

Secondary English Teachers' Perspectives on the Design and Use of Classroom Websites

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Abstract

Although K-12 teachers are frequently exhorted to maintain classroom websites, little is known about how they view or accomplish such work. To address this gap in the research literature, the study described here used qualitative methods, including computer-mediated interviews and document analysis, to explore secondary English teachers' perspectives on how they designed and used classroom websites to support their pedagogy. Participants included 20 teachers with varying professional experience from five different school districts in the northeast United States. Data analysis was framed by sociocultural perspectives on literacy and technology. Participants reported five main reasons for creating their websites: (a) conform with school or district expectations, (b) communicate with parents, (c) help students catch up on in-class information and assignments, (d) position students for postsecondary success, and (e) respond to external pressure. Their uses for their websites ranged from providing online versions of existing in-class resources and materials to providing additional opportunities for interaction beyond class. Their efforts were supported and influenced by district administrators and by peers.

On Sunday night, Katie scans her classroom website on her laptop before shifting to updating her Facebook status, texting a friend, and checking her Google email account on her iPhone. She has taught middle school in a suburban district for 3 years, and her habit is to update homework assignments for her students on the class site once a week. She uses her smartphone constantly for various purposes, but she satisfies her principal's demand for a classroom webpage with minimal commitment.

In a neighboring district, Tommy reviews his Advanced Placement English class's Blackboard site. He has posted a second poem by an author whom the students previously discussed in class, and he wants to review students' comments about it on the blog page. The conversations students started face to face in school on Friday continue online into the night as Tommy debates sleeping or continuing to follow the discourse.

Representing a third district, Brian sits at his dining room table and pencils an A- in his grade book anticipating Monday's scheduled parent-teacher conference for a child in his eighth-grade English class. He is confident in his ability to assess students but uneasy when parents inquire about his lack of a classroom website. He feels the pressure of his colleagues' connectivity to the web, but he has yet to join them. Instead, he is focusing on class presentations using his new ceiling-mounted projector and SmartBoard, as well as the two dozen laptops his department recently acquired.

These secondary English teachers from upstate New York think about classroom websites differently. All three received district-sponsored professional development on creating websites, but the results of those trainings vary, both in terms of the online presence they have (or have not) developed and the ways they use (or do not use) those sites pedagogically.

These teachers are not alone in their need to consider the role of classroom websites in their instruction. Such websites have become ubiquitous in K-12 schools in the United States, with teachers referring to them in syllabi, at parent conferences, and at curriculum nights and open houses. Teachers are exhorted to construct and use such pages by administrators, professional developers, and the authors of educational books and articles (Bodner, 2004; Dunn, 2011; Marowitz, 2006). In recent years, teachers with exemplary webpages have been honored with awards such as the International Reading Association's Miss Rumphius designation (Karchmer, Mallette, Kara-Soteriou, & Leu, 2005). Little is known, however, about teachers' perspectives on their development and use of classroom websites, particularly for English language arts instruction. To date, we have little empirical data on questions such as what causes English teachers to initiate or abandon a classroom website, how their sites change over time, and what costs and benefits they identify for this work.

To explore some of these issues, we (a middle school English teacher and a literacy teacher educator) undertook research framed by two questions:

- What do secondary English teachers say about why and how they created their classroom websites?
- What do these teachers say about how they incorporate their websites (or don't) into their English language arts instruction?

In the pages that follow, we review literature related to our study, describe our methods, and share findings from analysis of participants' websites as well as what they said and demonstrated about those sites in computer-mediated interviews. Finally, we discuss the study's limitations and its implications for research and practice in teacher education.

Review of Related Literature

As the Internet becomes more influential in aspects of contemporary society, including workplaces, communities, and civic life, teachers are increasingly expected or required to have classroom websites (Dunn, 2011). For example, in an attempt to help students and parents make informed decisions about higher education, the Texas state legislature

unanimously enacted a “first of its kind” transparency law in 2008 requiring all public colleges and universities to post course syllabi, professors’ curriculum vitae, previous course evaluations, and attendance costs online (Carter, 2011). Although few K-12 districts have such formal requirements, they have similar needs to disseminate information to multiple constituencies, as well as demonstrate to business leaders and other community members that they are preparing youth for 21st-century employment demands.

Students who use technology seamlessly outside of school—the population that Moorman and Horton (2007) call “screenagers”—often expect to be able to manage their school lives online as well, from accessing lunch menus and team schedules to emailing teachers about homework and interacting with peers around projects. As the percentage of youth using the Internet increases (Lenhart, Purcell, Smith, & Zickuhr, 2010), the pressure on teachers to create websites also increases.

Most of the literature on classroom websites, however, tends to be practical or theoretical in orientation. Marowitz’s (2006) article entitled “Why Your Music Program Needs a Web Site (and a Few Ideas to Get Started)” is typical: It describes two main purposes for a website (communicating with constituents and building the program’s image), recommends features a site might include, and offers tips about managing the process. It does not, however, describe existing websites nor does it provide evidence that such sites enhance student learning. Other scholarship theorizes that classroom websites enhance communication between teachers and parents, motivate students to edit their writing, and promote students’ acquisition of 21st-century skills (Bodner, 2004; Karchmer, 2007; Unal, 2008), although these claims have yet to be rigorously tested.

Only a few studies have described the features of classroom websites (Dunn & Peet, 2010; Holcomb, Castek, & Johnson, 2007; Tingen, Philbeck, & Holcomb, 2011). The earliest and most extensive of these was Holcomb et al.’s (2007) content analysis of 280 K-12 exemplary classroom websites from an initial pool of approximately 2,000 sites representing various disciplines and grade levels. They found that eight elements (course overview, calendar, teacher information, title, email links, link to school site, date uploaded, and visitor counter) were most common. Other key findings included differences in interactivity by grade level (elementary teachers were more likely to promote ongoing projects and publish student work than secondary) and high rates of site abandonment (38% of teachers left their site inactive after 3 years). Researchers concluded that regularly maintained websites could extend learning beyond the classroom, although they did not measure learning directly nor interview teachers.

More recently, Dunn and Peet (2010) reviewed existing teacher websites to propose a five-level taxonomy of classroom websites, ranging from static (disseminating information that does not change) to pedagogical memory (serving as a dynamic repository for a course). Summarizing this research for practitioners, Dunn (2011) advised teachers to match their level of website with honest assessment of their skills, time, and resources. Although he acknowledged that websites in each category had value, he argued that the more interactive levels (4 and 5) offered more opportunities to “extend learning past the school day” and “support lifelong learning” (p. 62).

Although such classification of existing websites is useful, it has its limitations, particularly for researchers concerned with sociocultural dimensions of literacy teaching and learning (Author, 2010; Gee, 2000). Take, for example, Tingen et al.’s (2011) finding, based on 5 years of archived data for 10 exemplary classroom websites, that most “functioned primarily to distribute static information” (p. 89), because the material posted on the sites changed little over time.

Considering that pattern with a lens emphasizing the social practices surrounding those websites may yield different understandings than content analysis alone. If English teachers frequently update external links to grammar guides on their websites, it may indicate that they value and encourage use of those resources. If students are not expected or do not choose to use those resources consistently—if they are not embedded in how literacy teaching and learning are constructed in a particular classroom—then the website may change without corresponding changes in student use.

Conversely, teachers who keep the same external links on their websites for a long time may use those links in different ways at different junctures. For instance, if, after several years of providing such links with little mediation, teachers model use of an online grammar resource via a demonstration lesson involving their own writing, students may understand the affordances of such a resource better and use it more frequently. Such decisions change social practices involving the website, in or out of the classroom, in ways not visible from textual analysis alone. Without access to information about teachers' and students' sense-making and social relationships around the website, it is difficult to understand fully what the technology means and does in particular classroom contexts.

Unfortunately, little research about classroom websites has included significant attention to teachers' perspectives. Karchmer's (2001) study of 13 exemplary teachers' use of the Internet made some reference to classroom websites, suggesting that elementary teachers saw publishing students' writing on the Internet as motivating. This theme was only one of the study's eight themes, among others such as teachers' concerns about online readability and Internet safety.

Carter and Ferrucci (2000) researched preservice elementary teachers' creation of mathematics-focused classroom websites as part of a course. Participants identified three primary purposes for their sites (providing information about classroom assignments, offering online homework help, and suggesting mathematics games) with parent communication and innovative instructional delivery mentioned less frequently. The study could not address how the sites were used in practice or whether they changed over time because participants were not yet in the classroom.

Unal (2008) conducted an online survey asking both teachers and parents to identify the most essential elements of a classroom website. Teachers and parents agreed that classroom websites could improve home-school communication, particularly if they included information about the teacher (e.g., email address, office hours), course information (e.g., lecture notes, homework assignments), parent resources (e.g., school calendar, forms, field trip information), and password-protected pages (e.g., attendance records, grades, discussion boards). The study was limited, however, to elementary teachers and parents of K-5 students, and the nature of the online survey allowed no probing of participants' responses or consideration of classroom data.

In sum, the body of literature about classroom websites suggests that they may be useful tools for K-12 teachers, particularly those concerned with developing 21st-century skills, but it offers little empirical evidence to support that claim. Exemplary websites appear to have some common elements, but little is known about how teacher-developers see and use their sites in particular classroom contexts. Although the research identifies some broad differences between elementary and secondary teachers in how they construct their websites, this pattern has not been explored systematically nor in discipline-specific ways. The study described in the next section was intended to build on these emerging findings while addressing these gaps; consequently, it included a specific population of teacher participants (those in secondary English) and employed both teacher interviews and content analysis of their websites.

Methods

The study took place between January and September 2010. It used interpretive qualitative methods (Bogdan & Biklen, 2003) to explore the two questions stated previously. Like Tinggen et al. (2011), we defined a classroom website as “a linked page that was developed by a K-12 educator” (p. 89). We included participants using various tools to construct their websites, including services such as Blackboard or SchoolWorld.

Theoretical Perspectives

The study was grounded in sociocultural perspectives on literacy. We use this phrase to describe perspectives with different names that have been articulated by scholars working in disciplines such as cultural psychology (Bakhtin, 1986; Wertsch, 1991), situated cognition (Lave & Wenger, 1991), New Literacy Studies (Gee, 2000), and activity theory (Engeström, Miettinen, & Punamäki, 1999). Although these scholars sometimes differ on how they frame units of analysis and what terminology they use, we agree with Lewis, Enciso, and Moje (2007) that they “share a view of human action as mediated by language and other symbol systems within particular cultural contexts” (p. 5). In this view, meaning in language, written or otherwise, is “not some abstract propositional representation” but rather “is tied to people’s experiences of situated action in the material and social world” (Gee, 2001, p. 715).

Of particular concern for this study were sociocultural lenses applied to what some scholars call the “new literacies” associated with information and communication technologies, particularly those involving the Internet (Chandler-Olcott & Lewis, 2010; Coiro, Knobel, Lankshear, & Leu, 2008). Changes in digital technologies are increasingly implicated in significant changes in literacy practices. More specifically, the emerging literacy practices in which many youth engage outside of school are causing some, if not many, educators to reconsider traditional conceptions of literacy and traditional pedagogies in school (Alvermann, 2010).

In an important paper describing the various stances literacy educators might take toward these changes in technology, Bruce (1997) asked, “Where does technology fit with respect to other concerns about reading and writing processes, learning, multiculturalism, texts, assessment, and sociocultural contexts?” (p. 290). Bruce’s framework included a number of different stances that educators might adopt, including *oppositional* (resisting technology because of a perception that its costs outweigh its potential benefits for literacy), *skeptical* (acknowledging potential benefits for literacy from technology but believing those benefits are overblown and not worth the effort they require), and *transformational* (arguing that new technologies will radically transform current conceptions of literacy and pedagogy).

He argued that teachers’ stances are important to understand because they “speak to different views of literacy and technology but also to different conceptions of language, of education, and of basic human values” (p. 292). At the same time, he complicated the very idea of a stance toward technology by arguing that such conceptions failed to recognize that technology and literacy are not autonomous from each other and thus should be seen as “mutually constitutive”: “A technology within a literacy setting participates in a transaction with the other technologies, texts, artifacts, physical spaces, and procedures present there” (p. 303). Bruce’s framework helped us attend better, in both design and data analysis, to teachers’ varied perspectives on their websites, as well as how those perspectives reflected broader concerns related to the teaching and learning of English, not only to the use of a particular technological tool in isolation.

Also useful to us were student metaphors on the various education-related uses of the Internet offered by a report from the Pew Internet & American Life Project (Arafah, Levin, Rainie, & Lenhart, 2002). Drawing on data from 136 youth from 36 schools, the authors argued that students conceptualize their use of the Internet for school-related purposes in five ways: (a) Virtual Textbook and Reference Library, (b) Virtual Guidance Counselor, (c) Virtual Tutor and Study Shortcut, (d) Virtual Study Group, and (e) Virtual Locker, Backpack, and Notebook. This schema suggested it might be useful to classify teachers' perspectives using similar or at least complementary metaphors.

Roles of the Researchers

First author Eric Janicki has been a middle-school English teacher for 12 years, following 5 years in journalism. He works in a well-resourced suburban district in upstate New York where technology integration is a priority. He is also a doctoral degree candidate in English education. Second author Kelly Chandler-Olcott has been a teacher educator in literacy and English education for 13 years, following a brief career as a high school English teacher in rural Maine.

We met a decade ago when Janicki took one of Chandler-Olcott's literacy methods classes. Not long after, our shared interest in new literacies led us to coteach a master's-level course entitled Perspectives on Literacy and Technology. We both identify as White, middle-class, and monolingual, and we are both parents of school-aged children. We are reasonably tech savvy ourselves, although we do not claim the flexibility or creativity with technological tools demonstrated by our most skilled students. We each use classroom websites extensively in our teaching, although in different ways.

Our roles in the study were different but complementary. We collaborated equally on its overall design and the development of the interview protocol. Janicki took the lead on participant recruitment, conducted the interviews, and took the first passes at data analysis. Chandler-Olcott took chief responsibility for selecting the theoretical framework and devised multiple ways of analyzing the data. We shared writing responsibilities evenly.

Setting and Participants

Because of the limitations associated with previous research analyzing teachers' websites without concomitantly seeking their perspectives, we sought both face-to-face and online components to our study. Limited resources meant that we confined our invitations to teachers working in districts within easy driving distance. Before contacting participants, we surveyed the district websites for more than 20 districts served by an education cooperative in the region. We decided to recruit teachers from six districts located in two counties that had a significant Internet presence. Each posted a current district technology plan on the web, and each listed 21st-century literacy skills and teacher training among its objectives on that plan. Most important for our purposes, each offered the opportunity for secondary English teachers to post a classroom website. After seeking research permission in all six districts, we received consent to proceed from five.

These five school districts varied greatly, even though they neighbored each other contiguously. Their catchment areas included elements of city, suburban, and rural living, and their populations reflected various socio-economic backgrounds. Students lived in government-subsidized apartment complexes bordering a major city line, single-wide mobile homes, working farms, older tract homes dating from the 1920s, and newer, subdivided home developments with building lots still available. The major employers in

the area included universities, colleges, engineering firms, and hospitals. Table 1 provides summary data about each district.

About five years before the study, personnel in each district were trained to use Blackboard Academic Suite, an online course management tool, and each district had an introductory account with the service. The Justice, Freedom, and Piety districts maintained their accounts, but the Charity and Curiosity districts abandoned their subscriptions due to annual participation costs. Consequently, Blackboard was a common hosting choice for many, though not all, individual participants' classroom sites.

All five districts also used SchoolWorld, webhosting software sold by the cooperative to which they belonged. This template website system allowed teachers to modify a single webpage and create headlines, upload pictures, post announcements, and create links to other websites or to files in popular formats such as Microsoft Word, PowerPoint, or Adobe Portable Document (PDF) files. The templates provided a unified look and feel for all district websites and easy navigation between the teachers' sites and the district homepage. The basic version, however, did not offer the interactive features that Blackboard did, unless districts purchased (as the Freedom district did) a module upgrade enabling instructors to organize uploaded files on separate pages and use applications such as blogs, quizzes, polls, and visitor statistics. Instructors could turn pages off and on depending on student need, and password protection of pages was also available.

Table 1
District Information

| District Pseudonym | Size of Senior Class | Graduation Rate | Eligibility for Free-Reduced Lunch | Racial/Ethnic Patterns |
|---------------------------|-----------------------------|------------------------|---|---|
| Freedom | 400 | 95% | 6% | 89% White 7% Asian 4% African American |
| Justice | 250 | 92% | 12% | 78% White 10% African American 7% Asian |
| Charity | 240 | 80% | 24% | 95% White 2% Latino 1% African American |
| Curiosity | 160 | 94% | 8% | 96% White 1% African American 1% Asian |
| Piety | 80 | 86% | 15% | 97% White 3% Asian |

To recruit individual participants, Janicki made 20-minute presentations to describe the study to English teachers in each of the nine middle and high schools represented by the six districts (several combined grades 7-12 in one building). Following the presentations, he sent emails to the teachers ($n = 97$) inviting them to participate. We emphasized in these invitations that, unlike Karchmer (2001) or Holcomb et al. (2007), we did not seek participation from only teachers whose classroom websites might be considered

exemplary. Instead, we wanted the widest possible range of perspectives we could elicit, including those from teachers whose websites were very limited or who used them very little.

Although we initially intended to restrict participation to teachers who had a functioning classroom website, several individuals volunteered for interviews who had created websites they no longer used, had websites in process that they had not unveiled to students, or did not have websites but wanted to discuss their use nonetheless. We decided to expand our recruitment criteria to include these teachers, because we thought that it would be useful to compare and contrast their perspectives with those shared by teachers who had more fully embraced classroom websites in their pedagogy.

Of our 20 volunteers, 15 had active classroom websites. Three more had partially constructed websites that two out of three intended to make live the following school year. Two did not have websites at all. Eleven taught high school (grades 9-12), and nine taught middle school (grades 6-8). There were 12 females and 8 males, ranging from 24 to 55 years old. All identified as White and were native speakers of English, to our knowledge. All but one held at least a master's degree (New York state requires teachers to earn a master's degree to achieve permanent professional certification). Some had prepared to be teachers as traditional-age undergraduates; others had come to the profession after pursuing business, journalism, and support service positions in higher education. Table 2 provides summary information.

Data Collection

Semistructured individual interviews conducted by Janicki with teacher participants represented our primary data source. Lasting about an hour each, interviews were informal conversations that took place in locations such as coffee shops and classrooms selected to be comfortable by participants. Part of each interview required participants to log onto their classroom websites for a computer-mediated think-aloud—a guided, narrated tour of the sites' components. To allow for consistency and comparison, we designed a 10-item protocol (see Figure 1), but the questions were often answered in different order, interspersed with unanticipated questions generated during the interview. We saw participants as experts on their own experience and followed Bogdan and Biklen's (2003) advice to "be prepared to let go of the plan and jump on the opportunities the interview situation presents" (p. 98). Our goal for the interviews was "to get each subject to feel relaxed and open and to talk about the topics in a meaningful way, exploring the different meaning of words and questions" (p. 100).

Teacher interviews were transcribed from audiotapes and annotated with commentary about gesture, tone, and other nonverbal behavior from fieldnotes taken during the actual interviews. We double-spaced the text then printed these transcripts with a wide margin to facilitate coding and notetaking about patterns. The transcripts totaled about 350 pages.

Teachers' classroom websites represented another data source. We screen captured each participant's site so that it could be saved and analyzed. The volume of material contained within each site varied considerably, from a single page with no working links to a multipage structure featuring linked video, discussion boards with multiple contributions from each student, and student blogs.

Table 2
Participant Information

| Name | Level | District | Gender | Age | Years of Experience | Stance | Site Host |
|---------|-------|-----------|--------|-------|---------------------|-------------------------|----------------------------|
| Kitty | HS | Freedom | F | 30-39 | 10-19 | Crafter | Blackboard |
| Maureen | HS | Freedom | F | 40-49 | 10-19 | Crafter | Blackboard |
| Tommy | HS | Freedom | M | 40-49 | 10-19 | Crafter | Blackboard |
| Linda | HS | Freedom | F | 50-59 | 20-30 | Crafter | Blackboard |
| Misha | HS | Charity | F | 30-39 | 0-9 | Crafter | Weebly |
| Daisy | HS | Justice | F | 30-39 | 10-19 | Crafter | Blackboard |
| Tina | HS | Justice | F | 20-29 | 0-9 | Crafter | Blackboard |
| Carl | MS | Freedom | M | 20-29 | 0-10 | Crafter | Blackboard/ SchoolWorld |
| Jake | HS | Justice | M | 40-49 | 10-19 | Crafter | Blackboard |
| Lulu | MS | Freedom | F | 40-49 | 20-30 | Crafter | Blackboard/ SchoolWorld |
| BJ | MS | Freedom | M | 30-39 | 10-19 | Crafter | SchoolWorld |
| Kyle | MS-HS | Curiosity | M | 30-39 | 0-9 | Crafter | Blackboard |
| Candy | HS | Piety | F | 50-59 | 20-30 | Conformer | SchoolWorld |
| Annie | MS | Justice | F | 30-39 | 0-9 | Conformer | SchoolWorld |
| Katie | MS | Justice | F | 40-49 | 0-9 | Conformer | SchoolWorld |
| Geoff | HS | Charity | M | 40-49 | 10-19 | Dissenter | -- |
| CC | HS | Justice | F | 30-39 | 10-19 | Dissenter | -- |
| Brian | MS | Freedom | F | 40-49 | 10-19 | Dissenter | -- |
| Toby | MS | Freedom | M | 20-29 | 0-9 | Dissenter/ Conformer | -- |
| Sammy | HS | Charity | F | 20-29 | 0-9 | Dissenter/ Crafter | -- |

1. Why do you have a classroom website?
2. How long have you had a website?
3. Who is its intended audience?
4. What purposes and functions does it serve?
5. Do you think that having such a website gives you power in relation to students, parents, teachers, or administration?
6. In what ways does such a tool affect your teaching?
7. How does a website affect you as the literacy instructor?
8. How do you think your students and the parents of those students respond to the website?
9. Are there aspects of your website that you have yet to explore/use? If so, what more information do you need in order to launch such?
10. How and where do you learn about new ideas to use in your website?

Figure 1. *Interview protocol for teacher participants.*

Data Analysis

Consistent with inductive methods recommended by Bogdan and Biklen (2003), we began with open coding, noting such aspects of the data as the audience(s) and purpose(s) for the websites that teachers discussed and that seemed evident from the sites themselves. After identifying these patterns, we returned to the data to apply typologies from the literature, including Holcomb et al.'s (2007) classroom website components, Arafeh et al.'s (2002) student metaphors for the Internet, and Dunn's (2011) taxonomy.

To further explore the diversity of teacher perspectives and practices emerging from initial data analysis, we used Bruce's (1997) framework of stances toward literacy and technology to code the stances participants took toward their websites. His categories ended up being too many for our purposes, so we devised three of our own. The Conformers (participants who created and maintained classroom websites that matched their school district's explicit requirements but were minimally integrated into instruction) are represented by Katie in the vignettes with which we began this paper. The Crafters, represented by Tommy, were participants who reported updating their classroom websites in more than superficial ways and who integrated their websites into their instructional practices in some way. Brian represented the Dissenters, participants who declined to create or use a classroom website for philosophical or practical reasons. Of our 20 participants, we classified three as Conformers, 12 as Crafters, and five as Dissenters, though two of the Dissenters were on the verge of launching first-time websites that would likely position one as a Crafter and the other as a Conformer.

It is important to note that these categories were not intended to essentialize teachers' views or to create a hierarchy among them. Instead, we hoped to capture some of the commonalities in teachers' perspectives and experiences in ways that would allow us to identify patterns and relationships between teachers' stances and other data we had about them, including their experience levels, the grades they taught, their district affiliation, and their personal tech-savviness (American Association of University Women Educational Foundation [AAUW], 2000).

Findings

We present our findings in three sections linked to our research questions: why secondary English teachers created their websites, how they created their websites, and how they used their websites.

Why Teachers Created Their Websites

Participants reported five main reasons for creating their classroom websites:

1. To conform with school or district expectations.
2. To communicate with parents
3. To help students catch up on in-class information and assignments.
4. To position students for postsecondary success.
5. To respond to external pressure from colleagues, parents, and/or students.

A number of participants spoke about more than one of these themes.

At the most literal level, Candy, Annie, and Katie—the three we classified as Conformers—launched websites because they were required to do so. Told by her administrators that

websites were “the new technology” and “the expectation of the public,” Candy, a Piety high school teacher, complied with the dictate to create a basic website and, subsequently, to update it. When other colleagues complained in the teachers’ room about being “scolded” by administrators for not keeping their sites current, Candy recounted, “I was like, ‘Whatever. Just do it and get it done.’ I don’t fight City Hall on everything. I pick my battles.”

Communication with parents was another reason why participants reported creating their websites, particularly at the middle level. As Annie, a middle-school teacher from Justice, explained, “Your SmartBoard? Your LCD projector? Those are teaching tools. Your webpage is just a basic form of communication, mostly for parents. Kids know what you are doing in class anyway.” Her feelings were echoed by her same-school colleague Katie: “I just think parents are cut out of what goes on here, and if you put things up that are really necessary for them to know about what we are doing, this way they have some window into what we are doing and what’s due that week.”

For Freedom middle school teacher Toby, a Dissenter for his first 6 years of teaching, parent communication drove his plan to launch his first website in the fall after the study: “I want to...help out with parent communication. I envision my webpage would post upcoming quizzes and tests so that mom and dad know that Johnny is having a grammar quiz or there is an essay due.”

Other teachers framed their websites as Freedom middle school teacher BJ did, partially for parents but mediated by students as the primary audience: “I tell parents that they can go [online]...with their sons and daughters as they will be able to explain what is up here and why. It is not meant for parents alone. I teach students.”

Another common reason for creating their websites was to help students get caught up when they were absent from class or had misplaced class materials. Nine of the 15 teachers with websites mentioned this purpose at some point during their interviews. Jake, a Justice high school teacher, said that he launched his Blackboard site for his seniors primarily because of their attendance issues: “They are busier, so I felt that if I could make this information online, it would help.” Shortly after each class, he posted his agendas and descriptions of what the class accomplished, so that he could hold absentees accountable for what they missed. Uses such as Jake’s aligned most closely with Dunn’s (2011) level 2 category, semistatic, coined to describe a site that “disseminates information that changes periodically” (p. 60).

Other participants, particularly those Crafters who used interactive features like those characteristic of Dunn’s levels 4 and 5, shared that their sites allowed for contact and communication beyond the boundaries of the traditional classroom in ways that would position students for success in college. According to Jake,

I have former students who say they are using Blackboard all the time. So the more that we can make the high school experience mirror the college experience—at least for the kids in the upper levels—the more authentic the education will become.

Teachers who made this argument often drew on their own experience with online graduate courses, as did Jake’s Justice High School colleague Tina, who said that she began her website “this year as part of my professional growth plan. I wanted one anyhow because I used it when I was at [college]. . . and I know all the kids are going to use it when they go to college.” A related but less common perspective on websites as a

way to prepare students for futures beyond college was offered by Freedom middle school teacher Lulu, classified as a Crafter:

Why should I be having them write [their assignments] down in their student organizer when they can just go online? The truth is, that is their future. They will be able to go online. So why are we training them one way, knowing that they won't need that later in life?

Such purposes were consistent with Tingen et al.'s (2011) call to align classroom websites with 21st-century skills.

A final theme related to why teachers created their websites was external pressure from peers, parents, or students. Not all teachers admitted to feeling such pressure: CC, a Dissenter from Justice High School, credited several colleagues with using their websites for "really cool stuff" but argued that she did not "feel the need to compete with anybody else in regards to that." More commonly, though, participants acknowledged feeling pressure themselves or reported such pressure felt by others.

The expectations seemed especially keen at the middle level, where teacher teams shared the same students. Lulu, for instance, described a colleague who felt obligated to begin a website because she was the only person on their team without one: "She knew that [parents] were going from teacher to teacher...on parent night, and she didn't want to be the only one with assignments not posted....Now she is blogging, but at first it was about posting homework." Brian, an 18-year veteran classified as a Dissenter, reported similar anxiety around serving on a team with middle-school colleagues who boasted of their websites at parent conferences:

When you get these younger teachers who are more technologically savvy, who have grown up with this technology or actually used it as a student, they know firsthand how it is effective and how it has helped them. I guess that you start feeling like the old dog. I mean, you don't want to be the dinosaur who can't keep up with the times.

Brian's Freedom colleague Toby also acknowledged external pressures as a factor in his recent decision to launch a website: "Yeah, I think that it is the times," he said. "There is a certain expectation, especially in districts where people have technology. People are using all sorts of technology both personally and professionally."

Not all teachers saw this pressure negatively. Sammy, a Charity teacher in the midst of developing her first working website, reported that having such a site gave her a sense of power that she intended to showcase to parents and administrators. Fearing budget cuts as the person with the least seniority in her school, she "assumed that that was where education was going and that was kind of a bandwagon that I needed to jump on....I use the Internet a lot—professionally some, but personally all of the time," she said. "I think that it is a way to establish myself as 'the next generation teacher.'" This was her main reason for shifting her stance from Dissenter at the time of her interview to Crafter during the next school year.

Most Dissenters, however, were as clear about why they felt a classroom website did not suit their purposes as their Crafter counterparts were about why their websites did. Dissenters' positions tended to be less concerned with, as Brian pointed out, "just knowing or not knowing the technology or having the time" and more concerned with the purposes for using the technology. Justice high school teacher CC partially constructed a

Blackboard site as part of district-sponsored professional development but did not make it accessible to students or parents. She reported that making the site active might allow her to cut down her paper use and perhaps make course materials more accessible to students, but she continued to have reservations about doing so that were linked to what she called “my philosophy.” “As we become more technologically advanced with all the things the kids do,” she argued, “we are losing that interpersonal connection sometimes through technology.”

CC’s concerns were echoed by Geoff, a Charity high school teacher with 17 years experience. At the time of the study, he did not have a classroom website, though his department was constructing one. He said he thought he would have one eventually, at which time “I suppose I would be supplementing what we are doing in here.” In his view,

The greatest way to support my students is face to face. And I think that as I see a greater sense of apathy about school and relationships with students deteriorate, I believe that *this* [waving his hand back and forth to indicate the classroom in which the interview was conducted] is most important.

How Teachers Created Their Websites

Two themes were most salient regarding the ways teachers constructed their websites: (a) the influence of district resources and professional development and (b) peer modeling and support. For some participants, these categories blended; for others, they were separate.

All but one of the 15 participants with functioning websites reported beginning them because school or district leadership sponsored and supported such work. The one partial exception to this pattern was BJ, a former computer teacher from Freedom. He constructed his own website prior to receiving formal training from the district, although he piloted a district-sponsored tool, SchoolWorld. District influence was also important for CC and Toby, two of the three participants who had websites they were not yet using; both reported creating their sites during district work time.

Despite the use of some common tools and a common basic expectation that teachers would have classroom websites, there were differences in how each district supported the development process. For example, Candy, a veteran of more than 25 years, said that “a couple of superintendents and principals ago,” officials in the Piety district “said we need to have a website so they gave us a staff development on it.” According to her, the process was “very open ended. We were told to put something on. They just wanted you to have a page. Everyone was given time and a page and you just had to put something on it.”

Perhaps not surprisingly, given these minimal expectations, Candy’s website was the shortest of all we reviewed: 225 words. It included three graphics, a message describing the classes she taught and the club she advised, a brief explanation of grading expectations, and a link to Mygradebook.com. A hotlink to her district email address was embedded in an invitation for parents to contact her at any time. For Candy, whom we classified as a Conformer, the session was the catalyst to construct the website she maintained for 5 years and counting, but she reported little follow-up. According to her, that initial session was “the only one we’ve ever had.”

Other teachers reported that their district’s professional support for website creation was limited in scope. Geoff, a Dissenter, reported being absent on the staff development day when Charity teachers initially created their sites. Geoff argued that he did not feel he

had missed much because he was not impressed by the sites created by those who attended. After clicking through colleagues' pages on the district website with Janicki, he commented, "You saw: They had their name, the head of William Shakespeare, and one link, and that was about it." Geoff was confident that he could create such a site on his own if he chose to, but "if we go into development of them to make them worthwhile, to make them useful for whatever purpose there seems to be, then I'll probably need some more time."

Other participants, particularly those from Justice, reported that their districts took a more systematic and sustained approach to supporting teachers' website development and use. Katie, a Justice middle school teacher, shared that her principal reminded faculty to update their sites through mass emails or general announcements, typically around breaks on the school calendar. After Tina, a Justice high school teacher, made creation of her Blackboard site a part of her professional growth plan, the district paid for her to attend related training at the local educational cooperative.

Justice district leaders also sponsored Technology Thursdays, weekly sessions at the district's professional development center that CC, a teacher with a partially constructed website she did not yet use, described as having "pretty strong participation rates" because "other teachers [teach] things that they are familiar with that are related to technology." These examples suggested that formal district support made a difference in whether teachers began sites or not, as well as whether they updated them.

Peer support was the second major theme related to the way teachers created their websites. Eighteen of 20 participants mentioned at least one other teacher's use of a classroom website during interviews, despite our protocol not including a specific question devoted to this topic. Teachers were aware of what others were doing with their classroom websites, occasionally emulating their ideas. For example, Toby, a Freedom middle school teacher who was building his own site, shared that he had "looked at a lot of other people's websites....I know a social studies teacher that I work with has links to all sorts of YouTube videos and quiz pages and stuff through PBS." CC, a Dissenter, discussed her admiration for how three other members of the Justice high school department used their sites, both with classes and with extracurricular clubs.

In addition to awareness of what other department or team members were doing with their websites, several participants reported working together with colleagues to design and create their sites. Freedom High School teachers Kitty and Maureen, both of whom we classified as Crafters, spoke in separate interviews about collaborating to develop their Blackboard sites for sections of an advanced English class allowing students to earn college credit.

Kitty even used the first person plural, referring to herself and Maureen, to describe this work: "For our [college] class, we put all documents, we put slide slows, we put videos, we put commercials and things that we want them to see, even if we don't have time to do it in class." Maureen spoke of a third teacher in the department (not a participant in the study) who taught the same course and whose students contributed to the same discussion boards as hers, thus dissolving the boundaries between classes that met face to face in separate spaces. According to Maureen, this "creates a virtual classroom that is not bound by my classroom and class time."

Another notable example of peer modeling and mentoring came from Charity High School. Misha, whom we classified as a sophisticated Crafter, reported being inspired to have a classroom website 4 or 5 years before the study when she attended a presentation on Blackboard given by a tech-savvy colleague.

And I thought maybe someday if I am bored over the summer I could take some classes and learn how to be as brilliant as she is. And I hadn't realized that Blackboard was that easy. I just hadn't really dug into it at the time to know that. I was just kind of scared of it.

According to Misha, she did not take her first steps toward her goal until another colleague from the history department "came along and said, 'You know, that is kind of easy, and you can make it kind of simple. Let me show you.'" After the Charity district decided not to renew its Blackboard license, Misha investigated the affordances of Weebly, a free web-hosting tool, and decided that it offered her more than the basic version of SchoolWorld that was her school-sponsored option. She eventually used Weebly to create an elaborate classroom website to which she was very committed. At the time of the study, she was forging a new link in the peer mentoring and modeling chain by helping Sammy, a newer colleague in the English department who did not have a website at the time, to design one using Weebly for an impending launch.

How Teachers Used Their Websites

Beyond providing basic contact information, teachers' reported uses of their classroom websites clustered into four categories:

1. Providing online versions of existing in-class resources and materials.
2. Providing additional resources and materials not used in class.
3. Providing additional resources and materials used in class
4. Providing additional opportunities for interaction beyond class.

Teacher participants often discussed more than one of these uses, and their uses sometimes varied from year to year, class to class, and sometimes even from unit to unit.

Posting homework assignments was the most common way that teachers used their websites to provide online versions of in-class material. Twelve of 15 teachers with active sites regularly did so. Most felt that posting assignments promoted communication with parents and students as well as put the onus on them, not teachers, to address missing work and promote general organization. According to Carl, a middle school teacher and Crafter from Freedom, "There is no excuse then. Everybody knows the assignment and knows where to find it."

Maureen, a high school teacher from the same district, recalled one parent's barrage of emails to her as the mother struggled to help her disorganized son get caught up after weeks of missing assignments. Maureen recalled writing a courteous reply that included the log-in instructions to her website while thinking to herself: "Here is the Blackboard site. The homework is there. The assignments and rubrics are there. Do it! You should be able to ask him to show you the assignments. Have *him* log on and show you the assignments."

Most participants also reported using their sites to make online copies available of materials they gave out in class. Katie from Justice, a Conformer, reported posting documents on her site for the current unit, including assignment descriptions, grading rubrics, and the schedule for student presentations, primarily for parents' viewing. Justice high school teacher Jake, a Crafter, posted copies of his handouts and readings, although he confessed that this last feature was labor-intensive: "Because I use a lot of funky materials—like a chapter from this textbook, half a chapter from this

textbook—it involves scanning in a lot of materials too. It’s not like I can just right-click the materials and post it up there. It’s years and years of stuff.”

Teachers differed in whether they envisioned students, parents, or both as the audience for the online versions of these resources, but many shared a view of their websites as what Arafah et al. (2002) called the Virtual Backpack, Locker, and Notebook: a place to “store important school-related materials” (p. 13).

Teachers also used their websites to offer students—and sometimes parents—supplemental resources or materials not used in class. For example, Kyle, a Curiosity high school teacher whom we classified as a Crafter, created a page of external links related to the college admissions and application process that interested students could access on their own. He demonstrated these to Janicki, explaining that students could then

go to [my] site and apply to [the state university] online...For some of my students that, you know, don’t have a lot of direction on some of these important steps...at least it gives them a place where if they need to know how to get to the [state university] application, well, here is an easy way.

Although Kyle was not sure if students used his portal to college-related resources, other participants did have evidence that students used the supplemental materials. Freedom middle school teacher Lulu reported posting book recommendations on her Shelfari page, what she described as “Facebook for bookworms”:

Because I am an avid reader, they really do listen to my suggestions, especially if they find out that I have recommended a book that they really like. Then they are like, “Give me another one then.” So they come on here, and some parents have told me that they come on here for book recommendations.

Freedom High School teacher Tommy reported making a second poem by an author available online after students had a lively face-to-face discussion about the first one: “I thought, okay, that might be interesting to them, so I put that on Blackboard. . . and it generated a lot of conversation on the blogs, and it was clear that it was a text that most of them encountered.”

After Charity’s Misha Smith linked several elementary-focused grammar games to the website for her 10th-grade class, some students confessed that they had brought their laptops to a party and played the games against each other online. “OMG, Miss Smith, this is all we did last night. It was so much fun,” they told her, causing Misha to recount, “And I thought, OMG, you guys are crazy.” Such resources provided students who accessed them with new information and additional time on task as readers and writers. They also positioned the teacher who put them online as supportive of students going beyond minimum class expectations.

In addition to making supplemental resources available, a number of teachers, all Crafters, reported using their websites as part of in-class instruction. Several used them as repositories for exemplary student work from past classes to help students develop expectations for a given task. During an author study, Freedom middle school teacher BJ posted biographical brochures co-authored by past students for current students to browse. His district colleague Lulu put detailed instructions online for a project that she described on her site as a “rite of passage for eighth graders.” The project required them to select a person or event worthy of a public memorial, then, after careful research, to

design a three-dimensional memorial that they would describe in both a three- to five-page paper and a 5-minute presentation.

Lulu photographed the best projects and posted the pictures “online for each year up there. And the kids love it. In fact, they were just [browsing] there Friday.” Both Lulu’s and BJ’s uses were consistent with Tingen et al.’s call for teachers to “provide a venue for students to display coursework and projects” (p. 90) to promote authentic audiences for the composers and set the bar high for successive classes in terms of their products’ quality.

Other teachers built features into their websites to guide student exploration of content for a unit. For example, when Curiosity’s Kyle interviewed, he was putting together a WebQuest (Dodge, 1995) with links for his juniors to explore the Roaring Twenties during a unit on *The Great Gatsby*. Kyle anticipated bringing laptop carts to his classroom to facilitate students’ guided use of those resources. In the past, his website included links to a collection of online materials about the Holocaust, which he used in class to supplement a description of his own trip to an Austrian concentration camp: “I kind of walk them through my personal journey of being there,” he said. After the students browsed the links, they wrote an online journal entry about their feelings. They then located three photographs and explained why these would be essential for a documentary about the historical events. Online self-tests allowed students to assess their own understanding of the web-based materials and in-class reading of a play version of *The Diary of Anne Frank* (Goodrich & Hackett, 2000).

Similarly, Maureen from Freedom used a website with independent modules for her Writing Lab, an academic intervention grouping struggling writers from various grade levels. Including both videos and quizzes, the modules focused on such topics as vocabulary, usage, and plagiarism and helped her deal with the class’s heterogeneity:

I can have 10-12 kids doing 12 different things....I’ve got like a dozen modules. So if a kid comes to me and says that they don’t know what to do or they don’t have anything to do because they are done with their work, then I can say, “Great—now go here and...go do this or that.”

The fourth category of uses for classroom websites involved teachers in providing opportunities for interaction beyond class. Nine of 20 teachers, all Crafters, reported using their websites to provide opportunities for student interaction beyond class time—a function Dunn (2011) would classify as Level 4, Integral Curricular. One more teacher (Sammy from Charity) was about to launch a website that would allow her to archive podcasts from student projects that could then be revisited outside of class.

These opportunities most commonly required students to comment on a video or piece of literature, using a discussion board or guestbook. Sometimes the discussions were separate from face-to-face class time; on other occasions, they were integrated. Justice High School teacher Tina offered an example of the latter. She typically asked students to contribute to a discussion board with their own ideas and responses to each other, explaining that the latter had value because “If I make you respond to somebody else’s comments, then [you] have to read at least two or three other people’s.”

The following day in class, she would project her Blackboard site on a screen to highlight ideas from the online discussion she wanted students to notice: “This really insightful stuff that people wouldn’t say in class, I say for them.” Tina commented that this teaching strategy allowed students who normally were quiet during discussions to have a voice in

class, but she did not need to project the whole discussion, which students accessed on their own.

Another example came from Tina's Justice colleague Daisy, who asked students to provide feedback on each other's paper proposals via Blackboard's wiki function. She explained that students wrote much more online than they had with in-class comments on previous papers: "It was nice because we could all see the whole conversation and...basically not take up class time for it." Freedom's Maureen combined Blackboard's wiki and discussion board functions to extend classroom boundaries even further. She used those tools to help two different sections of 11th graders collaborate on a theoretical framework assignment, allowing them to "come up with a singular document that really helps summarize what they understood." Because it was web-based, the project was easily reviewed throughout the semester, allowing students to revisit common notes on literary theories and to compare and contrast ideas from their own writing. Because they allowed students to create knowledge to be shared and critiqued, projects like Daisy's and Maureen's were congruent with Dunn's (2011) Level 5, Pedagogical Memory.

Discussion and Implications

This study used qualitative methods, including computer-mediated interviews and document analysis, to explore how and why secondary English teachers created classroom websites, as well as how they used those websites pedagogically. Data were collected from teachers from five rural and suburban districts in upstate New York.

Audience appeared to matter in how participants viewed and designed their classroom websites. Most participants saw their websites as aimed at students, others saw them as geared to parents, and still others identified both groups as audiences. Few explicitly discussed other teachers or administrators as their intended audience, though many were aware of other teachers' presence on the Web, particularly within their own schools.

Those who spoke most explicitly about parents as an audience for their websites tended to teach middle school, not high school. Those who saw parents as the primary audience were also more likely to be Conformers and Dissenters than to be Crafters, although we offer this pattern tentatively, given the small number of teachers in those two groups. It seems possible, however, that teachers were more willing to invest in the time it took to learn and integrate more interactive ways of using their websites if students would benefit from those approaches instructionally.

Another significant pattern was that participants reported significant district influence on their design and maintenance of their classroom websites. Nearly all attended district- or school-sponsored professional development on this topic after school, during in-service days, or during coursework sponsored by the local education cooperative to which all five districts belonged. This pattern of district influence was in direct contrast to Tingen et al.'s (2011) finding that teachers were largely "self-taught in terms of Web-site development" and had "received no formal training" (p. 89). The difference may be attributable to the fact that Tingen et al. limited participation to teachers who had maintained their websites for at least five years. A district commitment to sponsoring more formal training in this area may be a more recent phenomenon. It may also be related to a trend in this region, possibly linked to membership in the local education cooperative, that is not representative nationally.

The teachers who embraced classroom websites in our study were often not consistent with the limited research base on this topic or conventional wisdom. For example, those

who take a “digital native” perspective (Prensky, 2001) often posit that younger teachers who have grown up with digital technologies will be more tech-savvy in their classroom practice because of this comfort level. In our study, however, we classified four of the six youngest teachers in the sample—those in the first decade of their careers—as Dissenters or Conformers, not Crafters. Two of the three teachers with 20-30 years of experience were Crafters, while none of the Dissenters had more than 19 years of experience. Such patterns complicate easy stereotypes about older teachers as Luddites and new teachers as tech-savvy (AAUW Educational Foundation, 2000).

Implications for Further Research

The study offered useful new information about classroom websites because it tapped a range of in-service teachers’ perspectives on their design and use of those sites, while simultaneously allowing the sites themselves to be analyzed. What it did not do was verify or complicate teachers’ perspectives on their practices with data from classroom observations. A study combining interview data and document analysis with participant observation would permit more nuanced consideration of social practices surrounding the websites. Such a study might also permit interviewing of students and parents—the two primary audiences of the websites according to our participants.

It would also be helpful to expand the pool of teacher participants. This study included representatives from rural and suburban but not urban settings. Lack of urban participants is a limitation that could be addressed in subsequent research. It would be useful to compare perspectives from teachers working in high-needs and multilingual settings to the perspectives we elicited, particularly around questions of professional development and teacher concerns about equity and access. It would also be helpful to consider perspectives from a more diverse group of teachers in terms of race/ethnicity and first language status.

Implications for Practice

In contrast to research by Tinggen et al. (2011), the study suggests that professional development did make a difference in teachers’ commitment to classroom websites and their ability to create and maintain such sites. The school and district support they described appeared to be uneven in quality and duration, however. Teachers reported that the sessions focused more on procedures for creating a website—how to manipulate the technology—than on what components to include or why. Teachers reported browsing sites independently to borrow useful elements from department colleagues and, less often, other educators they knew from face-to-face and online interactions. Several discussed using these sites as mentor texts for their website construction in much the same way that writing scholars (cf., Ray, 1999) advocate for print texts.

Devoting some department-specific professional development time to collaborative analysis of exemplar sites, particularly at the secondary level, might help teachers identify the aspects of a classroom website best fitting their curricular needs. Such conversations might also allow Dissenters and enthusiastic Crafters to work out legitimate philosophical differences in ways enhancing practice for both groups.

The study suggests that conversations like these might be most profitable if they are not framed around the goal of each teacher having a classroom website, despite evidence from the Conformers that such mandates do nudge some teachers out of their comfort zones and into cyberspace. Instead, teachers might be guided by administrators or peer leaders to discuss how to accomplish a short list of goals, including frequent but

manageable parent communication, organization of classroom resources extending beyond classroom walls, and students' development of 21st century skills. For many teachers, a well-considered and dynamic classroom website may accomplish several of these goals simultaneously. Others, however, may choose other tools and media for the same ends. Uniformly updated but inert classroom websites seem less desirable than a diverse set of approaches including, but not limited to, classroom websites.

In addition, the study suggests that teacher educators should be more explicit during teacher preparation about how classroom websites fit into the larger picture of being a successful English teacher. Participants who graduated more recently from college appeared to have assimilated university messages that tech-savviness is important for English teachers in the 21st century (National Council of Teachers of English, 2008) and that maintaining a classroom website can be part of being a tech-savvy teacher. They seemed less clear about how or why those websites might be integrated into pedagogy.

One way to help preservice teachers think about these questions would be to familiarize them with the various website taxonomies proposed by researchers such as Dunn and Peet (2010) then to ask them to classify a range of websites designed and developed by various English teachers. The website creators might include nationally known teachers such as Jim Burke (www.englishcompanion.com) and teachers from schools in the local area—perhaps even those who will host students for practica or student teaching. By considering each website in terms of a typology, preservice candidates will have a chance to think explicitly about the purpose(s) for each site, as well as apprehend how teachers enact those purposes with different features.

Preservice teachers, like practicing ones, would also benefit from systematic exploration of exemplary websites, discussion of the purposes and social practices the sites reflect, and in-person or virtual interaction with the practitioners who designed the sites. The latter would allow novices to ask questions of a successful, experienced teacher about the process by which the sites were constructed, including any collaborations that supported it, and about the pedagogical practices in which the websites are embedded. Our interviews revealed to us the limits of website analysis alone in understanding the complex ways that English teachers thought about and utilized their sites. Preservice teachers would likely learn more, as we did, from the combination of textual examination and discussion.

Such preprofessional training can also be extended when these students are hired in schools that sponsor ongoing professional conversations about classroom websites. This combination of approaches should increase the chances of turning out a new generation of teachers who can design and use their own websites to prepare “their students for the learning they are likely to be doing in the future” (Dunn, 2011, p. 62).

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