The Student Writing Archive Project (SWAP): Designing a Searchable Database of Student Writing and Teacher Commentary for English Teacher Preparation Courses

Michael B. Sherry
Bloomsburg University of Pennsylvania

Abstract

Teacher candidates have few opportunities during their teacher preparation coursework to investigate practices associated with eliciting and responding to student writing. This article describes an attempt to address this problem with a searchable online digital archive of student writing, with and without teachers' written feedback, as well as other instructional materials from elementary, middle, and secondary classrooms in diverse linguistic/geographic regions of the country. The archive also includes interviews with teachers about their approaches to teaching writing, especially the principles and practices that inform their responses to student work. The design of the archive is described, along with three broad paths through the archive, which were created by the author. These paths provide opportunities for instructors of English teaching methods courses, writing pedagogies courses, and linguistics courses to investigate with teacher candidates issues that are commonly addressed in those three types of courses, like modeling writing, machine scoring, and responding with sensitivity to writers who are English language learners.

English teacher educators who teach courses on English teaching methods, writing pedagogies, and linguistics share a unifying concern: writing instruction. Writing instruction includes how teachers design and implement writing assignments; how teachers provide feedback on student work; and how teachers use patterns they identify in student writing to plan and implement subsequent instruction.
Creating opportunities for teacher candidates to practice these aspects of writing instruction in university methods courses can be challenging. English teaching methods courses are often separated from field experiences in local secondary schools (Smagorinsky & Whiting, 1995). Field experiences that accompany such courses may provide only limited opportunities for teacher candidates to engage with students' writing (Tulley, 2013), particularly with writing by students of a variety of ethnic, cultural, social, and linguistic backgrounds. When teacher candidates have opportunities to give feedback to actual writers, their own prior experiences as students may not prepare them for all that a teacher must consider when responding to student writing (Grossman et al., 2000). In short, English teacher preparation courses may provide teacher candidates with few opportunities to analyze student writing from a diversity of classroom contexts and to benefit from experienced teachers' insights about responding to student writers.

I addressed this issue through the design of a digital archive, the Student Writing Archive Project (SWAP). Like an online library, the SWAP allows users to browse, search, and sort through student writing, teacher feedback, and teacher interviews about their assignments, lessons, and feedback practices associated with writing instruction. I then created three broad paths through the archive to facilitate teacher candidates' and teacher educators' engagement with materials in the archive.

Although the SWAP may not be a replacement for synchronous interaction with student writers, the design of the archive supports rigorous analysis of authentic writing samples from students of different grade levels, geographic regions, and linguistic backgrounds and allows teacher candidates to gain important insights into ways practicing teachers think about and implement writing instruction.

**Challenges of Preparing Future Secondary Writing Teachers**

According to some national studies, many secondary students are not prepared for the demands of writing in college (ACT, 2005) or the workplace (Achieve, Inc., 2005). However, a Carnegie corporation report and meta-analysis (Graham & Perrin, 2007) has suggested that students' success in higher education and professional life greatly depends on the quality of their secondary writing instruction. Writing instruction, as defined in those previous studies, includes not only the design and presentation of instructional materials and assessments but also ways teachers respond to student writing and use assessment results to plan subsequent instruction. Indeed, a national study by Applebee et al. (2013) found that 80% of high school teachers not only graded student writing but also responded to it with instructional feedback (p. 17). Yet teacher candidates often have few opportunities during their teacher preparation coursework to hone the important skills of responding to student writing and using assessment to inform instruction based on actual student writing from a variety of classroom contexts.

In English teaching methods courses, teacher candidates need more opportunities to explore and experiment with creating and implementing writing assessments. Previous studies have demonstrated that such curricular resources strongly shape student writing (Applebee et al., 2013; Dyson, Freedman, & Educational Resources Information Center, 1990; Freedman, 1987). However, teacher candidates in English teaching methods courses may have relatively few opportunities to see and respond to the effects of the writing assessments they design, given that such courses are often taught without reference to or coordination with field experiences in local schools (Smagorinsky & Whiting, 1995).

Moreover, although prior research has also shown that effective secondary writing teachers use patterns in student work to plan the lessons that follow an assignment
(Newell, 2008), the separation of methods coursework from field experiences makes it difficult for teacher candidates in secondary English teaching methods courses to practice using assessment of student writing to inform their subsequent writing teaching.

In writing pedagogies courses, teacher candidates need further support in developing strategies for responding to student writing. Although such courses usually address this topic (Tulley, 2013), they are often taught in isolation from both English teaching methods courses and field experiences. Fitzgerald (1992) has observed that teachers’ conceptions of writing shape the kinds of feedback that they give to students. Similarly, Beach and Friedrich (2008) have shown that the kinds of feedback teachers give on student writing can enable and constrain students’ opportunities for substantive revision. However, teacher candidates have few opportunities to challenge their assumptions about writing teaching through their engagement with student writing from a variety of cultural, social, and linguistic backgrounds in distinct classroom contexts.

In linguistics courses, teacher candidates need structured opportunities for sustained, research-informed investigations of linguistic diversity in student writing and culturally responsive pedagogical practices. Previous research has suggested that teachers’ conceptions of students’ sociocultural affiliations (as inferred from discursive features of their writing), regarding race (Ball, 2009), class (Seitz, 2004), and gender (Haswell & Haswell, 2009), can shape teachers’ feedback on student writing and, thus, affect students’ future participation in higher education, professional communities, and civic life (Taylor, 2002).

Required linguistics courses in teacher preparation programs, however, are often designed and taught independently of teaching methods and writing pedagogies courses, as well as teacher candidates’ field experiences. Moreover, these field experiences typically take place in only one or two classrooms. As a result, teacher candidates may have limited experiences during their teacher preparation programs with the linguistic diversity of student writers and with a variety of teacher perspectives on issues such as addressing language variation in responding to student writing. Additionally, linguistics courses, like writing pedagogies courses, are often taken by students in majors other than education, making it difficult for instructors to include field placements in local schools or concrete discussion of teacher feedback strategies in linguistics courses.

It is little wonder, then, that when teacher candidates do have opportunities to respond to student writing during their field experiences, including their student-teaching internships, they find them challenging. Lortie (1975) famously asserted that teachers often teach as they were taught. Sherry and Roggenbuck (2014) observed that in their early attempts to respond to student writing English teacher candidates imitated their own former high-school teachers’ instructional strategies, despite their having expressed negative feelings about those assessment practices. Similarly, Grossman and her colleagues (2000) found that beginning teachers often reverted to more traditional methods of writing instruction, forsaking the principles and practices they had embraced during their teacher preparation programs.

Despite the urgent need to prepare future English teachers to respond effectively to student writing, the topic of teacher feedback, in general, remains largely absent from syntheses of research on secondary writing instruction (e.g., Applebee et al., 2013) and of studies on secondary methods courses and field experiences (e.g., Clift & Brady, 2005). How, then, might English educators provide teacher candidates with rich opportunities to engage critically and creatively with the writing of actual students of different backgrounds and abilities and to explore rigorously how practicing teachers think about
eliciting and responding to student writing in various ways? My response was to develop the SWAP.

Theories Informing the Design of the SWAP

English teacher candidates and their teacher preparation course instructors cannot easily visit a variety of classrooms across the US in order to spend time talking with multiple secondary writing teachers about their approaches to teaching writing or to search through student writing stored in those teachers' filing cabinets. Thanks to digital multimedia and the Internet, the SWAP can store student writing, teacher interviews, and instructional materials electronically and provide access to multiple users remotely and simultaneously. Moreover, hyperlinks allow users to explore the SWAP in multiple ways. For example, teacher candidates can examine a student writing sample, the writing assignment sheet, and an interview with the teacher who assigned and responded to the writing by following a series of links among these artifacts.

In addition, the SWAP allows teacher candidates to search archive materials by keyword (like narrative or ELL, i.e., English language learner), to sort these materials according to students' demographic information (like grade level or native language), and to post comments and questions in online discussion forums on the SWAP website. Moreover, practicing teachers can add materials from their classrooms to the SWAP, allowing the archive to grow and change over time.

In short, the SWAP is a collection of student writing (with and without teacher feedback), as well as related instructional materials and teacher interviews. The archive is digital and can be accessed online. The SWAP can also be explored in different ways through hyperlinks or by sorting and responding to the materials. Different users, including teacher candidates, their course instructors, and practicing teachers, can access and contribute to the site.

The SWAP offers suggested paths through the archive that guide teacher candidates' inquiries as they explore important topics addressed in teacher preparation courses on English teaching methods, writing pedagogies, and linguistics. In later sections of this article are described several such paths for use in each of these three kinds of courses.

In designing the SWAP and the paths, I drew on three theoretical constructs:

- Interactional frame describes how teacher candidates who use the SWAP might come to understand the nature of social interactions associated with writing teaching—such as giving teacher feedback on student writing—and the roles, relationships, and responses available to them in those interactions.
- Legitimate, peripheral participation characterizes kinds of experiences during teacher preparation coursework that might allow teacher candidates to develop these understandings of how to participate in the professional practices of secondary writing teachers.
- Cognitive flexibility explains how teacher candidates, having engaged with the SWAP during their teacher preparation coursework, might learn to adapt those practices to diverse learners in different classroom contexts.

Interactional Frame

Teaching writing involves discursive interactions among teachers and students. When teachers engage in an interaction like giving feedback on student writing, they define the
nature of that interaction not only in response to the student’s work in front of them, but also by drawing on their own past experiences with similar interactions, as well as anticipated responses from that student. This definition of a social interaction, inferred partly from participation in the current situation and partly from other, similar interactions, is called “the interactional frame” (Bateson, 1972; Goffman, 1986).

In responding to student writing, teacher candidates may draw on their own experiences as student writers, having had relatively few experiences as writing teachers. In other words, the student perspective may largely shape the interactional frame in which teacher candidates will come to participate as teachers. Expanding and complicating that interactional frame, the SWAP provides opportunities for teacher candidates to engage with actual writing from students of various backgrounds and abilities—writing that is not their own and that may have been composed by students unlike them.

Moreover, the SWAP offers these teacher candidates behind-the-scenes access to ways practicing secondary teachers describe the purposes, principles, practices, and problems of their writing teaching, as well as to how they teach; for example, their writing assignments, assessment tools, and feedback on student work. In this way, the SWAP enables teacher candidates to challenge, revise, and enrich their visions of what secondary writing instruction can be and to imagine new interactional frames for dialog among teachers, students, and their written texts.

**Legitimate, Peripheral Participation**

In order for teacher candidates to reframe or revise their sense of what a writing instruction interaction entails, they need opportunities to participate in that practice. Lave and Wenger (1991) have called opportunities for apprentices to participate in the practices of a professional community “legitimate, peripheral participation” (p. 27).

*Peripheral,* for these researchers, referred to the fact that participation by apprentices must involve a low-stakes introduction to and overview of what professionals do. For example, field experiences can provide opportunities for teacher candidates gradually to take on responsibility for a range of professional activities in which secondary writing teachers engage.

The SWAP’s materials provide teacher candidates with peripheral experiences of writing instruction without the stakes of officially grading students’ work, by offering them opportunities to explore pedagogical activities like designing and implementing writing assignments, assessing and otherwise responding to student writing, and planning subsequent lessons based on students’ previous work. For Lave and Wenger (1991) opportunities to participate must also be legitimate, positioning learners as co-participants in a practice. The SWAP accomplishes this goal by making teacher candidates privy to practicing secondary teachers’ decision-making (e.g., their rationales for giving certain kinds of assignments and feedback), as well as to the results of those decisions (e.g., their assignment sheets and feedback on student writing). In other words, SWAP brings teacher candidates into low-stakes yet professionalizing dialog with artifacts of secondary writing instruction.

**Cognitive Flexibility**

Opportunities for legitimate, peripheral participation must also allow teacher candidates to adapt practices of writing teaching to complex and varied situations, since formulaic strategies for a task like responding to student writing are not effective in all contexts.
Spiro, Coulson, Feltovich, and Anderson (1988) called this ability to adapt principles of practice to specific cases "cognitive flexibility." Before the advent of the Internet and of digital media, it was difficult to provide teacher candidates with access to field placements in a variety of classroom contexts in order to illustrate how strategies for teaching writing might apply differently. Now, an online website like the Carnegie Foundation’s Gallery of Teaching and Learning (http://www.carnegiefoundation.org/resources/gallery-teaching) can allow a teacher candidate in Michigan to examine assignments, teacher interviews, and video clips from classrooms in California or Florida.

Spiro, Feltovich, Jacobson, and Coulson (1992) suggested that hypermedia—online text, images, and video with contextual links to other multimedia—which allow learners to explore rich, complex examples from a variety of perspectives, can help them understand how abstract concepts apply differently in specific cases. Similarly, SWAP provides opportunities for teacher candidates to examine how principles of writing pedagogies are applied in different ways to complex, situated examples of writing teaching practices. In this way, SWAP enables teacher candidates to develop cognitive flexibility regarding strategies for secondary writing instruction.

In sum, these three theoretical constructs are about changing teacher candidates’ imaginations. The SWAP provides teacher candidates with digital, online access to an archive of linked samples of student writing, teacher feedback, teacher commentary, and instructional materials; they can also search, sort, and respond to this content. Thus, the SWAP provides opportunities for teacher candidates to reframe the roles of teacher and student and the ways available to them as writing teachers of responding to student writing.

These opportunities to engage with authentic student writing and teacher commentary in low-stakes ways allow for legitimate, peripheral participation by teacher candidates in the professional practices of secondary writing teaching. Moreover, the SWAP provides multiple examples of how those practices apply differently in different contexts, thus encouraging cognitive flexibility.

Designing the Student Writing Archive Project

The SWAP includes teacher interviews that address the school context, the curriculum, the activities, and the materials (like assignments and handouts) that elicited student writing, as well as the rationale behind the teacher's instruction and written feedback to those students. Student writing (with and without teacher feedback) in the archive is accompanied by relevant demographic information about students, like their native language or whether they have an individualized education plan (IEP). The design of the online interface allows teacher candidates to search and sort the information in the SWAP database in a variety of ways.

I initially interviewed teachers and then posted their materials to the site. In the future the SWAP interface will allow practicing teachers to contribute their own student writing, instructional materials, and interview commentary directly through the site.

Teacher Interviews

With the input of colleagues who teach writing pedagogies and linguistics courses at my university, I designed an interview protocol meant to elicit a variety of information about curriculum, instruction, beliefs about teaching writing, and the particular qualities of their students from participating teachers. The interview includes questions about...
teachers’ assignment purposes, their feedback practices (and the rationales behind them), and the kinds of language- and content-level issues they planned to address in subsequent lessons based on observed patterns in students’ writing. Each teacher interview appears in the online archive as its own page with supporting materials (like assignment sheets and handouts used with students) embedded, as in Figure 1.

**Figure 1.** O’Malley interview. Interviews are labeled with the teacher’s pseudonym. (To view the teacher interview form, sign in to http://23.21.225.52/ as “citeuser” with password “Sw@p2013” and click “Submit”)

These interview questions allow teacher candidates who use SWAP in different kinds of teacher preparation courses to hear from practicing professionals in diverse school contexts about various aspects of secondary writing teaching (e.g., how to respond sensitively to ELL writers, how to connect beliefs about writing to instructional practices, and how to use assessment to plan subsequent instruction). These teacher interviews contain insights to which teacher candidates may not have had access as students. Those insights may contribute to reframing teacher candidates’ sense of their roles as secondary writing teachers and of the responses available to them in interactions with students. Without actually participating in the instruction and evaluation of student writers, teacher candidates can, nevertheless, participate in legitimate, peripheral ways in some of the decisions practicing teachers faced.
The materials that the interview protocol requires teachers to upload also provide a variety of possibilities for analysis. Submissions must include not only portable document format (PDF) files of assignments and accompanying materials, but also examples of student writing with and without teacher comments (including initial drafts, if available). In this way, teacher candidates can encounter examples of student work without initially viewing the teacher’s comments, and they can compare drafts (and comments on drafts) to later versions of a text.

Additionally, the online version of this teacher interview protocol includes the option to submit work in other media. Future submissions that take advantage of this option will allow teacher candidates to compare the results of more traditional assignments with students’ audio/video compositions (and teachers’ recorded feedback). The network of teacher/student information and supporting materials creates opportunities for teacher candidates to develop cognitive flexibility by providing complex, contextualized examples of how particular teachers responded to particular students on particular assignments.

**Student Writing**

Although the SWAP website is an open and ongoing invitation for practicing teachers to submit content, I initially solicited submissions from schools and teachers whose demographics would make the student writing they provided useful for a variety of English teacher preparation purposes. For example, I initially selected an elementary, a middle, and a secondary school teacher to allow teacher candidates to track (for example) how teachers provide feedback to student writing at different grade levels. Later, two other teachers at the college level contributed materials to the SWAP (about multigenre writing and about explicit grammar instruction).

I also chose teachers initially with an eye to diversity of the student writing they could contribute. For instance, I selected teachers from midwestern, northeastern, and southern states in the US and asked them specifically for their students’ personal narrative writing in order to increase the likelihood that the work they submitted would include examples of regional dialects and how teachers responded to them. Student demographic information (e.g., grade level, ethnicity, gender, native languages, and whether the student has an individual education plan) appears on a separate page for each student (see Figure 2), along with embedded examples of that student’s writing (with and without teacher comments) and a form for online users to post comments on that page to a discussion forum.

Of the three teachers initially selected, one taught in a suburban school whose students are almost exclusively European American, while the other two (one of whom is an ELL teacher) taught in urban settings where the student populations included native speakers of Arabic, Chinese, Creole (French), English, Karenni, Kurundi, Nepali, Somali, Spanish, Swahili, and Vietnamese. These initial contributions included more than 50 samples of student writing. The regional and linguistic diversity of these samples provide opportunities to address various issues associated with language variation and writing instruction. If teacher candidates have few prior experiences with such diversity, they may find that the student information in the archive encourages them to reframe interactions with student writers.

Teacher candidates can also participate in legitimate, peripheral ways by considering authentic demographic information and how they would take it into account, without the
stake of officially responding to students. Examining student writing in the context of specific demographic information about writers' linguistic contexts may also develop teacher candidates’ cognitive flexibility.

Design of the Online Interface

In addition to collecting a variety of relevant content from teachers and students, I designed the SWAP as a flexible online interface that would allow English teacher educators and teacher candidates to sort, analyze, and respond to these materials in a variety of ways. Using a free Amazon cloud server, I installed Drupal, a free open-source content management system that allows users to create and configure a database that they can search and sort using various modules designed by other Drupal users.

Interface Design: Searching the Archive. One such module, for example, makes the textual content of the entire site searchable. Teacher candidates can search within the teacher interviews and the student demographic information (e.g., Figure 3 shows an excerpt of a search for how many times teachers mention the phrase “ELL student” in their interviews or supporting materials).

Figure 2. Student 8 from Ellen O’Malley’s class. Student materials are labeled with the teacher’s pseudonym and a unique number assigned to each student in that teacher’s class.
This module also allows users to search within the files attached to the site content, such as assignment materials or student writing (e.g., Figure 4 shows a search of both the site and all attached PDF files for teacher and student use of the word *writing*).

**Figure 3.** Example of a sitewide search. Search results appear as links below the search bar, with a preview of the content. (To try out searching the SWAP, sign in to http://23.21.225.52/ as "citeuser" with password “Sw@p2013” and type into the search bar at the top of the Home page.)

**Figure 4.** Example of a search within the files attached to the site. Search results include a teacher interview, a PDF file for an assignment, and a PDF file of student writing file labeled “SWO” for “student writing original” (without teacher comments).
This search feature allows English teacher educators and teacher candidates not only to search the archive for materials associated with a particular teacher, student, or concept but also to perform more sophisticated searches (e.g., for a regional linguistic variant like “the car needs washed” in student writing, or for the frequency of a phrase like “AWK”—for awkward—in teacher comments).

**Interface Design: Browsing and Sorting Teacher Interviews or Student Writing.** Another basic feature of the interface organizes the content of the archive into sortable tables. Teacher candidates can browse teacher interviews, comparing the teachers' answers to each of the interview questions and sorting the information in the table by teachers' content area, by their years of experience, or by the stages of the writing process at which student writing was collected (for example, to examine teacher interview responses about giving feedback on first drafts). Similarly, teacher candidates can browse a sortable table of student writing, reorganizing the information in the table by content area, assignment type, grade level, geographic (linguistic) region, student ethnicity, student native language, or student gender (see Figure 5).

Figure 5. A tool for browsing student writing. A sorting menu appears beneath the title; rows list data for each column heading related to a particular student, labeled with the teacher's pseudonym and a unique number. (To browse teacher interviews or student writing, sign in to http://23.21.225.52/ as “citeuser” with password “Sw@p2013” and click one of the links at the top of the Home page.)

These options for browsing and sorting teacher interviews and student writing allow English teacher educators and their teacher candidates a variety of possibilities for inquiring into the archive. Such inquiries can furnish teacher candidates with opportunities to reframe interactions associated with writing instruction, to participate in legitimate, peripheral ways in the challenges that other practicing writing teachers have faced, and to develop cognitive flexibility by exploring how teachers address those challenges differently depending on the context.
Possible Paths Through the Archive

Since I am currently implementing the SWAP for the first time with teacher candidates, what follows are three examples of paths, or sequences of assignments, that demonstrate the potential uses of the archive in English teacher preparation courses on teaching methods, writing pedagogies, and linguistics. Each path begins with a common focus of each type of course, includes a guiding inquiry question, proposes a set of examples from the archive for teacher candidates to examine and respond to in a particular sequence, and ends with possible extensions for further reading on this topic (to access these paths, sign in to http://23.21.225.52/ as “citeuser” with password “Sw@p2013” and click “Possible paths” on the Home page, or follow the links in the following section).

Path 1: English Teaching Methods Courses

At my institution, as at others, a capstone course is explicitly designated as the English teaching methods course by its title. While this course also addresses both language and writing instruction, it focuses on those topics (and others) as part of an integrated approach to planning and teaching English language arts. One common focus of such a course (and a challenge that practicing writing teachers face) is the design of assignments and rubrics that hold all students to high standards but also flexibly allow for different kinds of responses. Accordingly, I posed the following question to guide teacher candidates’ inquiry into SWAP: How can a teacher design and implement assignments that encourage students to meet standardized criteria but avoid formulaic writing? To address this question, I proposed the following path:

- Examine the assignment materials from third-grade teacher Ellen O’Malley and 10th-grade teacher Dave Weber (browse teacher interviews or search “interview”).
- Compare Ms. O’Malley's model personal narrative's first line to her students' first lines (browse student writing or search O'Malley). How does her framing of this part of the assignment shape students' writing?
- Read Mr. Weber’s interview response to "Patterns in Student Work" and compare to his students' openings (browse student writing). How does his framing of this part of the assignment shape students' writing?
- Extensions:
  - Browse Barry Lane's blog http://1000thingstowriteabout.blogspot.com/. How do his prompts and modeling of writing for students compare to Ms. O’Malley’s and Mr. Weber's? To what you've experienced?
  - Read Freedman (1987) Response to Student Writing, chapters 5 and 6. What strategies of successful teachers’ assignment design and feedback responses encourage creativity and avoid formulas? How do these strategies compare to Ms. O’Malley's and Mr. Weber's? To what you've experienced?

Third-grade teacher Ellen O’Malley’s assignment materials include a model of the kind of personal narrative she wanted students to write (see Figure 6).
Ms. O’Malley’s first line of her model narrative employs the phrase “Did I ever tell you about the time....” When teacher candidates compare this first line to the writing Ms. O’Malley’s students produced, they will notice some similarities, as seen in Figure 7.

Although students’ initial first lines (in their brainstorming drafts) differed, many eventually copied the structure of her model first line. In her interview, Ms. O’Malley (a first-year teacher who majored in secondary English education but found a job teaching third grade at an urban elementary school) mentioned that she would like to help students “to work on varying what words they use to begin a sentence” and on “describing things in a more natural way.” Thus, although modeling writing for students can be a valuable means of helping students meet assignment criteria, in this case it produced a formulaic response.

Tenth-grade teacher Dave Weber, in his interview response to “Patterns in Student Work” described a creative solution to the potentially formulaic focus on a narrative’s opening:

I wouldn’t say I so much pushed a formula on them for the intro, but I did point out that you need to get their attention, so I have them write their 5 potential opening lines and they had to go talk to 5 or 7 people in the class, and they had to initial which one they thought was the best.... So that’s nice, too, because that first line is always a tough one for the kids....

Like Ms. O’Malley, Mr. Weber sought to have his students accomplish a particular purpose—getting the reader’s attention—in the first line of their narratives. Having taught for 7 years at the same school, he knew from experience that this task could be challenging for students. Accordingly, he designed an activity that required them to test out their opening lines with an actual audience. This activity not only reinforces the idea that the opening is an invitation to readers—a social interaction, rather than a formula—but it also exposes students to a variety of possibilities for invention and revision through their sharing with classmates.
The two extensions provide additional opportunities to consider how the design and implementation of writing assignments can shape the possibilities for students’ responses, producing either formulaic or flexible results. One of these is a more practitioner-oriented extension, providing a link to the blog of English teacher and writing specialist, Barry Lane, whose personalized writing prompts suggest ways to focus student writers without constraining their creativity. A more research-oriented extension links to an excerpt of Freedman’s (1987) study of teachers’ responses to student writing,
which provides further examples of how teachers’ assignment designs and activities can enable and constrain students’ subsequent writing.

In short, this path addresses a common focus in English teaching methods courses (How can a teacher design and implement assignments that encourage students to meet standardized criteria but avoid formulaic writing?) by leading teacher candidates through two complex, contextualized examples from practicing writing teachers and their students. These examples are not meant to suggest an easy solution to this question. Rather, their experiences offer teacher candidates opportunities to reframe the interaction of teacher modeling of writing for students.

Via reading Ms. O’Malley’s and Mr. Weber’s rationales and then witnessing the consequences of their modeling on their students’ first lines, teacher candidates can participate in legitimate, peripheral ways. Seeing how Ms. O’Malley’s and Mr. Weber’s modeling strategies (both of which might seem persuasive in the abstract) failed or succeeded in particular contexts may also encourage cognitive flexibility, as teacher candidates consider multiple, contextualized outcomes of an instructional practice like modeling writing.

Path 2: Writing Pedagogies Courses

Many universities (including my own) require teacher candidates to take a course that focuses on writing pedagogies and is separate from other English and education courses. For such writing pedagogies courses, the advent of machine scoring is an issue, as it is for practicing teachers and for English teacher educators. Accordingly, I posed the following question to guide teacher candidates’ inquiry into the archive on this topic: What are the advantages and disadvantages of computerized grading? To address this question, I proposed this path:

- Examine writing (without comments) from the class of 10th-grade teacher Dave Weber (browse student writing or search for Weber).
- What patterns in student writing do you notice? How might you respond to these patterns?
- Examine writing (with comments) from the same class. How do the ETS (Educational Testing Service) comments/Mr. Weber’s comments compare to your own?
- Read Mr. Weber’s interview responses about Turnitin.com. Do you agree with his comments about advantages and disadvantages?
- Extensions:
  - Read the Council Chronicle (Sept. 2012) article, "Robo-grading Fueled by New Study but Earns an 'F' from Experts." With which perspective do you agree? Why?
  - Read NCTE’s (National Council of Teachers of English) Position Statement on Machine Scoring. Imagine that your school is considering adopting computerized grading. What arguments might you make to persuade your colleagues and administrators on this issue?

As teacher candidates read through Mr. Weber’s students’ personal narratives, without teacher comments, they face a decision about what to respond to in giving feedback:

...suddenly the car was flipping off over. I heard a horrible, screeching sound metal on metal, air bags on skin, glass shattering, a car folding in two. I had time to wonder if we got hit by the truck or another car. When I opened my eyes, to
something no one should have to experience. Fear struck in me as I looked down in my bare lap. My lap was covered in bloody glass, my flip flop jammed into the a part of metal. My nose bleeding, more bloody glass in my lap. The car’s windshield was completely shattered....

In commenting on this personal narrative excerpt, should a teacher respond to the vivid imagery in the first two lines? To the use of sentence fragments (one of which, “when I opened my eyes...” seems inappropriate, while the other, “My nose bleeding...” seems to work well)? To the colloquialism, “Fear struck in me...”? To the fact that the student has been in a life-threatening car crash?

Having made their own decisions as they respond to the narratives, teacher candidates can then compare to the computerized comments made when Mr. Weber’s students submitted their work to ETS’s Turnitin® website (http://turnitin.com), a step demanded by this assignment, which is a required common assessment in Mr. Weber’s district.

Figure 8 shows the same piece of student writing, with comments from teacher Dave Weber and from an ETS computer-grading service.

![Figure 8. Excerpt from one of Dave Weber’s students’ personal narratives. Boxed phrases received comments either from the teacher or from an ETS computer-grading service (labeled “ETS”).](image)

In comparing this piece to their initial reactions, teacher candidates can note that in the comments Mr. Weber responded to the “good use of detail” in the first few lines, that the ETS program flagged both of the sentence fragments as inappropriate (and also labeled flip flop as a subject-verb agreement error), and that neither the teacher nor the machine addressed the colloquial phrase “fear struck in me” or the traumatic nature of the experience this student described.

In his interview commentary, Mr. Weber provided his own evaluation of Turnitin:

> It automatically checks for spelling and grammar and that kind of stuff, which is nice because it actually allows me to talk about the writing rather than these minitiae of mechanics that, to me, aren’t really the focus of tenth grade English... [But] it’s sometimes hard... a kid quoted a bible [sic] verse...and his was a mess because it came up with so much because it was like “chapter 1.” And it would be like "sentence fragment," and since he had lower case it would be like
"capitalization," and it was, like, it clusters it all together and I can't always get rid of all of them...

Weber noted the advantage of not having to respond to all of the minutiae of grammar and spelling, something that teacher candidates may appreciate if they have commented on a substantial number of his students' narratives in the first step of this path.

On the other hand, the example Mr. Weber referred to, like the one about the car crash, highlighted the inability of the ETS program to distinguish an inappropriate use of a sentence fragment from one that was rhetorically effective for the content and the genre. The fact that some aspects of the student's narrative in Figure 8 were not addressed by either the teacher or the ETS program may also lead teacher candidates to consider which aspects of a student's writing most require teacher feedback.

The extensions for this path include a short, accessible article from the NCTE's Council Chronicle, which presents different perspectives on “robo-grading,” and a more in-depth examination of the issue in NCTE's recent Position Statement on Machine Scoring. The prompt for the latter asks students to consider how they might speak to the advantages and disadvantages of computerized grading as professional teachers addressing colleagues and administrators.

In short, by responding to actual student writing, comparing their responses to those made by a member of their professional community, weighing his commentary on computerized grading against their own evaluations, and responding to this issue from a professional standpoint, teacher candidates using this path are invited to frame teacher response to student writing in the context of the current professional issue of machine scoring. Making students privy to Mr. Weber's ambivalent reaction as a teacher required to use Turnitin encourages teacher candidates to participate in legitimate, peripheral ways in a situation they might face as professionals. Rather than initially presenting teacher candidates with the position statement principles, it allows them to see, firsthand, the effects of computerized grading on student writing and to formulate considered, persuasive responses to the final path question, thus developing cognitive flexibility with regard to this sensitive issue.

Path 3: Linguistics Courses

Like writing pedagogies courses, linguistics courses at my university and others are often taken by students from majors besides secondary English education. However, linguistics courses usually address issues related to language variation, and SWAP provides an opportunity to explore this topic specifically in relation to teacher feedback on student writing. To guide teacher candidates' SWAP inquiry into this topic, I posed the following question: How can a teacher provide feedback that sensitively takes into account students' cultural and linguistic backgrounds? To address this question, I proposed the following path:

- Examine writing (without comments) from the class of middle school ELL teacher Sami Ghanem (browse student writing or search for "Ghanem").
- What patterns in student writing do you notice? How might you respond to these patterns?
- Compare Ms. Ghanem's interview to her students' writing (with comments).
- How does she address the cultural and linguistic backgrounds of the students she mentions in her interview (particularly Student 9 and Student 15)?
• Extensions:
  o Watch clips from documentary *Writing Across Borders* about how students’ cultural and linguistic backgrounds shape their writing experiences and compare to students in Ms. Ghanem’s class. How has your own cultural and linguistic background shaped your writing attitudes and practice?
  o Read Williams (2003) on "Providing Feedback on ESL Students’ Written Assignments"; how does this perspective compare to Ms. Ghanem’s approaches? To your own experiences?

As in the previous path, teacher candidates may note a variety of errors (and patterns of error) as they examine the student writing, without comments, from Sami Ghanem’s middle-school ELL class. For example, they might be tempted to make corrections to Student 9’s statement that English is “too hurt” and math is “a littler bit easy for me,” or to Student 15’s sentence that begins without a capital letter, especially when they learn that Ms. Ghanem, herself, is a non-native English speaker.

As a result, teacher candidates may be surprised when they compare their initial reactions to Ms. Ghanem’s actual feedback and read her interview insights about students 9 and 15:

One of the comments I gave to Student 9, she said that it’s too hard...: "One day we are going to improve on spelling and do better in class but right now we don’t know anything. And it was too hurt”—[h-u-r-t, hard]—"for me to learn. The math is littler”—[littler, with e-r--] - bit easy”.... So do you see how she’s generalizing the rules? The “er” the comparative in English? So my comment to her was “oh I’m impressed! You are doing very well and improving every day. Learning English is like building a house one row of bamboo at a time. Good job!” with a smiley face.... You will see that hers are not co rrected because...I don’t want to bring everything to them in every single paper that they write.

In her interview, Ms. Ghanem explained that she made few comments to Student 9 in order to recognize the feelings of frustration this student had expressed. Instead, she praised the logic of this student’s use of an “–er” ending to make a comparison (even if that ending was placed on the end of the word *little* instead of the word *easy*). In addition, she used a smiley to provide encouragement that drew on her knowledge of this Thai student’s experience with building bamboo houses “one row at a time.”

Similarly, Ms. Ghanem knew that Student 15’s lack of capital letters was not the result of inattention, but rather of this student’s experience as a native speaker of Nepali, a language that does not use capital letters (much like Ms. Ghanem’s native Lebanese). Teacher candidates may be surprised to realize that patterns of error in English can be explained (and perhaps more effectively addressed) by understanding the logic of the student’s native language and some of their cultural experiences, as well as the frustrations an ELL student might be facing.

Like the extensions to the other paths, this one includes an accessible, practitioner-oriented piece and one that is more in-depth and research based. The clips from the documentary, *Writing Across Borders*, provide further evidence that culture plays a role in the perception of what makes good writing, and that students’ cultural experiences shape their responses to writing, reinforcing for teacher candidates the importance of sensitive teacher feedback. Williams’ (2003) article provides more specific, research-based strategies that teachers can apply when attempting to respond to ELL writers in ways that are both sensitive and effective.
In short, this path encourages teacher candidates to reframe their initial impulse to correct the errors in ELL students’ writing by participating in a legitimate, peripheral way in Ms. Ghanem’s thoughtful and sensitive responses. Seeing how the grammatical errors made by these particular students are often rooted in the logic of their native languages and how a teacher who understands something about that logic and that culture can sensitively respond in context-specific ways may lead teacher candidates to develop cognitive flexibility as they wonder what other patterns in student writing (and their own) are the result of where they grew up and how they can take that into account when writing feedback.

In summary, the nature of its content and the design of the SWAP interface address the need for teacher candidates to explore, in a variety of ways, actual student writing and professional teacher interviews from different grade levels and linguistic backgrounds. These three inquiry paths invite teacher candidates to explore issues associated with writing instruction that are often addressed in teacher preparation: in English teaching methods courses, the question of how to teach standardized content without producing formulaic results from students; in writing pedagogies courses, the pros and cons of machine scoring; and in linguistics courses, the challenge of providing feedback that is sensitive to students’ linguistic backgrounds and abilities.

By addressing these questions through a series of complex, contextualized examples, teacher candidates have opportunities to experience, in legitimate, peripheral ways, the instructional decisions and consequences that practicing teachers have faced. They may also develop cognitive flexibility by moving from multiple, situated examples to extensions that synthesize more general principles of teaching practice and writing research. In the process, they may develop or revise interactional frames for the roles, relationships, and responses available to them as professional teachers of secondary writing.

Discussion

Writing Instruction: A Unifying Concern

The nature of SWAP’s materials, the design of the SWAP interface, and the possible inquiry paths the SWAP enables all allow teacher educators and teacher candidates in English teaching methods courses, writing pedagogies courses, and linguistics courses to engage with student writing and with insights from practicing teachers from various classroom contexts. The SWAP is, thus, an important tool for research and for teacher education.

Although writing instruction is a unifying concern for those who teach all three of these types of courses, little recent scholarship on methods courses has addressed writing instruction directly (e.g., Dickson et al., 2006; NCTE, 2006). The specific topic of teacher feedback is also largely absent from syntheses of national research on secondary writing instruction in American schools (e.g., Applebee et al., 2013). The SWAP provides a rich resource for research on secondary writing instruction and, particularly, on teachers’ responses to student writing. Moreover, it provides opportunities for research on how teacher candidates engage this topic in various types of teacher preparation courses.

English Teaching Methods Courses: The Influence of Assignments and Activities on Student Writing
The possible English teaching methods course path addresses the question of how to design assignments and activities that elicit conventional, but not formulaic, writing from students. In this path, third-grade teacher Ellen O’Malley’s model narrative (and the formulaic first lines it produced from students), when compared with 10th-grade teacher Dave Weber’s peer review of first lines, illustrates the pitfalls and possibilities of teacher prompts to student writing. Prior research has suggested that such prompts can exert a strong influence on student writing (Applebee et al., 2013; Dyson et al., 1990; Freedman, 1987).

Although designing assignments is a common focus in English teaching methods courses (e.g., Smagorinsky & Whiting, 1995), teacher candidates often have fewer opportunities to see the results of those assignments and the consequences of particular design decisions. They may, thus, draw on their limited frames as students to reproduce the same (potentially problematic) practices they experienced in secondary school (Sherry & Roggenbuck, 2014). This SWAP path allows teacher candidates to experience, in a low-stakes, peripheral way, the legitimate consequences of two modeling strategies and provides valuable opportunities for reframing the interaction of modeling writing.

**Writing Pedagogies Courses: The Pros and Cons of Machine Scoring**

The possible path for writing pedagogies courses examines the pros and cons of machine scoring by relating examples from 10th-grade teacher Dave Weber’s class, and the ETS program to an article and an NCTE position statement on this topic. Specific examples from Mr. Weber’s students and excerpts from his interview allow teacher candidates to participate in legitimate, peripheral ways in grappling with this professional issue. Fitzgerald (1992) and Beach and Friedrich (2008) suggested that conceptions of writing can shape feedback on student writing and, thus, shape students’ opportunities for subsequent learning. This inquiry path through SWAP allows teacher candidates to compare the conceptions of writing, as well as the kinds of feedback provided to students, by a teacher and a computerized grading program and to decide for themselves what impact the issue of machine scoring might have on their professional lives as writing teachers.

**Linguistics Courses: Feedback Sensitive to Linguistic and Cultural Backgrounds**

For linguistics courses, the possible SWAP path offers examples from ELL teacher Sami Ghanem’s middle school class to address teachers’ responses to student writing that are sensitive to students’ linguistic backgrounds and abilities. Ms. Ghanem’s interview and her feedback on the writing of students 9 and 15 illustrate that what might appear to be errors to be corrected may, in fact, be transfer from the student’s native language and a strategic opportunity to encourage a struggling writer.

Much prior research (e.g., Ball, 2009; Haswell & Haswell, 2009; Seitz, 2004; Taylor, 2002) has suggested that teachers’ conceptions of students as represented by their writing can shape their feedback and, therefore, affect students’ subsequent performance. This path through the SWAP demonstrates how patterns in student writing might lead to misconceptions about those students and how understanding students’ linguistic and cultural backgrounds can counteract those misconceptions and inform a teacher’s feedback.
Online Access to a Diversity of Concrete Classroom Examples

The SWAP provides teacher candidates and English teacher educators with access to actual examples of student writing and accompanying teacher interviews from a variety of classroom contexts without leaving the computer keyboard. This is good news for teacher preparation courses in which it is difficult to integrate field experiences associated with writing instruction. Tulley’s (2013) survey of writing pedagogies courses indicated that more than half of such courses provide few opportunities for field experiences, and when they do, discussion of issues like feedback strategies remains mostly abstract.

Smagorinsky and Whiting (1995) found that when field experiences accompany methods courses, they are often separated from coursework. Moreover, Smagorinsky and Johnson (2013) have suggested that field experiences providing little opportunity for teacher candidates to engage with diversity may exert an assimilating influence. The SWAP allows English teacher educators to integrate into methods coursework concrete classroom examples from a diversity of student writers and teacher perspectives on student writing.

For example, the English teaching methods path allows teacher candidates to see the consequences of modeling strategies in more than one classroom and to evaluate Ms. O’Malley and Mr. Weber’s instructional decisions without interacting directly with those two teachers. Teacher candidates’ indirect participation in more than one teacher’s decision-making may be especially important to the peripheral part of Lave and Wenger’s (1991) legitimate, peripheral participation: “Peripheral participants can develop a view of what the whole enterprise is about...[rather than] a set of dictates for proper practice” (p. 112). The SWAP users can virtually visit more than one classroom and, thus, acquire a more complex, cognitively flexible view of how professional writing teachers design, model, implement, and evaluate the effectiveness of their assignments with students.

Indeed, while teacher candidates in individual field placements are guests in a mentor’s classroom and may even depend upon that person for a recommendation letter, SWAP positions teacher candidates as peers to professionals like Ms. O’Malley and Mr. Weber, perhaps making it easier to evaluate these teachers’ practices and their rationales for them. In Lave and Wenger’s (1991) terms, a mentor teacher may often be “an object of too much respect to engage with in awkward attempts at new learning,” and “it seems typical of apprenticeship that apprentices learn mostly in relation to other apprentices” (p. 112). In short, peripheral participation via the SWAP may allow teacher candidates to maintain critical distance from the professional teaching practices proffered by the teacher contributors.

Connecting Contextualized Practices to Abstract Principles

The possible path for writing pedagogies courses connects examples of teacher and computer feedback on student writing, as well as Mr. Weber’s interview answers about Turnitin.com, with extensions like the NCTE position statement on machine scoring. This SWAP path, like the other two, allows teacher candidates to connect abstract pedagogical principles, like those in the position statement, with situated examples of writing instruction from Mr. Weber’s class. Other scholars have described the difficulties of connecting principles of writing pedagogies to teaching practices for teacher candidates (e.g., Alsup, 2001; Bush, 2002; Smagorinsky, Cook, & Johnson, 2003). The SWAP has the potential to link rich, contextualized artifacts of practice to powerful statements of theoretical principles in research and policy, thus developing teacher candidates’ cognitive flexibility.
This SWAP path also describes Mr. Weber's attempts to provide meaningful instruction and feedback to individual students while still using a district-required common assessment and machine scoring service. The SWAP examples like Mr. Weber's allow teacher candidates not only to see connections between theories and practices, but also to encounter—before their first years of teaching—some of the professional challenges that secondary writing teachers face and to hear their interview reflections on how they navigated those challenges by adapting, but not compromising, their pedagogical principles.

Grossman et al. (2000) found that beginning teachers may forsake the principles they learned in teacher preparation and revert to more traditional practices (or leave the profession altogether), when faced with the realities of teaching writing. In contrast, SWAP may help to prepare teacher candidates for what Kersten and Pardo (2007) called “finessing,” or meaningfully addressing an audience of increasingly diverse students while still meeting the requirements of standardized curricula and policies, as Mr. Weber did. This kind of teacher finessing is an important application of Spiro et al.'s (1988) cognitive flexibility theory and a potential benefit for teacher candidates of using SWAP.

**Implications**

The SWAP may help address a unifying concern with secondary writing instruction in English teacher preparation courses on English teaching methods, writing pedagogies, and linguistics. By drawing on SWAP across these courses, English teacher educators in the same institution might coordinate their use of the archive to provide a coherent set of experiences for English teacher candidates. Alternatively, at universities where there is less occasion to coordinate across methods courses or limited opportunities within those courses for teacher candidates to discuss writing instruction (e.g., in writing pedagogies and linguistics courses that are also taken by students of other majors), English teacher educators might foster online dialog with teacher candidates at other institutions that teach similar courses.

Based on the three possible paths, the SWAP allows teacher candidates to see the results, via examples of student writing, of decisions about designing and implementing writing assignments. Teacher candidates may also see the consequences of certain conceptions of writing or of student writers. The SWAP provides opportunities for teacher candidates to reframe their conception of the teacher's role and of the responses to students available to them as writing teachers. English teacher educators may wish to coordinate other traditional methods-course tasks (like having teacher candidates create their own assessments, research a professional issue like computer grading, or plan instruction that addresses students’ cultural/linguistic backgrounds) with SWAP materials in order to allow them to consider the consequences of their own instructional decisions and conceptions of writing and writers.

Although it includes the option for teachers of other content areas to contribute, the archive does not yet contain examples of student writing and teacher commentary from other content areas, like social studies or science. As the new Common Core State Standards (2014) initiatives make writing instruction a concern for these other subject areas, the SWAP may be used to address content-area writing in teacher preparation courses. For example, social studies and science teacher educators might propose inquiry paths for their teacher candidates related to the template writing tasks furnished by the Gates' Foundation’s Literacy Design Collaborative (2014).

Similarly, English teacher educators might propose paths that would prepare their teacher candidates to support content-area colleagues (and vice versa) via
interdisciplinary writing assignments. As teachers across content areas begin to be evaluated based on their students’ writing, examples of effective interdisciplinary collaborations will make SWAP a valuable resource.

This article has focused on possible paths (associated with different types of teacher preparation courses) through the data in the archive. However, teacher candidates, themselves, might propose and follow paths related to their own inquiries about writing instruction. I have used the SWAP along these lines in my own English teaching methods course, asking teacher candidates to collect a class set of student writing at a local field placement, develop a question about that writing, inquire into the SWAP, and then return to that writing to implement strategies for giving feedback and for subsequent instruction at the field placement.

This use of the SWAP as a virtual complement to field experiences has created both opportunities and challenges, as teacher candidates realize the limitations of those field placements and of the mentor teachers with whom they work. Similarly, these personal inquiries into the SWAP, in conjunction with work at local field placements, have led some teacher candidates to be more critical of the materials and practices presented by teachers in the archive. Opportunities for discussions of such limitations will continue to arise as more teachers contribute to the archive, adding examples of writing instruction that English teacher educators may find more or less admirable. Future work with the SWAP will reveal how English teacher educators can best support this kind of independent inquiry by teacher candidates, encouraging them to challenge both the SWAP and themselves.

**Conclusion**

As a searchable database of student writing (with and without teacher comments), teacher interviews, and related materials for teaching writing, the SWAP begins to address the problem of how to provide teacher candidates with opportunities to engage with actual examples of student writing and teacher interviews about writing instruction from a variety of classroom contexts. The nature of the content in the archive and the design of the online interface allow teacher candidates to respond, to sort, and to explore the SWAP in a variety of ways.

The SWAP also allows other practicing teachers to contribute, growing the archive over time. Because writing instruction is a unifying concern for English teacher educators in methods courses, writing pedagogies courses, and linguistics courses, several possible inquiry paths through the archive for instructors and teacher candidates in each of these courses are possible. Currently, I am studying how teacher candidates in those courses (and others) respond to these paths or use the SWAP to develop their own inquiries into the complex domain of writing instruction.

**References**


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Michael B. Sherry
Bloomsburg University of Pennsylvania
Email: msherry@bloomu.edu