze. I’m not too sure on what else they should focus on fixing though.

Like many PSTs, Tracy treated her list of items as separate and unrelated, and she used it to “do the math” to decide whether the good outweighed the bad. This assessment paradigm relied more on points or checklists than on a rhetorical understanding of writing.

Our goal was to help PSTs shift from “keeping score” to identifying patterns, rhetorical issues, and focal points for coaching (versus simply judging or correcting). We were encouraged when we saw PSTs connecting text excerpts to identify patterns, as Jaleesa did here:

This writer also has a grasp of bigger concepts. Within other pieces we reviewed specific rules like “feed the dog” were everywhere; this writer summarizes several simple rules by using larger concepts like “be respectful” and “be content.”

Jaleesa successfully connected moments in the writing (two specific rules), named a pattern (“this writer summarizes several simple rules by using larger concepts”), and used it to support her claim about the writer’s development (“This writer also has a grasp of bigger concepts”). Elsewhere, PSTs used text excerpts with sophistication when they pointed to specific examples, named individual writers’ patterns, identified patterns in the class’s strengths and learning needs, and suggested corresponding implications for curriculum and instruction.

Implications

Our taxonomy adds layers to literature about resources for writing teachers, offering a more particular understanding of “funds of knowledge” and “craft knowledge” from experience as well as “professional knowledge” and “systematic knowledge” acquired through teacher preparation (Hedges, 2012; Kennedy, 2002).

Our study raises questions for us about the relationship between resources, resource use, and communities of practice. For example, Wenger (1998) argues that
learning can be defined as changes in participation within a community of practice. In this analysis of our data, we did not always see changes in the resources PSTs used across the three rounds of small-group conversations. With Wenger’s definition of learning in mind, we wonder what our PSTs learned in these conversations and to what extent our PST teams functioned as communities of practice. We also wonder about the significance of shared resources for communities of practice: In what ways might a shared set of resources help a team function as a community of practice (one that mutually engages in a joint enterprise while developing a shared repertoire and negotiating meaning)? How might the resources used by a smaller group also help members find entry points into larger communities of practice—such as for our PSTs seeking identity among the broader professional field of writing teachers? These are areas for future study.

There are two additional lines of implication we wish to consider as we reflect on our study. First, how might teacher educators and researchers employ our findings about how often (and how) PSTs used particular resources and categories of resources? Second, how might our taxonomy and research methods be used as tools?

**Resources Count: The Numbers Matter**

Our tallies revealed that our group of PSTs used some resources more than others—and sometimes struggled to link certain resources to a rhetorical conceptual framework. At times, we observed PSTs drawing effectively upon a variety of resources. Yet we also observed that within the relatively uncomplicated world of VoiceThread discussions, some resources were neglected, underused, or employed with limited effectiveness. This gives us pause. Beginning teachers will work with students who have diverse needs, expectations, and strengths; they will face the complexities of teaching writing; they will teach in contexts where others leave teachers out of educational decisions; they will work in/against systems where impoverished views of writing are embodied in standardized tests, machine-scored writing, and politically influenced and corporately promoted standards. In the midst of all this, what resources will new teachers draw from as they discern how best to teach and advocate for students?

Our programs immersed our PSTs in many resources, but our study shows that exposure was not enough. PSTs drew infrequently on knowledge of context as a resource—despite being steeped in rhetorical views of writing. And although PSTs built on their groups’ ideas, many other colleagues were practically untapped as resources: PSTs rarely drew from more experienced teachers, class discussions and activities, or professional readings. Admittedly, our project design likely contributed to PSTs’ overlooking knowledge of students and student writers as a resource, but our other research results suggest that to increase PSTs’ use of this resource, we would need to go far beyond connecting them with student writers.

Take, for example, our PSTs’ own experiences and roles as writers. All had completed writing courses, and our own courses emphasized teaching by sharing from one’s own writing practices, yet PSTs’ experiences and roles as writers were practically absent from the resources used to discuss student writing. Thus, while our research confirms Johnson et al.’s (2003) finding that a beginning teacher may turn to writing experiences as a resource for thinking about how to teach writing,
our study also complicates the common assumption that new writing teachers will “automatically” draw upon their writing experiences to inform their teaching. In the same vein, our study identifies many other readily available resources that PSTs used only infrequently. Our findings emphatically remind us that we need to equip and motivate PSTs if they are to use the resources we provide them.

Even when PSTs employed a resource frequently, they needed help using it effectively. This was particularly evident for the reader role, imagined ideal writing, and text excerpt resources. Too often, PSTs disconnected these resources from the conceptual underpinnings of a rhetorical framework. To aid PSTs in moving beyond superficial application of concepts and practices learned in teacher preparation (Grossman et al., 2000), we must bridge gaps between what teachers “get taught” via various resources, what they use, and how they use it. Our findings trouble (our own) oversimplified talk about “what gets used.” Mere use is not the goal; PSTs need deep and resonant understandings that inform effective, critical application. We need not only to put resources in teachers’ hands, but also to scaffold their learning. To that end, the taxonomy itself may be a useful tool.

The Resource Taxonomy and Research Methods as Tools

Our taxonomy of resources (Figure 5) is integrally connected with our rhetorical view of writing and writing instruction. We are interested in resources because we are interested in teachers’ ways of thinking—including their arguments, claims, evidence, and warrants, as well as the resources they draw upon to aid, inform, develop, and defend their ideas. The resources themselves are rhetorical in nature. Thus, the taxonomy is most appropriately used by those who share our commitment to (or interest in) a rhetorical approach to writing.

One use of the taxonomy is for assessment of programs for teacher preparation and professional development. Our project illustrates research methods that can make visible resources that teachers draw upon, so teacher-researchers may use or adapt our methods in order to assess which resources PSTs and program graduates do or do not use. These assessments may spark programmatic adjustments. In our own contexts, we now share the resources dictionary with PSTs and inservice teachers as a heuristic, leading them through self-study. The taxonomy can help teachers deliberately expand the range of resources they use to aid them as they develop and implement writing pedagogies.

Our taxonomy may also enable scaffolded instruction in teacher preparation, ensuring that key concepts and practices are taught with reinforcing support from multiple resources, including some that beginning teachers are particularly inclined to draw upon. Two resources commonly provided to new teachers—professional books and required writing experiences—are two of the resources our PSTs used least often. The more we can scaffold PSTs’ use of these resources and reinforce our teaching via other complementary and overlapping resources, the broader the range of resources that will be available for teachers to draw upon in challenging situations. In turn, they will have greater access to conceptual and practical tools—and, potentially, a stronger, broader, and deeper understanding of writing instruction.

We hope that with others’ help, our taxonomy will be further developed as our field gains a better understanding of resources and how teachers select and use
them. We also expect that the taxonomy may change over time to reflect changes in writing, teaching, and research. For example, we anticipate that Twitter chats might surface within the category of “more experienced teachers” or “professional learning networks” in future studies, and that in research sites connecting PSTs directly with preK–12 students, observations of students and interactions with them will be key resources.

Our hope is that by focusing on resources, we will help writing teachers know and effectively use the resources available to them; to better understand why writers do what they do; to teach strategically in light of students’ needs, expectations, and strengths; and to (re)claim their authority in the classroom and advocate effectively for themselves and their students.

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