WRITING IN THE AGE OF MOBILE: SMARTPHONE AND TABLET MULTILITERACIES
AND THEIR IMPLICATIONS FOR WRITING AS PROCESS

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ABSTRACT

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This dissertation compares the writing practices of students on desktops and laptops with their writing practices on mobile computing devices, namely tablets and smartphones. While there is much scholarship on computer-mediated writing (e.g., Eldred, 1991; Dave and Russell, 2010; Haas, 1989; Hochman and Palmquist, 2009; Palmquist et al., 1998), there has been less attention paid to how mobile computer devices mediate writing practices and promote (digital) literacies. This study used mixed methods, specifically quantitative surveys and qualitative interviews. Using a process-oriented first-year research writing class as a research site and the research paper as the genre of analysis, the study found that there are significant differences between the writing, research, and reading practices done on these computing devices. The student survey found that students indeed use mobiles for academic writing purposes, are less likely to revise on mobile devices than on desktops and laptops, and generally make local edits to global revisions when they do revise. It also found that students are more likely to access sources that are not typically considered scholarly, preferring to use unscholarly and advertisement-supported sources. The literacy narrative took a closer look at the research practices of a student in the first-year writing program. Several emerging themes arose that are relevant to writing studies, including that the period between high school and the first year of college is a critical time in acquiring and losing different literacies, socioeconomic sponsors and barriers greatly influence writing practices, and some students’ expectations and values make them unsure of the place of mobile technology in education.
Dedicated to mom and dad
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CHAPTER I: WHAT HATH MOBILES WROUGHT?

This dissertation explores the relationship between mobile technologies and writing, focusing on how the relationship between writing on smartphones and tablets is similar to and different from the writing done on desktops and laptops. This topic is addressed using multiple methods. The first part (chapter 3) uses quantitative survey methods to inquire about both student and teacher writing habits along with teacher observations of technology use in their classrooms. The second part (chapter 4) uses a qualitative interview method to more specifically interrogate student writing practices and to create a student technological literacy. More specifically, this project will explore:

• What types of academic writing, research, and reading are first-year composition students doing on smartphones and tablets?
• How are smartphone and tablet academic writing, research and reading practices mediated and situated?
• How do first-year composition students write for academic purposes differently on smartphones and tablets compared with desktops and laptops?

This dissertation takes a look at a process-oriented writing program as a research site (to be described later in chapter 2). Process scholarship has often segmented the writing process into various stages (pre-writing, drafting, revising, editing, and publishing). Many post process scholars claim that the way writing practices are theorized by process scholarship usually is not an accurate paradigm to account for writing practices (e.g., Bruech, 2002; Kent, 1999; Olson, 1999; Russell, 1999; Petraglia, 1995). Can students write, research, and read for academic purposes on mobile devices or are these devices incompatible with what teachers and writing programs value in writing? With the potential technology used for writing changing from
Writing is changing

The future of (digital) writing


- How can we “provide equitable access to technology for all students”?
• How can we “prevent plans to use computers as inappropriate and ineffective teachers substitutes”?  
• How can we ensure “adequate and competent preparation for teachers who will be using computers”?  
• How can we “fulfill the promise of hypertext”?  
• How can we “meet the challenges presented by the changing nature of literacy in the electronic age”? (Hawisher & Selfe, 1991, p. 3; Walker et al., 2011, p. 328)  

In addition to these questions, Eyman also presented scholars with three new questions:

• “What is ‘writing’? How do we define it and, perhaps as important, what should we consider outside the purview of writing instruction as writing itself takes advantage of multimedia and multimodal semiotic resources?”  
• “Where is writing? And how do the contexts and networks within which writing takes place structure the affordances and constraints of writing practice and rhetorical action?”  
• “What does writing do? How does our understanding of rhetoric-as-persuasion and writing-as-action shape our pedagogical goals?” (Walker et al., p. 329)  

Eyman specifically pointed to “mobile devices” as “becom[ing] more prevalent and more important to our development of writing pedagogies” (p. 329) in regards to both his and Hawisher and Selfe’s questions. Purdy, in the same piece as Eyman, claimed that “Enhancements in portability and mobility will continue to change…expectations regarding accessibility—to texts, to information, and to one another. Being online…will be an ever-present state….Writing, reading, and researching activities will happen from anywhere, which will continue to make these practices more frequent, less controllable, and less bounded” (p. 336). Writing programs, writing teachers, and writing scholars are now having to explore what this “more frequent, less
controllable, and less bounded” (p. 336) writing means for the “development of writing pedagogies” (p. 329).

Eyman and Purdy are not the only scholars attracted to the implications of mobile technology on composition studies. Johndan Johnson-Eilola and Stuart Selber (2009), in their chapter “The Changing Shapes of Writing: Rhetoric, New Media, and Composition,” argued that the definition “of what counts as ‘composition’” should be broadened to include genres like text messaging, and that these genres can be discussed in “rhetorical terms” and approached with pedagogical potential (p. 15). Johnson-Eilola and Selber demanded that “rather than ignore or deride these new forms, …writing teachers [should] begin integrating them into their classrooms” (p. 17). They claimed that if writing teachers see these digital communications and genres rhetorically, they can help students make connections between the writing skills they bring with them to writing classrooms and the benchmarks and values we want them to integrate into their writing (p. 18). Together, these scholars are drawing attention to how mobile technologies are changing writing and making connections between new writing genres and writing practices with what we value in academic discourse.

While there is growing attention to the implications of mobile technologies and the writing genres and practices they engender, this conversation about “what is writing?” predates mobile technologies. There has been attention to the effects of technology and other forms of new media for quite some time. Kathleen Blake Yancey (2004), in her 2004 College Composition and Communication article “Made Not Only in Words: Composition in a New Key,” stated “Never before has the proliferation of writings outside the academy so

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1 Instant messaging and text messaging were the specific examples Johnson-Eilola and Selber (p. 16, 2009) cited, but new writing genres and new types of communication are being developed fairly frequently (e.g., apps like Snapchat, social networking platforms like Twitter, vlogging).

2 What programs and instructors value in student writing can vary. Most programs tend to value source-based writing and shun informal language and truncated writing.
counterpointed the composition inside” (p. 298). Yancey related the “proliferation of writings” to the new “reading public” of the 21st century with the rise of literacy during the 19th century (p. 299), in effect relating the changes in writing practice of this epoch with the changes of reading practices of a previous epoch. And of course her use of the word “counterpointed” highlighted that not only are there new literacies but also these literacies are often a mesh “between school and the public” and between “print and screen” (p. 320). Yancey drew attention to the need for understanding and working with these literacies in order to fulfill the goals of a liberal education (e.g., critical thinking, civic participation).

But are these changes in literacy practices that mostly occur outside of composition classrooms the concern or the domain of composition studies? Jeffrey T. Grabill and Troy Hicks (2005) continued this emergent conversation by explicitly arguing these multiliteracies fall under the domain of composition studies (p. 303), thereby concurring with Yancey’s (2004) position that understanding these new literacies should be a project for composition studies. Grabill and Hicks (2005) also made a call for a small paradigm shift, that “If we want to teach writing or help students learn how to write more effectively, then we have to see writing in the same ways that they do and be with them where they write” (p. 306). They concluded their article by concluding that “critically understanding how these writing technologies enable new literacies and meaningful communication should also be a core curricular and pedagogical function of English education” (p. 307). Because smartphones and tablets are contributing greatly to creating, complicating, and influencing how, why, when, what, and where people write, the study of smartphones and tablets therefore becomes pertinent to creating an informed, 21st-century writing pedagogy—just as Yancey (2004) urged composition studies about the necessity to study the “proliferation of writings outside the academy” (p. 298). Yancey described a surge in
“outside the academy” writing practices, but what is the surge in mobile writing practices? The next section will show just how pervasive mobile writing practices are.

**Previous smartphone data sets**

Mobile scholarship is not something beyond the horizon but is something already deeply permeating the lives of students, teachers, and their writing practices. Several studies (mostly coming from Pew Research but also from within composition studies) have attempted to build data sets of smartphone and tablet usage not only about the American population at large but also about students specifically. These data sets are important for understanding the prevalence of smartphones and tablets among students. The first study, titled “Americans and their Cellphones,” was conducted between April and May 2011. This first study focused on how people use smartphones differently from cellphones. Pew found specific differences in how people text message, browse the internet, email, and use social networking sites between those that have smartphones and those that have regular cellphones. Some relevant examples of this divide are:

- 92% of smartphone owners use their phones to send or receive text messages while only 59% of other cellphone owners do
- 84% of smartphone owners access the internet with their devices compared to only 15% of other cellphone users
- 76% of smartphone owners use their devices to send or receive email, while only 10% of other cellphone users do, and
- 59% of smartphone users access a social networking site on their devices compared with only 8% of other cellphone owners.
This study in of itself showed a strong relationship between writing and accessing the Internet on these devices, specifically for smartphones. Due to these findings, writing instructors might expect a digital divide among their students depending on whether they own a smartphone, a cellphone, or neither of them. This could create large discrepancies in what literacies students bring with them to the classroom, affect how pedagogically successful instructors could be in including smartphones and tablets, influence what attitudes instructors could have about mobile phones, and could raise writing program administration issues about setting program goals, benchmarks, and statements about technology use in their programs. Given that this survey is now already 2 years old at the time of this dissertation’s writing, one could expect that even higher percentages are writing and accessing the Internet through their smartphones now than at the time of this survey.

The study “Latinos and digital technology”—published on February 9, 2011—along with the study “Overview of smartphone adoption”—published on July 11, 2011—showed significant issues in regards to mobile device usage as it relates to the digital divide and issues of access. To begin with the study on “Latinos and digital technology,” Pew reported that Hispanic cell phone owners are more likely than white cell phone owners to access the internet (40% vs. 34%), email (36% vs. 31%), or instant message (45% vs. 24%) from their cell phone” (p. 1). Furthermore, “Among internet users, Hispanics are less likely to have a home broadband connection (69%) than are Whites (84%) or Blacks (78%)” (p. 1). Among Hispanics, the study also noted a wide divide between cellphone ownership between Hispanics born in the United States and those born outside the United States. One instance of this can be seen in the percentage of Hispanics born in the United States that own a cellphone (86%) and the percentage of Hispanics born outside the
United States that own a cellphone (70%) (p. 1). These studies implied that new mobile technologies affect not just the type of writing done but who is doing that new writing.

One final Pew study “Overview of smartphone adoption” drew attention to several characteristics specific to smartphone ownership. Smartphone ownership is highest in the 18-29 age demographic (52%). The younger generation, then, uses smartphones to a greater extent than older demographics. Also, smartphone ownership is higher among Blacks (44%) and Latinos (44%) than Whites (30%). In addition, among those with a household income of less than $30,000, 39% of those in the 18-29 age demographic have a smartphone. That is the highest percentage among any age demographic for those living in a household earning less than $30,000 a year. This study also found that 20% of Whites do not own any cell phone whatsoever, compared to only 11% of Blacks, and 14% of Hispanics (p.1). In summary, these findings suggest that the person most likely to be using a smartphone is younger, non-white, and from a lower economic class. Given composition studies’ rich contribution to exploring, complicating, and mitigating the digital divide, the study of smartphone writing practices seems not just relevant but necessary to continuing to understand the digital divide.

Presented above are many statistics. And these are only a portion of what Pew has uncovered about internet access and mobile phone usage. What does this mean for writing teachers, researchers, and administrators? For many composition students, the writing that students do for personal and even for academic purposes is being done or can potentially be done on their smartphones. Smartphone usage appears to be correlated to demographic groups (income, age, and ethnicity). The smartphone, not just the laptop or desktop computer, could be the device of choice for many students when writing or at certain stages in the writing process, or when they are accessing information and reading. Moreover, students use these devices because
that is what they have available. It might seem counter intuitive to instructors who teach in computer labs, to writing program administrators and instructors who work in programs that have “bring-your-own-technology” initiatives, or to instructors who just cannot imagine doing certain activities on their mobile phones, but it appears that students could be using smartphones for academic purposes in certain circumstances. Students not only sit down in a computer lab or at a desk at home. They write on their smartphone perhaps at work, or outside of the house, or in a computer lab.

To highlight these unique practices, one can point at the emergence of “cell-phone novels” in Japan. According to the New York Times article “Thumbs Race as Japan’s Best Sellers Go Cellular,” 5 of the top 10 bestselling novels in Japan began as cellphone novels (par. 2). According to the article, cellphone novels are written out on their phones in text-message segments. These texts are then uploaded to blog sites. Visitors to the blog can offer comments and constructive feedback on the blog. Over time, the texts amount to a novel, which can be published in traditional book form. This is largely due to the fact that “The affordability of cellphones coincided with the coming of age of a generation of Japanese for whom cellphones, more than personal computers, had been an integral part of their lives since junior high school. So they read the novels on their cellphones, even though the same Web sites were also accessible by computer” (par. 11). According to Chiaki Ishihara, “an expert in Japanese literature at Waseda University who has studied cellphone novels,” “‘It’s not that they had a desire to write and that the cellphone happened to be there…Instead,…this tool called the cellphone instilled in them a desire to write” (qtd. by Onishi par. 12). This at the very least highlighted the seemingly counterintuitive writing habits certain people might have with their smartphones. Mobile writing devices, then, might provide very different exigencies, desires, products, and processes when it
comes to reading and writing practices compared with how these same students interact with websites or compose documents in, for example, MS Word or projects in PowerPoint.

**Previous tablet data sets**

While there have not been as many surveys about tablet ownership (mostly due to the fact that the tablet is a few years younger than the smartphone), Pew Research has found that tablet ownership is growing quickly. As of January 2012, 19% of Americans owned a tablet. That’s up from 2% in April of 2009 (Rainie, 2012, p. 1). The survey also found that while tablet ownership is statistically even across gender (19% of both male and female) and ethnicity (19% White and 21% for both African-American and Latino), a higher income corresponds to tablet ownership (36% of those who make $75,000 a year or more compared with 8% of those who make under $30,000). Tablet ownership also corresponds to education level, with 31% of college graduates owning a tablet, 18% of those with some college education owning a tablet, and 15% of those with only a high school education owning them. Lastly, tablets are typically owned by people that are younger—with 24% of those between 18-29 owning them and 27% of those between 30-49 owning them. The numbers drop significantly for older Americans, as only 15% of those between 50-64 owning them and 7% of those 65 and older owning them (Rainie, 2012, p. 1)

**Writing lives of college students**

Within the field of composition studies, Jeff Grabill and Stacy Pigg (2010) conducted a survey among students at Michigan State University, Elon University, Indiana University Purdue University-Fort Wayne, Lansing Community College, Leeward Community College, the University of North Carolina-Pembroke, and the University of Texas-El Paso in the spring of 2010 that continued the conversation in the field about what types of writing students do, how
they are writing, and with what technologies do students write with in the mobile age.\(^3\) While this study asked questions about all types of writing and did not focus on mobile devices or cell phones, the researchers did include these devices and the types of writing associated with them as answer options. This study found that:

- SMS texts…, emails, and lecture notes are three of the most frequently written genres…of writing
- SMS and academic writing are the most frequently valued genres
- writing in social networking environments [is] not valued highly
- students write for personal fulfillment nearly as often as for school assignments
- institution type is related in a meaningful way to the writing experiences of participants
- digital writing platforms—cell phones, Facebook, email—are frequently associated with writing done most often
- Students mostly write alone, and writing alone is valued over writing collaboratively (p. 2).

Smartphones are not just a technology to be dismissed. Mobile technologies like smartphones and tablets encourage new types of writing, writing practices, and collaborative practices. For composition to continue to expand its understanding of what writing is, how writing happens, and what the implications of writing are for pedagogy and research, the technological literacies enabled by smartphones need to be studied.

\(^3\) What made this survey so strong is that the schools represented a wide variety of demographics and included different types of institutions. For example, the University of Texas-El Paso is overwhelmingly Hispanic according to their demographics page (http://research.utep.edu/Default.aspx?tabid=44271), Leeward Community College is majority Asian or Pacific Islander (http://www.leeward.hawaii.edu/leeward-facts). And University of North Carolina-Pembroke’s student body is 16% American Indian and 31% African American (http://www.uncp.edu/uncp/about/quick_facts.htm). The breadth of this survey helped to ensure representation of many types of students.
Process to post-process

The beginnings of process

Process theory emerged mostly in the 1970s as a reaction to current-traditionalism. Process theory is usually broken down into prewriting, drafting, and revision, but these processes are typically seen as recursive and are not usually argued to be linear. Often, process-oriented writing programs incorporate portfolio-based assessment practices along with student self-reflection in their work to reinforce drafting and reflection. Process theory’s break with current-traditionalism was not sudden. While D. Gordon Rohman (1965) originally theorized modern notions of prewriting (an important part of process) in his essay “Pre-Writing: The Stage of Discovery in the Writing Process,” his work operated under the assumption of linearity and order, according to Nancy Sommers (p. 378). James Britton (1975) can also be criticized because their model of writing—conception, incubation, production—minimized “revision in writing…to no more than an afterthought” (qtd. by Sommers p. 379). Sommers concluded that while these models do advance the study of writing, “What the linear models…produce is a parody of writing. Isolating revision and then disregarding it plays havoc with the experiences composition teachers have of the actual writing and rewriting of experienced writers” (p. 379). While Rohman and Britton et al. made significant advancements in understanding writing as a process instead of just a product, Rohman’s and Britton et al.’s understanding of writing as linear, and Britton et al.’s failure to address revision practices (which according to Sommers run through the entire writing process, not just near the end), meant that these early process-based studies had deep flaws that had to be corrected.

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4 Many critics of process argue that process theory is linear, or that a good portion of it is, or that linearity is implied. Many process theorists, of course, deny this.
Much of process theory was about finding the best way to teach writing to a burgeoning college population of baby boomers that were a more diverse body of students than in the past (Ohmann 1976; Miller 2011). The current-traditional focus on grammar instruction and writing about great literature was not fulfilling the needs of the university of the late 20th century. Donald Murray (1972) stated that it is easy to think of writing as an immutable product if one spends time reading the works of such great authors like Shakespeare or Austen (p. 3). Reaching against the pedagogies of his day, Murray suggested writing be taught as “unfinished writing” (p. 4) and that teachers should teach the process of “prewriting, writing, and rewriting” (p. 5). Murray also had an important part in developing the persona of the writing teacher. For example, he referred to teachers as “coaches, encouragers, developers, creators of environments in which our students can experience the writing process for themselves” (p. 5). He also made the case that a student’s writing should be respected, thereby breaking with a long tradition of having students model their writing on others. Soon the process model was championed as a way for students to learn actively (Emig, 1977), that “writing as process and product possess a cluster of attributes that correspond uniquely to certain powerful learning strategies” (p. 7). Borrowing from Vygotsky, Emig (1977) wrote that writing is a “deliberate structuring of the web of meaning” (p. 12) and linked successful learning strategies to attributes of the writing process (p. 14).

Early critiques of process

But beginning with Emig, and continuing through other process scholarship, one can begin to see what would become a noticeable flaw with process theories: they tend to operate as a grand narrative that represents best practices and ways to control a person’s writing process to achieve better writing. Of course, process contributes greatly to our understanding of writing, but it also operates at times as a diagnostic about what’s wrong with writers and seemingly only
placing it as problems with writing as process. For example, Sondra Perl (1979), Nancy Sommers (1980), and Linda Flower and John Hayes (1981) all focused solely on problems with inexperienced writers’ writing processes. While these studies have made substantial contributions to writing scholarship, process theory perhaps attempts to use the writing process as the privileged way to understand writing by diagnosing problems with broad groups of people. However, their insights did prove valuable. Perl’s (1979) research revealed that writing processes of “remedial” college students are already deeply ingrained and that these students, when they arrive on campus, are not a “tabula rasa” (p. 38). Her research showed that parts of a student’s writing process can “facilitate writing” or “inhibit it” (p. 38). Sommers identified different revision strategies among experienced writers and inexperienced writers. The revision processes of experienced writers focused more heavily on global issues, such as audience, arrangement, development, adding, and deleting, whereas the revision processes of inexperienced writers focused almost exclusively on sentence level corrections involving spelling, grammar, mechanics, etc. Of course, process scholarship has many camps such as expressive, cognitive, social construction (Faigley, 1986; Fulkerson, 2004), but this overview is only meant to foreground some of the more general tenets.

**Post-process critiques of process**

A problem—as stated earlier—with process theory is that it considers writing a universal process (Bruech, 2002, p. 108; Kent, 1999), that process theory operates more as a grand narrative “systematiz[ing] something that simply is not susceptible to systematization (Olson, 1999, p. 8), and that it implies there is a right way to teach writing (Breuch, 2002, p. 118). Lee-Ann M. Kastman Breuch, in her JAC article “Post-process pedagogy: A philosophical exercise,” claimed that post-process moves writing from “a thing” (which is how she claimed process
scholars treat it) to writing “as an activity—an indeterminate activity” (p. 110). Thomas Kent, another post-process scholar, outlined three assumptions that post-process theorists have about writing: (1) writing is public; (2) writing is interpretive; and (3) writing is situated (Introduction 1). Because of these assumptions, it is impossible, according to post-process theorists, to have a grand narrative about writing because writing is too networked, too fluid to be considered “a thing,” and therefore it can only be seen as a highly unique and unstable activity. Often times, post process is itself critiqued for misrepresenting process theory such as saying process is focused on writing as “product-based” and saying process theory only asks only questions that are “how-centered” (Breuch, 2002, p. 106; Dethier, 2005, p. 89) when process theory is not those things. Then again, post-process is also misunderstood as meaning there is no process in writing (Dethier, 2005, p. 89). Similarly, some say the tenets of post-process “have been present in previous scholarship about composition pedagogy, alternative pedagogies, and pragmatic theories dating back to John Dewey” (Breuch, 2002, p. 118; Dethier, 2005, p. 89). While both camps contribute to our understanding of writing, the divide between these two camps is not a solid line and both sides share many common goals and assumptions. 5

Computers and technology in the writing process

How computer technology affects writing classroom ecologies

The relationship between composition studies and computer writing technologies goes back over 20 years. While the subject matter of these studies varies, this section focuses on scholarship involving the writing process and technology, software programs used for writing, and the influence of the Internet on researching practices in order to situate the dissertation project.

5 This “two compositions” literature review no doubt oversimplifies the conversation about process and post-process. It is meant to provide a “digestible” synopsis of process and post-process scholarship to provide a foundation for my later findings about writing processes.
Early on, there were debates in the field about whether computers should even be integrated, and if they could be, what effects would they have on writing and pedagogy. Knowing that technology is not a neutral tool that innately positively affects writing processes has been acknowledged in various scholarship. Janet M. Eldred’s (1991) *Computers and Composition* article “Pedagogy in the Computer-Networked Classroom” drew attention to the many considerations administrators and teachers need to be aware of when incorporating technology. She found that “technology doesn’t change anything unless the pedagogy is student-centered instead of technology-centered” (p. 47). Without proper care, merely putting computers in a classroom might not change anything about writing and learning, and could in fact make it worse. Her heuristic focused on whether the technologies writing teachers wish to incorporate encourage appropriate classroom participation. It also made clear that since there are so many programs and platforms to choose from, administrators and teachers need to be aware of the advantages and disadvantages these technologies bring to the classroom. With proper consideration and integration, technology can indeed change the dynamics of classrooms. Palmquist and Hochman’s (1998) study “Contrasts: Teaching and Learning about Writing in Traditional and Computer Classrooms” demonstrated differences in classrooms depending on whether they included computers. They specifically found that there are “significantly higher numbers of contacts with classmates and teachers” and that students do more writing in technology rich classrooms. In general, these two pieces, while dated, show that technology is indeed worthy of investment by writing program administrators and teachers.

More recently, *Educause Quarterly* published a study focusing on classrooms that used laptops instead of computer labs. Efaw, Hampton, Martinez, and Smith’s (2004) article found several advantages to using laptops over desktops:
Integrating laptops into classroom instruction found statistically significant improvements in student learning. Laptops offer a more intimate, personal atmosphere in the classroom, not present with the towers and fixed situations of a computer lab. Also, in most classrooms the laptop gives the teacher more flexibility in the configuration. (p. 17)

Overall, carefully integrating technology, whether that technology was desktops or laptops, has been shown in the past to improve learning and writing by encouraging active learning and student motivation.

**How computer technology affects revision practices**

Several articles have specifically discussed revision and how revision is affected by technology (Dave & Russell, 2010; Haas, 1989; Hartley, Howe, & McKeachie, 2001; Hult, 1988; Jones, 2008; McGee & Ericsson, 2002; Owston, Murphy, & Wideman, 1992). These studies mostly show that technology can indeed encourage and improve global revision practices with proper integration and care into the classroom, but often if let to their own devices their effect on the writing process could conflict with what composition scholars believe to be best practices. Tim McGee and Patricia Ericsson’s (2002) *Computers and Composition* article “The Politics of the Program: MS Word as the Invisible Grammarian” focused on how programs and technology influence and intervene in student composing, using the popular Microsoft Word writing program as an example of what teachers have to be aware of. McGee and Ericsson (2002) echo the case made by Cynthia L. Selfe and Richard Selfe (1994) in “The Politics of the Interface,” that writing instructors need “to teach students and ourselves to recognize computer interfaces as noninnocent physical borders...cultural borders...and linguistic borders” (p. 495). McGee and Ericsson (2002) similarly analyzed MS Word, just as Selfe and Selfe (1994) had
analyzed computer operating systems. Having students passively use MS Word could lead to revision habits that encourage surface changes because of MS Word’s exclusive focus on grammar, spelling, and mechanics (p. 67-69). They ultimately suggested ways that MS Word can be used as an effective pedagogical tool and drew attention to the “default settings” of any piece of writing technology. McGee and Ericsson’s (2002) article arrived at similar conclusions as Christine A. Hult (1988) did in her article “The Computer and the Inexperienced Writer.” Hult (1988) was writing much earlier than McGee and Ericsson (2002). Just as technology was being incorporated and critiqued, she argued that technology does not always help student writers write better or engage more appropriately in the writing process. While her research has implications for various parts of the writing process, she directly focused on how word processing “programs may potentially inhibit the very revision strategies we attempt to teach our inexperienced student writers” (p. 30).

Further scholarship has been done on word processing by Anish M. Dave and David R. Russell (2010). In their Research in the Teaching of English article “Drafting and Revision Using Word Processing by Undergraduate Student Writers: Changing Conceptions and Practices,” the authors asked the following questions about students and revision:

- What are the ways in which students define a “draft”?
- What is the relationship between the number of drafts and revision?
- What is the relationship between word processing and revision, global and local?
- What is the relationship between revision and printing? (p. 412)

Their study found that despite the near ubiquity of students using up-to-date word processors, most students “reported only doing revision that consisted of changing specific words or sentences and proofreading” (p. 427)—similar to what Sommers found in 1980. In other words,
advances in technology have not made students more likely to revise globally. The study also found that how students define a draft is correlated to their global revisions. Students who do more global revisions tend to think they have done more drafts, while those that focus on making sentence level and word level changes tend to think they are working on one draft the entire time. This contradicts the “process approach…that producing more drafts facilitates global revision” (p. 427). Scholars may have been putting the cart before the horse in terms of the relationship between global revision and drafts. A theoretical claim made by Dave and Russell (2010) is that “whereas in the paper age we could demarcate between drafts and count them, today what a draft means is far more variable, complicated, and fragmented….The unit of revision for the process approach—the draft—may be undergoing a post-modern transformation in the e-age” (p. 428). Their findings have implications for how process, revision, and drafts are taught and discussed in classrooms where process theory is still the most writing pedagogy (p. 430). Similarly, one of the goals of this dissertation project is to seek what happens to process concepts, such as a draft, when different tools such as smartphones and tablets are used significantly in the writing process. Using smartphones and tablets at any point in the writing process might change aspects of the writing process, such as invention, research, and revision practices.

In John Jones’s Written Communication article “Revision in Online Writing,” he studied ten “Featured” Wikipedia articles and how they were revised by Wikipedians. What he found about how the articles were revised challenged some of the assumptions about previous revision studies. He concluded that, for Wikipedia articles, the idea that experienced writers make global changes and then local changes to produce a high-quality text is not applicable to every writing situation but “depends on the structural features of the writing situation in question. That is, it does not necessarily hold for writing outside of the traditional domains of revision studies:
academic and business writing” (p. 283). Jones believed we should reconsider previous scholarship by reinterpreting the revision practices of experienced writers because while they might have been “writing ‘poor-quality’ texts” they might have been “instead writing texts that met the ‘quality’ standards of a different context” (p. 283). He concludes that many of these inexperienced writers might have been revising for a certain audience not taken into account by previous revision research scholars, “possibly that of the grammar-conscious U.S. middle and high school writing curriculum” (p. 283). The important idea from this article is that revision practices are not universal but deeply intertwined with the writer’s notions of audience and the structural parameters of the technology and/or digital space the writer is working in.

**How computer technology affects invention practices**

These studies show that the technology used in writing classrooms can have various effects on the writing process. While these studies focus on revision, it is important to show that other parts of the writing process are affected by technology. Understanding how technology has affected invention appears to be understudied. However, Tina Bacci’s (2010) article “Invention and Drafting in the Digital Age: New Approaches to Thinking about Writing” suggested that instead of having students invent using word processor approaches, teachers can incorporate programs that emphasize multimodal means to create both text-heavy and multimodal projects. This paper offered best strategies by employing “Web-site Design Programs for Rhetorical Invention” (p. 76), creating a “PowerPoint for Drafting and Workshopping” (p. 77), and using “Excel for Idea Development and Organization” (p. 79). While many writing programs can be so fixated on using word processors as the default writing tool, “Asking students to compose research notes in Web-site design programs or to draft papers in PowerPoint or Excel offers the
kind of unique modes of instruction that pen and paper or standard word-processing tools cannot simulate” (p. 80).

**How computer technology affects research practices**

The effects technology has had on research practices, like it has had on other writing practices, have been significant. Not only have databases been digitized, but the Internet, thanks to search engines, wikis, blogs, etc., puts an enormous amount of data out there to be accessed and created. While the expanse and accessibility of this information has numerous benefits, it has also complicated the research process for students. Madeleine Sorapure, Pamela Inglesby, and George Yatchisin (1998) advocated developing and teaching a new heuristic to evaluate web pages since the criteria teachers and students have used in the past is based on doing print-based research (p. 410). They argued that Internet research counts as a new literacy, or at least enlarges our understanding of literacy. By incorporating a close reading of websites, teachers can help students evaluate sources and incorporate them into their writing. Michelle Sidler’s (2002) article “Web Research and Genres in Online Databases: When the Glossy Page Disappears” similarly argued that students need to be taught to evaluate context along with the content of online sources. She also provided a heuristic to map online spaces that are used for online research (p. 357).

In general, these two sources highlighted a concern that print-based research practices are inadequate for conducting online, digital research. If smartphones and tablets are used to research, how do these devices encourage or discourage ways of doing research compared with research practices on a laptop or desktop? What type of research is done on smartphones and tablets, where is this research done, how is it done, and why do students choose to do research on smartphones and tablets as opposed to laptops or desktops? These questions become important in
helping the field establish best practices and understand students’ literacy practices when it comes to Internet research.

Finally, Jim Purdy’s (2010) *Computers and Composition* article “The Changing Space of Research: Web 2.0 and the Integration of Research and Writing Environments” highlighted how research and writing have been often explicitly separated and are discussed as “linear processes”6 (Engle, 2006; Kirszner & Mandell, 2007; Tensen, 2007) but that “Web 2.0 technologies showcase how research and writing together participate in knowledge production” (p. 48). The pedagogical imperative for Purdy in this article was that “including Web 2.0 technologies in composition courses as objects of analysis and as writing and researching resources offers a means to bridge the gap between students’ online proficiencies and academic writing tasks” (p. 48). Practically speaking, this could potentially mean taking a platform like an RSS (Rich Site Summary) feed or a blog, and personalizing it in a way that lets students archive materials to come back to for later research. This might “encourage novice researchers to apply their online proficiencies and experiences to academic work” (p. 56) and therefore link students’ digital literacies with the literacies of academic research. He also argued that incorporating Web 2.0 features like a “discussion page where users comment on, share ideas about, and offer suggestions for a particular image or article” into research databases like JSTOR “would be valuable not only for authors and artists, but also for researchers consulting those texts” (p. 56). This made the imperative not just pedagogical but focused it on the production of content.

Previous scholarship has focused on writing practices and technology, specifically using word processors and other software, integrating laptops, and maximizing the potential of online spaces. Granted, many of these studies have rightfully also critiqued the spaces as not just being

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6 These sources are the Cornell University Library and two text books commonly used in writing classrooms. No doubt there are many other library and textbooks that teach and encourage research in a similar way.
a boon to improving writing but as also coming with their own specific functional, critical, and rhetorical problems. However, there has been little scholarship on mobile devices like smartphones and tables and this leads to questions about how writing practices differ and are affected by these smaller devices and the platforms (apps) they use.

**Mobile devices in the writing process**

**What are mobiles?**

While smartphones and tablets are specific types of mobile devices, one might ask, “what is mobile?” Mobiles, for the purposes of my project, are any type of digital device that can be transported with relative ease. Specifically, this dissertation focuses on mobiles considered to be tablets and smartphones. It is important to note that what is considered mobile is, to a large extent, subjective. New devices are coming out often. Similarly, a concept related to mobile, wireless—which only a few years ago generated an entire book, *Going Wireless* (2009)—is already falling to the wayside as wireless technology becomes the prevailing standard. Nevertheless, none of these terms should be taken for granted and it is important to seek connections between theories of technology and writing, literacies, and effective writing pedagogy.

**Issues involving mobiles as a writing tool**

Scholarship on mobiles can be divided into texts that are mostly critical of using these devices for functional and critical reasons and those texts that generally promote the advantages of these devices. Some of the research about mobiles as a writing tool comes from English as a Second Language (ESL) and English as a Foreign Language (EFL) scholarship. Language acquisition scholars Patricia Thornton and Chris Houser (2002) pointed out functional

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7 Cellphones are also mobile. To keep the survey more manageable, I specifically used the word smartphone. However, in the literacy narrative and interview with the student in chapter 4, cellphones became more prominent than smartphones due to that student’s ownership of a cellphone instead of a smartphone.
disadvantages using small screens and in using “inconvenient keyboards” (p. 45) typically found on small mobiles such as smartphones. Another study conducted by Glenn Stockwell (2008), “Investigating Learner Preparedness For and Usage Patterns of Mobile Learning,” showed that students typically preferred using desktop PCs to accomplish language exercises instead of mobile phones. When these students did select mobile phones, they found that these exercises took longer—much to the frustration of the students (2008). The significance of these studies is not to show that smaller mobile devices (like smartphones and tablets) should be rejected, but to highlight that “Just as teachers needed time to find appropriate times and places for using computers, the same could be said about the need to find a time and place for mobile phones” (p. 107) in educational settings. These conclusions related to Amy C. Kimme Hea’s (2009) chapter in her edited collection *Going Wireless*, where she cautioned against “assuming the position that wireless laptops and mobile learning…are clearly beneficial, always desirable, and capable of bridging the digital divide” because this thinking “leaves us little room to develop critical wireless and mobile pedagogies” (p. 200). She further warned, just as previous computers and writing scholar Janet M. Eldred (1991) and others have done, that glibly spouting the benefits of wireless and mobile technologies leads “to the assumption that wireless and mobile technologies will foster a natural learning environment, erase boundaries of learning for students and teachers, and free all of us from the failings of our current educational systems” (p. 200-201). Integrating mobile and wireless devices into pedagogy not only has to be done critically, but it has to be considerate to issues that are perhaps unique to mobiles and wireless. One of these issues regarding mobile and wireless technologies, as pointed out by Mya Poe and Simson Garfinkel (2009), can arise involving security and privacy. As more and more universities and writing programs incorporate these technologies into their curriculum, they might force administrators
and teachers to reconsider curricula and policies. In regards to amending policies, Poe and Garfinkel (2009) ask: “Do the proposed [security and privacy] policies allow for pedagogical innovation while preserving privacy and security? How will these policies be articulated to faculty and students, and how will such policies be enforced?” (p. 181). This is merely one example of scholarship that calls for scholars, administrators, and teachers to develop a critical stance for incorporating these devices into writing programs.

**Incorporating mobiles in the classroom**

The issue of when, how, why, and where to incorporate mobile devices is not black and white. Previous studies on mobile devices highlighted many tangible benefits. It was not long ago that incorporating computers into educational settings and writing classrooms was under scrutiny. But, as Glenn Stockwell (2010) stated in another of his articles, “Using Mobile Phones for Vocabulary Activities,” “Where once many students and teachers may have held a less than positive view towards computers for learning, we now see computers used with learners of all ages, and in the spirit of ‘digital natives’ as coined by Prensky (2001), there are learners who perceive learning through computers as more natural than through more traditional means” (Stockwell, 2010, p. 95). It is easy to predict a future where students might also feel that writing only on a desktop or laptop could be seen as stale.

A classroom that incorporates mobile and wireless devices can have many advantages. As colleges and universities compete for students’ tuition dollars, high-quality instructors, and grant money, writing programs that incorporate tablets and smartphones could have an advantage in recruiting and acquiring students, teachers, and grant money. Will Hochman and Mike Palmquist’s (1998) study “From Desktop to Laptop” looked at classrooms that incorporated wireless technology and compared it with results of earlier studies, such as the study done by
Dean, Hochman, Wood, and McEachern (2004). Similar to the previous studies, the classrooms with wireless laptops increased collaboration among students, student-to-teacher discussions, and “reduced the extent to which…technology dominates the classroom space” (p. 127). They also noticed that there were few functional problems with using wireless laptops as opposed to using school provided desktop computer labs. One wonders what future studies will find as researchers document the advantages and disadvantages of classrooms that incorporate mobile technology to some degree as opposed to those that do not. Due to a variety of factors, this dissertation does not go that far, but it does perhaps lay groundwork for a future study examining classrooms with and without mobile technology.

If scholars look at process and post-process theories and understandings of writing pedagogy that rely on laptop or desktop technologies as having explanatory power to explain writing, they should then question how mobiles affect these descriptions and how these descriptions affect understandings of mobile writing. There are many potential and fruitful questions that can be asked:

- To what extent are process theories applicable to the writing done on mobiles?
- To what extent is process a grand narrative?
- How do students navigate these spaces in order to compose a written product?
- Is the final product even a product?
- Do these writing technologies allow teachers and students to break from previous writing pedagogical narratives provided by process and current-traditionalism?

Similarly, in what specific ways do these devices affect specific parts of the writing process (or perhaps it is unfair to even consider them “parts,” which implies separation, and instead see these parts as deeply embedded in one another, recursive, nonlinear, and constructions).
Overview of study

While there have been previous studies about the relationship between technology and writing, none to my knowledge have specifically explored the relationship between writing practices and the technologies of smartphones and tablets. This dissertation is a mixed method study combining a quantitative, RAD (repeatable, aggregable, data driven) methodology (Haswell, 2005) focusing on survey data and using qualitative interviews (Selfe & Hawisher, 2012) in order to directly incorporate student and teacher voices into the project. The outcomes of this project contribute to existing survey data sets of how students use tablets and smartphones and adds to previous digital narratives projects, therefore providing the discipline of composition studies with a better understanding of the relationship between writing and smartphones and tablets. These relationships could then help theorize and set into practice dynamic pedagogies driven by these new data driven theories.

This project provides two data driven chapters—relying on surveys and interviews—that fit into the relevant conversations in the field of composition that have taken place around the topics of technology and writing. Another goal of this project is to generate more interest in exploring the smartphone and tablet as a writing tool as well as identify how it is used among students and promote it as a potential but complicated pedagogical tool. Table 1 on the following page sums up the research questions, methods, and methodologies of the project.
Table 1

*Research Questions, Methods, and Methodologies*

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<th>Questions</th>
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<tr>
<td>How is the relationship between technology and writing being mediated by smartphones and tablets?</td>
<td>Survey</td>
<td>Quantitative, RAD</td>
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<tr>
<td>What types of writing and research/reading are students doing on smartphones and tablets?</td>
<td>Interview</td>
<td>Qualitative</td>
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<td>How do students write differently on smartphones and tablets compared with desktops and laptops?</td>
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This study surveys students taking a research writing course at a mid-sized Midwestern public university. This sample size will consist of basically one fourth of the university’s student population. This study also surveys composition instructors in this writing program. The surveys were distributed at the beginning of Spring Semester 2013 and an interview subject was recruited through my survey. This dissertation, then, relies heavily on student (and instructor) data. The interviews took place over the course of the Spring Semester 2013, allowing for the student to be deep into the research writing course so that they not only can answer questions about previous writing experiences and questions about non-academic writing practices (e.g. blogging, microblogging such as Facebook or Twitter, Wikipedia editing, texting) but also could also draw academic writing practices via the current research writing class they are taking.

While part of this project is about paying more attention to smartphones and tablets as writing tools and as digital literacies that complicate our previous understandings of process and students’ digital literacies, it is also about drawing more attention to using quantitative research in the field of composition and as a way of studying specifically smartphones. Richard H.
Haswell (2012) wrote, “WPAs need to make certain administrative decisions for which specific information is crucial, or need to deal politically with certain stakeholders who are swayed by numbers—deans, legislators, cross-campus colleagues, the public” (p. 186). This project, then, makes a methodological statement by generating crucial, quantitative information for these situations by extending conversations in the field about smartphones, tablets, writing and revision practices, and research writing practices.

While the survey portion of the project is characterized as quantitative, I am also aware of Cynthia L. Selfe and Gail H. Hawisher’s (2012) qualifications of quantitative methods and methodology. To quote their qualifications of statistics as a way to generate knowledge:

> Most researchers recognize that large-scale statistics provide one picture of salient educational trends, but such a picture, as Donna Haraway notes, can prove problematic if it seduces us into the “God Trick (584), the arrogant and mistaken belief that we can know objectively, completely, and transcendently. If we, as researchers, depend solely on such information, we tend to miss the human and very personal, face of social, cultural, economic phenomena that so fundamentally shapes the project of education, the nature of institutions, departments, and classrooms. We miss the powerful, vernacular sense of what social change looks like from the perspective of individuals, in their own experiences and lives, in their relations with other humans.” (p. 1)

Keeping Selfe and Hawisher’s characterization of statistics and “the project of education” in mind, this dissertation creates a broader picture that incorporates exchanges with students and teachers by interviewing them in “semi-structured” situations “in which all participants—researchers and informants—understand that they are engaged in mutually shaping meaning” (p. 1).
Dissertation summary

Chapter summary

This first chapter has situated my project in previous scholarship, defined terms used in my project, stated my research questions, and explained how the project will contribute to the field. It also provided an overview for how the dissertation intends to be organized.

The second chapter will detail the methods and methodology of the dissertation. It will state and explain the research questions in greater detail, outline the methods of data collection, explain the methods used to code the data, and provide the rationale for using these methods of data collection and analysis. During the 2012 Conference on College Composition and Communication, Malea Powell, Paul Prior, and Rebecca Moore Howard all gave talks on the relevance of narrative, activity theory, and quantitative methodologies—respectively—in composition. After seeing these three talks, I decided that all three of these methodologies are each powerful frameworks to make knowledge claims for composition studies. In this chapter, I will address the types of questions these methodologies can tentatively answer, some of their weaknesses, and then justify the use of the mixed methods and methodologies (Quantitative, Qualitative, and RAD) and methods (survey and interview) to answer the questions this study explores. The second chapter will also discuss literature that helps to justify and model the surveys and interviews for this study. The chapter will conclude with a description of the HSRB process and the research site for the study, which could have implications or limitations in terms of the data found.

The third chapter will narrate the student and teacher survey data and analyze these findings. I will organize these findings thematically, depending on what themes arise from the coded data. The analysis will be compared with other relevant, contemporary studies and
extrapolate imperatives from the data that is relevant for composition teachers and administrators.

The fourth chapter will narrate and analyze the student interview to provide a technology literacy narrative and a detailed description of the student’s writing process over the course of one semester, focusing on the practices of writing a research paper and technology use. The technology literacy narrative provided by the student will be compared with other technology and digital literacy narratives and scholarship to determine how the interview data of this dissertation build upon previous ones.

The fifth chapter will highlight my findings and discuss future research directions that can be gleaned from my results and from my choice of methods and methodology. I suppose that every dissertation could be viewed as a pilot study, and while I intend for my results to stand on their own, I will speculate on future studies that I hope will be carried out by myself or others that build off of my findings. I also wish to draw attention to the limitations of my findings because of the research site, methods, and methodologies that I used.

Conclusion

This dissertation seeks to better understand how writing and reading practices are complicated on tablets and smartphones, and how students and teachers are already integrating and using them for freshman composition. While much attention has already been given to and many arguments have already been made when it comes to the relationship between desktops and laptops, this dissertation aims to draw attention to how tablets and smartphones enable new writing and reading practices that perhaps challenge previous assumptions and claims writing pedagogies rest on. This dissertation, then, pursues how writing as an activity changes when the
technology changes and also investigates how academic writing practices are transformed by extradisciplinary writing practices encouraged by mobile devices.
CHAPTER II. METHODS AND METHODOLOGIES

Research methods should be typically driven by the research questions under consideration: i.e., method X would be best to address question Y. This would be in opposition to methods or methodologies being chosen because the researcher believes that certain methods or methodologies are inherently superior regardless of context. Granted, besides the questions under consideration, there are also time constraints, institutional restraints, monetary factors, and other factors that could affect the type of method used.8

Positioning the researcher and the methods and methodologies of the project

Defining method and methodology

Before going further, it is important to define methods and methodologies. I chose to define method and methodology in the same way that Gesa Kirsch & Patricia Sullivan (1992) do in Methods and Methodology in Composition Research. They defined “method as a technique or way of proceeding in gathering evidence, and methodology as the underlying theory and analysis of how research does or should proceed” (p. 2).

Arguing in favor of mixed methods and methodologies

Composition is a field where there are many different methods and methodologies for producing knowledge. Some have argued that this diversity of research methods is a detriment to our field because they can divide scholars into camps, encourage scholars to talk around one another instead of with one another, and define the discipline as humanities based or social science based. On an even more practical level, teaching a diversity of research methods can strain the focus and thoroughness of a graduate program charged with preparing the next generation of writing researchers. But one can also argue that a variety of research methods can

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8 Some other factors could be the technology and money available, one’s experience and support for securing grants, and one’s mentorship during the pivotal years of graduate education.
help broaden the scholarly picture and help researchers avoid a “god’s eye view” line of argumentation where the data speaks for itself. Similarly, multiple research methods and methodologies can help scholars convince other stakeholders of the relevance of their data/research for the program or university as a whole. Janice M. Lauer (1993) wrote in her chapter in *Defining the New Rhetorics* that since literacy is such a broad and complicated subject of study, there needs to be many ways to study literacy. She focused in on 3 ways to study it: historical, rhetorical, and empirical (p. 45). Lauer gave a brief history of the genesis of composition studies, which she defined as “a new rhetoric devoted to the multimodal study of written discourse and its facilitation” (p. 44).⁹ Composition studies’ research questions were unique because composition and rhetoric scholars were researching topics never before taken up by other fields, including “writing dysfunction, nonliterary discourse, construction of texts, [and] the political and social contexts of writing” (p. 46). Lauer’s chapter suggested that multiple—or multimodal—research methods have always been at the heart of composition studies and so the variety of research methods within the history of composition is a part of the discipline’s tradition. I, like Lauer, argue that while concerns about the diversity of methods are legitimate, they do not trump the claim that a diversity of research methods is healthy for composition studies for the following reasons:

- it can help scholars trained in the humanities or the social sciences to become aware of other ways of generating knowledge,
- it can encourage scholars to use a variety of methods to shore up their claims instead of just relying on one way of producing knowledge claims,

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⁹ Here, multimodal was not being used in its traditional sense as a product of discourse, but as a way to use multiple methods to study discourse.
• it can promote the feminist and postmodern values that a variety of ways of making knowledge is legitimate,
• it can encourage scholars to target their work to specific stakeholders (therefore forcing scholars to consider audience),
• it can make scholars aware of the benefits and drawbacks of knowledge making methods and claims,
• it can prevent the field from being narrowed to only a few or one method/ology for making knowledge— which is dogmatic and authoritarian and relies on Platonic truth with a capital “T” epistemologies,
• it can highlight diverse methods as always being a part of composition studies and therefore the historical nature of composition studies is to embrace all methods.

Mixed methods and methodologies are not necessary. In fact, most projects would probably benefit from more precisely using one method and methodology. However, larger projects can approach topics, issues, and research questions more thoroughly if mixed methods and methodologies are effectively used.

**Research stance**

Methodologies can be driven by a researcher’s politics, loyalties, prior education and experience, and philosophical stance favoring one type of epistemology over another. Jeffrey T. Grabill (2012) in his chapter in *Writing Studies Research in Practice: Methods and Methodologies* developed the word “stance” further. He stated, “By ‘research stance,’ I mean something like a ‘position’ relative to issues like purposes, goals, and methods for research” (p. 215). The stance is then affected by one’s research identity by asking “Who am I personally? as a research? in relation to my discipline,” by asking what the purpose of the project, “Why
research?”, and by inquiring in “questions of power and ethics” (p. 215). It is my own conviction that, in regards to empirical knowledge, no method or methodology is necessarily better at producing knowledge than another. It is valuable, though, that a researcher provide a genealogy (or discussion) of his or her underlying methodology and an explanation of how the project’s methods and research questions mesh. The first part of this chapter describes a genealogy of quantitative methodology and qualitative methodology in composition studies that is relevant to this project in order to justify and orient readers to these methodologies and why this dissertation uses them. Following this, there will be a discussion of the research questions and the specific methods (survey, interview, and activity log) used in the dissertation. The chapter will then describe the research site, present a specific outline of participation and data acquisition for the dissertation, and finally discuss the limitations of the project. The Human Resources Review Board documents (HSRB) can be found at the very end of the chapter.

**Quantitative methods**

Richard H. Haswell (2012) has been one recent advocate—among many (Charney, 1998; Charney, 1996; Barton, 1997; Jamieson & Howard, 2012)—for greater attention to quantitative methods. He has championed that many questions the field of composition studies has can be best answered through quantitative methods. But quantitative methods have, at times, been disparaged by the profession. Haswell (2012) recounted this historical skepticism and rejection of quantitative methods—even when scholars are seeking hard data—with an anecdote from the writing program administrator listserv:

One respondent [to an inquiry about quantitative data] mentioned Steve Street, who declared that teachers should be “leery of diagnosing the ills of higher education with the tools of statistical analysis.” The teacher-student “interface” is neither experienced nor
communicated via numbers, says Street. When you step in poop, “you reach for a stick, not a calculator.” (p. 2)

This skepticism and rejection of quantitative data originates from different places. Since most scholars in rhetoric and composition have backgrounds in the humanities, quantitative data is sometimes rejected as “antihumanist” (Haswell, 2005, p. 200). Other critiques have come from scholars who criticize the positivist philosophy that is in the intellectual genealogy of quantitative research. There are also assumptions that because the trend in education over the last several years has been to increase standardized testing and generate data about (or quantify) students, teachers, and schools that education is being turned into a business model driven by numbers. In other words, there could be anxiety among teachers and others invested in education about the extensive data collection through testing of students. According to Sarah J. McCarthey’s (2008) article “The Impact of No Child Left Behind on Teachers’ Writing Instruction,” No Child Left Behind policies have affected writing instruction and teacher morale in often described negative ways, particularly for teachers in lower income school districts (p. 462). It would not be much of a stretch to argue that there is often an apprehensive and reactionary attitude to other data-driven bureaucratic and corporate structures that are influencing education.

Another critique comes from confusion about the difference between “data” and “facts” (Haswell, 2012, p.5). Jeanne Fahnestock’s article (1986) “Accommodating Science: The Rhetorical Life of Scientific Facts” shed light on these concerns when it was published. Quantitative methods and data are often seen as scientific, and the humanities have critiqued these narratives of science, Fahnestock (1986) demonstrated. In her article, she showed that scientific information (data) is transformed when going from one audience to another, changing
it from one genre to another. This is especially true as data that has been contextualized in scientific journal articles pass into popular accounts of science as undisputed facts. Necessary qualifications of the data in journal articles are often dropped when these findings circulate in textbooks or in popular media (Fahnestock, 1986). Quantitative data is also susceptible to these problems, hence the move from “data” to “facts.”

But quantitative data is usually able to provide generalizable, replicable, and aggregable data. While this dissertation uses survey data, there are many other types of methods that can be quantitative, e.g., textual analysis, ethnography, prediction, quasi-experiment, and meta-analysis (Lauer & Asher, 1988). The major concern that Haswell pointed out in his article “NCTE/CCCC’s Recent War on Scholarship” was that many journals in composition studies have engaged in a systematic rejection of quantitative data. In addition, these journals have often favored scholarship that is not replicable, aggregable, or data-supported (RAD). So the “war” on scholarship not only includes quantitative data, but also qualitative scholarship that is also RAD. This is not true for all journals in composition studies. Haswell highlighted Research in the Teaching of English (RTE), Written Communication, and College English as journals that have engaged in both quantitative and RAD scholarship (Haswell, 2005).

While quantitative data can inappropriately be used in arguments to implicitly—or even explicitly—argue “a god’s eye” perspective of the situation that is privileged above all others (Selfe & Hawisher, 2012; Haraway, 1988. p. 584), as Donna Haraway (1988) noted in “Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective,” researchers and scholars must balance the humanities based radical critique of science and the implications of seeing science as a rhetoric with science as a practice that helps us understand the
real world.\textsuperscript{10} I believe this dissertation is in a position to contextualize the quantitative data as both an understanding of the “real world” but also as rhetoric and context dependent. I do not think that seeing quantitative in both of these ways is problematic or mutually exclusive. The specific survey methods and data of this dissertation will be discussed in a later section in this chapter, “Limitations.” But at this point, the chapter will turn to a discussion on the other half of this dissertation’s mixed methods: qualitative methods.

\textbf{Qualitative methods}

If the criticisms of quantitative research are that it is too focused on the numbers so that it misses out on important context, qualitative research attempts to mitigate these concerns (Blakeslee & Fleischer, 2007) by explicitly drawing attention to context and nuance. The specific quantitative method this dissertation uses—survey—generates much data. But the survey itself cannot realistically provide enough nuance to properly understand the phenomena of writing and reading/research practices for writing teachers and administrators to make smart, ethical, and practical decisions about their classrooms and programs. While qualitative research typically has a population size ($n$) of 1 or another small amount, this does not mean that qualitative studies cannot be replicable, aggregable, or data driven. Haswell (2005) suggested that case studies, as long as the “participant is randomly chosen or is chosen to represent a specific background,” can indeed be RAD. Case studies, he argued, “where [a] participant is not randomly chosen or where background is so vague that comparison with other participants cannot be made meaningfully” (p. 208) are problematic, not because the population size is 1, but because the latter study is difficult to replicate properly.

\textsuperscript{10} Richard H. Haswell (2012) in his piece in \textit{Writing Studies Research in Practice: Methods and Methodologies}, while recognizing the many scholars’ averseness to quantification, decided to counter their arguments with the assertion that “numbering obeys ordinary human impulses….quantitative data gathering and data analysis are an everyday way that humans perceive and act; that in research procedures, they involve straightforward and useful functions; and that in outcome, they have benefits that uniquely serve practitioners and researchers” (p. 186-187).
Keeping in mind that the dissertation has to be big enough to make significant claims but not too expansive as to be a longitudinal study, I have chosen to supplement my quantitative data with interviews about writing processes and interviews to help create a technology literacy narrative. To guide the interviews, this dissertation draws heavily on Selfe and Hawisher’s (2012) “Exceeding the Bounds of the Interview: Feminism, Mediation, Narrative, and Conversations about Digital Literacy.” These interviews are being used to help understand, in the words of Selfe and Hawisher, “the powerful, vernacular sense of what social change looks like from the perspective of individuals, in their own experiences and lives, in their relations with other humans” (p. 1). Selfe and Hawisher then described, what is to me, the nature of data and data collection in their feminist-based style of interviews:

The kind of intimate and richly situated information…emerges most productively from interviews, especially when such exchanges are structured, or semi-structured, as conversations…in which all participants—researchers and informants—understand that they are engaged in mutually shaping meaning, and that such meaning is local, fragmentary, and contingent. (p. 36)

This feminist-oriented interview method puts the researcher in a less authoritative position and can shed light on biases the researcher has by letting the interviewee teach the interviewer instead of having the interviewer quiz the interviewee and lead the interviewee along as if they were taking a survey. This is an important distinction in methodology between surveys and interviews. During the interviews, the interviewee should have more control of the direction of conversation and speak in a more “stream-of-consciousness” manner. The survey, meanwhile, is created and disseminated (and is good for foundational data collection), and while it generates
important data it does not lend itself to the “local, fragmentary, and contingent” (p. 36) data that the interview provides.

The interviews will help construct technological literacy narratives focusing on the transition taking place (or not taking place) between desktop and laptop computers to mobile devices such as tablets and smartphones. These narratives focus on this transition, but are also organic and engage with the participants’ history, socioeconomics, and other variables and issues necessary to tell as complete a story as possible. This dissertation hopes to reinvigorate and add to previous technological literacy narratives (Ching & Ching, 2012; Hawisher & Selfe, 2004; Kirtley, 2012; Ruecker, 2012) by focusing on an as of yet unexplored intersection of desktop and laptop literacies and practices with those of tablets and smartphones. Together, these quantitative and qualitative methods generate data that guide computers and writing theories, methods, and pedagogies into a new ecological landscape that leads to new understandings of writing practices.

The specifics of the project

Research questions and methods

This dissertation’s research questions were developed following a full-day workshop I attended at the 2012 Computers & Writing Conference in Raleigh, North Carolina titled “Lost and Found in the Wonderland of Mobile Learning.” This workshop introduced me to new activities, problems, and topics in composition involving mobile devices and the learning that takes place on them. I coupled this with my own reading in academic journals and popular media regarding research being done in many disciplines about differences and similarities between mobile computing practices with desktop/laptop computing practices in political science (Smith, 2011), second language learning (Sykes, Osko, & Thorne, 2008), and journalism (Dean, 2012).
While the field of composition has done extensive, solid work in regards to writing and technology over the years (e.g., word processors, social media, ethical issues, classroom architecture), there is a salient gap when it comes to research in regards to tablets and smartphones. Part of this might have to do with the fact that the profession is smaller than many other fields, and part might have to do with the fact that technology moves at a faster clip than the process peer-reviewed journals and university press books go through. After all, tablets and smartphones have only been around for a few years. Regardless, composition studies has to explore more extensively how students and teachers use these devices for both academic and non-academic purposes. This can help counteract assumptions, folklore, and anecdotes about tablets and smartphones that pass as truth currently.

I have developed the following research questions in order to explore the relationships between students, teachers, and writing with tablets and smartphones:

- What types of writing, research, and reading are students doing on smartphones and tablets?
- How are these writing, research, and reading practices mediated and situated?
- How do students write, research, and read differently on smartphones and tablets compared with desktops and laptops?

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11 While there have not been many articles on tablets or smartphone usage as it affects the composing process, there have been articles that have explored composing practices and other digital writing platforms. Haas and Takayoshi (2011) analyzed the language features of IM messaging, arguably calling this genre a new type of language. In Buck’s (2012) article “Examining Digital Literacy Practices on Social Network Sites,” she examined student literacy practices on social networking sites to “better understand the literacy practices that students engage in outside of the classroom and the experiences they bring to their academic writing” (p. 9). Purdy (2010) argued that databases should incorporate Web 2.0 features into their platforms while also arguing “that including Web 2.0 technologies in composition courses as objects of analysis and as writing and researching resources offers a means to bridge the gap between students’ online proficiencies and academic writing tasks. DeVoss and Porter (2006) discussed the ethical influence of “emergent ethic of” filesharing and its potential implications for academic copyright norms and policies. And Roozen (2010) extended a “line of work by drawing upon Witte’s (1992) notion of intertext to address the way disciplinary activities repurpose, or reuse and transform, extradisciplinary practices. My work, then, seeks to compliment these discussions by extending our understanding of the writing process and extradisciplinary practices with academic writing practices as it relates to tablet and smartphone technologies.
Although numerous scholars are promising to bridge student digital literacies into academic writing courses, why is this not happening?

To narrow my research on writing and writing technologies—and to make it more explicitly relevant for composition studies—I selected an academic research writing classroom as the research site.

**Description of the research site**

The research site is a mid-sized, Midwestern public university of approximately 18,000 students, 1100 faculty, and 900 graduate assistants, located in a small town. Of these, there are about 3,000 students enrolled in First Year Composition (FYC) 102. Because writing and technology is the focus of this dissertation, I will limit my description to the technology aspects of the program. FYC 102 is a course that can be considered a “first-year composition” or “freshman writing” course. According to the FYC website, FYC 102 classes are either BYOD (Bring Your Own Device) or take place in a PC or Mac computer lab. The campus also provides free WiFi to students, which they log into using their campus username and password. The FYC program values technology in the classroom both in practice and in their official documents:

> Students in [FYC] courses use computer technology as they draft their essays, conduct academic research, and explore methods of inquiry. As well, they work with a class Blackboard site, are introduced to the usefulness of visual rhetoric in their writing, and are encouraged to include their [FYC] papers in an electronic portfolio which they will maintain throughout their college career. (“FYC Program”)

Currently, the university is switching from the course management Blackboard program to the course management Canvas program. During spring semester 2013, however, instructors have the option to use either course management program.

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12 FYC and FYC 102 are pseudonyms for the writing program and the specific class, respectively.
The FYC 102 course has several goals. The program Web site states that students who pass FYC 102 achieve the following learning outcomes:

- Rhetorical Knowledge
- Critical Thinking, Reading, and Writing
- Processes
- Knowledge of Conventions
- Composing in Electronic Environments
- Values Exploration (“FYC Program”)\(^{13}\)

These goals are kept up-to-date through an assessment committee and by drawing on current writing studies pedagogies, scholarship, and theories.

**Participation**

There are two types of participants in this study: students in FYC 102 and teachers of FYC 102. In total, there are 2,926 FYC 102 students according to the 2013 spring semester enrollment numbers. The vast majority of students are freshman, but there is a small percentage of upper classmen. Similarly, the vast majority of FYC 102 students are 18-19 years old. In regards to teachers, there are 20 full-time instructors and 21 graduate student instructors for FYC 102, totaling 41 instructors. The student survey was disseminated to all FYC 102 students on 28 January 2013 and the survey was kept open until 4 February 2013. The teacher survey was disseminated on 8 February 2013 and kept open until 15 February 2013. Participants for case study interviews were selected from the student population via a question at the end of the survey asking if they would like to participate.

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\(^{13}\) To protect the confidentiality of the writing program, I will not specify the URL or cite the program in the references page.
Data acquisition

The student survey has potentially 54 questions. I say potentially because some questions may be skipped depending on the respondent’s response. The teacher survey has potentially 34 questions total. Once again, the number of questions that teachers can respond to varies depending on their answers to certain questions. Both surveys were completed electronically through SurveyMonkey. My survey recruitment scripts, which were attached to the survey link in email, can be found in the appendix, as can my survey questions. Chapter Three will present and analyze these questions and answers.

Interviews were conducted over the course of Spring Semester 2013 with one student of FYC 102. These were done at the end of February, the end of March, and the end of April. Each interview session lasted approximately 1 hour and took place in my office. Only the audio of the interview session was recorded, but handwritten notes were also kept. The student interviewee was asked to keep an activity log of her daily and/or weekly technology use as it pertains to desktop/laptops and tablets/smartphones. Ideally, these activity logs would have been used to help the interviewee recall her technology use habits for interview purposes. The activity logs were optional, though, and the student chose not to keep them. The interview questions for the student are available in the appendix. I have chosen to also include the activity logs for those interested. Together this data provides both generalizable, replicable, and aggregable information along with more specific, nuanced narrative information\textsuperscript{14} in order to provide two different screens to look at tablet/smartphone writing technologies and practices.

\textsuperscript{14} The narrative is aggregable, as it can be compared with other narratives, such as those available on the Digital Archive of Literacy Narratives (DALN) hosted by The Ohio State University at http://daln.osu.edu/. The narrative can also be attempted to be replicated with future narratives about technology literacy. The narrative also has claims that can be challenged—contested or confirmed— in future studies.
Limitations

Janice M. Lauer and J. William Asher’s (1998) book *Composition Research: Empirical Designs* will further guide the methods and methodologies of the dissertation. For surveys, “The first task of a researcher is to determine the large *population*, or “N,” from which a *sample*, “n,” is to be drawn” (p. 57). My large population (N) is the students enrolled in a first-year research writing course at a mid-sized Midwestern university. My research site and population will be compared demographically to other studies done about teenagers and college students to account for any differences, which I will then use to characterize my claims. My original goal was to have my sample size (n) be as close to 1,000 as possible, giving me a confidence limit, or a margin of error, of 3.1%. I misjudged how difficult it is to encourage such a high response rate for a relatively large population. If 1 out of every 4 students had taken the survey, my project would have had a margin of error of 3.1%. I fell well short of my hoped for sample size. However, even though the number of people taking my student survey was only 288, my margin of error only ticked up to 5.48%. This is because the relationship between population size, sample size, and margin of error is not proportional. Their relationship can be thought of as a “power,” as in squaring or cubing something in mathematics, but somewhat in reverse. In a population size of 2,926 (the amount enrolled in FYC 102), the margin of error drastically lowers as the sample size reaches 50, 100, 200, and 250 people. But as more and more people take the survey the proportion that it lowers slows and slows. Therefore, a sample size of 288 is still a very good number to have that leads to a margin of error low enough to make claims about the total population of students at the research site. It also allows me to make claims about similar populations.
There are other limitations beside margin of error to be aware of, though, in regards to the sample size. Motivation is an important factor in not only how many but what type of students take the survey. My sample size could be skewed by those students who have an interest in smartphones and tablets as opposed to those who are apathetic or do not own them. Because the survey was distributed via the university email system, the sample size could be affected by students who check and respond to school email often as opposed to those who check and respond to school email infrequently. Overall, I feel I have a strong sample size which will help me make strong claims about smartphones, tablets, and writing and research practices.

Another variable one must consider when it comes to sample size is to what extent can claims be made for specific demographic groups (e.g., African-Americans, men, students who used smartphones in high school). As Lauer and Asher (1988) stated, “Often much larger initial samples must be taken to get reasonable confidence limits on subsamples” (p. 62). I will wait until Chapter Three to get into the details and claims I can make about my student subgroups. However, when surveying teachers, the large population is much smaller. The subgroups for the teachers could be very small or nonexistent compared to the student subgroups. I will be able to make only a few claims about instructor subgroups, although the information garnered from their survey responses could still be directly applied to the specific context of the writing program they are working in. While teacher interviews are outside the scope of this project,\textsuperscript{15} this is also why I intend to interview a student—to generate more specific and nuanced data from which I hope to come to further conclusions that this survey is not able to provide.

My numbers were quite different when it came to surveying instructors, however. My total population size of instructors was 41. Out of this total, 17 took the survey. Even though the

\textsuperscript{15} Future research should try to incorporate teacher voices even more into the issues and topics of mobile technologies, specifically through interviews.
proportion of instructors taking my survey was much higher (almost 50%) than students, my margin of error is a quite high 18.41%. With small population sizes come high margin of errors. It would have taken double the sample size of teachers (34) to just get the margin of error down to 7.03%. That would mean all but 6 teachers would have had to take the survey. Essentially, with a population size this small, I would have needed for all or nearly all the teachers to have taken my survey. The inability to reduce the margin of error is because small population sizes only take a couple of people to respond in unique ways to radically change the claims that can be made. Regardless, the teacher survey can still give tentative knowledge about teachers thoughts on technology and the writing process.

Conclusion

The questions and methods that underpin this dissertation try to balance the need for a specific research site and genre (the FYC 102 classroom and the research essay, respectively) with broader questions about technological literacy as it relates to the transition from desktop and laptop tools for writing to tablet and smartphone tools for writing. Transition might not be the best word, for these devices are not replacing one another but are being used in a variety of ways depending on the context and temperament of the individual(s) using them. This would be similar to the different epochs of the Internet, from Web 1.0, Web 2.0, Web 3.0, and mobile.\footnote{I define Web 1.0 as the first stage of the Internet. In this stage, web sites weren’t very interactive and had an aesthetic of tables, columns, etc. Material was presented and then consumed by users. Search directories, like the early Yahoo!, archived web sites. But as the Internet became even bigger, this method of searching the web proved to be inefficient and unsatisfactory. I define Web 2.0 as the era that saw the rise of social networking—beginning with MySpace and Friendster—and the Google search engine which sought out keywords as a more efficient way of searching the web. This period also saw the rise of customized home pages, such as iGoogle or myYahoo!. I define Web 3.0 as the personalization of the Internet, so that not only can you customize your page, but sites such as Facebook, LinkedIn, Twitter, etc. personalize it for you based on their ability to aggregate data about you and track your movement on the Internet. I also consider Web 4.0 a newer stage based on mobile technologies. This stage basically involves companies catering their products to mobile users. Amazon, for example, has a web site that can be accessed on a desktop, laptop, smartphone, or tablet, but also has an app catered to tablet and smartphone users. Many companies began as apps only, such as Instagram or Pinterest, and haven’t yet or have only recently spread from the mobile interface to the PC interface.}
Many computers and writing scholars have called attention to numerous issues raised by a changing digital ecology—such as being more “critically aware of technology” (Toscano, 2011, p.14); focusing on “the implications of bringing [social networking] sites into the classroom, comparing how students, teachers, and administrators use (and abuse) these space” (Maranto & Barton, 2010, p. 36); urging composition to transition from teaching traditional essays to teaching “digital rhetoric which emphasizes the civic importance of education…that engages students in the interactivity, collaboration, ownership, authority, and malleability of texts” (Clark, 2010, p. 27); and integrating different spatial and conceptual spaces “to bridge the gap between students’ online proficiencies and academic writing tasks” (Purdy, 2010, p. 48). I believe the questions asked and the methods used in this dissertation can help extend these conversations to understanding the role and potential roles tablets and smartphones play in these ongoing conversations. This research will provide an additional understanding to 21st century pedagogies focused on technological integration, digital rhetoric, and critical understandings of these new devices. The data and testimony provided by this dissertation aims to prepare writing program administrators and teachers—using student and teacher voices—to continue to have policies and pedagogies that take into account these new writing practices.

In the next chapter, I will present the survey findings from both the student and teacher surveys. In his book *The Better Angles of Our Nature*, Steven Pinker—when discussing the need for data and statistics to challenge assumptions about the history of violence—said “narratives without statistics are blind, statistics without narratives are empty” (p. 189). In this same spirit, chapter three will present the data on tablet and smartphone usage and compare it with data on computer and laptop usage in regards to how students write, read, and access the internet via these technologies. Using the salient points of the data, I will provide an analysis and a narrative
about the relationship between these technologies with writing and reading practices as they appear in the research site. Some questions that beg to be answered in regards to this data are: are students using tablets and smartphones for academic writing (and if so, how)? What are the limitations and what is the potential of these devices for writing studies? How are these devices changing what literacy means and how it should be defined? Are these devices intervening and complicating what we know about the writing process (and if so, how)? Do teachers use these devices (and if so, how are the similar or different to students’ usage)? Have teachers seen students using these devices in their classrooms (and if so, in what ways)? To what extent to teachers see these devices as a nuisance, as a problem, or as a potential pedagogical tool? Chapter three will provide tentative, context based answers to these questions.
CHAPTER III: RESEARCH WRITING IN THE AGE OF MOBILE

Scholarship on computers and writing goes back to at least the late 1980s and has widely contributed to composition studies at large (e.g., Britton & Glynn, 1989; Haas, 1989; Hawisher & Selfe, 1989; Hawisher & Selfe, 1991; Takayoshi & Huot, 2003). Just over the last few years, writing with computers has turned into writing with computers, tablets and smartphones. This chapter addresses two questions about student and teacher tablet and smartphone use, namely:

1) is any type of academic writing being done on mobile devices?
2) what types of writing (both personal and academic) are being done on these mobile devices as compared with desktops and laptops?
3) when it comes to academic writing, to what extent do writing processes differ when it comes to using tablets and smartphones instead of desktops and laptops at various stages in the writing process?

These questions hope to give build upon previous survey data from MSU WIDE and previous Pew Internet Research studies to help give a clearer picture of the relationship between academic writing and mobiles. For example, although the MSU Wide survey found responses in their data of students using tablets and smartphones to write academic papers, the finding was so unexpected that not much could be followed up on that.17 At this point, it almost goes without saying that mobiles are used by a vast majority of the population for a variety of genres of writing, such as text messaging, email, posting to social networks, and taking notes. Mobiles also lend themselves to multimodal compositions through mobile apps like VoiceThread, YouTube, iMovie, and Photoshop, to name a few.

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17 The MSU Wide survey also was looking at writing practices at large and was not confined to mobiles, so the purpose of the survey was not to explore mobile writing.
While the field of composition has done extensive research on writing and technology from word processors, to social media, to ethical issues to classroom architecture over the years, there remains a salient gap when it comes to research in regards to mobile technology—tablets and smartphones—as an academic and personal writing technology. Jason Swarts (2006) began to take up the question of mobiles and what it means for writing researchers. His *Written Communication* article “Coherent Fragments: The Problem of Mobility and Genred Information” used an activity theory approach to present how PDAs assist but also hinder communication as “PDAs make information mobile but without specific regard to the ecological boundaries that the information now crosses” (p. 174). In other words, Swarts found the advantage that mobility brings in terms of its convenience (in terms of qualities like size, accessibility, portability) is complicated by users’ struggles “to adapt the information to a new discursive activity and context, problems that Bazerman, Little and Chavkin (2003) have called problems of translation and recontextualization” (p. 174). Mobility, according to Swarts, is a “literacy burden” (p. 174) and is a problem that writing scholars should explore further. Other fields, specifically ESL and journalism have begun exploring how people learn a second language (Sykes, Osko, & Thorne, 2008), and access news (Dean, 2012) via tablets and smartphones. Sykes, Osko, and Thorne (2008) have found that while students initially took to using smartphones as a language acquisition tool, most ended up reverting back to laptop or desktop computers. The journalism study (Dean, 2012) showed that news articles are being accessed heavily on smartphones.

Returning to composition studies, previous studies have analyzed the language features of IM messaging (Haas & Takayoshi, 2011), explored how students’ use of social networking sites

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18 For word processing scholarship, see Dave & Russell, 2010; Haas, 1989; McGee & Ericsson, 2002. For social media scholarship, see Buck, 2012; Maranto & Barton, 2010; Vie, 2008. For ethical issues, see DeVoss & Porter, 2006; Howard, 2005; Snyder, 2010. For classroom architecture, see Efaw, Hampton, Martinez, & Smith, 2004; Hochman & Palmquist, 2009; Palmquist, Kiefer, Hartvigsen, Goodlow, 1998.
affect academic writing (Buck, 2012), argued that academic databases should incorporate Web 2.0 to help connect students’ online proficiencies to academic writing tasks, and discussed how the “emergent ethic of” file sharing has implications for copyright and plagiarism policies (DeVoss & Porter, 2006). While not all of these studies directly tie to mobiles, clearly composition studies has established that technology and the outside literacy practices it encourages can and does affect a variety of academic writing practices. 19

Research methods

Drawing on the information not only in chapter three but from chapters one and two, the ultimate goal of this chapter is to address and eventually develop implications for the following questions:

1) what types of writing and research/reading are students doing on smartphones and tablets?

2) how are smartphone and tablet writing and researching/reading practices mediated and situated?

3) how do students write differently on smartphones and tablets compared with desktops and laptops?

4) what are the pedagogical and writing program implications as a result of this study?

To answer these questions, chapter three uses a quantitative, RAD methodology (Haswell, 2005; Jamieson & Howard, 2012) to collect data from a survey distributed to students and teachers that will add to recent scholarship from previous survey data sets (Grabill & Pigg, 2010; Livingston, 2011; Rainie, 2012; Smith, 2011). Chapter three’s conversations will continue in chapter four, which will present a technological literacy narrative that will contribute to existing technological

19 Not all of these studies directly relate to smartphones and tablets, but there is overlap. IM and texting is usually done on mobiles, social networking sites are heavily accessed on mobiles, Web 2.0 is pervasive on mobiles, and mobiles also allow for easy sharing of files, photos, messages, links, etc.
literacy narratives (Ching & Ching, 2012; Hawisher & Selfe, 2004; Roozen, 2010; Ruecker, 2012). Chapter three, then, begins the pursuit of how writing as an activity changes when the technology changes and also investigates how academic writing practices are transformed by extradisciplinary writing practices encouraged by mobile devices.

What makes this survey RAD? As Haswell (2005) pointed out, “numbers may assist but do not define RAD scholarship” (p. 201). RAD is also not just statistical analysis. While surveys, for example, can or cannot have significance—based on factors such as sample population or response rate—and margins of error can be well beyond what would be considered firm ground, what is more important in RAD scholarship, and that which differentiates it from quantitative methodology, is the emphasis on the study’s “comparability, replicability, and accruability” (p. 202). This means that one must declare and describe a “system so it can be replicated and [its] conclusions tested” (p. 203). This project’s survey—and later the literacy narrative—both outline the methods and process thoroughly so that future researchers can test the findings and conclusions of the project with new findings. From multiple research projects, findings can accumulate which will give even stronger evidence for one finding as opposed to another. Even if one were to conclude that this project’s findings are limited, minimal, or insufficient, they can still use this project as a way to collate, correlate, and coalesce these findings with others related to the topic of the project.

This chapter attempts to refine theoretical premises about computers and writing by learning from student writing practices, identifies new research directions—to be expanded further in chapter five—and begins to develop sound pedagogical applications. In other words, what do teachers and writing programs need to know about mobiles and writing as compared with desktops and laptops and writing? What are the tablet/smartphone composing practices of
students? How do they differ from what we know from composing practices for
desktops/laptops?

The data and analysis within this chapter lead to tentative\textsuperscript{20} claims about these devices. Ultimately, tablets and smartphones enable numerous literacies and literacy practices, perhaps more easily than laptops and desktops given their emphasis on being user friendly, and many of these literacies relate directly to and influence academic practices. The data, explained further in the chapter, suggest these devices invite many students into both non-academic and academic literacies that they could otherwise be left out of if only using laptops and desktops. Furthermore, the data suggest that many students are able to distinguish between genre, purposes, and different audiences, which add to Lunsford and Bravman’s understanding that the Internet is not making students “dumber” or ruining writing ability but actually enhancing it (Lunsford & Bravman, 2008). Tablets and smartphones play an important part in many students’ lives and are an integral part of their digital identities as students and beyond. However, with many students, the differences between mobile and desktop/laptop writing/computing do not really exist. As stated earlier, many struggle to understand differences between different types of computing technologies, programs, and interfaces which affect “problems of translation and recontextualization” (qtd. by Swarts, p. 174). With some students, there are still many distinctions in terms of their writing processes and genres they prefer to engage in when using one device over another.

The methods in this dissertation put impressions and understandings about mobiles on firmer ground. What are the invention, research, and revision practices employed on mobiles

\textsuperscript{20} I use “tentative” here in a sense that the claims that while the claims are intended to be generalized and aggregable, they aren’t intended to be “universal.” Many factors, including the methods, methodologies, research site, time and resources allotted to the project, along with the incredible complex ecology of students and technology, could lead to claims that could build upon or qualify the claims of this project.
compared with desktops and laptops? Do they encourage what we would think of as revision, invention, and research practices? What are the ethical, pedagogical, rhetorical, critical, and other implications we can take from these surveys? To what extent do they reflect or alter the writing process as we know it? Who uses these devices, why, and under what conditions? Who rejects these devices, why, and under what conditions? Who does not have access to these technologies? Process gives us a narrative of how a student goes from the invention stage of writing to the final product. But we typically teach using laptops and desktops. How, then, are research papers being composed with mobile technology? The goal of chapter three is to have a more accurate picture of these composing practices.

**Demographics of students**

While the population targeted for the student survey\(^{21}\) was FYC students, I sought to develop a more detailed picture of this group in terms of gender, ethnicity, native language, age, and class. I was also interested in how well students do in writing classes and, in general what types of digital writing they do. These last two lines of inquiry are not necessarily about demographics, per se, but do give a better picture of how well these students generally write and how comfortable they already are writing digitally. In total, 284 students responded to the demographic questions, while 5 skipped them. A closer look at the sample population will help establish limits and qualifications for the survey as well as strengthen certain claims in regards to specific student populations.\(^{22}\)

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\(^{21}\) Teachers were contacted via email. The email explained the project and invited them to disseminate the survey to their class if they wished to do so. There was also a follow up email asking them to participate in the teacher survey. These emails were sent through the university email system, linking them to the survey hosted by www.surveymonkey.com.

\(^{22}\) The surveys can be referenced in the appendix.
Gender of students

Several characteristics about survey demographics should be noted. First, nearly 62% of the respondents identified as women. What made the survey significantly more popular with females? Perhaps females are more likely to own smartphones or tablets. Maybe men are just less likely to respond to a survey request. Recent trends in higher education show that there are more females enrolled at universities than males (González, 2012; United States Department of Education, 2012). Women are also slightly more likely to own smartphones and more likely to use them for the most popular activities such as texting (98% to 92%), “accessing social networking sites (79% to 68%),” “playing games (76% to 66%),” “sharing photos and videos (73% to 65%),” and “conducting financial transactions (60% to 48%)” (MarketingCharts staff, 2 December 2011). Women’s higher ownership and usage of smartphones could mean women are slightly more interested in expressing their views about smartphones. Of course, the higher response rate for women could be a combination of these suggestions or a result of another factor. The results of this survey, then, could slightly emphasize female experiences. Although the instructor responses will be discussed later in the chapter, it is interesting to note that the higher percentage of women taking the survey also showed up in the instructor survey. The higher instructor ratio of women to men might be explained by the feminized nature of the discipline—where proportionally more women work as opposed to men—as presented in numerous works (Bartlett, 2003; Holbrook, 1991; Miller, 1991; Schell, 1992). However, it should be noted that the instructor survey is not within a small enough margin of error to draw as firm of conclusions.23

23 The response rate was 50% for the teachers and their responses can be found later in the chapter.
Ethnicity of students

The importance of asking questions about demographics is to help contextualize the answers for future research and allow for the results to be compared with, qualified, complicated, or added to other surveys. No college or university is the same. Therefore, demographics can help administrators and educators draw their own conclusions on how applicable the surveyed population is to their own circumstances.

The question “What is your ethnicity” breaks down closely to the demographics at large of the university—which is approximately 13% minority—although my survey slightly over represents minorities since about 17% of my survey respondents were minority students. While this is only a slight bump, I am drawing attention to it because previous studies have shown that different technologies—and different social media—are favored by particular ethnicities.24 While the survey responses seem to only slightly over represent minorities at this institution, it could be more significant in the grand scheme of things. For example, prior surveys already have shown that minorities use smartphones in differing manners. Asian-Americans own smartphones at a greater rate (75%) than Whites (56%) (Nielsen, 6 June, 2013), and Blacks and Latinos have a higher percentage of smartphone ownership and access the Internet more often from their smartphones compared with Whites (Livingston, 9 February 2011).

Native language of students

Of the 284 students who answered the question “What is your native language?” an overwhelming 97% said their first language is English. Only 1.41% said their first language was not English, while 1.06% grew up speaking both English and another language. While the survey closely reflects the writing program’s student population in general, writing programs that have a

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24 Recent Pew Research studies have demonstrated this, including a preference for Twitter and Instagram among Blacks (Yu, 2013), white women under 50 are drawn to Pinterest (Yu, 2013), and that Blacks and Hispanics have a higher smartphone adoption rate than Whites (Smith, 2011).
larger population of non-Native speakers of English will need to add to this data set in order to account for different writing and literacy practices among non-native or multilingual students. This survey is unable to adequately represent non-native speakers of English. Future studies could specifically survey students who are ESL students, or who are generation 1.0 or 1.5 speakers to better understand the different dynamics these sub-groups have in regards to mobiles and writing.

**Age of students**

Similarly, writing programs that have higher amounts of adult students will need to also add to this data set. 97.53% of the respondents to this survey were between the ages of 18-24, the typical age of traditional college students. In fact, 93.31% were between the ages of 18-20. The technology and writing practices of adult students could be quite different when it comes to mobile technology, much like that population group has been shown to be different in various ways in other scholarship from our field (Blair & Hoy, 2006; Blair & Lewis, 2003; Huang, 2002; Peterson, 2001; Winterowd, 2007).

**Socioeconomic class of students**

This survey also indicated that the vast majority, 82.39%, considered themselves middle class. Although this survey only asked for respondents to identify as upper, middle, or lower class, the results of this survey will tend to favor students coming from the middle class and not the lower or upper classes. Given the institution’s demographics, the substantial percentage of those identifying as “middle class” seems representative of the institution itself, but may not be true for other institutions that have more upper class or lower class students. The definition of what is middle class is not technically defined on the survey itself and is subject to political debate, as the 2012 presidential election demonstrated when there were arguments about whether
making $250,000 per year was middle or upper class. While I used a survey to ask respondents to self-identity as upper, middle, or lower class, it is unclear as to whether they identified based on income or based on other notions of class. Since most of the respondents are students who are probably not privy to the details of their parents’ or guardians’ income, it is difficult to take this question too literally. Their perception about their parents’ or guardians’ income is perhaps the primary factor in how they perceive their socioeconomic class, but they could also identify with one class over another in terms of culture or the neighborhood they were raised in.

**Writing ability of students**

The last two demographic questions asked students about how well they do in writing classes and what types of digital writing they do. Students were asked to consider whether they were above average, average, or below average writers. Only 2.11% reported they were below average writers. This could mean that basic writers are not represented well in this survey, or, perhaps, students naturally think more highly of their writing than how writing instructors do. It could also reflect the fact that if a student knows she/he passed a writing class that she/he must be at least average. One missed opportunity in the survey was a failure to include a question on whether they had ever taken a basic writing course, or even an ESL course. Future surveys might want to further explore students’ institutional writing class histories.

**Digital writing done by students**

Lastly, the survey asked students what types of digital writing they tended to do and how often they did it. Figure 2 represents what types of writing students self-report doing several times per day, a few times per day, and once per day. Text messaging is by far the most frequent type of digital writing students do (although it does not necessarily mean it is the most by
Lengthier writing and composing (vlogging, podcasting, and blogging) are done much less frequently.

Figure 1. Bar Chart Showing Digital Writing Done by Students.

To help understand the table, the more blue and red the bar has, the more times per day that type of writing is done. The more green the bar has, the less that type of writing is done per day. The more blue the bar has, the more that type of writing is done per day. The raw numbers show that certain types of digital writing are not nearly as popular as other types. Only 12 students out of 284 reported doing vlogging at least once per day\(^2\) and 10 reported podcasting at least once per day. The number of students who reported blogging at least once per day is a bit higher at 41.

Text messaging, emailing, instant messaging, and writing done on social networking sites are by far the most popular types of digital writing done by students. What is significant about this chart, if not obvious already, is that digital writing is not just one type of writing but a plethora of

\(^2\)Categories like “status message updates,” “vlogging,” and “blogging” were open to interpretation by the student. An app like Instagram or Vine might count as one, two, or all of those. Given the low response rate for vlogging, and the supposed extensive use of Instagram and Vine by adolescents and young adults, many students might consider vlogging as posting to a YouTube channel, whereas posting to Instagram or Vine could be equivalent to a status update or blogging. Future research should take this into account.
types of writing. Many are solely text based writing genres (but vary in terms of the length of writing and other genre characteristics like tone and concern for grammar), others are what many scholars in rhetoric and composition would call multimodal—using video, sound, text, and pictures in one project. Computer technologies in general, but mobiles in particular, generate several forms of writing which have their own exigencies, are their own genres, and perhaps even their own languages.26 These genres and their popularity with students are clearly demonstrated by Figure 1.

**Student writing on desktops and laptops**

**Word processing programs used by students on desktops and laptops**

The next several questions asked students specifically about writing they have done on desktops and laptops. The first question, “In the last year, what word processing programs have you used to write academic papers on your desktop or laptop?” showed an overwhelming preference for Microsoft Word. 97.11% said they had used Microsoft Word in the past year. However, 34.66% of students also reported using Google Docs, 11.55% reported using NotePad, 10.47% reported using OpenOffice, 8.66% reported using Pages, and small numbers reported using Works (3.97%), Word Perfect (3.61%), and other word processing programs (2.53%). The preference for MS Word largely reflects the writing program’s encouragement—indeed a de facto institutional requirement—of using that specific word processor program. But the data also shows that students step outside the MS Word bubble to use other software to write academically. This could be because students sometimes use Macs—which can come with other word processing software or sometimes prefer writing “in the cloud” using Google Drive,

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26 Christina Haas and Pamela Takayoshi (2011) argued in “Young People’s Everyday Literacies: The Language Features of Instant Messaging” that instant messaging/SMS text messaging is arguably a dialect of English, or at the very least “argue that the written features of IM function paralinguistically to provide readers with cues as to how the writing is to be understood” (p. 378).
SkyDrive, or other cloud computing services for composing, or perhaps use older word processing software like Word Perfect because they have an older computer.

**Writing processes on desktops and laptops**

The next four questions asked specifically about how students used their desktop or laptop at various stages in the writing process. When asked whether they used a desktop or laptop to brainstorm or pre-write a paper, 23.83% said “every time,” 24.91% said “most of the time,” 24.19% reported “sometimes,” 14.44% reported “hardly ever,” 6.14% selected “Never, I don’t use my desktop or laptop to brainstorm or pre-write,” and 6.50% admitted they never pre-write at all. Students were also asked about the frequency that they use their laptops and desktops to conduct research for papers by using scholarly databases. Figure 2 shows these results.

![Figure 2. Bar Chart Showing the Percentage of Students Accessing Academic Databases from a Desktop or Laptop.](image)

These results can suggest two things. One, some students may not be using academic databases at all or relatively rarely, preferring more accessible or intuitive web sites or databases (although
sometimes less scholarly). Or two, studies have suggested that young people are more frequently accessing the Internet solely from their smartphones (Madden et al., 2013). Therefore, any online activity for academic purposes could be occurring from mobile devices. It could mean that students access academic databases more often from tablets or smartphones—although further research into this explanation in this chapter proves otherwise.

The survey also asked about how often students use their desktop or laptop to conduct research for papers by using sites like Wikipedia, news websites, Yahoo! Answers, etc. The responses were quite similar to the previous chart:

• 22.38% every time
• 29.96% most of the time
• 27.44% sometimes
• 14.08% hardly ever
• 6.14% never

This data also raises the question—like the results showing how students access academic databases did—about whether students just do not access these types of sites and prefer the academic databases, whether students just do not research at all, or if they prefer to access these sites (Wikipedia, news websites, Yahoo! Answers, etc.) via their tablets or smartphones.

Lastly, students were asked about their revision practices on a desktop or laptop. Most reported doing many types of revision. 89.89% said they edit for punctuation, 87.36% reported revising word choice, 83.39% said they revise sentences, 74.01% claimed to work on their formatting, 76.53% altered the organization/structure of their papers, and 61.01% worked on developing their paper. These results show more revision activity at the word, grammar, and mechanical level, followed by a slight dip when it comes to revising sentences, followed by a
modest dip when it comes to revising for organization and development. This data is aligned with previous research that computers do not necessarily encourage more revision and that revision is still “predominantly focused on local issues” (Dave & Russell, 2010, p. 406).

In general, these findings focus on the writing done on desktops and laptops. They show a preponderance of using MS Word, but other sizable uses of other word processing programs and services. They also show an almost equal division (give or take 20%) between how often students access academic databases on desktops and laptops, ranging from every time they write a paper to never. And lastly, the survey found that when revising papers on desktops or laptops students “revised” a lot typically, but greater percentages were editing at the word or sentence level as opposed to revising at a more global level.

**Writing with smartphones**

Student smartphone ownership is pervasive, but not ubiquitous. 277 students answered the question “Do you own a smartphone?” and 80.87% responded yes while 19.13% responded no. This meant that 222 students went on to answer the questions about smartphone ownership and writing. iPhone is the most popular brand of smartphone with 63.96% of students owning a type of iPhone. A significant minority, 27.93%, own an Android OS smartphone. The remainder said they owned a Windows phone (2.70%) or a Blackberry (0.90%) while 4.50% said “not sure/other.” Students were then asked what apps they currently have on their smartphone. The chart below highlights the results, showing that social networking apps, weather apps, game apps, utility apps, and productivity apps are the most popular, while search tool apps, entertainment apps, news apps, sports apps, and travel apps are owned by fewer students. Figure 3 ranks the types of apps that students\(^\text{27}\) reported having on their smartphones.

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\(^{27}\) As a reminder, these students self-report being overwhelmingly middle-class, white, and between the ages of 18 and 21.
Figure 3. Bar Chart Showing the Types of Apps on Student Smartphones.

**Smartphones and mobility**

Students reported using their smartphones at home quite often (perhaps in lieu of a desktop or laptop). They also reported using their smartphones at a similar rate when they are out and about (for travelling, at coffee houses, when dining out, etc.) as they do when they are at home. Students noticeably reported using their smartphones at work with much less frequency. Only 12.61% reported using their smartphones at work the most often. 74.32% reported that using their smartphones at work as the least often place that they use their smartphones. This does not mean that students do not use their smartphones at work. I imagine that many jobs allow students to take breaks or have periods of down time where students use their smartphones. Students could, hypothetically, be associating a smartphone as a device to not be used in workplaces which would run contrary to what many professions expect. In fact, tablets and smartphones could be the primary computing device in many professions.
Smartphones and writing processes

Smartphones, like desktops and laptops, are used for a variety of writing, reading, and literacy practices. Text messaging was ubiquitous, with 100% of smartphone owners responding that they text. One trend made visible with the survey is that students read personal and work/school email at similar rates on their smartphones (81.98% and 83.78% respectively), and write personal and work/school email at similar rates on their smartphones (69.82% and 69.37% respectively). Text messaging and email appear to be the most popular forms of writing and reading students do on their smartphones. But this is not to say that they are not doing other types of writing. Many students reported using their smartphones for reasons other than email. Many of these were academic reasons. Below is a list of other types of writing and reading students reported doing on their smartphones:

- Searching for information on sites like Wikipedia/Yahoo!/Bing/Google/Quora: 57.21%
- Collaborating with classmates for school: 43.69%
- Taking notes: 40.09%
- Writing parts (even only a word or a sentence) of papers or projects for school: 17.57%
- Writing entire papers or doing entire projects for school: 6.31%
- Accessing academic databases like JSTOR, LexisNexis, etc.: 6.31%

This information shows that, for students, the more formal and academic writing and reading become, the less likely they use their smartphone for these writing and reading practices. For many students, these devices appear to encourage internal, or self-sponsored writing more so than school-sponsored writing. However, as the information shows, 17.57% have written parts of papers and projects for school, 6.31% have written entire papers and projects for school, and 6.31% have accessed academic databases on their smartphones. The following chart showcases
student responses when they were asked specifically about using their smartphones for their writing class.

Figure 4. Bar Chart Showing What Students Use Their Smartphones for in FYC.

It is also important to point out that out of all the students who owned smartphones, 22.52% said they do not access resources for first-year research writing on their smartphones.

Using a device like a smartphone specifically to write academic papers is intriguing. In many ways, the academic research paper is not a genre that seems to fit in well with smartphone technology. Figure 4 does show that the smartphone is used in a somewhat tangential fashion (e.g., communicating with the instructor, using an online dictionary or thesaurus, reading texts for class). But when students were asked if they had ever written an academic paper on a smartphone, the results were that 2.70% said they had written most of or an entire academic paper on a smartphone, 8.56% said they had written a small part of an academic paper on a smartphone, 22.52% said they do not access resources for first-year research writing on their smartphones.

28 “Paper” could have connoted a hard copy, traditional text production. If the word “project” had been used, it might it have rendered different results.
smartphone, 19.37% said they had accessed or viewed but not written an academic paper on a smartphone. Of course, the majority, 69.37%, said they had never written, accessed or viewed an academic paper on a smartphone. These results show that while the majority of students do not use their smartphones to write or access papers, almost one out of every five at least view or access their papers on these devices while over 11% have written at least a part of their paper on a smartphone. While writing scholars might use a very liberal definition of what it means to write a paper (meaning they could include invention, research, proofreading, etc.), more research is needed to understand what students say it means to write a paper. For example, previous research (Boiarsky, 1991; Collier, 1983; Dave & Russell, 2010; Harris, 1985; Hill, Wallace, & Haas, 1991; Slattery & Kowalsky, 1998) shows that students’ concepts of drafting and revision could be narrower and focused more on local revision.

When it came to whether students use their smartphones to brainstorm papers, only 1 student (0.45%) said that she/he uses their smartphone to brainstorm a paper most of the time or every time. 11.26% said they sometimes use their smartphone to brainstorm a paper, and 17.57% said they hardly ever use their smartphone to brainstorm a paper. 70.72% said they never use a smartphone to brainstorm a paper.29 As I began this project, I thought that because of the “freer” nature of brainstorming more students would have used the smartphone for this purpose. The lower usage of brainstorming a paper with a smartphone could be a result of students just doing brainstorming less than we encourage them to do. It could also be that students do not see their smartphones as a writing tool. Furthermore, it could be that teachers’ pedagogies, syllabi, and assignments along with writing program goals, statements, and curricula do not see smartphones as a writing tool and therefore either ignore it as a potential writing tool or outright see them as

29 While analyzing these results, I wondered if students would have considered something like a Google search as a form of brainstorming, and if so, to what extent would that have changed the results.
annoyances and distractions. In many programs, there are often brainstorming handouts. Perhaps brainstorming is viewed as something that is scribbled on a paper. If this is the case, brainstorming activities could be formatted to be more inclusive of students’ technological literacies, taking into account not smartphones.

When asked about doing research with smartphones, there was a clear divide between using the smartphone to access academic databases and using the smartphone to access popular databases. Figure 5 and Figure 6 highlight this discrepancy. In general, students are more reluctant to use their smartphone to access what are typically considered scholarly databases or sites, while they are more likely to use their smartphones to access more popular venues to do academic research. Also, students are probably more likely to have developed fluency in using these sites for non-academic purposes and can search them easier than scholarly databases. This is quite a difference from what writing instructors have been used to. In the past, teachers guided and mentored students through academic research databases, library tutorials, etc. Now, while students still typically need assistance navigating research databases and libraries, students are able to do research in other ways outside the boundaries of typically academic research.

In addition, research is being transformed by mobile technologies. Although sites like JSTOR are not in “app form” individually, they are mobile friendly on a mobile web browser such as Safari or Chrome. In fact, it just might be easier to access and search on a smartphone than on a desktop. And although $12.99 is usually seen as quite expensive for an app, “Bookends on Tap” amalgamates numerous academic databases (e.g., JSTOR, PubMed, Google Scholar, Web of Science, Library of Congress) into one app. Users can annotate, save, organize, and share articles. This type of app can connect many students to research databases and articles in ways.
Figure 5. Bar Chart Showing How Often Students Use a Smartphone to Access Scholarly Databases.

In comparing Figure 5 above with Figure 6, the responses show that students use smartphones much more frequently to access sites like Wikipedia than JSTOR for research. To be clear, I am not trying to make it seem that unscholarly databases are bad and academic databases are good. Academic databases contain articles that are often difficult for students—or anyone outside the article’s intended professional audience—to understand. Similarly, Wikipedia’s articles are often vetted and considered to be of excellent quality. Wikipedia itself defends its article quality and guides users to make appropriate revisions (Wikipedia, “Defending Article Quality”, 6 May 2012) and is consistently seeking improvement to its articles.\footnote{For those interested in reading more about the debate about the quality of Wikipedia articles, one can read the debate between Nature and Encyclopedia Britannica’s analysis of Wikipedia articles here at http://news.bbc.co.uk/2/hi/technology/4530930.stm, or here at http://corporate.britannica.com/britannica_nature_response.pdf. Or, the daring can go to Wikipedia’s own page on their reliability here at http://en.wikipedia.org/wiki/Reliability_of_Wikipedia.}
Figure 6. Bar Chart Showing How Often Students Use a Smartphone to Conduct Research for Papers by Using Non-Academic Databases.

When it comes to revision practices, an overwhelming 90% of students said they do not revise, edit, or proofread papers on their smartphones and that they typically revise, edit, or proofread on another device. 0.90% said they make global revision changes, 3.60% said they make sentence and word level edits, and 4.50% said they do both of the previous types of revisions on their smartphone. Still, some might consider 10% a high number. This could mean that in a class of 20, if about 18 own a smartphone, statistically, 1 or 2 students would revise academic papers, in some regard, on their smartphones. The very low frequency of editing papers on a smartphone could be due to the reduced functionality of a smartphone for these purposes, or that often smartphone writing that students typically due for texting and emailing typically is not proofread.
Writing with tablets

The percentage of students who own tablets in the writing program surveyed is higher than what most other surveys say people in general own. 20.73% (57 students total) of the 275 students who responded to the question “Do you own a tablet?” said they own a tablet. Out of these 57, 55 continued on with the survey, answering questions about their tablet usage. When asked what type of tablet they owned, the iPad came in as the most popular with 45.45% of respondents saying they owned it. 38.18% of students said they owned the Amazon Kindle Fire, 5.45% said they owned the Samsung Galaxy Tablet, and 10.91% said they weren’t sure or owned another brand.

The FYC program surveyed requires students to bring their own laptop to their FYC class, but the program recently allowed students to use an iPad instead of a laptop. This makes inquiries into writing with tablets very pragmatic for the program studied and for other programs looking to incorporate tablets as academic writing tools.

Tablets and mobility

When asked where students use their tablet the most often, 85.45% said they use their tablet most often at home, as opposed to 5.45% who said they use it most often at work, and 9.09% who use it most often when out and about. This adds to previous research (Madden, 13 March 2013; Smith 15 August 2011) that shows that perhaps tablets aren’t as mobile as one might suggest. Despite the fact that iPads are wireless, light weight, and easy to transport, more often than not they are used sedentarily in the home.

Tablets and writing processes

When asked what FYC resources students access from their tablet, 54.55% said class emails, 50.91% said the course management system, 47.27% said grades, 38.18% said readings
for class, 25.45% said course syllabi, 20% said websites for research, 20% said online
dictionaries or thesauri, 18.18% said instructor feedback on their drafts, 18.18% said their
papers/drafts, 16.36% said websites that help with MLA or APA format, 12.73% said academic
databases, 10.91% said the Jerome Library website, 9.09% said videos/podcasts for class, and
41.82% said they don’t access resources for FYC on their tablets. Overall, a noticeable trend is
that most students that own tablets have used them for first-year writing purposes. However,
most tended to use them in what can be considered a minimal way, such as accessing grades or
course syllabi as opposed to writing. One possibility, among many, for students not using tablets
more extensively for school purposes could be because of a fear that they will stand out or feel
self-conscious using them. This could be especially true if they feel teachers are not supportive
of varied technology use. Perhaps tablets are not as good as desktops or laptops for writing
papers in first-year writing courses. Another reason could be that students simply have not
downloaded a word processing program, like Pages, for their tablets.

The following results shown in Figure 7 are to the question “In the past year, have you
ever written all or part of an academic paper on a tablet?” This further demonstrates students’
general reluctance to use tablets for academic papers.
Figure 7. Bar Chart Showing How Many Students Have Written All or Part of an Academic Paper on a Tablet.

Because only 55 students surveyed own a tablet, the above chart indicates that only two have written most or all of a paper on a tablet and only four have written a small part of an academic paper on a tablet, while nine have accessed or viewed but not written an academic paper on a tablet. These are similar percentages to those that have used smartphones to do these same tasks. But most people would assume a tablet is much closer, functionally at least, to a desktop than a smartphone. One has to wonder why tablets, if they are similar functionally, are not as readily adopted for academic tasks as laptops. If tablets end up being functionally different from laptops for academic writing tasks, then this would have to mean that those with a vested interest in education have to be louder and work closer with companies that manufacture these devices and apps to help make them more better equipped to allow students to compose the writing valued in education and other professions.
The results were similar for whether students use their tablet to brainstorm or pre-write academic papers. 3.64% said every time, 1.82% said most of the time, 10.91% said sometimes, and 12.73% said hardly ever. 70.91% said never. Students also tended to avoid using their tablet to conduct research for papers using scholarly databases. 1.82% said they use their tablet in this manner every time, 1.82% said most of the time, 12.73% said sometimes, 14.55% said hardly ever, and 69.09% said never. The tablet is used a bit more frequently when conducting research for papers by using sites like Wikipedia, news websites, Yahoo! Answers, etc. 1.82% said they use their tablet to conduct research in this manner every time they write a paper, 1.82% said most of the time, 23.64% said sometimes, 14.55% said hardly ever, and 58.18% said never. These differences might not seem like much, but they do imply that tablets and smartphones lend themselves to research practices that most instructors would consider unscholarly or commercialized. In general though, tablets and smartphones are used at similar rates for doing writing, reading, and doing research in this FYC course.

Very few of the students use their tablet to revise their academic papers. No respondent said they only make global revision changes on their academic papers with their tablet, 3.64% said they make local level edits and proofread, 7.27% said they do both global and local revisions, and 89.09% said they do not typically revise, edit, or proofread academic papers on tablets. These results imply that either the tablet is not conducive to revising, that students are unaware of how to use the tablet to revise, that students with tablets revise on other devices, or that students with tablets do not revise at all. Regardless, composition scholars know from previous research that technology in of itself does not innately encourage any specific type of practice.31

31 Gail E. Hawisher and Cynthia L. Selfe (1991) discussed the rhetoric of successful computer integration into writing classrooms and how this complimentary rhetoric avoids discussing critical aspects of putting computers
When asked “In the last year, what word processing programs have you used to write academic papers on your tablet, there were several students who did use word processing programs on their tablet, but 74.55% of students who owned a tablet said they do not use any word processing programs for their tablet. There are word processing apps made for tablets such as the program Pages, but this survey result shows that most students who own tablets could be unaware that these programs exist for tablets or that they prefer to use desktops or laptops to write out papers.

**Smartphones and tablets in the writing classroom**

When the 55 students who owned a tablet were asked “Did you ever use a smartphone or tablet to write, revise/proofread, or do research for a paper in high school?” 9.09% said yes while 90.91% said no. Currently, this generation of students has perhaps not had much experience with tablets or smartphones in education. This is not surprising since tablets themselves have only been around for a couple of years. And while smartphones have been around for longer, they have usually been seen as a nuisance in schools.\(^\text{32}\) Not to mention, schools often have widely different resources, budgets, and immediate needs—some schools might just be trying to get students to pass standardized test, improve attendance, or deal with unfortunate problems caused into classrooms. Chris Anson (1999) and Janet Eldred (1991) added to this conversation by pointing out that writing programs need to carefully select writing technology that is beneficial pedagogically and not just because it makes education more efficient while assaulting the pay and benefits of faculty. Finally, Christine Hult (1988) and Palmquist et al. (1998) laid the original groundwork for the argument that computers don't necessarily change many dynamics of the writing process and could indeed encourage practices (small editing over global revisions) that could significantly harm the writing development of inexperienced and/or basic writers.

\(^\text{32}\) The debate about writing and learning is as old as rhetoric itself. In Plato’s *Phaedrus* (2001), Socrates tells the story of the Egyptian god Theuth’s “gift” of writing. The lesson of the story is that writing will hurt students’ ability to think for themselves (p. 165). More recently, The Chronicle of Higher Education (Read, 2005) reported on Duke University’s study to give iPods to the 2004 incoming freshman with no directions to students or to teachers in how to use them. Students and teachers reported that they had used them for recording lectures and storing various types of files but many thought they were just gimmicks and were wary of Apple’s intentions in the classroom. Many professors reported that the iPods “serve only a small range of purposes.” There were also questions about how they could be used with personal-computers. Overall, though, this experiment laid the groundwork for possible practices and potential drawbacks to using these devices in learning environments.
by gangs, drugs, or socioeconomic issues while others are able to devote more resources to technology, school-work programs, or electives and after school activities.

When asked whether students bring their smartphones or tablets to class, a majority said they at least bring it to class sometimes, with most saying they bring it to class often or every day. No doubt many teachers could confirm this. Smartphones are brought to class more frequently. Given that more students own a smartphone than a tablet, this seems obvious. But even among just tablet owners, smartphones are brought to class more often than their tablets. Reasons for this could be that smartphones are more mobile—easily fitting in a pocket—and that many students with tablets might prefer to use a laptop with them in their FYC class or be unaware that they can use their tablet instead of their tablet in class.

Figure 8 shows the responses to the question “In what ways do you use your tablet or smartphone for academic purposes?”:

![Figure 8. Bar Chart Showing How a Tablet or Smartphone Is Used for Academic Purposes.](image-url)
As Figure 8 shows, email is by far the most common form of writing students do on their smartphones and tablets related to academic purposes. Nearly half said they access materials like e-books, webpages, documents, and PDFs from their tablet or smartphone. This makes it imperative, as Jimmy Daly (1 August 2013) wrote, that “e-textbooks and digital content must be mobile friendly” (par. 7). About a third said they use their smartphones and tablets to take notes. And about a quarter said they use their smartphone or tablet to participate in class message boards. Students were also asked about how often they use their smartphone or tablet in class for reasons not related to class. Less than 5% admitted to using their smartphone or tablet in class for reasons not related to class every time while about 12% said they use them often for reasons not related to class. Some teachers, seeing these devices being used, might assume that students are using them all the time or are off task during class. Clearly, there was a significant minority that did use these devices for off task reasons. But most claimed they did not. The following chart, Figure 9, demonstrates this claim.

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33 Daly's article is based off of a study conducted by Adobe, which can be accessed here at http://success.adobe.com/en/na/programs/digital-index/1305-13926-state-of-mobile.html.
If taken at face value, a majority of students either never or rarely use their smartphones for reasons not related to class. However, this also demonstrates another weakness with survey responses. My question is perhaps explicitly value laden. Many students, upon reading the question, could have seen this as a “right answer” versus “wrong answer” question and could have responded with what they thought I wanted instead of with what they do in reality. While this question’s responses might be limited in their reliability, I do not feel that the other questions should be taken in such a qualified fashion. Outside of class, however, students admit to using their tablets and smartphones for academic reasons such as writing, researching, taking notes, checking school email, participating in class message boards, etc. more often.
Students were also asked “Do your teachers incorporate smartphones or tablets into class activities, assignments, and learning?” The chart below shows that the majority of students report their teachers using these devices in class either “never” or “hardly ever.” There appears to be a cause-effect relationship here. Students may not be using smartphones or tablets outside of class for academic reasons because it is not encouraged by writing teachers or the writing program at large. Still, the data, specifically Figure 11, show that teachers are experimenting with using these devices in their classrooms.
The reading habits of students are also affected by the technology they use. Students also have a preference for how they read articles for class. The following chart surveyed students who owned a tablet only. Students were asked to rank how often they used a particular device to read articles for class. There was a downward trend for students who preferred to print out their articles. Almost 40% of students preferred to print out their articles “often,” while 9% “never” printed their articles out. While 60% of students said they “never” use their smartphone to read articles for class, slightly under 20% said the “sometimes” read their articles on their smartphones. Nearly 5% said they often read their class articles on their smartphone. More students preferred to read their articles on tablets than smartphones. Almost 15% said they read articles for their class on their tablets and 40% said they never read articles for their class on their tablets. Desktops and laptops were still preferred when reading articles for class. Over 75% said they prefer to read articles for class on their desktop or laptop. Among tablet owners, then,
desktops and laptops were still favored for reading class readings, followed by printing out the articles at a distant second, followed by tablets and then smartphones. The data show, I believe, a trend toward accessing articles digitally as opposed to print. As student ownership of smartphones and tablets increase, it will become more important to make sure that readings are not just digitally accessible, but that they are mobile accessible.

Figure 12. Bar Chart Showing How Students Read Documents for Class.

When asked about reading for personal reasons though, the results change. The biggest change is that printing articles drops precipitously and is arguably lapped by both smartphones and tablets as the preferred way to read for personal reasons. This could certainly highlight that students’ personal reading habits consist heavily of Facebook, Twitter, and other types of social media, where printing their feeds out would be seen as quite ridiculous. It might be safe to assume that the typical reading required of students at college is a drastically different type of reading that they consider “personal reading.” Students could associate printing an article out
with taking proper notes and making highlights and underlines. These note taking strategies of course can be applied to desktops, laptops, and mobiles. As students adapt to note taking on computing devices more and more, educators could expect more students to gravitate to desktop computers, laptop computers, and mobiles much more so than they do now. But desktops and laptops are still the preferred way to read for personal reasons. This also suggests that students are readers after all. The responses contradict often said larger cultural and academic presumptions that students do not read, or that technology negatively affects reading.

![Figure 13. Bar Chart Showing How Students Read For Pleasure.](image)

Finally, students were asked about whether they access instructor comments. Once again, the desktop and the laptop were preferred, followed by receiving instructor comments in print, followed by about 11% of students who access instructor feedback via tablet and under 5% that access instructor feedback via their smartphone.
Teachers at this same institution were also asked to complete a similar survey. Out of 41 instructors contacted, 17 completed the survey. Despite the fact that nearly 50% of instructors took the survey, due to the small, initial population size, the margin of error is a very high 18.41%. This means that the results of this survey are very contextual. Still, these results are by no means meaningless. For one, they can be added to data sets of instructors of FYC at other institutions to build a more complete tome for the field at large. And two, the results can be used within this specific program to make guiding assumptions about teachers of writing and mobile writing technologies. Lastly, other institutions can develop their own surveys based on this one or make hypotheses based on this survey to test at their own institutions. Therefore, because the survey outlines the methods, process, and results, this survey—although not statistically significant—is still RAD.
**Demographics of instructors**

Out of the 17 instructors of FYC 102 that took the survey, 64.71% (11) identified as female and 35.29% (6) identified as male. In regards to teacher ethnicity, 94.12% (16) identified as White while 5.88% (1) identified as Asian. When asked what the native language of instructors was, 88.24% (15) said English, 5.88% (1) said their first language is not English, and 5.88% (1) said they grew up speaking English and at least one other language. 5.88% (1) of instructors were between the ages of 21 and 24, 47.06% were between the ages of 25-30, 23.53% (4) of instructors were between the ages of 31 and 35, and 23.53% (4) of instructors were over the age of 35. No instructors identified as upper class, but a majority, 70.59% (12), identified as middle class. 23.53% (4) identified as lower class, and 5.88% (1) preferred not to mention their class. When asked, “What are your qualifications for teaching FYC?”, 5.88% (1) said they were working on their MA or MFA, 47.06% (8) were working on their PhD, 35.29% (5) said they already had an MA or MFA, and 11.76% (2) said they had a PhD. While the overall survey results are not statistically significant, proportionally they do represent the program demographics well. These results could be used as a guide for other programs who have teachers of a similar background in order to better understand their smartphone and tablet usage and practices. Due to the shorter survey, I have combined both the tablet and smartphone section for the teachers instead of keeping them separate as was done for the student section.

**Instructors writing with tablets and smartphones**

A little over one third of instructors, 35.29% (6), said that they owned a tablet while 64.71% (11) said they did not own a tablet. Out of the 6 that owned a tablet, 5 of them (83.33%) said they owned an iPad while 1 (16.67%) said they owned an Amazon Kindle Fire. Instructors
used a variety of apps—utility, entertainment, game, news, productivity, search tools, social networking, sports, travel, and weather.

Figure 15. Bar Chart Showing Where Instructors Access Their Tablets the Most Often.

As one can see in the above graph—similar to the student survey—instructors access their tablets most often at home, second most often for work, and least often when they are out and about. Notice how no teacher said they use their tablet most often when out and about. This lends more evidence to the assertion that tablets are perhaps not as mobile as they may seem, or that the teachers in the survey see smartphones and tablets in much more distinct terms. This finding is significant because mobiles can be associated with doing mobile activities—literally, activities that involve students moving around on scavenger hunts and the like—but that these devices do not always match up with the narratives of mobility in popular discourse.

As seen in Figure 16, instructors seemed quite willing to use their tablets for FYC related resources. Like students, when using their tablets for FYC purposes, instructors used their tablets
for checking class emails the most, followed by using it to access websites they intend to use for class, followed by accessing the library website, course syllabi, and their content management system. Instructors used their tablets less frequently for accessing student papers, course grades, or visiting academic databases.

![Bar Chart Showing What FYC Resources They Access on Their Tablets](chart.png)

*Figure 16. Bar Chart Showing What FYC Resources They Access on Their Tablets.*

Instructors were also asked about their smartphone ownership and usage, as seen in Table 17. 64.71% (11) of instructors said they owned a smartphone while 35.29% (6) said they did not. Out of the 64.71% (11) of instructors that said they owned a smartphone, 45.45% (8) said they owned an iPhone while 54.55% (9) said they owned an Android phone. Instructors used a variety of apps on their smartphones—utility, entertainment, game, news, productivity, search tools, social networking, sports, travel, and weather. The chart below showcases where instructors are most likely to access their smartphones. According to the survey data, the smartphone is a more
mobile device than the tablet for instructors, being accessed heavily when out and about. Smartphones were used less while at work, and smartphone usage at home was divided between those that accessed their smartphones least often at home versus those that accessed their smartphones most often at home. 

![Bar Chart Showing Where Instructors Access Their Smartphones Most Often.](image)

Figure 17. Bar Chart Showing Where Instructors Access Their Smartphones Most Often.

The survey then asked instructors for their thoughts and impressions about the current and future use of tablets and smartphones in writing courses like FYC. Sixteen instructors answered the remaining survey questions. When asked whether they think tablets will play an important role in the future of teaching FYC, 75% (12) said yes, 6.25% (1) said no, 18.75% (3) said they did not know, and 6.25% (1) did not answer the question. When asked if smartphones will play an important role in the future of teaching FYC, the results were more tepid: 37.50% (6) of instructors said yes, 31.25% (5) said no, 31.25% (5) said they did not know, and 6.25% (1) did not respond to the question. Switching from instructor thoughts to instructor observations,
instructors were also asked how many students they see using tablets already instead of laptops in each of their FYC sections. The following chart shows that instructors self-report observing tablets being used by students.

![Bar Chart Showing How Many Students Instructors See Using Tablets Instead of Laptops in Each FYC Section.](image)

Figure 18. Bar Chart Showing How Many Students Instructors See Using Tablets Instead of Laptops in Each FYC Section.

A follow up question was in regards to how often instructors observe seeing students using a smartphone for academic purposes. While this question is difficult to answer because smartphones could be being used for a variety of tasks (both academic and personal), instructors were still able to respond to this question. However, the data from this survey aligns with a study done by Pew Research\textsuperscript{34} that When asked how many students they see using smartphones for academic purposes in each of their FYC sections, most instructors reported seeing students using

\textsuperscript{34} This can be found at the link here http://www.pewinternet.org/Reports/2013/Teachers-and-technology.aspx.
smartphones for academic purposes. In other words, instructors already see students using tablets and smartphones for academic purposes in their classrooms (see Figure 19).

Figure 19. Bar Chart Showing How Many Students Instructors See Using Smartphones for Academic Reasons Per FYC Section.

A follow up question to the pervious one was whether instructors thought tablets are identical or near identical writing tools compared with laptops and desktops. 31.25% (5) said yes, 43.75% (7) said no, 25% (4) said they did not know, and 6.25% (1) did not respond to the question. When asked whether they believed that tablets and smartphones will become more important than laptops or desktops for communicating and writing in FYC courses, 12.50% (2) said they strongly agree, 43.75% (7) said they agree, 25% disagreed (4), 6.25% strongly disagreed (1), 12.50% (2) said they did not know, and 6.25% (1) did not respond to the question.

This data shows that instructors should not be viewed necessarily as curmudgeons about technology. Instead, about two thirds were open to using smartphones and tablets in their
classrooms. However, the one third who disagreed with the importance of smartphones and tablets might be able to offer valuable critique of using these devices. It would be interesting to further explore teachers’ concerns about this technology.\textsuperscript{35} Do these skeptical teachers see these devices as inadequate writing tools to accomplish course goals? Are they worried about the “outsourcing” of teaching labor in favor of “gimmicky” technologies, as Anson (1999) has pointed out? Perhaps it’s both. Perhaps it’s something else.

Finally, instructors were also asked whether they ever had a student write all or part of a paper on a tablet. 31.25% (5) said yes, 43.75% (7) said possibly, 25% (4) said no, and 6.25% (1) did not respond. When asked if they ever had a student write all or part of a paper on a smartphone, 18.75% (3) said yes, 43.75% (7) said possibly, 37.50% (6) said no, and 6.25% (1) did not respond. Remember that page 18 (Figure 7) presents the student responses to this question. About 10% of students reported writing entire papers and parts of papers on tablets, and if you include the amount of students who at least access papers on tablets, the percentage jumps to 25% of students. While the instructor responses are not statistically significant as the students responses are, 31.25% and 25% are remarkably close. If one cuts it more conservatively, though, one can say that instructors think that 31.25% of students are using tablets to write all or part of their papers while in reality only about 12% are doing so. If one interprets the results in this manner, it would mean that teachers are assuming their students are using these devices more often for writing papers, and perhaps for other academic purposes, than what they really are. This would mean that teachers and writing programs, if they value the tablet as an academic writing technology, would need more encouragement of this device in writing classrooms (e.g., addressing tablets in the syllabus, course goals, writing program documents). While both the

\textsuperscript{35} Chapter 5 includes other concerns reported from Pew surveys which can be found here http://www.pewinternet.org/~/media/Files/Reports/2013/PIP_NWP%20Writing%20and%20Tech.pdf.
student and teacher surveys indicate students using mobile devices to assist in writing academic papers in various ways, the surveys only give a picture that still needs further interpreting. My interpretation would put the percentage of students using tablets and smartphones as tools for writing academic papers between 10% and 25%. This scale could of course vary depending on the institution, student demographics, and other factors.

**Takeaways and conclusions**

While the data collected for this chapter is intended to be preliminary, there are several insights and claims that I feel comfortable making using this data along with the findings of previous scholarship. One of the main goals of this chapter specifically, and the dissertation in general, is to have a more complete picture of composing practices to more comprehensively reflect how students write. There are four data points that I feel are the most salient and these I have drawn on more than the others to develop several theoretical and pedagogical implications involving academic writing and tablets and smartphones. They are as follows:

1) Significant minorities (10% to 25%, depending on the interpretation of the student and teacher surveys) of students have used smartphones and tablets to write parts or all of their research essays.

2) Students are more likely to access non-academic databases than scholarly databases by a wide margin on both tablets and smartphones. They are most likely to access academic databases on desktops or laptops.

3) Students do most of their revision practices on desktops and laptops. Students are also less likely to revise globally on tablets and smartphones. However, regardless of device, students prefer to revise only at the word and the sentence level.
4) Teachers see mobiles as an important educational tool, but are also skeptical about mobiles. These findings show there are both important distinctions and also transference and recontextualization in the writing practices between mobiles and desktops and laptops.

The most important finding that I can claim from all of the data in this chapter is that while there are promising signs that tablets and smartphones are reinvigorating writing, these devices might lend themselves to practices that scholars and teachers of writing “don’t like,” such as students revising less and on a more local level with these devices and doing research on un Scholarly and commercialized sites instead of academic databases. However, these devices also have a tremendous ability to encourage self-motivated writing and present students with complex rhetorical situations and audiences that they need to adapt their writing to.

They also have potential to be integrated effectively into writing classrooms. Writing scholars, writing teachers, and writing program administrators must look at these devices in a nuanced manner which takes into account their student and teacher populations and the various rhetorical, critical, and functional issues the writing program values. Although my survey is not significant in regards to smaller populations, other surveys (Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013; Smith, 2013; Yu, 2013) suggest that Black and Latino populations are more connected on smartphones than whites are. Similarly, tablet ownership is skewed to middle and upper class, white populations (Rainie, 2012). If the data of this chapter about revision and research practices are correct, it could mean that tablets and smartphone integration into education could exacerbate educational issues in those demographics. On the other hand, educators and schools should consider the variety of literacies students are bringing with them to classrooms in order to develop outcomes, goals, and pedagogical practices that value or consider
the complexity of writing. The following theoretical and pedagogical implications, I hope, could assist writing programs as they move forward concerning these issues.

**Theoretical implications**

1. Tablets and smartphones certainly encourage the production of new texts, genres, and literacy practices. However, they also can be used to reproduce traditional genres and texts. Of course, students are also using these devices uniquely. Drawing on a more activity theory analysis of this uniqueness, “The result is that readers determine how to adapt the information to a new discursive activity and context [which are] problems of translation and recontextualization” (qtd. by Swarts p. 174). Similar to Swarts’s (2006) conclusions about PDAs, tablets and smartphones “make information mobile but without specific regard to the ecological boundaries that the information now crosses” (p. 174).

2. Tablets and smartphones complicate scholars’ knowledge of writing processes. Our understanding of process theory and the claims of previous scholarship should be qualified and reassessed with the introduction of tablets and smartphones as writing devices. Building on John Jones’s (2008) study of revision in Wikipedia articles, these devices then seem to put “unique structural demands on writers, possibly leading to unique revision patterns” (Jones, p. 264). Tablets and smartphones extend these “unique structural demands” to other stages of the writing process, including invention, reading, and research practices.

3. The critique of process as a grand narrative has typically come from a postmodern critique in the form of post process. While there has been attention to the weakness of process theory in that it tries to universalize the writing process, tablets and

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36 See Breuch, 2002; Kent, 1999; Olson, 1999; Russell, 1999; Petraglia, 1995
37 For example, when it comes to basic writers or ESOL writers.
smartphones add a material critique to the post-process critique in that prior understandings of process are perhaps wedded to specific desktop and laptop technologies which lay down a priori assumptions about academic writing and technology that need to now be reconsidered. For example, how do the design and accessibility of academic resources and databases affect research writing (as seen in Figures 4, 5, and 7) and how does the materiality and ideology behind the construction of tablets and smartphones affect revision (as seen in Figures 7 and 14)? This does not mean we have to abandon or lampoon previous scholarship, but that we have to go deeper to better understand the practices students recruit when using specific technologies to compose in traditional academic genres.

4. The genre of the academic research paper’s genealogy comes out of the age of print literacy. A lot of the processes, expectations, and values that go into teaching and composing this document are challenged by a transition in technology from desktop and laptops to tablets and smartphones. For example, do all students have access to the same type of word processors or computing devices (Figure 7), to what extent should teachers and programs be flexible with what word processors and computing devices students use, how do students access, value, and evaluate sources based on what device they are using (Figures 5, 6, and 7), how can students outside literacy practices (Figures 1 and 13) be incorporated into the research paper writing process, and what happens to the concept of a ‘draft’ and revision when students are accessing their research papers from different devices? Instructors and writing program administrators should then keep a critical, ethical, functional and rhetorical eye to genres valued by their programs as these devices

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38 See Sidney I. Dobrin, J.A. Rice, and Michael Vastola’s Beyond Postprocess, which moves conversations about writing into the realm of posthumanism, materiality, and writing ecologies. Chapter three, then, seeks to add to this scholarship.
could exacerbate digital divide issues, challenge the relevance of the project of FYC and other writing programs in general, and necessitate scholars to reexamine the discourse practices and knowledge producing procedures of the research paper.

The information from the survey also lends itself to several pedagogical claims involving academic writing and tablets and smartphones.

**Pedagogical implications**

1. Tablets and smartphones are being used by students to not only compose in new genres, but genres that one might not expect them to compose in, namely the academic research essay.

2. Stages of the writing process such as invention, composing, research, and revision are not necessarily being eliminated, but are being translated and recontextualized by tablets and smartphones. Writing programs and teachers should be aware of this and help make resources available to students not just digitally, but also available to students on mobile devices.

3. Looking at previous scholarship in regards to addressing prior technological issues can assist instructors and WPAs in addressing pedagogical, rhetorical, critical, and ethical concerns that tablets and smartphones pose. In other words, while these devices seem quite new and alien, our field already has a large library of scholarship to help us address these issues and we do not have to reinvent the wheel.

4. Students, teachers, and other stakeholders will have a growing exigency to help them manage composition and communication issues that tablets, smartphones, and digital

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literacies bring to various environments (academic, professional, etc.). Students’ use of these devices will continue to manifest itself directly (through using these devices academically) and indirectly (through students’ personal or outside literacies affecting academic composing practices). Composition studies is already in a position to assist in this, although whether it is in the domain of an FYC program, an English program at large, or a multidisciplinary endeavor would be up to individual schools.

Chapter five will develop the tentative conclusions, implications, and future research questions further. However, two salient questions are worth bringing up at this point:

1) Who uses these devices, why, and under what conditions?

2) What is the quality of writing, education, and pedagogical practices using these devices?

While this survey might begin to address these issues, I believe that the survey method is limited in answering these questions as completely as they should be. The responses paint a bit too broad of a picture in terms of pairing up students’ writing on these devices with why they have chosen to use them or not use them. The literacy narrative in chapter four, while it is not meant to represent students at large, hopes to address these questions further with a specific example that will provide more detail. It will draw implications for teachers and scholars of writing from one student’s literacy narrative by attempting to address questions about how students draw on technology to write, what meanings students assign to various writing practices, and how students value writing technologies. Also, the surveys do not begin to address any primary texts students produced with these mobile devices. Thus, a much more careful textual/discursive analysis would be needed to answer the second question. The survey also does not address the quality of pedagogy as these devices are incorporated into FYC classrooms. How can these
devices be used to achieve program benchmarks and goals? I hope chapter five will begin to speculate on this by drawing on instructor interviews.

Finally, this chapter leaves me with a thought that was first presented by Andrea Lunsford and John Bravman (2008) after their Stanford study of student writing, that new technologies and digital environments are rich and complex ecologies that do not destroy literacy, or make “digital doofuses” (Roumani, 2013) out of student writers, but instead make writing, research, reading, and teaching writing much more complex. With tablets and smartphones, student writers are using complicated thought processes to compose in new genres, taking into account new audiences, and making decisions about formatting, grammar, and usability. Their new digital literacies are then affecting how they compose in traditional academic genres (in this case the research essay) and challenging scholars to better understand writing processes.
CHAPTER IV: TECHNOLOGY USE IN THE 21st CENTURY: TECHNOLOGY LITERACIES AND MOBILES

This chapter seeks to build upon, complement, and even complicate the findings of the previous chapter. The previous chapter used quantitative, RAD (replicable, aggregable, data driven) methodologies and methods to come to several conclusions about tablets and smartphones as compared with desktop and laptop computers. That chapter’s data suggested that there were many differences between using tablets and smartphones for aspects of research paper writing compared with using desktops and laptops for aspects of research paper writing. Students are more likely to revise, and revise globally, on desktops and laptops than with tablets and smartphones. Students are also more likely to access unscholarly and commercialized databases for research than to access academic databases on tablets and smartphones for research purposes compared with when students use desktops and laptops. The survey also suggested that significant proportions of students used all four devices—or some combination of at least two or three of them—at various points in the writing process.

Chapter three’s survey allowed me to develop several theoretical and pedagogical implications for tablets and smartphones, as compared with desktop and laptop computers. Smartphones and tablets move writing, information, and genres across numerous cultures, technologies, and contexts, in the words of Jason Swarts (2006), “without specific regard to the ecological boundaries that the information now crosses” (p. 174). Similar to other digital sites like Wikipedia, tablets and smartphones place “unique structural demands on writers” (Jones, 2010, p.264) that affect what scholars understand as the writing process. And lastly, since the research paper genre comes out of the age of print literacy, tablets and smartphones challenge present writing programs with new functional, critical, and rhetorical issues in regards to this genre.
Instructors and writing program administrators, then, should take heed to recognize four pedagogical implications to chapter three. Many students use tablets and smartphones, and will continue to use them, for academic purposes. Genres and processes of writing are not being destroyed but are instead being translated and recontextualized by tablets and smartphones. Incorporating tablets and smartphones and paying attention to mobile literacy practices can empower a writing classroom—as have incorporating desktops and laptops have done over the past 30 years. And finally, while the previous chapter focused on one genre, the academic research paper, writing done across the curriculum and in other genres is seemingly just as affected.

The goal of this chapter is to take a closer look at digital literacy practices to explore deeper issues related to technology and academic writing. While the previous chapter used breadth of scope to come to tentative generalizable claims about academic writing on tablets and smartphones, the next chapter will focus in on several interviews to develop a modest case study about one student’s journey through the academic writing program surveyed in the previous chapter. This chapter first presents a literature review defining literacy narratives, technological literacy, and digital literacy while highlighting significant findings about literacy that are important to this project, showing how they have contributed to the field of composition’s better understanding of students’ literacies—both print and digital. The next section will then explain how I went about conducting my digital literacy narrative with Breda, a first-year student enrolled in the first-year composition research writing course. The second section will explain the theoretical framework and research methods. The third section will present the digital literacy narrative followed by a section that discusses the literacy narrative, highlighting salient issues, themes, and details. Lastly, the chapter will end with a conclusions section that will
highlight some implications and findings as they are related more specifically to the original research questions.

**Understanding literacies in the 21st century**

**Literacy narratives defined**

What is a literacy narrative? Todd Ruecker’s (2012) *Computers and Composition* article “Exploring the digital divide on the U.S.-Mexico border through literacy narrative” defined the literacy narrative as “stories of people learning to read and write” (p. 240). Furthermore, the purpose of literacy narratives, according to Selfe and Hawisher’s (2004) *College Composition and Communication* article “Becoming Literate in the Information Age: Cultural Ecologies and the Literacies of Technology” was to place “technological literacy in specific cultural, material, educational and familial contexts” and uncover “clues about the constellation of factors that can affect—and be affected by—electronic literacy acquisition and development” (p. 646). Literacy narratives, then, are stories of reading and writing highlighting the various contexts and factors that literacy acquisition arises from. These narratives can be recorded and published in video format such as. One study can include many narratives (Brandt, 1994; Ching & Ching, 2012) or just a few (Hawisher & Selfe, 2004; Ruecker, 2010). By carefully analyzing these narratives, scholars can develop rich, detailed portraits of people’s lived experiences with writing and reading.

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40 While this is not an exhaustive discussion of literacy narratives and literacy, these works, in my view, establish significant concepts and ideas that highlight the importance of literacy narratives and recent literacy scholarship. This literature review discusses works over the last fifteen or so years. The history of literacy is more thoroughly historicized by Berlin (1987), Brereton (1995), Hawisher, Leblanc, Moran, and Selfe (1996), Miller (2012), and Murphy (2001).
**Technological literacy defined**

Technological literacy can have both narrow and broad definitions. Narrowly it can mean being able to functionally use technology,\(^{41}\) such as creating a PDF file or composing a document in MS Word. A richer and more productive definition for this project is to define technological literacy as something that goes beyond functional literacy, something that see technological literacy as “a complex set of socially and culturally situated values, practices, and skills involved in operating linguistically within the context of electronic environments, including reading, writing, and communicating” (Selfe, 1999, p. 11). Selfe’s broader and deeper definition of technological literacy has been invaluable to the field of composition studies and is the definition I choose to use. Similarly, Stuart Selber in *Multiliteracies for a Digital Age*, argued that not only is functional literacy important, but that critical literacy—the ability to question and critique technology and digital spaces—and rhetorical literacy—the ability to take into account the users and audience of what has been created—must be incorporated into the field’s understanding of technological literacy and best pedagogical practices.

**Digital literacy defined**

I feel that there is much overlap between the terms digital literacy and technological literacy, and perhaps they are nearly indistinguishable. The difference between these two terms, if there is any, could pivot on digital literacies emphasis on online environments. Marilyn M. Cooper, in her chapter “Learning Digital Literacies” in Cynthia Selfe’s edited collection *Multimodal Literacies* (2007), defined digital literacies as “reading, writing, and exchanging multimodal information in online environments” (p. 181). Colin Lankshear and Michele Knobel (2008) defined digital literacy as “a shorthand for the myriad social practices and conceptions of

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\(^{41}\) See Stuart Selber’s *Multiliteracies for a Digital Age* or DeVoss, Eidman-Aadhal, and Hicks’ *Because Digital Writing Matters* for further discussion on functional literacy.
engaging in meaning making mediated by texts that are produced, received, distributed, exchanged, etc., via digital codification” (p. 5). Perhaps one could argue that the distinction between technological and digital literacy is that digital literacy emphasizes the online and the digital codification of writing while technological emphasizes the binary between print and computer. For many years, one could have made a distinction between technological and digital literacy given that not all writing and reading technologies were online. One could buy *Encyclopedia Britannica* at a software store in 1995, install it on a computer, and access it without going online. However, nearly all software now has an online component. Video game consoles typically require an internet connection now, student writing is often saved to the cloud, and the vast majority of student extracurricular writing is done on online blogs and social networking sites. This is not to say there is absolutely no distinction between writing online and writing offline, but that the trend is toward nearly all writing and reading practices being influenced by online, digital literacy. This being said, the technological platform used to do writing—desktop, laptop, tablet, and smartphone—does indeed embody certain material and physical attributes which can affect writing. The term “technological” might not even be necessary anymore. Perhaps “technological” needlessly reinforces a binary between print and digital, as suggested earlier. Are there still enough cases of people writing and reading without technology\(^\text{\textsuperscript{42}}\) to make a distinction? Overall, in this chapter I will refer to both Selfe’s definition of technological literacy and Cooper’s definition of digital literacy as technological literacy.

**Research findings related to technological literacies**

Not all scholarship on technological and digital literacies is done using literacy narrative methods of course. But much research uses literacy narratives exclusively or at least uses

\(^{42}\) It is true that pencils, paper, papyrus, the printing press, etc. are all technologies. Here, I am referring to late 20\(^{th}\) and early 21\(^{st}\) century computer and online based technologies.
interviews as a part of the process to compose a narrative. The following discussion will present some significant findings in terms of digital and technological literacies that affect students and teachers, and hence should be engaged with by writing program directors and other administrators.

Deborah Brandt’s (1994) ambitious article “Remembering Writing. Remembering Reading” sought to “explore literacy learning as it has occurred across the twentieth century” by having them remember “the occasions, people, materials, and motivations involved in the processes” of writing and reading (p. 461). These findings demonstrated that most people associated being able to read with “prestige” (p. 462) and “with learning, relaxing, and worshipping” (p. 470), while writing had “a less coherent status in collective family life, and much early writing is remembered as occurring in lonely, secret, or rebellious circumstances” (p. 464). The narratives Brandt conducted also demonstrated “that reading and writing were actually often linked in school assignments but usually in a way that subordinated writing” (p. 473). Her interviews helped to expand “the scope by which we study literacy practices and the need to understand school-based writing in terms of larger cultural, historical, and economic currents” (p. 477).

Gail Hawisher and Cynthia Selfe (2004) surveyed several articles about technology and writing, reporting how:

we have learned from early studies with word processing that writers might compose differently with computers but probably not better (Hawisher, “Research”); we have learned that online venues can assist in encouraging intellectual engagement (Cooper and Selfe) but that these online spaces are probably no more egalitarian than their face-to-face., classroom counterparts (Romano)” (p. 643).
Building on that research, Hawisher and Selfe (2004) then drew attention to the study of literacy through the literacy narrative and arrived at five conclusions. The first one was that “literacies have lifespans” (p. 644). An example from my own life to demonstrate this concept is how when I was in elementary school the school librarian diligently and painstakingly taught us how to use the card catalog. To the card catalog drawers we would go, trying to find the appropriate index card for a particular type of book we’d want. While the Dewey Decimal System is still with us, it is now exclusively electronic. We access books and other information differently in electronic and online environments. Similarly, electronic and online environments offer us a variety of ways to search for information. Literacies arise, change, evolve, amalgamate, and sometimes disappear.

The second concept Hawisher and Selfe (2004) arrived at was that “People can exert their own powerful agency in, around, and through digital literacies” (p. 644). This finding, which corroborated previous research from Giddens (1979) and Feenberg (1999), demonstrated that technology is not deterministic and does not always control our behaviors, but instead can be manipulated and molded by its users. The third concept developed was “Schools are not the sole—and, often, not even the primary—gateways through which people gain access to and practice digital literacies” (p. 644). Besides schools, other important gateways for literacy acquisition include workplaces, communities, and personal relationships. The fourth finding was that “The specific conditions of access have a substantial effect on people’s acquisition and development of digital literacy” (p. 644). Access is not merely having a computing device physically available to you, but is better understood to include “large-scale historical, political, and economic factors” (p. 673) that affect one’s access to a device. Their final finding was that “Families transmit literacy values and practices in multiple directions” (p. 644). In other words,
there was not just a parent-to-child transmission of literacy, or an older sibling passing on literacy to the younger, or of a child teaching a parent how to use a computer or smartphone; instead, literacy can be transmitted in all of these ways.

Another of Deborah Brandt’s (1998) articles, “Sponsors of Literacy,” argued that while “writing studies has had much to say about individual literacy development,” there had been few attempts “to connect literacy as an individual development to literacy as an economic development” (p. 166). To help draw attention to “literacy as an economic development,” Brandt (1998) developed the concept “sponsors of literacy,” defined as “any agents, local or distant, concrete or abstract, who enable, support, teach, model, as well as recruit, regulate, suppress, or withhold literacy—and gain advantage by it in some way” (p. 166). Using “sponsorship” to analyze literacy can have many benefits, according to Brandt, including: how it “can force a more explicit and substantive link between literacy learning and systems of opportunity and access” (p. 169); how “sponsors are engaged in [the] processes of positioning and repositioning, seizing and relinquishing control over meanings and materials of literacy” (p. 173); and how “sponsors enable and hinder literacy activity, often forcing the formation of new literacy requirements while decertifying older ones” (p. 178-179). Overall, Brandt’s (1998) project helps writing teachers and scholars better understand the multiplicity of forces that encourage, discourage, and transform literacy.

Denise Ives (2012), in “Kristina’s Ghetto Family: Tensions and Possibilities at the Intersection of Teacher and Student Literacy Agendas,” drew attention to the disparity that exists between student digital literacies and the alphabetic literacies still privileged in classrooms. This study used interviews, classroom observations, and artifact analysis to showcase “how a student-
authored play showcasing cultural and linguistic resources disrupted the planned curriculum and how tensions were negotiated by the teacher, student, and researcher” (p. 39). Using the Bakhtinian concept of “centripetal forces,” Ives demonstrated how “hegemonic centripetal forces resisted and ultimately marginalized students’ literate interests and agendas in the classroom” (p. 39). In other words, the student’s understanding of the assignment and the literacy practices it is designed to assess were pushed and pulled by privileged academic literacies and also by the student’s own cultural and linguistic background and non-academic literacies.

Todd Ruecker’s (2012) piece, “Exploring the Digital Divide on the U.S.-Mexico Border Through Literacy Narratives,” also added to the discussion of how qualitative literacy narratives can complement quantitative studies. Ruecker specifically worked with “two students transitioning through high school and into a two-year college or four-year university” (p. 239). His research “complicates understandings of the digital divide by exploring technological divides between educational institutions and the role that gateways, external sponsors, and self-sponsorship play in students’ technological literacy development, especially when confront with limitations on access” (p. 239). Ruecker made use of the works of “John Scenters-Zapico’s (2010) Generaciones and Selfe and Hawisher’s (2004) Literate Lives,” which “situate literacy narratives in specific contexts, exploring how the complex ecology of a geographical location on the U.S.-Mexico border or a social movement like the Civil Rights Movement shape the way people learn to use technology” (Ruecker, p. 242). Furthermore, Ruecker drew on Deborah Brandt (1998), who “developed the theory of literacy sponsorship, which identifies sponsors as ‘any agents, local or distant, concrete or abstract, who enable, support, teach, model, as well as recruit, regulate, suppress, or withhold literacy—and gain advantage by it in some way’” (p.
Brandt’s (1998) theory included both positive and negative sponsorship, the latter being represented in someone or something denying access” (p. 242).

Susan Kirtley’s (2012) *Computers and Composition* article “Rendering technology visible: The technological literacy narrative” argued for the importance of literacy narratives in the classroom as an assignment. Literacy narratives can help instructors and writing programs understand how technology affects composing practices (p. 191). These narratives can also help students, teachers, and writing programs better understand writing ecologies that are affected not just by technology, but “race, class, or gender” (p. 200). Kirtley mentioned one problem with literacy narratives that she encountered in her classes, however. Many students either lack the vocabulary to fully articulate their experiences with technology, race, class, and gender, but even if they do understand them, “they might feel compelled to censor their words and lives in a public forum” (p. 200). Kirtley also favored technological literacy narratives to be written over the course of the semester, which “allows students to shape their own stories and increases awareness of technology” as they move through the semester instead of just right at the beginning or even right at the end of the semester (p. 200). Similarly, I employed this method and timeline in my own research for similar reasons instead of just having one interview session.

Other scholarship has focused on how younger students acquire technological literacies. Jane Agee and Jeanette Altarriba’s (2009) *Research in the Teaching of English* article “Changing Conceptions and Uses of Computer Technologies in the Everyday Literacy Practices of Sixth and Seventh Graders” surveyed and interviewed middle schoolers about how they used technology. Overall, the sixth graders interviewed were surprisingly uninterested in computers at all, even for gaming and social purposes. They also were not engaged with using computers for school work (p. 384-388). But by seventh grade, students who were interviewed showed more
engagement with computers in terms of entertainment, social, and school use. The researchers found that the social lives of students greatly affected their computer use, as did “contextual factors” such as family members affecting when and how the sixth- and seventh-graders used the computer. This study showed just how nuanced technological literacy acquisition really is. While sixth- and seventh-graders are usually grouped together as young adolescents or middle schoolers, there were stark differences in how they used and conceptualized technology. The researchers also claimed that “computer technologies may be problematic for younger adolescents in terms of cognitive, social, and physical needs” (p. 392).

Amber Buck (2012), in her *Research in the Teaching of English* article “Examining Digital Literacy Practices on Social Network Sites,” also explored the intersection of academic and outside literacies, emphasizing that “examining the social, technological, and structural factors that influence digital literacy practices in online environments is crucial to understanding the impact of these sites on writing practices” (p. 9). Buck’s case study of her subject, Ronnie, showed that, similar to other research like Ives (2012) and Agee and Altarriba (2009), his “everyday literacy practices are embedded within an ecology of practices that is shaped by social and technological influences on his writing and his self-presentation on social network sites” (p. 35). As literacy practices evolve on and through social network sites, users “encounter important questions about data management and ownership, privacy, and identity representation” and “spending time on social network sites means developing digital literacies to negotiate the new rhetorical situations they encounter, where one status update is broadcast to many different friend groups and where social media companies frequently change privacy configurations” (p. 35). Essentially, the effect on writing practices she found was a greater attention to and concern with privacy and identity.
Technological literacy narratives and other studies too often leave out specific populations of people, and instead focus on younger people such as adolescents and young adults. While part of the reason for this is that the demographic that makes up the overwhelming amount of composition classrooms is adolescents and young adults, strictly focusing on this demographic doesn’t give the field of composition a full picture of technological literacy practices. Many scholars have drawn attention to this and have sought to expand research of literacy practices to older populations (Blair & Hoy, 2006; Bowen, 2011; Brandt, 1998; McKee & Blair, 2007). An important argument found either implicitly or explicitly in these works is that, in the words of Bowen, “we might see literacy less in terms of measuring up to the most recent technological innovations and more in terms of how individuals regularly innovate in order to make meaning in their everyday lives” (p. 603). Many scholars, including Scenters-Zapico (2010), Ruecker (2012), Berry, Hawisher, and Selfe (2013), have also helped compose the stories of people of color, which have contributed greatly to better understanding digital divide issues.

Similarly, there has been scant research on teachers and their technological and digital literacies. Technological literacy narratives, it is argued, can help better understand students’ relationship to technology and writing. But it can also help teachers and writing programs understand the tensions that teachers experience in the classroom with technology. Many teachers understand the push and pull of privileged, alphabetic, and academic literacies against other literacy practices. Many are also concerned with technology issues in the classroom. In Ching and Ching’s (2012) “Past is prologue: Teachers composing narratives about digital literacy,” the authors used technological literacy narratives “to gain valuable insight into the histories and existing values toward technology that might influence instructors’ practices of
teaching technological literacy” (p. 206). While “composition scholars long advanced critical technology-infused pedagogies as a means toward greater student agency and autonomy (e.g., Hawisher & Selfe, 1991; Ohmann, 1985),” there hasn’t been as much attention to the technological literacy narratives of teachers. The concern the authors had was a pedagogical one. How can writing programs better understand why some teachers are more resistant to incorporating technology and non-alphabetic literacies in their classrooms? Is it possible to help “resolve the ongoing tensions between alphabetic and digital literacies in [instructors’] lives”? (p. 207). Ching and Ching (2012) concluded that the “critical reflection fostered by the techno-literacy autobiographical narrative may play a crucial role in transforming the meanings of experience” of instructors when it comes to technology and digital/online environments.

**Theoretical framework and research methods**

The goal of this chapter is to provide an understanding of how different writing technologies are used by a student, to analyze what ways they are different, and to explore how they affect composition studies’ notion of process and how computer technologies and writing are related. I have chosen the interview method to create a technological literacy narrative in order to address these questions because while “Most researchers recognize that large-scale statistics provide one picture of salient educational trends,” narrative can present to us “the human and very personal face of social, cultural, economic phenomena that so fundamentally shapes the project of education” (Selfe & Hawisher, 2012, p. 36). The technological literacy narrative constructed here draws heavily on Selfe and Hawisher’s (2012) analysis of how the interview has changed over the years, culminating with a feminist structure and process in interview methods. Specifically, this feminist structure and process has several characteristics. It is “semi-structured (e.g., Gubrium and Holstein; Ritchie and Lewis), as conversations (e.g.,
Palmer; Burgess; Lofland and Lofland; Shepherd) in which all participants—researchers and informants—understand that they are engaged in mutually shaping meaning, and that such meaning necessarily is local, fragmentary, and contingent” (p.36). In the past, interviews were often about “extracting information,” (p. 36) but I saw myself as a learner in this project as well. This is not to say that I was not in a powerless position, or that Breda saw us as equals exchanging knowledge. But I did try to structure the interview meetings and the interview questions in a way that helped us establish a relationship over the course of the semester (not just over one interview session). We also interviewed face-to-face. I crafted my questions to be open-ended and was more than willing to share my own anecdotes and stories with Breda. I also went off script to follow up some of her responses, as these stories might be “suppressed or go underinterrogated in more conventional forms of interview research” (Selfe & Hawisher, 2012, p. 39; Mishler, 1986). This narrative, then, highlights not the “God stories that yield coherent narratives of complex phenomena” but the “coyote knowledge of individuals, which provides small, but potent glimpses of the meaning people attach to the everyday practices of their literate lives” (Selfe & Hawisher, 2012, p. 42).

An introduction to Breda and the research methods

It is this feminist structure and process that guided my interview of Breda. For the duration of this project, Breda was a freshman at a medium sized, public university located in a small Midwestern town.44 She is originally from the suburbs of a large Midwestern city and is 19 years old. She is white, her parents live together but have never married, and she classifies herself as middle class. Her mother is from Ireland and therefore Breda holds dual Irish and American citizenship. Breda has an older half-brother. She is interested in becoming a primary school teacher. During freshman orientation, Breda tested into the basic writing course, which

44 She was a student at the same university that the survey was conducted in.
she took during the Fall Semester 2012. She passed it and then matriculated into the upper-level research writing course, which she took during Spring Semester 2013. This is not the most common but not an unusual path through the writing program. It was during Spring Semester 2013 that our interviews took place.

Breda was recruited through my survey. She was one of several students who said they were interested in being interviewed about their use of technology, but she was the only one decided to come in for a meeting to discuss her role in the project. Her first interview was on February 25th, 2013, her second interview was on March 25th, 2013, and her last interview was on April 22nd, 2013. Each interview session lasted about an hour. We communicated via email only to verify future interview dates.

The first interview attempted to focus on her technological literacy narrative and her writing practices from the beginning of the Spring Semester. The second and third interviews focused on her writing and reading practices during the academic research writing assignments for her research writing class. The original interview questions focused on desktop, laptop, tablet, and smartphone usage in this regard. However, keeping in mind the “semi-structured” and open-ended nature of the interview process, we occasionally went off track to discuss her outside, non-academic writing and reading practices and her writing in other classes. The interviews were recorded on my iPad2 using an app called Audio Memos. I was able to transcribe the interviews on my own.

**Literacy narrative**

Hawisher and Selfe (2004) established “the importance of situating literacies of technology…within specific cultural, material, educational, and familial contexts that influence, and are influenced by, their acquisition and development” (p. 642). This narrative follows Breda
from elementary school through her first year of college—but also outside of education—to help understand how she has developed technology literacies and how they influence her experiences with desktop, laptop, tablet, and smartphone technologies. Breda grew up during the 1990s and the first decade of the 2000s. This time period saw numerous technological developments in regards to computers and the internet. The personal computer would be found in more and more homes during this decade. Windows 3 was launched in 1990, which allowed for users to run more than one program at the same time. It was also the first time we’d see the now ubiquitous Microsoft Word and Microsoft Excel. Microsoft released Windows 95, which allowed users easier access to the internet and a more user-friendly interface. Speed and user-friendliness drove computer technology innovation. Windows 98 included the web browser Internet Explorer 4.1. Google was founded in 1998, transforming web searching from “web directory” based to “relevance” based. Napster went online in 1999 and became perhaps the most famous—or infamous—peer-to-peer file sharing service. Laptop computers became more popular. What they often lacked in power they made up for in mobility. Apple, which had almost totally collapsed in the 1990s, was roaring back by 2000 under the leadership—and return—of Steve Jobs. MySpace was founded in 2003 and then was overrun by Facebook a few years later after it went online in 2004. Social media became a new way to interact and communicate with people online, competing with instant messaging and emailing. User generated websites, such as YouTube, became the most popular sites on the internet. In 2007, the first iPhone was released, revolutionizing the phone industry and marginalizing non-smartphone cellphones. In 2010 the

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45 To read more on the history of the Windows Operating System, one can visit http://windows.microsoft.com/enu-us/windows/history.
46 For further understanding on the difference between web directories and search engines, one can visit http://www.csn.edu/PDFFiles/Library/directsearch3.pdf.
iPad was released, although this was not the first tablet (Microsoft had released one in 2001). This is not meant to be a complete history of computer and digital technologies during the 1990s and 2000s. However, it is meant to refresh our memories for the variety of innovation, speed, and power that has transformed computer technologies in just the last two decades.

It almost goes without saying that Breda emphasized the importance of technology in acquiring literacy, specifically highlighting how important school sponsorship was in her early experiences with technology:

Computers have been very important to me. We’ve been using computers since I’ve been in elementary school. And I remember when we got the first Macintosh computer with the colors on it. And they taught us how to type on it, how to do research on it, how to use PowerPoint. So we were able to do lots of different things in 4th grade. And then when my mom got our first computer I always used that for research and for essays and stuff, and now I have my own laptop and I’ve been using that ever since.

Breda’s experience with computers started in the classroom. Hawisher and Selfe’s (2004) emphasis that students acquire and develop technological literacy outside of school, of course, does not diminish the importance of school sponsorship early on. With anecdotal stories of toddlers and elementary school students playing with smartphones and tablets, future research should be sensitive to changing developments to early childhood literacy acquisition, similarly to how Agee and Altarriba (2009) noticed differences between 6th and 7th graders technology use and acquisition. It was not until a few years later that her family purchased their first computer. A few years after that, as Breda was getting ready to go to college, her family purchased a computer for her. Even though family is a sponsor in this first story Breda shared with me—and

she will go into further details about family sponsorship later—her view of computers at this point is centered on it being an educational tool, being used to type papers, do research for class assignments, and to make PowerPoint presentations and essays.

Breda became even clearer about the importance of school as a gateway sponsor to new technology, technology that she might not have picked up otherwise. She credits school libraries and academic search engines as being an integral experience to her using technology and developing literacies in these technologies:

I would say that most of my influence comes from school actually because they always tell you to use different technology. Like, the libraries here give you EBSCO. They give you different resources to use for it. It’s what I’m actually doing in my GSW class right now; I’m using EBSCO. So, they give you lots of different resources to use for it. They encourage you to use technology.

Granted, Breda’s focus on school technology could reflect that the interviews are taking place in an academic office; she could be censoring other experiences as Kirtley (2012) pointed out students sometimes do when discussing their technological literacies. Breda, at this point, didn’t discuss many other sponsors of technology. However, in her reflections she continued to associate her development of technological literacy as being strongly influenced by her educational experiences.

When asked what lessons about technology she has learned in college, she talked about the differences between high school and college (implying that the transition between high school and college is a time of particularly rapid and varied technological literacy acquisition and abandonment), and how different these levels of education were to acquiring technological
literacy practices. She also compared it with what her father has told her about his experiences in school:

…my dad is in his 60s. He always told me that he never used email. He had to go to class. Learned everything in class. Went back [home]. Already had the homework assignment. You didn’t go online to get your homework. You didn’t go online to do anything. It was always through a book. And so that’s how I thought college would be like. Because that was what my parents told me. And then when I came here I got my homework online. I didn’t get a planner like in high school. And [in high school] they told you what [the homework] was in class, they don’t tell you what [the homework] is [at college]. You have to check online on your own. So they give you all the resources you need to make sure you can do as well as you can, but like you have to do it all on your own. So, it’s important to know that when you first get into a college situation.

Her response to the interview question highlighted not only how drastically different parents’ and their children’s literacy experiences can be but also how different they can be in the short amount of time between senior year of high school and freshman year of college. Technology not only changes quickly from year to year, but technological literacy can change quickly and fluctuate heavily depending on various needs and ecological networks (e.g., school, work, friends). Her story, both in person and as it is transcribed here, sounded as if she were incredulous about the fact her 60-something year old father did not have email when he was in school and did not have to go online to get his homework. Granted, I think she did understand her father did not have access to the same technologies as she does now. However, this suggests that students can have a variety of expectations and exposures to technologies as they matriculate through education.
When asked more specifically about her technology experience in elementary, middle, and high school, she recalled learning how to do online searches and write in cursive in elementary school; writing a report on Washington, D.C. in middle school; and taking a typing and web design class in high school:

In elementary school it was more we wrote little books. Like they were teaching us how to look up things online. I remember they’d give us a topic for something for us to look up and I’m pretty sure I picked my dog. And then we had to google it. So I googled Maltese and they gave us all the research on it and I wrote a half a paragraph on how my dog was different than other dogs. So I would say, “Maltese’s are defined as white.” Well, not defined, but I’d have to explain how she was different from other dogs. In second grade I learned cursive. But um, yeah we also got to type books and I have three little kid books and they have poems inside of them and we had to type those out too. Cause we had computer lab and computer class every Thursday for an hour. And then in intermediate school, which was 5th or 6th grade, I was typing more reports. I wrote a report on Eleanor Roosevelt. And I did the research off of a bibliography and then an online database as well through our school. Um, I did a report on Washington DC. And I did a lot of research online for that I remember because everyone took a trip to DC in 8th grade but I couldn’t go so I had to write the report. And for the 3 days they were gone I spent two of those days sitting in a computer lab researching and I’m pretty sure I did a report on the Lincoln Memorial and Washington Monument. And I spent two days just researching things, looking on Wikipedia, looking online, looking at video sources, and I had to cite them all. I had to learn MLA that year. It wasn’t as complex as it is now. So we didn’t have to have as many things. We had to have the name, the date it came out,
and then like how many pages the article was. But in 8th grade that’s still a lot. And then high school is where we went all out. It was kind of like here. We had the online files we could use. We had, um, full out MLA like it is here. I had technology credit every year up until 10th grade. I took a technology class every year. We had, um, we had computer labs in elementary school, as well as intermediate school. At Leerwood….I had my, um, technology class where we learned how to make different websites and stuff. And that was pretty interesting.

Breda specified that the websites they made were not done in Adobe Dreamweaver or some similar program, but through a “free website, a free online web making database.” She described her website as a blog with pictures that she kept updated through the semester. When the class ended, she no longer kept the website active and “totally forgot about [it].”

The school also directly sponsored technological literacy through a keyboarding class she took in high school:

Well high school was fine because I took a keyboarding class. Yeah, um, because you needed a technology credit. You needed one technology credit to graduate high school. I’m not a big technology person. I try to use it as much as I can but I don’t like computer science and stuff. And it also counted as business credit. So I was like, “Oh I’ll just take keyboarding” and it was the last class that they would ever have keyboarding. And I took that last class and got it done with. So it was good though. She had a piece of cardboard over our hands so we couldn’t see what we were typing and stuff. But it helped me, it helped me a lot.

Her stories from high school hinted at her school focusing on developing functional literacy (writing in cursive; using online databases; reporting information on Maltese dogs, Washington,
D.C., and Eleanor Roosevelt; learning how to type; and creating a template based website). Similarly, technology is often spoken of by Breda as a means to an ends—but at times she seems to have neutral or even positive feelings about it. Her Washington D.C. report was done because she missed a field trip. Her typing and web design class were taken to fulfill technology and business credits. Perhaps this highlights how—practically—technology was incorporated into the curriculum. However, this is but one slice of the metaphorical pie and general claims about education at the K-12 level cannot be made here. But in Breda’s testimony about technology in K-12 education, there is not any mention of rhetorical or critical literacies being activated.

Breda went on to discuss how she can navigate both the Windows and Mac OS interface but has recently developed a preference for Macs because they are easier to use and handle, and are quicker and faster. At this same moment, she highlighted another powerful literacy sponsor in her switch from Windows to the Mac OS interface—her mother. Her mother got her a MacBook Pro before Breda started college because “[her mother] researched it and said this was the best laptop to use in college”:

I actually used to be a PC person. We used to always have Windows and stuff at my house. But in August my mom got me the MacBook Pro because she said that she researched it and said this was the best laptop to use in college. It was supposed to last me for the next four years. And I actually like Mac a lot more than I like PC. I find it a lot easier to use, a lot easier to handle, I find it a lot quicker and actually goes a lot faster than my Windows computer does.

As an educational tool, Breda highlighted several factors in her using her MacBook Pro over other technology at college. First, she trusted her mother as an authority figure to make the right decisions about technology. Second, Breda—due to her mother’s input—highlighted the
functional and financial advantages of the MacBook Pro, namely that it will work effectively for 4 years, it is easier to use, it is easier to transport, and it is faster than a Windows PC. I do not want to imply that it is “objectively” true that a MacBook Pro is better in these ways from a Windows PC, a tablet, or other technology. Instead I want to highlight the importance of efficiency, cost, and mobility when it comes to Breda’s choice of a computer, along with the importance of her mother’s sponsorship. The first factor—her mother—harkens back to Brandt’s insight into defining and locating sponsors of literacy, and the latter—the functional and financial advantages—highlights Brandt’s (1998) understanding of “literacy as an economic development” (p. 166).

On top of using her MacBook Pro, Breda also uses a Kindle Fire and a “regular cellphone, not a smartphone” as other technological tools. In Breda’s words, her Kindle Fire is:

…very similar to an iPad except it’s much smaller….they have all of these different apps on it that you can go through but compared to an iPad it’s more about books. Like if you try to read a book on an iPad it’s much more glary and stuff. But with the Kindle Fire it’s very easy to read and stuff. And they try to make it look as close to a book as they can.

Breda also made a distinction between her tablet usage and her laptop usage in terms of how she uses them for reading. Brandt’s (1994) research had exposed a divide between how people remembered their reading experiences versus their writing experiences. Breda’s testimony also demonstrates interesting divides between the writing and reading practices she does on her devices. She does not use her tablet much to write:

I use my tablet once in a while. Usually it’s for reading my books. Um, my laptop I bring everywhere with me. I use that for a lot of reading, a lot of research, and I even use it in my classroom for taking notes. Um, today I used my laptop to read Adobe PDF files
because of my [FYC] class I’m researching the JFK assassination. So I’m highlighting all of the PDF files on my laptop and saving it there.

She did point out though that while her tablet is often used for personal reading, she is “pretty sure” she could use the tablet for school. She specifically highlighted the fact that she thinks it would save her more money if she were to use her tablet for school:

…I use it for personal reading, I’ve never really tried it for school reading. But honestly I’m pretty sure I could. Like, now that I think about it, it’d save me a lot more money, being digital….Yeah, I like the cheaper stuff, but if something’s more expensive and it works better than I’ll use it.

Her Kindle Fire offers her a pleasant reading experience. The screen is made to look like a real book and uses technology that causes minimal to negligible strain on the eyes. One can even buy covers for the Kindle Fire to make it feel more like the cover of a book. When I asked her a follow up question about other reasons why she would prefer to use a laptop over a tablet, she drew attention to the fact that there is a different physical experience between the tablet and the laptop, which she highlighted as a reason for using one over the other for writing:

…compared to my tablet, my tablet doesn’t have a keyboard, the tablet isn’t as big. I just have a little small Kindle Fire. And I like the Kindle Fire because I can have like 40 books on there rather than carry multiple things. With my laptop it gives me a lot more tabs, I have a lot more access to things that I get at a lot quicker pace rather than on a regular tablet.

However, she has not used it at all for school. Previous research conducted by Agee and Altaribba (2009) showed that “contextual factors” could contribute to a lack of interest in computers. And Critel (2013) demonstrated in the literacy narratives that she conducted “a
disinterest in technology can be culturally related.” While I did not ask her why she did not use it for school, some possibilities other than Agee and Altaribba’s (2009) and Critel’s (2013) suggestions are that mobile technology is not encouraged by her teachers, she is discouraged to use it because her peers are not using it often for school, she is not encouraged to do so by other literacy sponsors in her life, the Kindle Fire is functionally more of a reading device and she would have to bring a notebook to write in or a laptop to type on to do in-class writing, and/or the Kindle Fire simply does not offer any functional advantages to a laptop. Further research would be needed with students who do heavily use tablet technology for school to determine this complicated web that leads students to use one technology over another.

**Interviewing Breda about her writing processes, first interview**

Breda’s technological literacy narrative gives a glimpse of the sponsors of literacy and the cultural/historical ecologies of her literacy development. Over the course of the Spring 2013 semester, I also interviewed her about her writing processes as they related to her class in academic research paper writing. The interview questions, I hope, provide a rich description of her writing process given that artifacts and observations were not used to complement the interviews. During the first interview on February 25th, Breda informed me that she was already preparing to write her research essay despite there being over 2 months left in the semester:

…right now we are writing about our own [topic] where we get to pick our own topic so I picked the JFK assassination. Because there are lots of different theories behind it so I’m reading lots of different articles behind that because we have to have 10 sources for it.

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48 Breda used the word “article” here. She used “article” at various times as a term for the paper she was writing along with sources she was reading to incorporate into her paper.
When Breda first talked about the research essay, she focused in on the amount of sources she needed to have for it—as can be seen in the above quote—and that the research paper topic was something that she controlled, as opposed to the previous writing class she took at the university:

   Yeah, our research essays are our own topic. So, it’s different from our [previous] class because they gave us the topics we could choose from, so.

To use composition vocabulary, Breda is focused in on invention and research when describing the beginnings of her writing process.

   Because the first interview took place while she was completing a previous source based writing assignment for the class, I asked her to take me through her writing process for that paper. Not surprisingly, computer technology mediated a heavy portion writing and revision process:

   Well I usually start with an outline because when I have an outline I feel a lot better when I got to write it out in the future. And so I started with an outline, and then I did that on Microsoft Word. And then I made another document and started to write based off of my outline. And then I wrote for about 4 hours while I was also looking at some of the articles that I had because I had paper articles right in front of me….Then I finished that; then I turned it in. And [the teacher], she edited it all for us and sent it back through email through Canvas. And it was through Microsoft Word so it had all the highlights, edits, annotations on our articles, so then we revised our articles based off of that.

Breda used Microsoft Word to make multiple documents (an outline and drafts) related to her paper. She also used email as the tool to submit her paper to her instructor and to receive instructor feedback. But she also used paper articles because they were “right in front of” her.

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49 Breda used “articles” here and in other place to refer to her paper, not sources for her paper.
When revising, she discussed how she liked to work on her laptop as opposed to using paper drafts. This testimony corroborated Dave and Russell’s (2010) article that “printing out to revise may be on the decline” (p. 406). She appreciated being able to retrace her steps when revising by using the “track changes” option in Microsoft Word:

I actually prefer to work digitally. I highlight it, I underline it, and on MS Word they have that thing where you can cross out the whole thing and it’s one of the fonts you can do and you can just drop a line through it. And I do that most of the time and figure out what I need to do. The way I see it if I have a line through it, I don’t like to change it at that point, I try to write what I need to do first before I make changes. That way I have an idea of what exactly I need to go through. Yeah, so I have lots of drafts. I think I turned in Multiple Source Essay number 5 or 6. Like I was through quite a few. And I can follow the whole transition of how I got it there and it usually helps me.

In other words, she liked to keep track of her multiple revisions because it helps her understand how she got to where she is and where her paper is going.

Breda’s class meets in a computer lab and all of the students sit at desks with desktop computers in front of them. Despite this, she used her own laptop, as do “a lot of the [other] students”:

We are in a computer lab but we have the option to use our laptops. And that, there’s not that many GSW classes who have that. But a lot of the students do bring in their own laptops.

When asked about the reasons why she prefers to use her own device, she highlighted that it is more efficient in that it saves her time trying to write and access the paper, and that she does not have to keep a flash drive on her:
With my laptop I know what I want to do with it and it saves me some time rather than working on the computer and emailing it to myself. I save it. I know exactly where it is. I don’t worry about it. Don’t have to try finding it later and I don’t have to use the flash drive either.

Many of Breda’s responses as to why she used her laptop substantiated previous work on laptops in the classroom, such as that of Efaw, Hampton, Martinez, and Smith’s (2004) study published in *Educause*. This study highlighted student’s testimony about laptops over desktops or pint, including that laptops are more efficient and quicker to write on, allow for better organization of documents, and created a more personal atmosphere for students (p. 15-16). Laptops also allowed for more innovative classroom setups (p. 16). However, this study also demonstrated a weakness that mobiles and not desktops could fill: students reported that carrying around a laptop is cumbersome and it was routinely cited as the most common reason why students did not like bringing their laptops to class (p. 15). Other students pointed out it didn’t allow them to draw, highlight, annotate, draw arrows, etc. as easy as a print notebook could. Breda, at times in the interview, also pointed out how there are times her laptop aggravated her in the same way, but never implied that she would abandon it for another technology like a mobile. However, other students could very well make a decision that a mobile device’s advantages in terms of being less cumbersome and having a touch screen that allows them to draw, highlight, annotate, draw arrows, etc. and abandon a laptop for a mobile device.

The first interview session ended with her discussing research practices once again. She focused on how she used a database in high school called LECCA, which was “an online database for all the city schools.” However, she was more prone to using “online searches more,” referring to using search engines to garner sources. She described it as “kind of like EBSCO, but
it’s dialed down a bit because it doesn’t have as much information on it.” She then provided further detail of her usage of EBSCO and Wikipedia:

I think EBSCO is a lot better [than other ways of searching] because it’s just the one word and then have the articles right there. When you go online you have to search through a lot of different sources and you don’t know if they’re always reliable. Like they say Wikipedia is not always the most reliable thing. If I go to Wikipedia I find something and see…where they got the information from. Then I go to those sites.

She then highlighted the importance of EBSCO in terms of its quickness and reliability, but also acknowledged how she uses Wikipedia to do research.

Overall, three themes emerged from the first interview session: 1) she seemed to be making complex decisions about research while stressing the frequency of her revisions/drafts, 2) her laptop was clearly her preferred device to do writing—trumping desktop computers, paper and pencil, and mobile devices—and 3) she focused heavily on organization and efficiency as factors in why she chose to write and compose in the manner that she did.

**Interviewing Breda about her writing processes, second interview**

The second interview was held March 25th and at this point in the semester Breda was 3 weeks away from turning in her research essay. Like the previous interview, this session focused on her research practices. Breda explained how she went about collecting sources for her research essay on the JFK assassination:

I used EBSCO mostly, and then [the instructor] told us that it’d be really beneficial for us if we tried to look online and see if we could find stuff off the internet. So I went onto YouTube and I researched who shot Kennedy. And I found a Nova video. I asked her if I could use this and she said “yeah it was fine.” It was very informative so I used that for a
reference. And then I used the book called “Case Closed.” And so that was very informative and Case Closed was the best source I had because it had so much information.

This testimony from the second interview sessions highlights findings from the first interview session about Breda being able to navigate through several types of sources and databases to locate information on the JFK assassination.

In addition, she was asked about how she went about reading articles found online and in databases and she responded that she looks at the title, skims the subtitles and parts of the paper “to see if they give me any hints about what it’s going to be about.” She also said that she prefers to print off copies so that she can highlight them with a highlighter. However, for the research essay she decided to read and highlight on her laptop:

And it still works the same but I just like being able to highlight by freehand. But I used PDF files so I was able to highlight text and stuff so it was pretty useful and I was able to do that on my Mac. And I was able to take that home with me and everything, which I really like.

In this testimony and at other places, Breda waffled about which technology she valued more, print or PDF. Was this about how she valued the technology, how literate she was in using certain technologies, both, or something else? Breda compared her ability to read and annotate on hard copies with her Kindle Fire by saying that the Kindle Fire is not able to let her annotate and interact with the text as easily. So, she uses her tablet for “different things.” One reason why she preferred to use her laptop this time around for reading and annotating articles was “because

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50 This waffling could be explained by Kirtley (2012) in her article that students composing technology literacy narratives do not always have the vocabulary to articulate their experiences with technology, especially when trying to incorporate race, class, and gender into their narratives. Furthermore, “they might feel compelled to censor their words and lives in a public forum” (p. 200).
printing here is expensive. The articles that I had were like 15 pages long. So I don’t have my own printer and 5 cents per 1 sheet, 9 for two, and it just keeps going up there. I have a printer at home so I printed off a couple of articles while I was on Spring Break. I printed off a couple at home and read them like that but I had to highlight online…to keep everything in one spot.” I believe in Breda’s case many of her decisions to use a technology are pragmatic (efficiency, cost, ease of use).

The interview then turned to how Breda described how she came to be interested in the JFK assassination and why she chose to write about it for her research essay. She described both a process involving a worksheet provided to the class by the instructor that helped them pick topics and determine controversies in those topics, but she also discussed how important her family and culture—being Irish Catholic—was in this process:

I picked the JFK assassination because that was something that I’ve always thought about since I was younger cause my mom’s from Ireland so we’re a big Catholic family….My dad is Catholic as well….He had this big 1,000 page book that he actually just finished reading about last month, just filled with all of this information about the JFK assassination. And, um, so my family is just really interested in that stuff….And my dad gave me…an old Time magazine from 1963 about the JFK assassination…so I got to use that too.

When asked to compare her writing process to previous papers she’s written, she highlighted how she had put the most effort and time into writing the research essay compared to other papers. She also emphasized how she not only worked on her paper in her dorm but also at home and while visiting her boyfriend at his university. When discussing the writing process of her paper, she once again focused heavily on reading articles and incorporating them into her
essay throughout multiple drafts. But she also discussed how she used YouTube and Nova videos in her project as well. The only other aspect of drafting or revising the paper she highlighted in our interview was correcting “a lot of little spelling errors I made and stuff.” In recollections of her writing process, then, she focused heavily on incorporating sources, citations, revisions, and—all as an afterthought—mechanical/spelling errors. Breda also mentioned that this paper is helping her become a better writer, which she explained as improving her grammar and developing a better understanding of “the structure of how essays should be.” The last point she made about her writing process was that she typically had websites open while she was writing—including but not limited to Facebook and YouTube—which she used mainly for entertainment or social purposes while she was writing her paper.

The interview ended with her reminiscing on how her technology use has changed just over the past year:

I do use my cellphone quite a bit much. Like, as soon as I go home I don’t use it. I use it only when I’m here [at college] cause I text my boyfriend….So I text a lot more. I go on the internet a lot more than I used to, even social networking sites. I go to them more because I like to keep in contact with people….I go to the computer lab once in a while. I used to go to the library a lot at home and I do the same thing here. And I go to the computer lab if I don’t want to walk to the library to just print something out or if I just need some place quiet where I can think and stuff because they have a couple of chairs in the back corner and I use those once in a while instead….I actually use my Kindle less here than I did at home and um, I used to read a lot, and I liked reading my books and when I used my tablet I’d go on the internet read different things online like read CNN,
Her reflection on how her technology usage has changed from her senior year of high school to her freshman year of college highlighted a few important implications. The transition from high school to college for Breda encouraged her to 1) expand and develop new technological literacies (text messaging more, being on social networking sites) mainly to keep in touch with her boyfriend and other friends, but 2) also retracted her use of some other technological literacies (using her Kindle Fire and using desktop computers) seemingly because a laptop is better able to meet her academic, social, and entertainment needs as a student. This finding supported Hawisher and Selfe’s (2004) claim that literacies have lifespans. The way it expanded and retracted these literacies might be seen as surprising if one subscribes to the view of technology always advancing, therefore putting the new always ahead of older technologies. As Agee and Altarriba (2009) have demonstrated, but to use Brandt’s (1998) term “sponsor,” there are distinctive periods in a student’s life that can transform their literacies rapidly and these periods are not just influenced by advancement in school, but by their social, family, and entertainment needs.

**Interviewing Breda about her writing processes, final interview**

The third interview began with Breda describing in some detail the content of her research paper. Breda’s paper argued that Lee Harvey Oswald was the lone assassin. She also addressed counterarguments, such as other people besides Oswald were involved in the assassination and the mafia was the true perpetrator of the assassination. She also specifically argued against certain types of evidence that had been presented by conspiracy theorists over the years. Breda cited one piece of evidence linking Oswald to the crime was a picture of him where...
he is photographed holding the rifle that was used to kill Kennedy. She stated that many people thought this photo was fabricated, but that it indeed wasn’t. She also argued that Oswald was in the book depository the day of the assassination, which ran contrary to what some conspiracy theorists believe.

Breda then explained her writing processes of the research essay. She began by highlighting how much she had written, “about 10 pages,” and that she “had to write a lot [2] of counterarguments.” She explained that “it was just a lot of writing and a lot of revision. Just going back and forth through it all. And I had to go read some of my articles again. Watch the video again.” She also described how mediated her research process was by her computer:

I did so much research on the computer. Like every argument I had. I had an article that stated the information but I always wanted to go deeper. I always wanted to find more information… so that I could try and understand it better. So I was online all the time. I went home two weekends ago before my essay was due to like just bring some of my stuff home before we get out of school. And I sat in my bed for 6 hours looking up…for two hours I wrote about Jack Ruby and the problems behind him. I read about the picture. I read about something else too. I read a little about the mafia but I’ve read a lot on that before. But I read something else for about 2 hours too. I spent about 2 hours on each of the things I was looking for. And that was just off Wikipedia, the news. I actually read something on CNN about it. Like even if it wasn’t included in my article I tried to read as much as I could so I was as well informed as I could be.

Breda seemed to concentrate on the length of time it took her to write the paper and read sources, just as earlier she focused on the length and number of counterarguments. But she also highlighted a complex network of research that took her from EBSCO, to Wikipedia, to news
sites, to YouTube, balancing and sorting through a variety of articles, many of which never made it into her paper so she could “understand [the topic] better.”

One theme that came out in Breda’s testimony was the importance of convenience when it came to writing, specifically the importance of the environment she wrote in, especially in regards to comfort and personalization:

I’d go into the computer lab if I have to print stuff. Like I’ll sit there….I’ve done some research in the computer lab before and it also runs faster than the WiFi here. But um, I usually kind of usually do it in my room, sit in my bed, read it and then…on my laptop I can take screen shots. So with the screen shots I’d grab my highlighter point and underline it even in the picture just so I could remember it and the URL is right there and I can bookmark it and stuff.

Many of her writing habits were driven by her previous technological literacies (e.g., being able to take screen shots and underline on the computer, bookmarking). This highlighted that outside literacy practices greatly influenced not only the writing process but the writing product (for instance, in terms of what sources were used).

Breda further elaborated on her writing process by drawing attention to printing cost issues as a reason why she preferred to work online:

I emailed them all to myself…but for the book I had to write out everything else because I didn’t have an electronic book. But for my articles I didn’t want to spend like $5 on like all my papers to print….I like hard copies but I tried using electronic for the first time and it wasn’t too bad. I’m one of those people that I like hard copies. I will use the internet like crazy, I like technology. It’s very useful. But I’m still one of those persons who likes
the hard copy. But I’m not going to go spend $5, $7 on it. Because last semester in my GSW class I wasted a good $15 printing out articles. So I didn’t want to do that this time. Students like Breda could be very attuned to the “hidden cost of composing.” Printing articles, buying textbooks, and buying technology (e.g., laptops, desktops, or tablets) seemed to influence her writing processes and could affect writing practices more generally in other environments.

Finally, when she was asked to speculate about how to succeed in future classes, she focused on an incident that happened to her during one of her classes demonstrating the importance of hard work:

…this guy in my class…was telling me how he only read about 2 paragraphs out of each of his journals, or sources, and stuff. And I was like “How do you do that?” And he kept telling me he BS’d everything. And then we got her grades back today and it was out of 15 points. I got a 14 out of 15. Or a 13 out of 15. He had a 2. [dramatic pause] And I was like, well, see, I don’t feel bad. If you’re only going to read 2 paragraphs out of each source and you’re trying to BS everything I don’t blame [the teacher]. But I think reading. If you think you understand what you’re writing about that’s one of the best things you can do. That and rereading your essays. I reread my essay about 4 times. Proofread.

When it comes to writing for academic purposes, her response focused on the importance of reading a lot (even rereading), doing lots of research, and proofreading papers. Ultimately, this final interview session focused heavily on the content of Breda’s paper and her emphasis on “doing a lot” (such as reading and rereading, and writing to a certain page length) to succeed, but also drew attention to the importance of 1) convenience and comfort as an important factor in
writing, 2) outside literacy practices influencing her academic writing practices, and 3) the importance of the cost in using one technology or resource over another.

Emerging themes

What can technological literacy narratives tell us about writing processes and computers (desktops, laptops, tablets, and smartphones)? Previous discussion of mobile technology and mobile writing have centered around expanding the field’s scope of research to include genres such as instant messaging (Johnson-Eilola & Selber, 2009; Haas & Takayoshi, 2011), have attempted to situate “the roles of teachers and students” (Kimme Hea, p. 6, 2009; Kitalong, 2009; Turnley, 2009), and have discussed “logistics, security, privacy, and cultural assumptions” (Kimme Hea, p. 7, 2009; Hochman & Palmquist, 2009; Dean, Hochman, Hood, & McEachern 2004; Efaw, Hampton, Martinez, & Smith 2004). This narrative seeks to build on these conversations by focusing on one student’s relationship to technology and journey through a research paper assignment. As various writing technologies proliferate, writing instructors and scholars can expect many types of differences in how writing happens (e.g., physically, socioeconomically, culturally). Below are some of the more important findings from Breda’s literacy narrative and writing process questions.

The transition from high school to college

The transition from high school to college is a particularly volatile time period in acquiring and developing, as well as forfeiting and losing, different types of technological literacy. In Breda’s case, she reduced her Kindle Fire usage. She also greatly increased her frequency of texting. It was also the time that her parents bought the iBook laptop as her primary educational tool. Some factors as to why this transition is particularly in flux could be because of
a change in physical location, increasing (cultural) capital devoted to education, and changes in social relations and relationships.

**A (complicated) disinterest in mobiles**

Her narrative lacked much discussion about mobile technologies (both smartphones and tablets) in regards to academic writing. Breda’s reluctance to use mobiles for a genre like an academic research paper betrays not a lack of innovation or a lack of digital literacy, but suggests a heightened sense of genre, audience, and rhetorical and critical awareness. This finding fits into recent scholarship that complicated student plagiarism practices and understandings of the “copyright crisis” (Howard, 2005; DeVoss & Porter, p. 178, 2006) and traced the complexity of and situates student social networking practices (Buck, 2012; Maranto & Barton, 2010). From this commentary on her technology literacy narrative, I claim that if writing scholars value mobile and other technologies in the classroom, more bridges must be built between incorporating mobile technology into the classroom setting than even what is typical for other types of technology. Mobile technology in schools lags behind other technologies such as laptops and desktops, and also lags behind digital spaces such as Google, YouTube, Wikipedia, and even typing classes. There is plenty of excitement when it comes to mobile technology. Perhaps Breda’s story is one of the last of its kind to be told—one where mobile technology was and is not a part of her school experience.\(^5\)

Outside literacy practices involving mobiles, then, can affect other academic literacy practices valued by instructors and writing programs. Students who neglect revision or fail to use scholarly sources might be doing so because their outside literacy practices do not value these writing practices, or value them in different ways. Therefore, it is not always about being lazy,

\(^5\) Breda, in an aside, discussed how her 4 year old niece already has an iPad and knows how to use it to search for Barney and educational games. She also brought up that as a part of her elementary teaching program, she observes elementary classes and sees classrooms with iPod, iPad, and smartboard technology.
ignorant, or pressed for time. This assertion is similar to findings about plagiarism and patch writing (Howard, 2005). Many students can be using a set of literacy practice not valued by academia.

Social, familial, academic, and financial literacy sponsors

In regards to Breda’s narrative, social motives were an influence on adopting technologies. For example, she used her cellphone more in college for texting—specifically her boyfriend—than she did at home. Money motives are also important in adopting technologies. Most social networks, for example, are free to use. Search engines, email services, and sites like EBSCO, YouTube, Wikipedia, and CNN are also free. Breda pointed out that one of the factors in her purchasing a MacBook was that it would last for four years, implying that it was a worthwhile purchase. Family motives for both technology and what she wrote on were also very important. It was her mother that did research into what type of computer she needed for college, and, in regards to her research writing paper, her topic was highly influenced by her father’s interest in JFK and the fact she came from an Irish Catholic family. Yet Breda also pointed out throughout her narrative the importance of technology in her K-12 and college education. Almost all of her academic writing experiences were mediated by technology.

Ambivalence towards mobiles for academic purposes

Breda seemed to feel ambivalent though about the place of mobile technologies in the classroom and as an educational tool. For example, she had never really thought about using her Kindle Fire as an educational tool, using it sparingly for pleasure reading. She originally preferred to use hard copies of articles until she noticed the cost of printing them off, and she often used a notebook and pen for taking notes (and still does in one of her classes where
students using laptops have to sit in the back of the classroom). When she discussed online PDF articles, she highlighted that she liked them because they could allow her to do the same things she did on a hardcopy (highlight and annotate), but added that keeping copies online helped her stay better organized.

Functional, punitive, and purposeless memories about technology in school

While Breda highlighted numerous experiences about technology in elementary, middle, and high school, many of the stories she told portrayed an uneasy relationship to technology. She was unable to tell me whether her website class taught her HTML or not. She had “totally forgotten” about a blog she had kept until I pursued the topic of her high school technological experiences further. Her paper on D.C. was almost a punishment (at the very least a facsimile for experiencing D.C. with the rest of her class). The story she told about her elementary paper on her Maltese dog emphasized functional use of a search engine. And her typing class also focused on functional literacy—but had the added benefit for her of fulfilling a business class requirement. Technology use in school—in Breda’s stories—were either purely for functional purposes (searching online, fulfilling a requirement), punitive (her middle D.C. report and her professor making those with laptops sit in the back), or even purposeless in hindsight to her (one could interpret her HTML and blogging story in that manner).

The functionality and cost of technology and writing

In regards to her writing processes over the semester for her research paper, Breda recalled how her research practices are deeply influenced by technology. Not only does she use numerous web sites to do research (EBSCO, YouTube, Wikipedia, and CNN), but her choice of

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52 Breda stated that in one of her classes, the professor made students with laptops sit in the back of the class because laptops were distracting to her and (the professor believed) to other students.

53 Breda did say here that she didn’t mind using her notebook and pen for notes. But she said she likes to sit at the front of the class, so if she wanted to use her laptop she would have probably been coerced into rejecting that technology for that class.
not using print sources is often determined by the fact that printing articles and manually highlighting and annotating them is costlier than using a computer to do so. She also said that using her Kindle Fire is not as good for highlighting and underlining as her MacBook Pro is. She mentioned nothing about using a smartphone in her writing process.

Breda’s responses to questions about her writing process can help further inform writing scholars about student invention, reading, researching, and revision habits as they relate to technology and technological literacy. Students’ previous experiences with technology in school can heavily influence how they partake in aspects of the writing process in FYC courses. Breda, for example, had used LECCA (the academic database used exclusively by her school district) and EBSCO previously and therefore was able to navigate EBSCO easily for her research paper. She also was able to use the highlight and annotate function on PDF files easily because of prior experience with this technology. Print was still used by Breda, but her primary impetus for transitioning to PDF files was cost, although she also mentioned a secondary reason in that it allowed her to be better organized. As students go through the writing process, the reasons for their idiosyncrasies can therefore be quite varied, and differences in how students write shouldn’t always be looked at as deviant but as the result of complex exposures to technology (both in and outside of school), a result of sponsors, and as a result of economics and culture. To quote one of Genevieve Critel’s (2013) findings from her chapter in Computers and Composition Digital Press’s Stories that Speak to Us, “Remixing the Digital Divide Minority Women’s Digital Literacy Practices in Academic Spaces”:

A disinterest in technology can be related to cultural identity. Assuming that students are uninterested in technology because they are technologically illiterate undervalues whatever critical technology literacy they may possess. Some students find less use for
technology than others. Digital writing teachers should be sensitive to how a lack of interest in technology literacy might relate to cultural and familial history in the lives of particular students.”

Breda’s story also highlighted aspects of how complex her relationship is to technology when she writes. She claimed that her only interest in text messaging was to keep in touch with her boyfriend and some friends. She pointed out how she thought her Kindle Fire was more of a technology for pleasure reading. And she also exclusively used Microsoft Word and the various features in Microsoft Word (e.g., comment bubbles, track changes) as her exclusive writing and revision technology. She was also able to make even more nuanced decisions about technology. She used YouTube as an academic source but knew that the videos had to be reasonably academic. She was able to use the Nova episode as a source, but used other YouTube videos only to help herself understand the topic better. Students then can have a variety of assumptions and habits when it comes to technology, but these habits evolve from numerous, repeated, and rich interactions with technology over the years.

**Changes in revision and research habits**

While closer studies are needed to determine more precise changes in writing habits on mobiles as compared with laptops and desktops, there are some conclusions about these changes that come out of Breda’s testimony. Revision is being affected by technology. This is nothing new. Most recently, Dave and Russell (2010) and Jones (2010) have shown this in their own studies. But Breda’s story shows that, like Dave and Russell (2010) found, printing off drafts to revise is a dying practice. More and more revision is done solely digitally. Breda’s reasons for this were the cheaper cost of not printing and the convenience of working on her laptop. Other students might be or could be simply substituting laptops with tablets and smartphones for
similar reasons. Closer studies are needed to understand their motivations and the effects it could have on their revision process.

Research practices are also in flux. While Breda felt comfortable with using EBSCO, she also mentioned CNN, Wikipedia, and YouTube as research sites for her academically. While she felt comfortable using these sites because she has used them personally, she also was reluctant to incorporate them into her paper, or, when told she could, seemed incredulous. Students (and teachers) have values when it comes to “appropriate sources.” These same students (and teachers) also have values when it comes to “appropriate technology.” Further research is needed to help bridge the gap between these value systems.

**Takeaways and conclusions**

Even though readers might notice that this student’s literacy narrative and interview ended up focusing more on her laptop as opposed to her use of her mobile technology, the implications are still relevant to the overall questions of this project. And looking closely, the information provided about her tablet and smartphone use—while smaller than the information provided about her laptop—is still highly significant. This project began with three general research questions:

- What types of writing, research, and reading are first-year composition students doing on smartphones and tablets?
- How are smartphone and tablet academic writing, research and reading practices mediated and situated?
- How do first-year composition students write for academic purposes differently on smartphones and tablets compared with desktops and laptops
While the first part of this project uses survey methods to address these questions, the second part of the project attempts a literacy narrative and interview of a random student to help provided more details that can be missed by surveys. While the original questions focused heavily on academic writing, Breda’s narrative and interview questions also took us through her non-academic writing practices.

- *What types of academic writing, research, and reading are first-year composition students doing on smartphones and tablets?* The survey showed that there are many students using tablets and smartphones to access course materials, email with professors, view documents, and even compose, revise, and edit papers to varying degrees. Breda’s story shows that—as a student who does not use mobiles for these purposes—merely owning these devices does not mean that students will proactively incorporate them into academic purposes. Breda saw mobiles as tools for texting and reading for pleasure. This does not rule out that some students do incorporate these devices on their own.

- *How are smartphone and tablet academic writing, research, and reading practices mediated and situated?* Ownership and use of these devices for both personal and school purposes is deeply mediated and situated by socioeconomics, culture, relationships, values, and sponsors. Breda’s case emphasizes how important sponsors such as her mother were for her choosing her laptop as her almost exclusive academic computing tool. Her relationship with her boyfriend was important in her texting practices, and her social networking practices were heavily influenced by the fact she has moved away from home to attend school. Breda also emphasized how important personalization and comfort were when writing on her laptop. Literacy narratives and interviews can help researchers understand further reasons that students use one technology over another, and
determine what factors (in this case, socioeconomics, culture, relationships, values, and sponsors) encourage or discourage literacy practices involving one technology over another for writing, researching, and reading tasks.

- How do first-year composition students write for academic purposes differently on smartphones and tablets compared with desktops and laptops? Breda’s answers in regards to this research question are “negative” in that they show how she writes on her laptop often but provide scarcer evidence about how she writes on tablets and smartphones for academic purposes. Breda’s case shows that students like her might be uncomfortable using multiple devices for writing tasks. This could be because it is more difficult to keep writing organized across devices, because once a student determines a device or tool is functionally superior to another they lose motivation to use other tools, because of pressure from institutions/teachers/other students to use one type of technology over another, or because there is an inherent difference in writing, reading, and researching on mobiles compared with laptops and desktops due to the expectations of genre, the expectations of the audience, and the values associated with the tool.

The data from Chapter 4 have been able to lead to several implications. 1) Understanding writing practices and the literacies that students bring to classrooms is best served by looking at not only the socioeconomic and cultural backgrounds of students, but by looking at the different types of technology the student uses. 2) Socioeconomics, culture, and technology are deeply interwoven in the writing process. Breda’s story highlights social, monetary, and familial motives and sponsors for acquiring specific types of technological literacy. These factors are almost certainly present with other students. Further research is needed to understand what other motives and sponsors influence students. 3) Breda seemed unsure of the place of tablet and
smartphone technology as a writing, reading, research, and educational tool at times. In fact, many of her stories about technology can be read as merely functional, purposeless, and punitive. Because of this, writing programs could be a valuable educational site to help build bridges between these tools and academic writing tasks. 4) Breda’s testimony also highlighted why mobile technologies could be used by students much less frequently than even other technologies and digital spaces such as YouTube, Wikipedia, social networking, etc. This could be because a web site like Wikipedia is easier to incorporate—merely because it is a web site—in classroom lessons and activities. But how a technology is valued also plays a role in whether or not (or to what extent) a technology or technology practice is incorporated. For example, Breda said that her school still had a typing class, although her year was the last time it would be offered. Regardless, even though students seem to be able to type on their own without any school instruction, the ability to type is highly valued by most communities and therefore it has been able to remain a popular business or technology elective in many schools—well after its usefulness. 5) Writing practices such as invention, research, and revision are influenced not only by academic instruction and practices but by outside technological literacies students bring with them to the classroom. For example, her research practices were not only influenced by LECCA, which led her to liking EBSCO as a research database, but also influenced by her non-academic use of YouTube and Wikipedia. 6) Students in FYC bring a variety of literacies, experiences, and expectations to the classroom and to their writing assignments. A complex exposure to technologies and interfaces, along with cultural and socioeconomic factors, can lead to very idiosyncratic and nuanced decisions about writing and technology use. 7) Finally, then, what might be classified as stubborn or ignorant practices—as well as innovative and appropriate
practices—when it comes to writing and technology are actually the result of a complex history of sponsors, factors, backgrounds, and exposures (or lack thereof) to technologies.

Breda’s story intends to begin discussions of how students in FYC courses integrate mobile technologies into their academic literacy practices. Some may integrate it more than others, but their reasons for doing so, as this chapter pointed out, are complex. These narratives need to keep exploring non-academic literacies by taking into account the presence of mobile play or do not play in students writing. This narrative and interview, then, attempts to pay closer attention to the factors that influence mobile use, which is not only burgeoning among this population but in education in general. This chapter hopes to promote future research that looks at a more complete understanding of how students use or do not use mobile technology and complicate the reasons why they do or do not. Chapter 5 will first discuss the limitations of the project in more detail. It will also discuss further implications for the findings of Chapter 3 and Chapter 4, with an even more focused application of these findings to writing and mobile technologies. Lastly, it will look to the future, presenting research questions and projects that need further exploration as a result of this study.
CHAPTER V: IMPLICATIONS, LIMITATIONS, FUTURE RESEARCH

Mobile writing matters. A quick look at the “Mobile Technology” section of Education Week, accessed on August 14th, 2013 shows the tip of the iceberg when it comes to mobile technology issues and news:

- “FCC Blueprint Would Restructure E-Rate”
- “L.A. District Launches Teacher Training for $30M iPad Project”
- “Smartphones Evolve Into Popular Tool for High Schoolers”
- “Virtual Learning for Little Ones Raises Developmental Questions”
- “K-12 Districts, Groups Turn to Mobile ‘Crowdsourcing’ to Solve Problems”
- “Evaluating Quality in Digital Reading Products”
- “Mobile Apps Make Field Trips More Interactive”
- “Proper Role of EdTech in Pre-K A Rising Issue”
- “Districts Want E-Rate Help Beyond School Walls”
- “Districts Forge School-to-Home Digital Connections”

Issues range from infrastructure, teacher development, and technology critique such as what Amy Kimme Hea (2009) called “anytime, anywhere” learning (p. 2), which emphasizes the benefits and even necessity of online courses. Mobile technology in education is pervasive. The above list only focuses on K-12 education. One could add further articles focusing in on post-secondary topics and issues, but many of the issues and topics being discussed in K-12 education are also being discussed in post-secondary education. Clearly, these devices matter.

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54 Amy Kimme Hea is of course not the first person to use this term. There is the Anytime Anywhere Learning Foundation founded in 2004, which can be found at http://aalf.org/ and the Learning Anytime Anywhere Partnership (LAAP) grant program started by the United States Department of Education in 1998.

And they should especially matter to those that study and teach writing. For process-oriented programs, this dissertation has shown how mobile technologies influence research and revision, suggesting more critical attention be paid to technology as it affects previous understandings of writing practices.

**Overview of the main points of the dissertation**

Lisa Melancon Posner and Beth Martin’s (2009) chapter “Dancing with the iPod: Exploring the mobile landscape of composition studies” traced the “technology practices” (p. 296), “social dimensions” (p. 298) and “educational practices” (p. 300) for the iPod. Building off of studies like Posner and Martin’s (2009), this dissertation began because of a need to explore more explicitly writing, research, and reading practices on mobile writing devices, comparing the findings with writing practices on desktops and laptops so that these emerging technologies can be critically analyzed. My research drew on several previous discussions, such as:

1) expanding the focus of composition into forms of digital and non-alphabetic writing (e.g., Grabill & Hicks, 2005; Johnson-Eilola & Selber, 2009; Walker et al., 2011; Yancey, 2004),

2) understanding the history of writing process research and its critics (e.g., Breuch, 2002; Emig, 1977; Flower & Hayes, 1981; Kent, 1999; Olson, 1999; Perl, 1999; Sommers, 1980),

3) and surveying prior studies of how computer and digital technology have affected writing (e.g., Bacci, 2010; Dave & Russell, 2010; Eldred, 1991; Efaw, Hampton, Martinez, & Smith, 2004; Haas, 1989; Jones, 2008; McGee & Ericsson, 2002; Palmquist, Kiefer, Hartvigsen, & Goodlew, 1998; Purdy, 2010; Sidler, 2002).
Further emphasizing the importance of smartphones and tablets as writing tools, I showcased studies in and out of the field of composition that have emphasized the extent to which smartphones and tablets are a part of young people’s lives (e.g., Grabill & Pigg., 2010; Livingston, 2011; Rainie, 2012; Smith, 2011).

The two data chapters drew on separate methods and methodologies. Influenced by Richard Haswell’s (2005, 2013) call for more quantitative and RAD methodologies, chapter three employed a quantitative survey and emphasized RAD methodology to help answer research questions about students’ relationships to mobiles and what types of writing, research, and reading they are doing on them—with a close eye to academic practices. The most pivotal findings discovered by the survey were that students are indeed using tablets and smartphones for academic writing purposes, that they favor using what are often considered commercial and unscholarly databases instead of academic databases, and that students revise less—while preferring more localized revision and editing practices—on tablets and smartphones as compared with laptops and desktops. While previous studies conducted by Pew (e.g., Livingston, 2011; Smith, 2011) and MSU WIDE (Grabill & Pigg, 2010) had showed the pervasiveness of young people and students using mobile and digital technology, this survey confirmed that many students use their mobile devices for academic purposes, from sending email to professors and accessing course documents to reading, revising, and writing parts of or entire academic papers. The students that do use mobiles for reading, revising, and writing parts of or entire academic papers did so differently when compared with the bulk of students who use desktops and laptops for these purposes. These findings show that researchers might expect differences between mobiles with laptops and desktops in regards to other aspects of writing, research, and reading. Chapter three’s findings might limit, or at least complicate, process scholarship’s ability to guide
or explain writing practices, whether as a metaphor or as a pedagogy, for writing done on mobiles. Students’ outside literacy practices could drastically differ from what is valued in terms of writing pedagogy in many FYC programs.

The purpose of the second part of the study was to examine more closely why students use mobiles—both academically and personally—for their writing, research, and reading practices. To guide the interview methods and the feminist, grounded theory methodology, this part of the study was based off of Cynthia Selfe and Gail Hawisher’s (2012) chapter in *New Directions in Contemporary Research*. Some of the interview questions were to be used to help develop a technological literacy narrative in addition to understanding the peculiarities of a student’s writing practices—and the broader ecologies they are situated in—in ways that a survey simply cannot do. The interview’s most important findings were that the transition from high school to college is a volatile time in students acquiring and developing—as well as forfeiting and losing—different technological literacies; a disinterest in mobiles betrays not a lack of innovation or a lack of digital literacy but could suggest a heightened sense of genre, audience, and rhetorical and critical awareness; and social, familial, academic, and financial literacy sponsors are all highly influential when students adopt writing technologies. These results highlight the need to more critically analyze the relationship between mobiles with the people that use them, perhaps challenging previous notions of who uses technology and why.

**Takeaways for writing programs**

Applying these findings more practically, what can writing program administrators and writing instructors take away from this dissertation? The data and claims of this dissertation lead

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56 Critel (2013) came to similar conclusions when studying adult learners.
57 This finding corroborated and added to Brandt’s (1998) theory of sponsorship.
to four wider implications that most programs would find important to consider for their curricula and pedagogies:

1) mobile literacies might narrow students’ understandings of revision;\(^\text{58}\)

2) mobile literacies could be driving students’ source citation practices more from scholarly sources to what are consider unscholarly sources and advertisement-sponsored databases;\(^\text{59}\)

3) mobile literacies and financial costs could be influencing students’ preferences of digital texts as opposed to print texts;\(^\text{60}\)

4) and instructors already recognize the importance of mobile literacies and are for the most part excited to learn more about and incorporate mobile technology as a classroom technology.\(^\text{61}\)

Writing programs can take these implications and incorporate them in various ways. First, department policies should help clarify technology use and instruction, taking into account the context that the writing program is situated in. Program policies that allow for both laptops and tablet usage, for example, is an important step. This ensures that students can use the device they prefer. Just because there are limitations with some technologies does not mean there are not affordances. It could mean that programs that value global revisions and scholarly citation could have to reinforce these values, or develop pedagogies that encourage these writing

\(^{58}\) The student survey data showed that students who use mobiles are more likely to revise more locally, focusing in on word and sentence level issues. The student survey data does not show a direct relationship between mobile usage and revising in this way, but it does show at least a correlation.

\(^{59}\) The student survey data showed a correlation between mobile usage and a migration from scholarly sources towards non-academic databases. The underlying cause for is still unaccounted for.

\(^{60}\) The student survey and interview data also showed a marked preference for digital reading instead of print. This coincides with other migrations from print to digital, e.g. revising digitally as opposed to printing off drafts (Dave and Russell, 2010).

\(^{61}\) The instructor survey data showed that the overwhelming majority of instructors are not resistant to mobile technologies, but are excited about the new writing opportunities and instructional techniques they bring. At the same time, the instructors surveyed provided critical insight into these technologies.
practices regardless of the device used. But outright prohibitions on certain technologies would not be an effective way to further the values and goals of a writing program. Each program should, however, address how their program values and incorporates these devices. Second, just as writing programs are aware of demographics with their student populations, they should also be more aware of their students’ emerging writing practices. Students bring with them a variety of literacy practices. More research still needs to be done in regards to how mobile technologies could exacerbate or mitigate the digital divide. Writing programs—particularly professional/technical writing—should try and stay informed of the new genres that will become important and affect writing and communication practices. Third, as more writing programs adopt online courses, it will be important to make texts and materials mobile friendly. We cannot assume that students will be accessing course materials through laptops or desktops. Programs should continue to look for ways to continue digitizing documents, reading materials, and providing equal access to materials in digital and print form.

Limitations of the project

Privileging academic writing

This project attempted to understand how mobile writing devices are affecting writing. However, when this project was initially conceived, I thought it best to keep the research site focused to an FYC classroom. This has many advantages in that it allowed me to ask questions about specific assignments and projects. But because students are using mobile writing devices in so many other ways, the narrow focus of the research site and research questions could have been expanded to include a larger focus on other types of academic writing and/or personal writing. This is not to say this dissertation did not also explore outside writing. In fact, chapter four provided a fairly holistic picture of one student’s outside writing practices. However, this
dissertation’s emphasis on academic writing, especially the focus of the survey questions in chapter three, belies perhaps an assumption that academic writing is still the privileged genre that should be studied by FYC. Previous research, including Johnson-Eilola and Selber’s (2009) and Haas and Takayoshi’s (2011), argued for more analytical studies of genres typically seen as “outside” of academe, such as text messages. Additionally, my survey used words such as “writing,” “paper,” and “print.” By using words that could have implied a larger range of writing, research, and reading habits, the survey could have cast a larger net on student writing practices. I wonder how my survey results could have been different if I had expanded the focus of the questions along with the wording of the questions. In the future, research drawing on Christina Haas, Pamela Takayoshi, and Brandon Carr’s (2011) chapter “Analytic strategies for the study of digital writing” could expand the conversation beyond academic writing and towards other genres. This would further establish the characteristics and ecologies of digital writing, especially as it relates to students in the twenty-first century. That being said, at the onset of the project it was important—and beneficial—to establish and define a research site in order to outline a reasonable timeline for the project.

Survey issues

While the response rate for the survey was very good, I did notice that some questions had to be discarded because of what I perceived as confusion in the wording or the available answers. For example, question 10 on the student survey asked “How often do you use the following devices to connect to the Internet?” However, the response options were 1, 2, 3, or 4, with no explanation about whether 1 should be interpreted as “most frequent” or “least frequent.” This question was particularly difficult to purge because it would have provided excellent data for how students access the Internet. If I were to interpret the responses assuming students
thought I meant “most frequent” and 4 meant “least frequent,” then accessing the Internet from their smartphone is the most common way of accessing the Internet, followed by accessing it via laptop, then followed by accessing it via tablet, and then accessing it via a desktop. The following table demonstrates the frequencies of accessing the Internet from a particular device. I happen to think students did interpret “1” as “most frequent” and the “4” as “least frequent.”

Table 2

How often do you use the following devices to connect to the Internet?

<table>
<thead>
<tr>
<th>Device</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tablet</td>
<td>23.47% (65)</td>
<td>11.91% (33)</td>
<td>26.71% (74)</td>
<td>37.91% (105)</td>
</tr>
<tr>
<td>Desktop</td>
<td>7.22% (20)</td>
<td>28.88% (80)</td>
<td>40.07% (111)</td>
<td>23.83% (66)</td>
</tr>
<tr>
<td>Laptop</td>
<td>33.57% (93)</td>
<td>35.74% (99)</td>
<td>14.44% (40)</td>
<td>16.25% (45)</td>
</tr>
<tr>
<td>Smartphone</td>
<td>35.74% (99)</td>
<td>23.47% (65)</td>
<td>18.77% (52)</td>
<td>22.02% (61)</td>
</tr>
</tbody>
</table>

Even though I and several others reviewed the survey questions and answer choices, I would try to be even more stringent in the future by giving the survey to an entire class and asking them about any confusion in the questions and answers.

One additional limitation with the student survey, which consisted of 55 questions, was that it was quite large. It was also coupled with a teacher survey that asked 32 questions. This made comparing answers to questions difficult because there were at times too much data. One example of this is when I saw the results for the question “In a typical day, what 3-5 apps do you use most frequently on your phone?” This question was not multiple choice but instead allowed student respondents to write in their responses. Given that there were 222 respondents and each respondent gave 3-5 apps that they used daily, it became difficult to make connections between
this question and others. I had trouble characterizing the apps, some of which I was not familiar with. And yet the responses are incredibly interesting. The apps students listed are a part of their daily lives, from mediating their experiences with other people (through social networking and picture apps) and being a conduit to experience art (such as music, movies, and book apps) to assisting them with the mundane (through alarm clock and weather apps). This data was fascinating but it was difficult to make connections to the project as a whole. While larger surveys can provide a lot of data, the time and effort used in analyzing it can be overwhelming and can obfuscate connections between survey responses. In the future, shorter, more concise surveys could be used to glean an even clearer picture of student writing practices. With fewer questions—albeit clear and trenchant questions—it would be easier to make connections and provide a more consistent narrative for the data collected.

**Interview issues**

Breda’s interviews were rich and provided an excellent window into the writing habits of a student, especially as they are applicable to academic writing. However, I think if I had more interview participants then it would have been even more interesting. Initially, I had 7 students request to be contacted by me about being interviewed out of 289 respondents. However, only 2 responded to my email request. And only one, Breda, came in to be interviewed. In the future, better recruiting methods could be used in order to interview more students. Future studies could reward participants with a modest financial incentive, such as a gift card. Requesting $100 in gift cards could be divided 4, 5, or 10 ways between participants.

While asking for interview participants at the end of the survey was convenient and allowed for the study to be random and replicable, a more effective recruiting method could be

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62 Three, four, or five participants would have allowed me to compare the emerging themes across multiple participants. Also, these other participants could have provided totally different, or contradictory, emerging themes.
travelling in person to classrooms and passing around a sign-up sheet. Breda was not my student, and that helped to avoid conflict of interest scenarios and self-censored responses. However, recruiting students from one’s own classroom or students from past classes could increase the interview participation rate. Researchers must balance the positives and negatives of recruiting methods, recognizing that the recruitment could affect the results of the study.

**Would a focus group have worked?**

Many students might be intimidated to come in for interviews on their own. In the future, a focus group could be an excellent alternative, or enhancement, to interviews. A focus group would be even more conversational and probably make students more willing to share stories and to “piggy back” off of each other’s stories. Of course, one downside to a focus group is that if one intends to interview the focus group at several different times over the course of a semester (or for a longer period of time) it would be more difficult to schedule dates where everyone can attend. Depending on the length of the study, students might drop out of the focus group over the course of the study. Also, one would have to wonder to what extent would the other students in the focus group affect the responses of other students. This could affect both the reliability and validity of the focus group. For instance, would a focus group be able to effectively address the problem that it is supposed to address (validity) and could various focus groups be able to provide consistent results across different contexts (reliability). Would a student going last alter their response to “fit in” with the others? Would a student feel more comfortable one-on-one with an instructor instead of discussing something in front of a group of strangers? Regardless, in-person recruiting and focus group surveys are potentially two improvements over a study like this one.
A lack of activity logs, observations, and artifacts

At the outset of this project, I planned on using activity logs to help develop a more thorough picture of Breda’s writing habits. Activity logs come from the need to engage in artifact analysis in qualitative research. Some researchers (Prior, 2004; Prior & Shipka, 2003) have asked participants to draw pictures of their writing process. Kevin Roozen (2010) “asked [his participant (Lindsey)] to describe the process involved in the invention and production of various projects by showing [him] how various texts and materials were employed” (p. 323). Regardless of the precise means researchers use to encourage research participants to recall prior writing experiences, the purpose is to “make visible [the participant’s tacit knowledge of text invention and production” (p. 323). Although it was optional, activity logs were given to Breda to help her jot down her uses of technology and any type of writing activity. The main point of this would be to help her recall more precisely her technology use and writing activity for our interviews. Breda opted not to use the activity logs but was still able to provide detailed descriptions of her writing habits. Future researchers should take note of better ways to motivate students and other research participants when it comes to keeping activity logs. The research logs were designed to be easy to use and minimalist, but perhaps better design characteristics could have been employed to increase the odds of a student optionally completing an activity log.

This brings up a larger point about future research design: what are the best ways to complement testimony via interviews to get a more complete picture of writing as an activity? Classroom observations with video cameras would be able to collect more data than what can be transcribed via interviews. Having research participants turn in artifacts (such as drafts of papers, rubrics, teacher comments, etc.) could also provide a bigger picture. Ideally, studying writing could be greatly enhanced by securing grant funds that would provide an entire class with the

63 See the appendix for the activity log document.
same technology. It would be very interesting to study two different classes, one using desktops or laptops, and the other with tablets that have been distributed to each student in the writing class. During the semester, students could respond to surveys or write up a self-reflection afterwards about their experiences. Student papers could also be compared by the instructor afterwards, looking at how writing, research, and reading were done differently in the two writing classes. It would be relevant to know what the characteristics of the students that choose one over the other or how projects differ between students who use one technology over another.

Teacher interviews

While teacher voices were incorporated via the survey, as a whole teachers were not given an equal representation as students. As Ching and Ching (2012) pointed out, teachers have been understudied when it comes to literacy narratives. Their literacy narratives matter when it comes to employing technology in the classroom (Ching & Ching 2012). What they think of and what their experiences have been with technology deeply influence writing and technology practices in classrooms. Future studies can incorporate teacher voices, for example, via interviews, focus groups, or case studies to help respond to teacher concerns about mobile technology and writing classrooms. My survey questions are a start. While not statistically significant, the responses showed that teachers at the writing program studied were mostly hopeful and excited about mobile technology, especially tablets. Teachers could be interviewed about their own habits and writing practices, what they value about mobile technology, what their concerns are, whether they think mobile technology will reduce their workload, and whether mobile technology will better engage students. By comparing teacher and student literacies and practices, programs could be in a better position to address technological issues in writing classrooms.
Anticipating future limitations

Then again time, money, and other institutional factors play their own role in research. In addition, doing research can be overwhelming, especially when the data keeps on pouring in. Sometimes, less is more. While this dissertation had a reasonable time line, the value of planning research and setting timetables is of the utmost importance. Time is a variable that could have a profound effect on a semester, year, or longitudinal project and create its own limitations. While this project required no money and therefore had no budget, digital writing research could be greatly aided by grant money. Costs for transcription services, translators, hosting online databases, and programming that could help analyze digital writing is often beyond the limit of research budgets. In the future, grant writing could become integral to research involving writing technologies and digital spaces. Seeing the Internal Review Board (IRB) office as an ally instead of a hurdle will help mitigate future limitations and research issues. IRB move at varying paces during the year. It is important to understand how they operate in order to efficiently plan out and start the human subject(s) data collection. In addition, my experience with IRB was greatly helped by staying in contact with them via email, but also by going in for face-to-face meetings.

While digital spaces and technologies are often exciting arenas to conduct research in, digital spaces and mobile technologies complicate ethical obligations to research participants. Mobile technologies in particular are often very personal tools, used often to keep in touch with family and friends. Much of the writing, pictures, videos, music, and apps can be for private use. While I do not see stronger ethical obligations as a limitation, it can be tricky to provide trust with and anonymity, confidentiality, and security to research participants.

Ethical questions in composition are largely being driven by the expansion of digital writing spaces and technologies in composition classrooms (Howard, 2007; DeVoss & Porter,
2006; Behme, 2004) and are also concerned more with local situations and contexts (Tallmon, 1995; Fleckenstein, 2005; Hassett, 1995; Micciche, 2005) than objectivity and university. Examples of these questions are:

- debating the appropriate place of plagiarism detection services and eReaders in writing programs and assessment (Kolowich, 2012, Winerip, 2012; Perelman, 2008; Perelman, 2005; Zwagerman, 2008)
- understanding “patchwork writing” and other authorship issues (Behme, 2004; Howard, 2007)
- developing ethical concerns about design (Arola, 2010)
- providing equitable and fair access to technology and digital spaces to encourage good pedagogical writing practices (CCCC, 2004)
- encouraging appropriate practices and good principals in regards to eportfolios (CCCC, 2007)
- and recognizing the “ethic of filesharing” and delivery (DeVoss & Porter, 2006)

The previous bullets are not meant to be exhaustive but to highlight some topics where ethics and technology are largely connected. Just as scholars have complicated discussion on programs such as plagiarism detection software and robo-readers, current research methods should at least be aware of new and previously unforeseen ethical conundrums and obligations when partaking in digital writing and mobile technology research. This is not to contend that paying attention to ethics is a limitation. It is to argue that not paying attention to ethics is a limitation.
Future research

Writing practices

By no means is this project exhaustive. Future mobile research has many avenues open in terms of studying the functional, rhetorical, and critical aspects of mobile writing. This dissertation is just a starting point, showing how desktop and laptop writing, research, and reading differ from writing done on tablets and smartphones. In addition, this dissertation analyzed technology literacy with a focus on how mobile literacies are acquired and developed.

This dissertation also demonstrated teachers' opinions on mobiles in education. Their responses echoed a recent Pew Survey, “The Impact of Digital Tools on Student Writing and How Writing is Taught in Schools” (Purcell, Buchanan, & Friedrich 2013, July 16), where Advanced Placement and National Writing Project teachers were surveyed about how teachers view digital writing, mobiles, and writing for school. The teachers expressed many positive benefits to digital and mobile technology and young people:

- “78% agree (26% strongly agree) that digital technologies ‘encourage student creativity and personal expression’”
- “79% agree (23% strongly agree) that digital technologies ‘encourage student creativity and personal expression’”
- and “96% agree (including 52% who strongly agree) that digital technologies ‘allow students to share their work with a wider and more varied audience’” (Purcell, Buchanan, & Friedrich, p.2).

Pew concluded that “The combined effect of these impacts, according to this group of AP and NWP teachers, is a greater investment among students in what they write and greater engagement in the writing process” (p. 2).
The above benefits of digital (and mobile) technologies could help guide future inquiries into digital and mobile practices in school, at work, and for personal use. However, teachers also had concerns about mobile technologies. These concerns are sound starting points to develop future studies. Teachers reported:

- an "increasingly ambiguous line between ‘formal’ and ‘informal’ writing”
- an “increasing need to educate students about writing for different audiences using different ‘voices’”
- a “general cultural emphasis on truncated forms of expression, which [teachers] feel are hindering students willingness and ability to write longer texts and to think critically about complicated topics”
- that mobile and digital technology leads to a “disparate access to and skill with digital tools among their students”
- and an increasing difficulty supplanting “the ‘digital tool as toy’ approach many students develop in their introduction to digital tools as young children.” (Purcell, Buchanan, & Friedrich p. 2)

Further results from the study show that “68% [of teachers] say that digital tools make students more likely...to take shortcuts and not put effort into their writing” “46% say these tools make students more likely to ‘write too fast and be careless’” (p. 2). Teachers also feel ambivalent about whether digital technologies and mobile devices worse (40%) or better (38%) spellers. Just as previous researchers have studied how word processors affected student writing and revision practices (Boiarsky, 1991; Collier, 1983; Curtis, 1988; Dave & Russell, 2010; Haas, 1989; Owston, Murphy, & Wideman, 1992), future researchers should continue to look at how mobiles affect writing and revision strategies within different genres.
While the survey portion of this dissertation and the recent Pew (Purcell, Buchanan, & Friedrich; 2013, July 16) report tended to look at functional writing processes, more research needs to be done about how these devices affect adolescent literacy practices, the design of texts and web spaces, the digital divide, and ethical issues. Thanks to extensive prior work on adolescent literacy practices, digital divide issues, and ethical issues in regards to other topics in the field of composition and rhetoric, scholars already have foundations for this type of research.

Adolescent literacy practices

The relationships that students have with writing technologies have contributed to a vast array of literacy practices developed mostly outside of school. As Mark Dressman, Sarah McCarthey, and Paul Prior (2009) articulated in their editors’ introduction to the Research in the Teaching of English issue “Adolescents’ Literacy and the Promises of Digital Technology”:

...in marked contrast to conventional measures of in-school literacy which find that many adolescents struggle to read and write with efficacy, when literacy is digitized and made personally and socially empowering, adolescents become highlight engaged and excel as readers and writers across a broad range of print- and image-based formats. (p. 345).

This corroborated what teachers stated in the Pew Survey (Purcell, Buchanan, & Friedrich; 2013, July 16) about how mobiles particularly engender self-expression and identify formation, but also highlighted a widening gap between students’ engagement and efficacy with privileged school-based literacies compared with outside, personal literacies. Dressman, McCarthey, and Prior (2009) also drew attention to further scholarly implications about adolescents, academic writing, and digital technology, which are:
to emphasize the stark contrast between print-centric curriculum of conventional secondary schools and the multimodality of contemporary workplaces and everyday life, and to argue that in their literate practices many adolescents today seem to be anticipating and preparing for lives of work and play that leave the traditional practices of schooling far behind. (p. 345)

Understanding adolescent literacy practices, then, becomes incredibly important for updating theories and pedagogies of writing in order to keep academic writing a positive, rewarding, and relevant experience for students. The interaction between students’ digital writing practices for personal and academic use, coupled with the relationship between print, digital, and mobile writing and genres mediate each other, can help us complicate and expand “what it means to be literate, particularly in educational contexts” (p. 347).

Where can one look for influences on adolescent writing practices? These can be found in somewhat unlikely places. For example, Napster—both as a company an as a cultural moment—had arguably an influence on writing practices. Danielle DeVoss and Jim Porter (2006) explained how filesharing rewired what it means for younger people to cite, “borrow,” and share writing. Similarly, the Internet (and even computing), in many aspects, has undergone a transition from a “do-it-yourself” to a more “user-friendly” economy. While it has many benefits, Kristin Arola (2010) alerted scholars in composition and rhetoric about the effect of template based social networks and website building template programs replacing “homepage web authoring” (p. 4). This trend seems to be particularly salient in regards to the digital and mobile literacy practices among adolescents—although this is probably true for the population

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64 This characterization of a “do-it-yourself” to “user-friendly” web economy is not supposed to be representative of the entire Internet or of computing. But there has been a trend, powered by social media and social networking, that has at the same time put engaged more and more users in online and digital spaces while at the same time removing the users from the instruments used to build these online and digital spaces.
at large. Other than the results of this dissertation, what does the “mobile moment” mean for writing teachers? What other conclusions can researchers come to, what other questions can researchers ask, that focus on the repercussions of mobile technology on various aspects of writing?

**Digital divide issues**

How will mobile technology literacies further affect digital divide issues? Previous research has highlighted how even if K-12 schools of differing socioeconomic populations provide the exact same technology to their students “the social contexts of computer use differ[s], with low-[socioeconomic status] schools affected by uneven human support networks, irregular home access to computers by students, and pressure to raise school test scores while addressing the needs of large numbers of English learners” (Warschauer, Knobel, & Stone, 2004, p. 562). Tel Amiel (2006), in his article “Mistaking Computers for Technology: Technology Literacy and the Digital Divide,” concurred, pointing out that “Massive computer integration will not be the cure for the digital gap. As new technological tools continue to develop, new gaps will arise” (p. 235). Warschauer, Knobel, and Stone (2004) and Amiel (2006), along with Gunkel (2003) and numerous others, have articulated that addressing digital divide issues goes beyond just equipping schools with the proper technology, but also highlighted the importance of more complex understandings of disparate conditions among different populations. Pew’s (Duggan & Smith, 2013, September 16) study focusing on the demographics of users who access the Internet mostly from their phones highlighted a striking disparity between different ethnic groups, ages, educational level, and income levels. Essentially, people who rely on their phones to access the Internet have less education, less income, are younger, and are more likely to be Hispanic or Black.
Figure 21. Demographics of Cell-Mostly Internet Users. By Duggan, M. and Smith, A., 2013, September 16, retrieved from Pew Internet website: http://pewinternet.org/

<table>
<thead>
<tr>
<th>Demographics of cell-mostly internet users</th>
<th>% who mostly go online using their cell phone</th>
</tr>
</thead>
<tbody>
<tr>
<td>All cell internet users (n=1,185)</td>
<td>34%</td>
</tr>
<tr>
<td>a. Men (n=598)</td>
<td>34</td>
</tr>
<tr>
<td>b. Women (n=587)</td>
<td>34</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td></td>
</tr>
<tr>
<td>a. White, Non-Hispanic (n=762)</td>
<td>27</td>
</tr>
<tr>
<td>b. Black, Non-Hispanic (n=158)</td>
<td>43&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>c. Hispanic (n=157)</td>
<td>60&lt;sup&gt;ab&lt;/sup&gt;</td>
</tr>
<tr>
<td>Age</td>
<td></td>
</tr>
<tr>
<td>a. 18-29 (n=336)</td>
<td>50&lt;sup&gt;bcd&lt;/sup&gt;</td>
</tr>
<tr>
<td>b. 30-49 (n=405)</td>
<td>35&lt;sup&gt;cd&lt;/sup&gt;</td>
</tr>
<tr>
<td>c. 50-64 (n=304)</td>
<td>14</td>
</tr>
<tr>
<td>d. 65+ (n=109)</td>
<td>10</td>
</tr>
<tr>
<td>Education attainment</td>
<td></td>
</tr>
<tr>
<td>a. Less than high school/High school grad (n=333)</td>
<td>45&lt;sup&gt;bc&lt;/sup&gt;</td>
</tr>
<tr>
<td>b. Some College (n=306)</td>
<td>34&lt;sup&gt;c&lt;/sup&gt;</td>
</tr>
<tr>
<td>c. College + (n=541)</td>
<td>21</td>
</tr>
<tr>
<td>Household income</td>
<td></td>
</tr>
<tr>
<td>a. Less than $30,000/yr (n=238)</td>
<td>45&lt;sup&gt;cd&lt;/sup&gt;</td>
</tr>
<tr>
<td>b. $30,000-$49,999 (n=175)</td>
<td>39&lt;sup&gt;a&lt;/sup&gt;</td>
</tr>
<tr>
<td>c. $50,000-$74,999 (n=171)</td>
<td>30</td>
</tr>
<tr>
<td>d. $75,000+ (n=429)</td>
<td>27</td>
</tr>
<tr>
<td>Urbanity</td>
<td></td>
</tr>
<tr>
<td>a. Urban (n=436)</td>
<td>33</td>
</tr>
<tr>
<td>b. Suburban (n=571)</td>
<td>35</td>
</tr>
<tr>
<td>c. Rural (n=176)</td>
<td>30</td>
</tr>
</tbody>
</table>

Source: Pew Internet & American Life Project Spring Tracking Survey, April 17-May 19, 2013. N=1,185 cell internet users ages 18+. Interviews were conducted in English and Spanish and on landline and cell phones. The margin of error for results based on cell internet users is +/- 3.3 percentage points.

Note: Percentages marked with a superscript letter (e.g., a, b) indicate a statistically significant difference between that row and the row designated by that superscript letter, among categories of each demographic characteristic (e.g. age).
Future studies can explore multiple locations of differing socioeconomic contexts and uncover the relationship between mobiles and digital divide issues, hopefully building off of Pew’s previous surveys on this topic. Is it possible for mobile technologies to help address the digital divide? And if so, in what ways can it be used as an ally? Or, in what ways do mobile technologies exacerbate digital divide issues? And if so, in what ways can this effect be mitigated? In regards to this last question, professional development and educational grants were often used as a way to provide technology for all. However, scholarship shows that merely providing technology to students and teachers doesn’t by itself alleviate access issues. Many grants failed to include support for teacher professional development so that they could know the best practices of incorporating the technology provided. Often times, incorporation of technology in education would be influenced by IT security issues such as permission forms required to use the technology or issues such as what Internet sites could be accessed (which is either a security or cultural issue, or perhaps both). It would also benefit researchers to explore and compare academic sites with non-academic sites, such as workplaces and personal spaces, to address questions about the digital divide, along with research sites outside the United States and the West.

The mobile “update” to composition studies

The results of this dissertation are only a first move to a more thorough understanding of the ecologies of people and writing technologies. However, this dissertation is not a

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66 Anemona Hartocollis’s (1999, November 11) New York Times article “School Board Uses Computer to Block Student Access to Web Sites” demonstrated how student searches for AIDS, breast cancer, the NRA, and even John Steinbeck were prohibited by the school’s computer security system because it was automatically blocking anything with certain prohibited words. Despite the article being from 1999, a more recent article by Jennifer Smith Richards (2013, September 14) from the Columbus Dispatch shows that school filters are still blocking science YouTube videos, web sites that mention “breast,” “gay,” “transgendered,” and many others. While the article states that many schools are trying to stop blocking content in this manner, it’s still a problem for teachers.
grandiose beginning or new frontier but a continuation of strong foundational scholarship in computers and writing. These conversations on computers and writing are strongly represented in journals such as Computers and Composition, Written Communication, College Composition and Communication, Research in the Teaching of English, JAC, and many others.

While there is no doubt that mobile writing is occurring, as scholars it is up to us to decide whether to legitimate the study of this writing. In what ways can composition studies utilize mobiles for the goals and purposes the field value. This dissertation continues to legitimate mobile technology and writing as other scholars (Haas & Takayoshi, 2011; Kimme Hea, 2009; Selber & Johnson-Eilola, 2009) have already done. While many academic fields have a need to explore mobiles, composition’s strong history in regards to studying previous questions and topics about computers and writing while being a discipline that bridges the humanities and social sciences enables us to approach mobile technologies from an array of inquisitive methods and approaches. Just as prior technology and notions of literacy have redefined the definition and teaching of (college) writing (Berlin, 1987; Brereton, 1996; DeVoss, Eidman-Aadahl, & Hicks, 2010; Miller, 2011; Yancey, 2004), mobile devices and literacies are engendering critical changes in writing practices, new definitions and genres of writing, and will perhaps soon be redefining composition studies.
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APPENDIX A: STUDENT SURVEY QUESTIONS AND RESPONSES

Below is the URL to my student survey. Questions 7, 9, 19, and 32 were fill in the blank questions. I have only provided one screen shot of these responses. They are available for complete viewing by visiting the URL. The other questions and their responses have been posted in APPENDIX A.

https://www.surveymonkey.com/s/gsw_writing_technology_survey
You are invited to participate in a research study. The study is being conducted by Matthew A. Bridgewater from Bowling Green State University, Department of English as part of his dissertation. Your participation in this study will consist of completing one brief survey. Procedures Because you are a student in a research writing course, you are receiving this email asking you to complete the electronic survey anonymously. By completing and submitting this survey you are indicating your consent to participate in the study and giving permission to use your responses, which will help to answer how smartphones enable, disable, or complicate revision practices and research practices in writing classrooms. The total amount of time you will spend on this survey would be no more than 20 minutes. Furthermore, if you are interested in having your voice heard by being interviewed, there will be an option at the end of the survey to consent to this. If you agree to be interviewed, your electronic survey data will become confidential. This means that I will be able to know who you are in order to contact you regarding an interview, but your interview data will be published under a pseudonym. Please note that email is not 100% secure, so it is possible that someone intercepting your email may gain knowledge of your interest in the study. I will protect your confidentiality as a respondent and your responses. No one outside of the researchers will know which responses belong to you. Only I and my dissertation committee will have access to the information you provide, and your identity will not be revealed in any published results unless you specifically request identification by contacting me at 584-023- 4567 or madrigal@bgusu.edu. All data will be stored in a locked filing cabinet when not in use by me and I will destroy all data at the conclusion of the research study. Voluntary Participation Your participation in this research study is voluntary. You are free to withdraw your consent at any time without penalty. Your participation will have no impact on your grades, class standing, or relationship to the institution in any way. Research Subject’s Rights and Contact Persons If you have any questions about the study, please contact Matthew Bridgewater (email): 584-023-4505 or email: madrigal@bgusu.edu. You can also contact Dr. Kristie Blair, my project advisor, at kblair@bgusu.edu. If you have questions about the conduct of this study or your rights as a research participant, you may contact the Chair of Bowling Green State University’s Human Subjects Review Board at 584-372-7176 (chair@bgusu.edu). Consent By completing and submitting the electronic survey linked below, you agree that you have read and understand the above information, are at least 18 years old, and hereby consent to voluntarily participate in this study. Some employers use tracking software to monitor and record keystrokes, mouse clicks, and web sites viewed. This could impact the confidentiality of your responses. Therefore, you may wish to complete the survey on a home computer. Do not leave the survey open if using a public computer or a computer others may have access to. Upon completion of this survey, please clear your web browser’s cache and history page after you submit the survey in order to protect your privacy. Would you like to continue on to the survey?

[Image of survey interface]
What is your gender?

Answered: 284  Skipped: 5

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I identify as female</td>
<td>61.97%</td>
</tr>
<tr>
<td>I identify as male</td>
<td>37.32%</td>
</tr>
<tr>
<td>I identify as transgendered</td>
<td>0.35%</td>
</tr>
<tr>
<td>I prefer not to say</td>
<td>0.35%</td>
</tr>
<tr>
<td>Total</td>
<td>284</td>
</tr>
</tbody>
</table>
What is your ethnicity?

Answered: 284  Skipped: 5

Answer Choices

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I identify as Asian.</td>
<td>1.41%</td>
</tr>
<tr>
<td>I identify as Black.</td>
<td>7.39%</td>
</tr>
<tr>
<td>I identify as Latino.</td>
<td>1.76%</td>
</tr>
<tr>
<td>I identify as Mixed Race.</td>
<td>3.87%</td>
</tr>
<tr>
<td>I identify as Native American.</td>
<td>0.35%</td>
</tr>
<tr>
<td>I identify as White.</td>
<td>82.75%</td>
</tr>
<tr>
<td>I prefer not to say.</td>
<td>2.46%</td>
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</table>

Total: 284
What is your native language?

Answered: 284  Skipped: 5

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<th>Responses</th>
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<tbody>
<tr>
<td>My first language is English.</td>
<td>96.83%</td>
</tr>
<tr>
<td>My first language is not English.</td>
<td>1.41%</td>
</tr>
<tr>
<td>I grew up speaking English and at least one other language.</td>
<td>1.06%</td>
</tr>
<tr>
<td>I prefer not to say.</td>
<td>0.70%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
What is your age?

Answered: 284   Skipped: 5

<table>
<thead>
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<th>Answer Choices</th>
<th>Responses</th>
</tr>
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<tbody>
<tr>
<td>I am between the ages of 18-20.</td>
<td>93.31%</td>
</tr>
<tr>
<td>I am between the ages of 21-24.</td>
<td>4.23%</td>
</tr>
<tr>
<td>I am between the ages of 25-30.</td>
<td>0.70%</td>
</tr>
<tr>
<td>I am between the ages of 31-35.</td>
<td>0.35%</td>
</tr>
<tr>
<td>I am over the age of 35.</td>
<td>1.06%</td>
</tr>
<tr>
<td>I prefer not to say.</td>
<td>0.35%</td>
</tr>
</tbody>
</table>

Total: 284
What is your class/income?

Answered: 284  Skipped: 5

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I consider myself upper class.</td>
<td>4.65%</td>
</tr>
<tr>
<td>I consider myself middle class.</td>
<td>62.39%</td>
</tr>
<tr>
<td>I consider myself lower class.</td>
<td>10.56%</td>
</tr>
<tr>
<td>I prefer not to say.</td>
<td>2.46%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>284</strong></td>
</tr>
</tbody>
</table>
What is your major or field of study?

Respondents: 284  Skipped: 5

- Sport Mgmt 2/21/2013 8:13 AM
- Business 2/11/2013 12:43 PM
- Early Childhood Education 2/6/2013 6:03 PM
- Visual Communication Technology 2/4/2013 8:58 PM
- Psychology 2/4/2013 5:12 PM
- MCE 2/4/2013 1:42 PM
- Social Work 2/4/2013 1:39 PM
What grade do you typically get for the academic writing you do?

Answered: 284  Skipped: 5

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Above average</td>
<td>43.56%</td>
</tr>
<tr>
<td>Average</td>
<td>54.23%</td>
</tr>
<tr>
<td>Below average</td>
<td>2.11%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>
How often do you use the following devices to connect to the internet?

Answered: 277  Skipped: 12

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>Total</th>
<th>Average Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tablet</td>
<td>23.47%</td>
<td>11.91%</td>
<td>30.11%</td>
<td>37.91%</td>
<td>277</td>
<td>2.21</td>
</tr>
<tr>
<td>Desktop</td>
<td>7.22%</td>
<td>28.88%</td>
<td>50.00%</td>
<td>11.11%</td>
<td>277</td>
<td>2.15</td>
</tr>
<tr>
<td>Laptop</td>
<td>23.57%</td>
<td>36.74%</td>
<td>40.00%</td>
<td>16.26%</td>
<td>277</td>
<td>2.07</td>
</tr>
<tr>
<td>Smartphone</td>
<td>35.74%</td>
<td>23.47%</td>
<td>16.77%</td>
<td>22.82%</td>
<td>277</td>
<td>2.73</td>
</tr>
<tr>
<td>Activity</td>
<td>Responses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-----------</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Text messaging</td>
<td>21.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instant messaging</td>
<td>62.8%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emailing students or parents</td>
<td>56.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sending status or social updates</td>
<td>15.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emailing to friends</td>
<td>49.4%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicating on social networks</td>
<td>15.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Blogging on websites</td>
<td>15.1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading personal email</td>
<td>14.7%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responding to personal email</td>
<td>8.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading email for school or work</td>
<td>1.5%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responding to email for school or work</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Communicating on websites</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Emailing teachers</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taking notes</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing essays or doing essays</td>
<td>36.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Writing papers (more than a page)</td>
<td>36.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collaborating with classmates for school</td>
<td>36.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Searching for information on sites like Wikipedia, Facebook, Twitter, Google</td>
<td>36.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accessing academic databases like JSTOR, LexisNexis, etc.</td>
<td>41.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Using a social media board site like TwitDude, Hi5, MySpace</td>
<td>15.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Getting news</td>
<td>60.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening to music</td>
<td>56.3%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Playing video games</td>
<td>36.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watching videos</td>
<td>96.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Listening to podcasts</td>
<td>96.6%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>0.0%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Responses: 142
In the last year, what word processing programs have you used to write academic papers on your desktop or laptop?

Answered: 277  Skipped: 12

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Word</td>
<td>97.11%</td>
</tr>
<tr>
<td>OpenOffice</td>
<td>10.47%</td>
</tr>
<tr>
<td>GoogleDocs</td>
<td>34.66%</td>
</tr>
<tr>
<td>Pages</td>
<td>8.66%</td>
</tr>
<tr>
<td>Works</td>
<td>3.97%</td>
</tr>
<tr>
<td>Word Perfect</td>
<td>3.61%</td>
</tr>
<tr>
<td>NotePad</td>
<td>11.55%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>Responses 2.53%</td>
</tr>
</tbody>
</table>

Total Respondents: 277
Do you often use your desktop or laptop to brainstorm or pre-write a paper?

Answered: 277  Skipped: 12

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every time</td>
<td>23.83%</td>
</tr>
<tr>
<td>Most of the time</td>
<td>24.91%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>24.19%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>14.44%</td>
</tr>
<tr>
<td>Never, I don't use my desktop or laptop to brainstorm or pre-write.</td>
<td>6.14%</td>
</tr>
<tr>
<td>Never, I don't feel I brainstorm or pre-write at all.</td>
<td>6.50%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
Do you often use your desktop or laptop to conduct research for papers by using scholarly databases like JSTOR or LexusNexus?

Answered: 277   Skipped: 12

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every time</td>
<td>21.30%</td>
</tr>
<tr>
<td>Most of the time</td>
<td>25.63%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>23.33%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>10.11%</td>
</tr>
<tr>
<td>Never</td>
<td>19.13%</td>
</tr>
<tr>
<td>Total</td>
<td>277</td>
</tr>
</tbody>
</table>
Do you often use your desktop or laptop to conduct research for papers by using sites like Wikipedia, news websites, Yahoo! Answers, etc.? Answered: 277  Skipped: 12

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every time</td>
<td>22.38%</td>
</tr>
<tr>
<td>Most of the time</td>
<td>28.36%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>27.44%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>14.86%</td>
</tr>
<tr>
<td>Never</td>
<td>6.14%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
</tr>
</tbody>
</table>
What types of revision or proofreading do you typically do on a desktop or laptop?

Answered: 277  Skipped: 12

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Punctuation</td>
<td>89.89%</td>
</tr>
<tr>
<td>Word choices</td>
<td>87.36%</td>
</tr>
<tr>
<td>Sentences</td>
<td>83.39%</td>
</tr>
<tr>
<td>Formatting</td>
<td>74.01%</td>
</tr>
<tr>
<td>Organization/Structure</td>
<td>76.53%</td>
</tr>
<tr>
<td>Development</td>
<td>61.01%</td>
</tr>
<tr>
<td>Other</td>
<td>2.53%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>1.81%</td>
</tr>
</tbody>
</table>

Total Respondents: 277
Q17

Do you own a smartphone?

Answered: 277  Skipped: 12

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>80.87%</td>
</tr>
<tr>
<td>No</td>
<td>19.13%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
What brand of smartphone do you use? (select all that apply)

Answered: 222  Skipped: 67

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>iPhone</td>
<td>63.96%</td>
</tr>
<tr>
<td>Blackberry</td>
<td>0.90%</td>
</tr>
<tr>
<td>Android OS</td>
<td>27.93%</td>
</tr>
<tr>
<td>Windows Phone</td>
<td>2.70%</td>
</tr>
<tr>
<td>Palm</td>
<td>0%</td>
</tr>
<tr>
<td>Not sure/other</td>
<td>4.50%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>222</strong></td>
</tr>
</tbody>
</table>
In a typical day, what 3-5 apps do you use most frequently on your smartphone?

Answered: 222  Skipped: 67

<table>
<thead>
<tr>
<th>Responses (222)</th>
<th>Text Analysis</th>
<th>My Categories (0)</th>
</tr>
</thead>
</table>

Showing 222 responses

- **Snap chat, Pinterest, Tiny Tower, Draw something**
  - 2/6/2013 6:17 PM
  - View respondent's answers
  - Categorize as...

- **None**
  - 2/4/2013 9:01 PM
  - View respondent's answers
  - Categorize as...

- **Facebook, Alarm Clock, Corners**
  - 2/4/2013 5:20 PM
  - View respondent's answers
  - Categorize as...

- **Scrabble, Bubble burst music apps**
  - 2/4/2013 1:47 PM
  - View respondent's answers
  - Categorize as...

- **Pet Shop Story, Shave Me, Lovely Guinea Pigs**
  - 2/4/2013 1:46 PM
  - View respondent's answers
  - Categorize as...

- **Wikipedia, Safari, Facebook, Twitter**
  - 2/4/2013 12:47 PM
  - View respondent's answers
  - Categorize as...

- **Twitter, Facebook, Imdb**
  - 2/4/2013 10:56 AM
  - View respondent's answers
  - Categorize as...
Which type of apps do you currently have on your smart phone? (Check all that apply)

Answered: 222  Skipped: 67

Answer Choices

<table>
<thead>
<tr>
<th>Category</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Utility apps (calculate, convert, translate, etc.)</td>
<td>82.88% 184</td>
</tr>
<tr>
<td>Entertainment apps (movie trailers, celebrity gossip, radio station guides, etc.)</td>
<td>63.56% 142</td>
</tr>
<tr>
<td>Game apps (puzzles, charades, etc.)</td>
<td>86.46% 192</td>
</tr>
<tr>
<td>News apps (local news, national headlines, technology announcements, etc.)</td>
<td>46.85% 104</td>
</tr>
<tr>
<td>Productivity apps (calendar, to do list, price checker, etc.)</td>
<td>77.93% 173</td>
</tr>
<tr>
<td>Search tool apps (directions, phone numbers, recipes, etc.)</td>
<td>66.22% 147</td>
</tr>
<tr>
<td>Social networking apps (location check-ins, friend status updates, etc.)</td>
<td>69.64% 195</td>
</tr>
<tr>
<td>Sports apps (sports schedules, scores, headlines, etc.)</td>
<td>42.34% 94</td>
</tr>
<tr>
<td>Travel apps (airplane tickets, tourist guides, public transportation info, etc.)</td>
<td>26.68% 50</td>
</tr>
<tr>
<td>Weather apps (local forecasts, natural disaster updates, etc.)</td>
<td>68.74% 197</td>
</tr>
</tbody>
</table>

Total Respondents: 222
From a scale of 1-3, where 1 is most often and 3 is least often, where do you typically use your smartphone?

Answered: 222  Skipped: 67

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Total</th>
<th>Average Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>At home</td>
<td>104</td>
<td>92</td>
<td>25</td>
<td>222</td>
<td>2.35</td>
</tr>
<tr>
<td>At work</td>
<td>28</td>
<td>29</td>
<td>185</td>
<td>222</td>
<td>1.38</td>
</tr>
<tr>
<td>Out and about (e.g., travelling, at coffee houses, dining out)</td>
<td>90</td>
<td>161</td>
<td>31</td>
<td>222</td>
<td>2.27</td>
</tr>
</tbody>
</table>
# I access the following academic resources from my smartphone for GSW (General Studies Writing)

**Answered:** 222  **Skipped:** 67

<table>
<thead>
<tr>
<th>Resource</th>
<th>Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackboard/Canvas</td>
<td>132</td>
<td>60.46%</td>
</tr>
<tr>
<td>Class emails</td>
<td>155</td>
<td>56.52%</td>
</tr>
<tr>
<td>Grades</td>
<td>122</td>
<td>54.50%</td>
</tr>
<tr>
<td>Readings for class</td>
<td>50</td>
<td>22.62%</td>
</tr>
<tr>
<td>Videos/Podcasts for class</td>
<td>13</td>
<td>5.86%</td>
</tr>
<tr>
<td>Instructor feedback on my paper</td>
<td>29</td>
<td>12.61%</td>
</tr>
<tr>
<td>My paper drafts</td>
<td>23</td>
<td>16.36%</td>
</tr>
<tr>
<td>Websites for research</td>
<td>42</td>
<td>18.92%</td>
</tr>
<tr>
<td>Academic databases (e.g., JSTOR, ProjectMuse, LexisNexis)</td>
<td>10</td>
<td>4.50%</td>
</tr>
<tr>
<td>Jerome Library website</td>
<td>32</td>
<td>14.41%</td>
</tr>
<tr>
<td>Websites that help with MLA or APA</td>
<td>32</td>
<td>14.41%</td>
</tr>
<tr>
<td>Online dictionary or thesaurus</td>
<td>60</td>
<td>26.03%</td>
</tr>
<tr>
<td>Course syllabus or achievement requirements</td>
<td>50</td>
<td>22.62%</td>
</tr>
<tr>
<td>I don’t access resources for GSW on my smartphone.</td>
<td>50</td>
<td>22.62%</td>
</tr>
<tr>
<td>Other academic resources (please specify)</td>
<td>1</td>
<td>0.45%</td>
</tr>
</tbody>
</table>

**Total Respondents:** 222
In the past year, have you ever written all or part of an academic paper on a smartphone?

Answered: 222  Skipped: 67

<table>
<thead>
<tr>
<th>Answer Choice</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have written most of or an entire academic paper on a smartphone.</td>
<td>2.70% 6</td>
</tr>
<tr>
<td>I have written a small part of an academic paper on a smartphone.</td>
<td>8.56% 19</td>
</tr>
<tr>
<td>I have accessed or viewed but not written an academic paper on a smartphone.</td>
<td>19.37% 43</td>
</tr>
<tr>
<td>I have never written, accessed or viewed an academic paper on a smartphone.</td>
<td>69.37% 154</td>
</tr>
<tr>
<td>Total</td>
<td>222</td>
</tr>
</tbody>
</table>

Do you use your smartphone to brainstorm or pre-write academic papers?

Answered: 222  Skipped: 67

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every time</td>
<td>0.45%</td>
</tr>
<tr>
<td>Most of the time</td>
<td>0%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>11.26%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>17.57%</td>
</tr>
<tr>
<td>Never</td>
<td>70.72%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
Do you often use your smartphone to conduct research for papers by using scholarly databases like JSTOR or LexusNexus?

Answered: 222   Skipped: 67

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every time</td>
<td>0.30%</td>
</tr>
<tr>
<td>Most of the time</td>
<td>0.30%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>4.95%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>11.28%</td>
</tr>
<tr>
<td>Never</td>
<td>81.98%</td>
</tr>
<tr>
<td>Total</td>
<td>222</td>
</tr>
</tbody>
</table>
Do you often use your smartphone to conduct research for papers by using sites like Wikipedia, news websites, Yahoo! Answers, etc.?

Answered: 222  Skipped: 67

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every time</td>
<td>0.45%</td>
</tr>
<tr>
<td>Most of the time</td>
<td>3.15%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>24.32%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>20.27%</td>
</tr>
<tr>
<td>Never</td>
<td>51.80%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
</tr>
</tbody>
</table>
Do you typically make big revision changes to your paper on your smartphone, or do you typically make sentence and word level edits and proofread?

Answered: 222  Skipped: 67

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don't revise, edit, or proofread my papers on my smartphone.</td>
<td>59.94%</td>
</tr>
<tr>
<td>I make big revision changes.</td>
<td>0.90%</td>
</tr>
<tr>
<td>I make sentence and word level edits and proofread.</td>
<td>3.60%</td>
</tr>
<tr>
<td>I do both.</td>
<td>4.50%</td>
</tr>
<tr>
<td>I typically make big revision changes, edit and proofread in print or on another device.</td>
<td>31.08%</td>
</tr>
<tr>
<td>Total</td>
<td>222</td>
</tr>
</tbody>
</table>
In the last year, what word processing programs have you used to write all or part of academic papers on your smartphone?

Answered: 222   Skipped: 67

Answer Choices

<table>
<thead>
<tr>
<th>Program</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Word</td>
<td>9.01% 20</td>
</tr>
<tr>
<td>OpenOffice</td>
<td>4.08% 9</td>
</tr>
<tr>
<td>Google Docs</td>
<td>5.80% 13</td>
</tr>
<tr>
<td>Pages</td>
<td>1.80% 4</td>
</tr>
<tr>
<td>Works</td>
<td>0.45% 1</td>
</tr>
<tr>
<td>Word Perfect</td>
<td>0% 0</td>
</tr>
<tr>
<td>NotePad</td>
<td>3.60% 8</td>
</tr>
<tr>
<td>Notes</td>
<td>13.96% 31</td>
</tr>
<tr>
<td>Colorlole</td>
<td>0.45% 1</td>
</tr>
<tr>
<td>Penultimate</td>
<td>0% 0</td>
</tr>
<tr>
<td>I don't use word processing...</td>
<td>69.37% 154</td>
</tr>
</tbody>
</table>

Other (please specify) 1.35% 3

Total Respondents: 222
Do you own a tablet?

Answered: 275    Skipped: 14

<table>
<thead>
<tr>
<th>Answer Choice</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>20.73%</td>
</tr>
<tr>
<td>No</td>
<td>79.27%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
What brand of tablet do you use? (select all that apply)

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>iPad</td>
<td>45.45%</td>
</tr>
<tr>
<td>Amazon Kindle Fire</td>
<td>38.18%</td>
</tr>
<tr>
<td>Google Nexus</td>
<td>0%</td>
</tr>
<tr>
<td>Samsung Galaxy Tablet</td>
<td>5.45%</td>
</tr>
<tr>
<td>Not sure/other</td>
<td>10.01%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
In a typical day, what 3-5 apps do you use most frequently on your tablet?

Answered: 55   Skipped: 234
Which type of apps do you currently have on your computer tablet? (Check all that apply)

Answered: 55   Skipped: 254

Answer Choices | Responses
----------------|-----------
Utility apps (calculate, convert, translate, etc.) | 70.91%   39
Entertainment apps (movie trailers, celebrity gossip, radio station guides, etc.) | 56.36%   31
Game apps (puzzles, charades, etc.) | 89.09%   49
News apps (local news, national headlines, technology announcements, etc.) | 47.27%   26
Productivity apps (calendar, to do list, price checker, etc.) | 46.05%   27
Search tool apps (directions, phone numbers, recipes, etc.) | 41.82%   23
Social networking apps (location check-in, friend status updates, etc.) | 76.36%   42
Sports apps (sports schedules, scores, headlines, etc.) | 26.45%   14
Travel apps (airplane tickets, tourist guides, public transportation info, etc.) | 20%   11
Weather apps (local forecasts, natural disaster updates, etc.) | 61.82%   34

Total Respondents: 55
From a scale of 1-3, where 1 is most often and 3 is least often, where do you typically use your tablet?

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Location</th>
<th>Score 1</th>
<th>Score 2</th>
<th>Score 3</th>
<th>Total</th>
<th>Average Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>At home</td>
<td>85.45%</td>
<td>10.01%</td>
<td>3.64%</td>
<td>55</td>
<td>2.82</td>
</tr>
<tr>
<td>At work</td>
<td>5.45%</td>
<td>30.91%</td>
<td>63.64%</td>
<td>55</td>
<td>1.42</td>
</tr>
<tr>
<td>Out and about (e.g., travelling, at coffee houses, dining out)</td>
<td>0.00%</td>
<td>58.18%</td>
<td>32.73%</td>
<td>55</td>
<td>1.76</td>
</tr>
</tbody>
</table>
What have you done on your smartphone over the past 3 months?

I access the following academic resources from my tablet for GSW (General Studies Writing)

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackboard/Canvas</td>
<td>59.01%</td>
</tr>
<tr>
<td>Class emails</td>
<td>54.55%</td>
</tr>
<tr>
<td>Grades</td>
<td>47.27%</td>
</tr>
<tr>
<td>Readings for class</td>
<td>38.18%</td>
</tr>
<tr>
<td>Videos/Podcasts for class</td>
<td>9.00%</td>
</tr>
<tr>
<td>Instructor feedback on my paper</td>
<td>15.18%</td>
</tr>
<tr>
<td>My paperdrafts</td>
<td>18.18%</td>
</tr>
<tr>
<td>Websites for research</td>
<td>20.93%</td>
</tr>
<tr>
<td>Academic databases (e.g., JSTOR, Project Muse, LexisNexis)</td>
<td>12.72%</td>
</tr>
<tr>
<td>Jerome Library website</td>
<td>19.31%</td>
</tr>
<tr>
<td>Websites that help with MLA or APA</td>
<td>15.36%</td>
</tr>
<tr>
<td>Course syllabus or achievement...</td>
<td>25.45%</td>
</tr>
<tr>
<td>I don't access resources...</td>
<td>21.05%</td>
</tr>
<tr>
<td>Other academic resources...</td>
<td>20.93%</td>
</tr>
</tbody>
</table>

Total Respondents: 55
In the past year, have you ever written all or part of an academic paper on a tablet?

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have written most of or an entire academic paper on a tablet.</td>
<td>3.64%</td>
</tr>
<tr>
<td>I have written a small part of an academic paper on a tablet.</td>
<td>7.27%</td>
</tr>
<tr>
<td>I have accessed or viewed but not written an academic paper on a tablet.</td>
<td>16.36%</td>
</tr>
<tr>
<td>I have never written, accessed or viewed an academic paper on a tablet.</td>
<td>72.73%</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
</tr>
</tbody>
</table>
Do you use your smartphone to brainstorm or pre-write academic papers?

Answered: 55   Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every time</td>
<td>3.64%</td>
</tr>
<tr>
<td>Most of the time</td>
<td>1.82%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>10.91%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>12.73%</td>
</tr>
<tr>
<td>Never</td>
<td>70.91%</td>
</tr>
</tbody>
</table>

Total 55
Do you often use your tablet to conduct research for papers by using scholarly databases like JSTOR or LexusNexus?

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every time</td>
<td>1.82%</td>
</tr>
<tr>
<td>Most of the time</td>
<td>1.82%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>12.73%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>14.55%</td>
</tr>
<tr>
<td>Never</td>
<td>69.09%</td>
</tr>
</tbody>
</table>

Total 55
Do you often use your tablet to conduct research for papers by using sites like Wikipedia, news websites, Yahoo! Answers, etc.?  

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every time</td>
<td>1.82%</td>
</tr>
<tr>
<td>Most of the time</td>
<td>1.82%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>23.64%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>14.55%</td>
</tr>
<tr>
<td>Never</td>
<td>58.18%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
Do you typically make big revision changes to your paper on your tablet, or do you typically make sentence and word level edits and proofread?

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I make big revision changes.</td>
<td>0% 0</td>
</tr>
<tr>
<td>I make sentence and word level edits and proofread.</td>
<td>3.64% 2</td>
</tr>
<tr>
<td>I do both.</td>
<td>7.27% 4</td>
</tr>
<tr>
<td>I typically make big revision changes, edit and proofread in print or on another device.</td>
<td>3.64% 2</td>
</tr>
<tr>
<td>I typically don’t revise, edit, or proofread my papers on my tablet.</td>
<td>85.45% 47</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
</tr>
</tbody>
</table>
In the last year, what word processing programs have you used to write academic papers on your tablet?

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microsoft Word</td>
<td>7.22%</td>
</tr>
<tr>
<td>OpenOffice</td>
<td>10.91%</td>
</tr>
<tr>
<td>Google Docs</td>
<td>9.09%</td>
</tr>
<tr>
<td>Pages</td>
<td>1.82%</td>
</tr>
<tr>
<td>Works</td>
<td>1.82%</td>
</tr>
<tr>
<td>Word Perfect</td>
<td>0%</td>
</tr>
<tr>
<td>NotePad</td>
<td>6.46%</td>
</tr>
<tr>
<td>Notes</td>
<td>7.27%</td>
</tr>
<tr>
<td>Coloriote</td>
<td>0%</td>
</tr>
<tr>
<td>Penultimate</td>
<td>0%</td>
</tr>
<tr>
<td>I don't use word processing...</td>
<td>74.58%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>1.82%</td>
</tr>
</tbody>
</table>

Total Respondents: 55
Did you ever use a smartphone or tablet to write, revise/proofread, or do research for a paper in high school?

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>9.09%</td>
</tr>
<tr>
<td>No</td>
<td>90.91%</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
</tr>
</tbody>
</table>
Do you bring your smartphone to class in college?

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every day</td>
<td>74.55%</td>
</tr>
<tr>
<td>Often</td>
<td>1.82%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>1.82%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>0%</td>
</tr>
<tr>
<td>I own a smartphone but never bring it to class.</td>
<td>0%</td>
</tr>
<tr>
<td>I don't own a smartphone.</td>
<td>21.82%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>55</strong></td>
</tr>
</tbody>
</table>
Do you bring your tablet to class in college?

Answered: 66   Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every day</td>
<td>14.55%</td>
</tr>
<tr>
<td>Often</td>
<td>5.45%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>25.45%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>20%</td>
</tr>
<tr>
<td>I own a tablet but do not bring...</td>
<td>23.09%</td>
</tr>
<tr>
<td>I don't own a tablet.</td>
<td>5.45%</td>
</tr>
</tbody>
</table>

Total: 55
In what ways do you use your tablet or smartphone for academic purposes?

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Taking notes</td>
<td>32.73%</td>
</tr>
<tr>
<td>Email</td>
<td>76.36%</td>
</tr>
<tr>
<td>Participating in class message boards</td>
<td>23.64%</td>
</tr>
<tr>
<td>Accessing text books, webpages, documents, PDFs, or other texts</td>
<td>47.27%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>18.18%</td>
</tr>
</tbody>
</table>

Total Respondents: 55
How often do you use your smartphone or tablet in class for reasons not related to class?

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every time</td>
<td>5.45%</td>
</tr>
<tr>
<td>Often</td>
<td>12.73%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>30.81%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>27.27%</td>
</tr>
<tr>
<td>Never</td>
<td>23.64%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
How often do you use your smartphone or tablet OUTSIDE of class for academic reasons such as writing, researching, taking notes, checking school email, participating in class message boards, etc.?

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Every time</td>
<td>7.27%</td>
</tr>
<tr>
<td>Often</td>
<td>32.73%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>25.46%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>16.36%</td>
</tr>
<tr>
<td>Never</td>
<td>18.18%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
Do your teachers incorporate smartphones or tablets into class activities, assignments, and learning?

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Often</td>
<td>0%</td>
</tr>
<tr>
<td>Sometimes</td>
<td>20%</td>
</tr>
<tr>
<td>Hardly ever</td>
<td>30.91%</td>
</tr>
<tr>
<td>Never</td>
<td>49.99%</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
</tr>
</tbody>
</table>
When reading articles for school, how often do you read them on your desktop or laptop, in print, on a tablet, or on a smartphone?

Answered: 55  Skipped: 234

### When reading articles for school, how often do you read them on your desktop or laptop, in print, on a tablet, or on a smartphone?

<table>
<thead>
<tr>
<th></th>
<th>Often</th>
<th>Sometimes</th>
<th>Hardly ever</th>
<th>Never</th>
<th>Total</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop or laptop</td>
<td>76.36%</td>
<td>16.36%</td>
<td>5.46%</td>
<td>1.82%</td>
<td>55</td>
<td>1.33</td>
</tr>
<tr>
<td>Print them out</td>
<td>38.10%</td>
<td>29.09%</td>
<td>23.64%</td>
<td>9.09%</td>
<td>55</td>
<td>2.04</td>
</tr>
<tr>
<td>Tablet</td>
<td>14.55%</td>
<td>29.09%</td>
<td>16.36%</td>
<td>40%</td>
<td>55</td>
<td>2.82</td>
</tr>
<tr>
<td>Smartphone</td>
<td>3.64%</td>
<td>16.36%</td>
<td>20%</td>
<td>60%</td>
<td>55</td>
<td>3.36</td>
</tr>
</tbody>
</table>
When reading articles for personal reasons, how often do you read them on your desktop or laptop, in print, on a tablet, or on a smartphone?

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th></th>
<th>Often</th>
<th>Sometimes</th>
<th>Hardly ever</th>
<th>Never</th>
<th>Total</th>
<th>Average Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Desktop or laptop</td>
<td>72.73%</td>
<td>18.18%</td>
<td>3.64%</td>
<td>5.45%</td>
<td>55</td>
<td>1.42</td>
</tr>
<tr>
<td>Print them out</td>
<td>7.27%</td>
<td>10.91%</td>
<td>27.27%</td>
<td>64.55%</td>
<td>55</td>
<td>3.29</td>
</tr>
<tr>
<td>Tablet</td>
<td>25.45%</td>
<td>36.36%</td>
<td>14.55%</td>
<td>23.64%</td>
<td>55</td>
<td>2.36</td>
</tr>
<tr>
<td>Smartphone</td>
<td>25.45%</td>
<td>23.64%</td>
<td>16.36%</td>
<td>34.55%</td>
<td>55</td>
<td>2.60</td>
</tr>
</tbody>
</table>
I have read my instructor's comments about my papers...

Answered: 55   Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>on my desktop or laptop.</td>
<td>81.02%</td>
</tr>
<tr>
<td>in print.</td>
<td>52.73%</td>
</tr>
<tr>
<td>on a tablet.</td>
<td>10.91%</td>
</tr>
<tr>
<td>on a smartphone.</td>
<td>7.27%</td>
</tr>
</tbody>
</table>

Total Respondents: 55
To what extent have you ever revised/proofread a paper on your smartphone or tablet?

Answered: 55  Skipped: 234

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I've never written or revised any part of an academic paper on a smartphone or tablet.</td>
<td>78.18% 43</td>
</tr>
<tr>
<td>I've read my paper or comments I've received on my paper but have never revised it.</td>
<td>5.45% 3</td>
</tr>
<tr>
<td>I've revised/proofread a whole paper.</td>
<td>3.64% 2</td>
</tr>
<tr>
<td>I've revised/proofread chunks.</td>
<td>7.27% 4</td>
</tr>
<tr>
<td>I've revised/proofread a few sentences.</td>
<td>0% 0</td>
</tr>
<tr>
<td>I've revised/proofread less than a sentence.</td>
<td>5.45% 3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>55</strong></td>
</tr>
</tbody>
</table>
If you have revised/proofread part of an academic paper (even a very small part) on your smartphone or tablet, why did you use your smartphone instead of a computer? Select all that apply.

Answered: 55   Skipped: 234

- I didn't have a desktop/laptop/tablet...
- I preferred using a smartphone.
- I haven't revised/proofread part of an...
- Other (please specify)

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I didn't have a desktop/laptop/tablet available.</td>
<td>7.27% 4</td>
</tr>
<tr>
<td>I preferred using a smartphone.</td>
<td>9.09% 5</td>
</tr>
<tr>
<td>I haven't revised/proofread part of an academic paper on my smartphone.</td>
<td>83.64% 46</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>Responses 0% 0</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
</tr>
</tbody>
</table>
I plan on interviewing several students about how they use smartphones or tablets. The interview sessions would occur in the Spring Semester 2013. There would be a total of three interview sessions lasting about an hour for each one. I am specifically interested in students who have used tablets and smartphones to write part or all of GSVW papers. If selected, your voice will become an important part of this study. There are no foreseeable risks associated with this study. While the information collected may not benefit you directly, the information learned throughout this study may be helpful to future students and teachers in writing. I will protect your confidentiality as a respondent and your responses. No one outside of the researchers will know which responses belong to you. Only I and my dissertation committee will have access to the information you provide, and your identity will not be revealed in any published results unless you specifically request identification by contacting me at 586-420-4656 or mabridg@bgusu.edu. All data will be stored in a locked filing cabinet when not in use by me and I will destroy all data at the conclusion of the research study. Your participation in this research study is voluntary. You are free to withdraw your consent at any time without penalty. If you have any questions about the study, please contact Matthew Bridgewater (cell): 586-420-4656 or (email): mabridg@bgusu.edu. You can also contact Dr. Kristine Blair, my project advisor, at kblair@bgusu.edu. If you have questions about the conduct of this study or your rights as a research participant, you may contact the Chair of Bowling Green State University's Human Subjects Review Board at (419) 372-7716 (hsrb@bgusu.edu). Would you want to take part in these interview sessions?

Answer Choices

<table>
<thead>
<tr>
<th>Choice</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>No (exit survey)</td>
<td>83.64%</td>
</tr>
<tr>
<td>Yes (please provide your name, email...)</td>
<td>16.36%</td>
</tr>
</tbody>
</table>

Total 55
APPENDIX B: TEACHER SURVEY QUESTIONS AND RESPONSES

Below is the URL to the teacher survey. Screen shots of individual questions have been posted in APPENDIX B. Questions 16, 26, 27, 30, and 31 have multiple parts to them. These questions were fill-in-the-blank. The multiple part ensures that the complete responses to the questions are available for viewing in APPENDIX B.

https://www.surveymonkey.com/s/gsw_teacher_survey
You are invited to participate in a research study. The study is being conducted by Matthew A. Bridgewater from Bowling Green State University, Department of English as part of his dissertation. Your participation in this study will consist of completing one brief survey. Procedures Because you are a teacher in a research writing course, you are receiving this email asking you to complete the electronic survey confidentially. By completing and submitting this survey you are indicating your consent to participate in the study and giving permission to use your responses, which will help to answer how smartphones enable, disable, or complicate revision practices and research practices in writing classrooms. The total amount of time you will spend on this survey would be no more than 20 minutes. Furthermore, if you are interested in having your voice heard by being interviewed, there will be an option at the end of the survey to consent to this. If you agree to be interviewed, your electronic survey data will become confidential. This means that I will be able to know who you are in order to contact you regarding an interview, but your interview data will be published under a pseudonym. Potential Risks There are no foreseeable risks associated with this study. Benefits While the information collected may not benefit you directly, the information learned throughout this study may be helpful to future students and teachers of writing. Confidentiality Your participation in this study will remain anonymous unless you choose to be interviewed. If this is the case, your data will become confidential. This means that I will be able to know who you are in order to contact you regarding an interview, but your interview data will be published under a pseudonym. Please note that email is not 100% secure, so it is possible that someone intercepting your email will gain knowledge of your interest in the study. I will protect your confidentiality as a respondent and your responses. No one outside of the researchers will know which responses belong to you. Only I and my dissertation committee will have access to the information you provide, and your identity will not be revealed in any published results unless you specifically request identification by contacting me at 586-420-4605 or mabridg@bgus.edu. All data will be stored in a locked filing cabinet when not in use by me and I will destroy all data at the conclusion of the research study. Voluntary Participation Your participation in this research study is voluntary. You are free to withdraw your consent at any time without penalty. Research Subject’s Rights and Contact Persons If you have any questions about the study, please contact Matthew Bridgewater (cell), 586-420-4605 or (email): mabridg@bgus.edu. You can also contact Dr. Kristen Blair, my project advisor, at kblair@bgus.edu. If you have questions about the conduct of this study or your rights as a research participant, you may contact the Chair of Bowling Green State University’s Human Subjects Review Board at (419) 372-7716 (hrb@bgus.edu). Consent By completing and submitting the electronic survey linked below, you agree that you have read and understood the above information, are at least 18 years old, and hereby consent to voluntarily participate in this study. Some employers use tracking software to monitor and record keystrokes, mouse clicks, and web sites visited. This could impact the confidentiality of your responses. Therefore, you may wish to complete the survey on a home computer. Do not leave the survey open if using a public computer or a computer others may have access to. Upon completion of this survey, please clear your web browser’s cache and history page after you submit the survey in order to protect your privacy. Continue on to the survey?
What is your gender?

Answered: 17  Skipped: 0

- I identify as female: 64.71% (11 responses)
- I identify as male: 35.29% (6 responses)
- I identify as transgendered: 0% (0 responses)
- I prefer not to say: 0% (0 responses)

Total: 17
What is your ethnicity?

Answered: 17  Skipped: 0

<table>
<thead>
<tr>
<th>Answer Choice</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I identify as Asian.</td>
<td>5.88%</td>
</tr>
<tr>
<td>I identify as Black.</td>
<td>0%</td>
</tr>
<tr>
<td>I identify as Latino.</td>
<td>0%</td>
</tr>
<tr>
<td>I identify as Mixed Race.</td>
<td>0%</td>
</tr>
<tr>
<td>I identify as Native American.</td>
<td>0%</td>
</tr>
<tr>
<td>I identify as White.</td>
<td>94.12%</td>
</tr>
<tr>
<td>I prefer not to say.</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
</tr>
</tbody>
</table>
What is your native language?

Answered: 17   Skipped: 0

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>My first language is English.</td>
<td>88.24%</td>
</tr>
<tr>
<td>My first language is not English.</td>
<td>5.88%</td>
</tr>
<tr>
<td>I grew up speaking English and...</td>
<td>6.88%</td>
</tr>
<tr>
<td>I prefer not to say.</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
What is your age?

Answered: 17  Skipped: 0

<table>
<thead>
<tr>
<th>Answer Choice</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am between the ages of 18-20.</td>
<td>0%</td>
</tr>
<tr>
<td>I am between the ages of 21-24.</td>
<td>5.88%</td>
</tr>
<tr>
<td>I am between the ages of 25-30.</td>
<td>47.06%</td>
</tr>
<tr>
<td>I am between the ages of 31-35.</td>
<td>23.53%</td>
</tr>
<tr>
<td>I am over the age of 35.</td>
<td>23.53%</td>
</tr>
<tr>
<td>I prefer not to say.</td>
<td>0%</td>
</tr>
</tbody>
</table>

Total 17
What is your class/income?

Answered: 17  Skipped: 0

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I consider myself upper class.</td>
<td>0%</td>
</tr>
<tr>
<td>I consider myself middle class.</td>
<td>70.59%</td>
</tr>
<tr>
<td>I consider myself lower class.</td>
<td>23.53%</td>
</tr>
<tr>
<td>I prefer not to say.</td>
<td>5.88%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
What are your qualifications for teaching GSW?

Answered: 17  Skipped: 0

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I am working on my MA or MFA.</td>
<td>5.88%</td>
</tr>
<tr>
<td>I am working on my PhD.</td>
<td>47.06%</td>
</tr>
<tr>
<td>I have an MA or MFA.</td>
<td>35.29%</td>
</tr>
<tr>
<td>I have a PhD.</td>
<td>11.76%</td>
</tr>
<tr>
<td>I prefer not to say.</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
</tr>
</tbody>
</table>
Do you own a tablet?

Answered: 17  Skipped: 0

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>35.29%</td>
</tr>
<tr>
<td></td>
<td>6</td>
</tr>
<tr>
<td>No</td>
<td>64.71%</td>
</tr>
<tr>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
<tr>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>
What brand of tablet do you use?

Answered: 6   Skipped: 11

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>iPad</td>
<td>83.33%</td>
</tr>
<tr>
<td>Amazon Kindle Fire</td>
<td>16.67%</td>
</tr>
<tr>
<td>Google Nexus</td>
<td>0%</td>
</tr>
<tr>
<td>Samsung Galaxy Tablet</td>
<td>0%</td>
</tr>
<tr>
<td>Not sure/other</td>
<td>0%</td>
</tr>
</tbody>
</table>

Total Respondents: 6
In a typical day, what 3-5 apps do you use most frequently on your tablet?

Answered: 6   Skipped: 11

- Internet browser, notepad, dictionary
  2/12/2013 10:45 AM  View respondent's answers  Categorize as...
- Email, Facebook, Flipboard
  2/19/2013 5:42 PM  View respondent's answers  Categorize as...
- Web browser, random games
  2/7/2013 6:30 PM  View respondent's answers  Categorize as...
- One Note
  2/7/2013 4:55 PM  View respondent's answers  Categorize as...
- I don't think they are apps?: Google search, Mail, Facebook, Twitter, Bookshelf (to read a newspaper I subscribe to only electronically)
  2/7/2013 11:30 AM  View respondent's answers  Categorize as...
- Facebook, Weather Channel, Twitter, CNN.
  2/7/2013 10:47 AM  View respondent's answers  Categorize as...
Which type of apps do you currently have on your computer tablet? (Check all that apply)

Answered: 6  Skipped: 11

| Utility apps (calculate, convert, etc.) | 83.33% 5 |
| Entertainment apps (movie trailers, celebrity gossip, etc.) | 66.67% 4 |
| Game apps (puzzles, charades, etc.) | 100% 6 |
| News apps (local news, national headlines, etc.) | 100% 8 |
| Productivity apps (calendar, to do list, price checker, etc.) | 83.33% 5 |
| Search tools (directions, phone numbers, recipes, etc.) | 66.67% 4 |
| Social networking apps (location check-ins, frienship status updates, etc.) | 83.33% 5 |
| Sports apps (scores, headlines, etc.) | 33.33% 2 |
| Travel apps (airline tickets, tourist guides, etc.) | 33.33% 2 |
| Weather apps (local forecasts, natural disaster updates, etc.) | 83.33% 5 |

Total Respondents: 6
From a scale of 1-3, where 1 is most often and 3 is least often, where do you typically use your tablet?

Answered: 6  Skipped: 11

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Total</th>
<th>Average Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>At home</td>
<td>83.33%</td>
<td>16.67%</td>
<td>0%</td>
<td>6</td>
<td>2.83</td>
</tr>
<tr>
<td>At work</td>
<td>18.07%</td>
<td>50%</td>
<td>33.33%</td>
<td>6</td>
<td>1.83</td>
</tr>
<tr>
<td>Out and about (e.g., travelling, at a coffee house, dining out)</td>
<td>0%</td>
<td>33.33%</td>
<td>66.67%</td>
<td>6</td>
<td>1.33</td>
</tr>
</tbody>
</table>
I access the following resources from my tablet for GSW

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackboard/Canvas</td>
<td>50%</td>
</tr>
<tr>
<td>Class emails</td>
<td>100%</td>
</tr>
<tr>
<td>Student grades</td>
<td>0%</td>
</tr>
<tr>
<td>Readings for class</td>
<td>50%</td>
</tr>
<tr>
<td>Videos/Podcast for class</td>
<td>16.67%</td>
</tr>
<tr>
<td>Student papers</td>
<td>33.33%</td>
</tr>
<tr>
<td>Websites I intend to use in class</td>
<td>66.67%</td>
</tr>
<tr>
<td>Academic databases (e.g., JSTOR, ProjectMuse, LexisL nexis)</td>
<td>16.67%</td>
</tr>
<tr>
<td>Jerome Library website</td>
<td>50%</td>
</tr>
<tr>
<td>Course syllabus or achievement requirements</td>
<td>50%</td>
</tr>
<tr>
<td>I don't access anything for GSW on my tablet.</td>
<td>0%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>0%</td>
</tr>
</tbody>
</table>

Total Respondents: 6
Do you own a smartphone?

Answered: 17   Skipped: 0

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>64.71%</td>
</tr>
<tr>
<td>No</td>
<td>35.29%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>
### What brand of smartphone do you use?

**Answered:** 11  
**Skipped:** 6

<table>
<thead>
<tr>
<th>Choice</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>iPhone</td>
<td>45.45%</td>
</tr>
<tr>
<td>Blackberry</td>
<td>0%</td>
</tr>
<tr>
<td>Android OS</td>
<td>54.55%</td>
</tr>
<tr>
<td>Windows Phone</td>
<td>0%</td>
</tr>
<tr>
<td>Palm</td>
<td>0%</td>
</tr>
<tr>
<td>Not sure/other</td>
<td>0%</td>
</tr>
</tbody>
</table>

**Total Respondents:** 11
## Q16

**In a typical day, what 3-5 apps do you use most frequently on your smartphone?**

Answered: 11  Skipped: 6

<table>
<thead>
<tr>
<th>Response</th>
<th>Date/Time</th>
<th>View respondent’s answers</th>
<th>Categorize as...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safari, facebook, grindr</td>
<td>2/19/2013 3:54 PM</td>
<td><a href="#">View</a></td>
<td><a href="#">Categorize</a></td>
</tr>
<tr>
<td>Text Messaging, Instagram, Facebook, Twitter</td>
<td>2/11/2013 11:15 AM</td>
<td><a href="#">View</a></td>
<td><a href="#">Categorize</a></td>
</tr>
<tr>
<td>Bowling Green State University App, Facebook, Weather Channel, NPR,</td>
<td>2/11/2013 2:34 PM</td>
<td><a href="#">View</a></td>
<td><a href="#">Categorize</a></td>
</tr>
<tr>
<td>email, Facebook, ToDo</td>
<td>2/9/2013 5:43 PM</td>
<td><a href="#">View</a></td>
<td><a href="#">Categorize</a></td>
</tr>
<tr>
<td>Email, google, weather, mint, pandora</td>
<td>2/9/2013 3:24 PM</td>
<td><a href="#">View</a></td>
<td><a href="#">Categorize</a></td>
</tr>
<tr>
<td>New York Times, Wikipedia, IMDb, the weather app</td>
<td>2/7/2013 10:31 PM</td>
<td><a href="#">View</a></td>
<td><a href="#">Categorize</a></td>
</tr>
<tr>
<td>Facebook, Weather Map, My Walk</td>
<td>2/7/2013 4:56 PM</td>
<td><a href="#">View</a></td>
<td><a href="#">Categorize</a></td>
</tr>
</tbody>
</table>
Q16

In a typical day, what 3-5 apps do you use most frequently on your smartphone?

Answered: 11  Skipped: 6

- Email, google, weather, mint, pandora
  29/3/2013 3:24 PM  View respondent's answers  Categorize as...

- New York Times, Wikipedia, IMDb, the weather app
  27/3/2013 10:31 PM  View respondent's answers  Categorize as...

- Facebook, WeatherMap, MyWalk
  27/3/2013 4:56 PM  View respondent's answers  Categorize as...

- Don't really use my smartphone for anything other than calls, texting, and checking my e-mail.
  27/3/2013 1:52 PM  View respondent's answers  Categorize as...

-mail, to do list, google search, facebook, twitter
  27/3/2013 11:32 AM  View respondent's answers  Categorize as...

- Facebook, CNN, Weather Channel,
  27/3/2013 10:48 AM  View respondent's answers  Categorize as...

- Facebook, BGSU email (Corporate email), Gmai, weatherbug
  27/3/2013 10:45 AM  View respondent's answers  Categorize as...
Which type of apps do you currently have on your smartphone? (Check all that apply)

- Utility apps (calculate, convert, translate, etc.)
- Entertainment apps (movie, music, etc.)
- Game apps (puzzles, charades, etc.)
- News apps (local news, national news, etc.)
- Productivity apps (calendar, to-do list, etc.)
- Search tool apps (directions, phone numbers, recipes, etc.)
- Social networking apps (location check-ins, friend status updates, etc.)
- Sports apps (sports schedules, scores, headlines, etc.)
- Travel apps (airplane tickets, tourist guides, public transportation info, etc.)
- Weather apps (local forecasts, natural disaster updates, etc.)

Answer Choices | Responses |
--- | --- |
Utility apps (calculate, convert, translate, etc.) | 99.81% 10 |
Entertainment apps (movie trailers, celebrity gossip, radio station guides, etc.) | 72.73% 8 |
Game apps (puzzles, charades, etc.) | 81.82% 9 |
News apps (local news, national headlines, technology announcements, etc.) | 63.64% 7 |
Productivity apps (calendar, to-do list, price checker, etc.) | 72.73% 8 |
Search tool apps (directions, phone numbers, recipes, etc.) | 81.82% 9 |
Social networking apps (location check-ins, friend status updates, etc.) | 99.81% 10 |
Sports apps (sports schedules, scores, headlines, etc.) | 18.18% 2 |
Travel apps (airplane tickets, tourist guides, public transportation info, etc.) | 35.35% 4 |
Weather apps (local forecasts, natural disaster updates, etc.) | 81.82% 9 |

Total Respondents: 11
From a scale of 1-3, where 1 is most often and 3 is least often, where do you typically use your smartphone?

Answered: 11  Skipped: 6

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>Total</th>
<th>Average Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>At home</td>
<td>45.45%</td>
<td>9.09%</td>
<td>45.45%</td>
<td>11</td>
<td>2.00</td>
</tr>
<tr>
<td>At work</td>
<td>9.09%</td>
<td>54.55%</td>
<td>36.36%</td>
<td>11</td>
<td>1.73</td>
</tr>
<tr>
<td>Out and about (e.g., travelling, at a coffee house, dining out)</td>
<td>45.45%</td>
<td>36.38%</td>
<td>18.18%</td>
<td>11</td>
<td>2.27</td>
</tr>
</tbody>
</table>
I access the following resources from my smartphone for GSW

Answered: 11  Skipped: 6

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blackboard/Canvas</td>
<td>18.18%</td>
</tr>
<tr>
<td>Class emails</td>
<td>72.73%</td>
</tr>
<tr>
<td>Grades</td>
<td>0%</td>
</tr>
<tr>
<td>Readings for class</td>
<td>9.09%</td>
</tr>
<tr>
<td>Videos/Podcasts for class</td>
<td>0%</td>
</tr>
<tr>
<td>Student papers</td>
<td>0%</td>
</tr>
<tr>
<td>Websites I intend to use in class</td>
<td>10.18%</td>
</tr>
<tr>
<td>Academic databases (e.g., JSTOR, ProjectMuse, LexisNexis)</td>
<td>0%</td>
</tr>
<tr>
<td>Jerome Library website</td>
<td>0%</td>
</tr>
<tr>
<td>Course syllabus or achievement requirements</td>
<td>0%</td>
</tr>
<tr>
<td>I don't access anything on my smartphone for GSW</td>
<td>18.18%</td>
</tr>
<tr>
<td>Other (please specify)</td>
<td>Responses</td>
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Total Respondents: 11
Do you think tablets will play an important role in the future of teaching first-year composition?

Answered: 16  Skipped: 1

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
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<tr>
<td>Yes</td>
<td>75%</td>
</tr>
<tr>
<td>No</td>
<td>6.25%</td>
</tr>
<tr>
<td>Don't know</td>
<td>18.75%</td>
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<tr>
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Do you think smartphones will play an important role in the future of teaching first-year composition?

Answered: 16  Skipped: 1

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<td>Yes</td>
<td>37.50%</td>
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<tr>
<td>No</td>
<td>31.25%</td>
</tr>
<tr>
<td>Don't know</td>
<td>31.25%</td>
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<tr>
<td>Total</td>
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</table>
How many students do you see using tablets instead of laptops in each of your GSW 1120 sections?

Answered: 16  Skipped: 1

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<th>Answer Choices</th>
<th>Responses</th>
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<tbody>
<tr>
<td>None</td>
<td>31.25%</td>
</tr>
<tr>
<td>1-2</td>
<td>37.50%</td>
</tr>
<tr>
<td>A few</td>
<td>25%</td>
</tr>
<tr>
<td>Several</td>
<td>6.25%</td>
</tr>
<tr>
<td>A majority</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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</table>
How many students do you see using smartphones for academic purposes per GSW 1120 section?

Answered: 16  Skipped: 1

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
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<tbody>
<tr>
<td>None</td>
<td>25%</td>
</tr>
<tr>
<td>1-2</td>
<td>37.50%</td>
</tr>
<tr>
<td>A few</td>
<td>18.75%</td>
</tr>
<tr>
<td>Several</td>
<td>12.50%</td>
</tr>
<tr>
<td>A majority</td>
<td>6.25%</td>
</tr>
<tr>
<td>Total</td>
<td>16</td>
</tr>
</tbody>
</table>
I believe tablets are identical or near identical writing tools to laptops and desktops.

Answered: 16    Skipped: 1

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>31.25%</td>
</tr>
<tr>
<td>No</td>
<td>43.75%</td>
</tr>
<tr>
<td>I don't know.</td>
<td>25%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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</table>
I believe that tablets and smartphones will become more important than laptops or desktops for communicating and writing in first-year composition courses.

Answered: 16  Skipped: 1

<table>
<thead>
<tr>
<th>Answer Choices</th>
<th>Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly agree</td>
<td>12.50%</td>
</tr>
<tr>
<td>Agree</td>
<td>43.75%</td>
</tr>
<tr>
<td>Disagree</td>
<td>25%</td>
</tr>
<tr>
<td>Strongly disagree</td>
<td>6.25%</td>
</tr>
<tr>
<td>I don't know.</td>
<td>12.50%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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</tbody>
</table>
What are 1 or 2 positive experiences you’ve had with technology in general in the classroom?

Answered: 16  Skipped: 1

Video and having access to course website/internet.
2/19/2013 4:00 PM  View respondent's answers  Categorize as...

convenience
2/12/2013 10:48 AM  View respondent's answers  Categorize as...

Facebooking and blogging
2/11/2013 11:18 PM  View respondent's answers  Categorize as...

1. I've assigned students to work in groups creating synthesis paragraphs, using readings posted on Blackboard. During the process, several groups utilized Google Docs (on their own) to share paragraphs with each other to make editing easier. Figuring out how to use further technology to complete assignments is always a positive. 2. Students having internet access via devices is very helpful for looking up ideas/definitions that they may not know when discussing readings or rhetorical strategies in class.
2/11/2013 2:54 PM  View respondent's answers  Categorize as...

It's an easy way to note discussion and post to refer back to.
2/11/2013 8:01 AM  View respondent's answers  Categorize as...
What are 1 or 2 positive experiences you’ve had with technology in general in the classroom?

1. Audio-visual technology that’s connected to the internet is wonderful for bringing in different types of media both for discussion and more formal instructional purposes, student presentations, and alternative assignments such as blogs and photo essays. 2. Student technology such as laptops, tablets, and smartphones are excellent in that students can research in class.

2/10/2013 6:10 PM  View respondent’s answers  Categorize as... ▼

Quick access to info for class discussions

2/8/2013 3:30 PM  View respondent’s answers  Categorize as... ▼

Students use their phones to text and communicate with one another in the class, so I think that smartphones are very useful and easy to carry tools that most of them have.

2/6/2013 6:33 AM  View respondent’s answers  Categorize as... ▼

Distributing documents between students and myself, watching videos. I haven’t done anything particularly innovative so far. Prezi’s are cool too.

2/7/2013 10:35 PM  View respondent’s answers  Categorize as... ▼
What are 1 or 2 positive experiences you’ve had with technology in general in the classroom?

Answered: 16   Skipped: 1

Responses (16)   Text Analysis   My Categories (0)

Categorize as...   Filter by Category   Search responses

Showing 16 responses

- Students get instant research opportunities. Students can work on their papers and share reviews.
  2/7/2013 6:56 PM   View respondent’s answers   Categorize as...

- The ability for students to self-pace; the ability to complete exercises at a time and place that is most comfortable for students.
  2/7/2013 6:34 PM   View respondent’s answers   Categorize as...

- Technology has enhanced by ability to comment on papers and to provide consistent feedback to students.
  2/7/2013 5:00 PM   View respondent’s answers   Categorize as...

- Having my students compose multimodal/digital texts; they really seem to enjoy doing this.
  2/7/2013 1:56 PM   View respondent’s answers   Categorize as...

- I enjoy using the projector for videos and pictures, etc.
  2/7/2013 10:57 AM   View respondent’s answers   Categorize as...

- Immediate access to research sources
  2/7/2013 10:48 AM   View respondent’s answers   Categorize as...
What are 1 or 2 negative experiences you’ve had with technology in general in the classroom?

Answered: 16  Skipped: 1

Responses (16)  Text Analysis  My Categories (0)

- The students are often distracted.
  2/19/2013 4:00 PM  View respondent's answers  Categorize as...

- Distraction unstable connection
  2/12/2013 10:48 AM  View respondents answers  Categorize as...

- Receiving too many emails to answer in an adequate amount of time
  2/11/2013 11:18 PM  View respondent's answers  Categorize as...

- I had an incident where several students were harrassing other students via Twitter during class. Several students ended up on academic probations and clearly did not understand the boundaries and etiquette of social networking. 2. In class focus/distractions. Many students cannot break the habit of checking texts/social networking updates during class. They prioritize checking these messages over note taking or engaging in discussion.
  2/11/2013 2:54 PM  View respondent's answers  Categorize as...

- Students tend to get off task easily.
  2/11/2013 8:01 AM  View respondent's answers  Categorize as...

- 1. Student distraction. 2. Pressure from administrators and directors to incorporate the technology...
What are 1 or 2 negative experiences you've had with technology in general in the classroom?

Responses (10)  Text Analysis  My Categories (0)

1. Student distraction. 2. Pressure from administrators and directors to incorporate the technology simply because it's available. I've had to introduce fluff assignments and compromise my pedagogy more than once because higher-ups wanted to brag about the use of technology in the classroom on their brochures.
2/10/2013 6:10 PM  View respondent's answers  Categorize as...

2. Students lack of experience/unwillingness to solve tech problems themselves.
2/9/2013 5:47 PM  View respondent's answers  Categorize as...

3. Network problems, internet issues, will sometimes shutdown tasks/activities for the day
2/9/2013 3:30 PM  View respondent's answers  Categorize as...

4. Students get easily distracted by all that access all the time! :)
2/8/2013 6:33 AM  View respondent's answers  Categorize as...

5. When the internet fails, which is rare by now.
2/7/2013 10:35 PM  View respondent's answers  Categorize as...

6. Students ask me (as an instructor) for technical support. Internet connection problems interfere with in-class activities.
What are 1 or 2 negative experiences you've had with technology in general in the classroom?

Answered: 16  Skipped: 1

27/7/2013 6:36 PM  View respondent's answers  Categorize as...

Students not knowing when to pay attention to me and when it's appropriate to use technology—I need to tell them when it's OK to use their machines and when they need to just tune in to the lecture.

27/7/2013 5:00 PM  View respondent's answers  Categorize as...

Comparability issues are always a concern, particularly with students who use Pages instead of MS Word when submitting in Canvas.

27/7/2013 1:56 PM  View respondent's answers  Categorize as...

When pulling down the screen for the overhead projector, one time it came unhinged and landed on my head.

27/7/2013 10:57 AM  View respondent's answers  Categorize as...

Sometimes, the PCs aren't updated and can't play certain things.

27/7/2013 10:48 AM  View respondent's answers  Categorize as...

Distraction of the student using the technology, and then students sitting around that student are distracted.
Have you ever had a student write all or part of a paper on a tablet?

Answered: 16  Skipped: 1

<table>
<thead>
<tr>
<th>Answer Choices</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>31.25%</td>
</tr>
<tr>
<td>Possibly</td>
<td>43.75%</td>
</tr>
<tr>
<td>No</td>
<td>25%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
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</tbody>
</table>
Have you ever had a student write all or part of a paper on a smartphone?

Answered: 16   Skipped: 1

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Yes</td>
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</tr>
<tr>
<td>Possibly</td>
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</tr>
<tr>
<td>No</td>
<td>37.50%</td>
</tr>
<tr>
<td>Total</td>
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</tr>
</tbody>
</table>
How do you think tablets might aid students in writing GSW papers?

Answered: 16  Skipped: 1

- **Responses (16)**  **Text Analysis**  **My Categories (0)**
- **Categorize as...**  **Filter by Category**  **Search responses**

1. Easier access, and not the "scariness" of a big blank screen.
   2/19/2013 4:00 PM  View respondent's answers  Categorize as...

2. Small and light to carry, so they may jog down something whenever they have a thought.
   2/12/2013 10:48 AM  View respondent's answers  Categorize as...

3. They are able to allow students to research on the internet and write papers on them in "laptop" sessions (from what I have seen).
   2/11/2013 11:18 PM  View respondent's answers  Categorize as...

4. Apps. As writing apps develop for various stages of the writing process and research, they will be extremely useful for students writing essays.
   2/11/2013 2:54 PM  View respondent's answers  Categorize as...

5. The portability makes them better than laptops.
   2/11/2013 5:01 AM  View respondents answers  Categorize as...

6. I see tablets as analogous to laptops; I think they'll become more important in the composition classroom simply because they will eventually replace laptops on the market.
   2/10/2013 6:10 PM  View respondent's answers  Categorize as...
How do you think tablets might aid students in writing GSW papers?

Answered: 16  Skipped: 1

[Responses (16)]  [Text Analysis]  [My Categories (0)]

Showing 16 responses

- Their portability means that students would be more easily able to take their writing with them across campus and to other locations.  
  2/9/2013 5:47 PM  View respondents answers  Categorize as...

- I don't really.  
  2/9/2013 3:30 PM  View respondents answers  Categorize as...

- They are lighter and more compact, but I haven't seen any students using them. It doesn't mean that they aren't, just that I haven't seen it.  
  2/8/2013 6:33 AM  View respondents answers  Categorize as...

- If they are used to writing on one then I don't see why it would hinder them. They're certainly easier to carry than laptops.  
  2/7/2013 10:35 PM  View respondents answers  Categorize as...

- Don't know...possibly a second research screen.  
  2/7/2013 6:56 PM  View respondents answers  Categorize as...

- Maybe for convenience purposes when researching and prewriting--I'm not a fan of the tablet keyboard so I really can't see composing or revising on a tablet.  
  2/7/2013 6:24 PM  View respondents answers  Categorize as...
How do you think tablets might aid students in writing GSW papers?

Answered: 16  Skipped: 1

<table>
<thead>
<tr>
<th>Responses (16)</th>
<th>Text Analysis</th>
<th>My Categories (0)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Showing 16 responses

- Don't know...possibly a second research screen.
  2/7/2013 6:56 PM  View respondent's answers  Categorize as...

- Maybe for convenience purposes when researching and prewriting--I'm not a fan of the tablet keyboard so I really can't see composing or revising on a tablet.
  2/7/2013 6:34 PM  View respondent's answers  Categorize as...

- I see much opportunity for using many of the already established writing apps for teaching brainstorming/pre-writing.
  2/7/2013 5:00 PM  View respondent's answers  Categorize as...

- Easy to carry/take notes.
  2/7/2013 1:56 PM  View respondent's answers  Categorize as...

- I'm not sure exactly. They're almost like laptops in a sense so I don't see them being much different.
  2/7/2013 10:57 AM  View respondents answers  Categorize as...

- Convenience
  2/7/2013 10:48 AM  View respondents answers  Categorize as...
How do you think smartphones might aid students in writing academic papers?

Answered: 16   Skipped: 1

[Responses (16)]  [Text Analysis]  [My Categories (0)]

Showing 16 responses

- **mobility?**
  2/19/2013 4:00 PM  View respondent's answers  Categorize as...

- **don't know**
  2/12/2013 10:48 AM  View respondent's answers  Categorize as...

- **Last semester, I had a student enrolled in a GSW course whose laptop malfunctioned mid-semester. He could not afford to buy a new one, but he completed all in-class work on his smartphone and supplemented his writing by using computers available to students on-campus. He successfully passed the course.**
  2/11/2013 11:18 PM  View respondent's answers  Categorize as...

- **Apps. Internet access. Being able to conduct internet research for a variety of purposes can easily be done on a smart phone.**
  2/11/2013 2:54 PM  View respondent's answers  Categorize as...

- **Some students seem to read better on them because they don't realize how much text is being consumed.**
  2/11/2013 3:01 AM  View respondent's answers  Categorize as...
How do you think smartphones might aid students in writing academic papers?

Answered: 16  Skipped: 1

| Responses (16) | Text Analysis | My Categories (0) |

| Categorize as... | Filter by Category | Search responses |

Showing 16 responses

- Honestly, I think they are detrimental to solid research since their screen size only encourages reading small bits of text at a time.
  2/10/2013 6:10 PM  View respondent's answers  Categorize as...

- Can look up information/access library site on mobile
  2/9/2013 5:47 PM  View respondent's answers  Categorize as...

- Maybe for quick references
  2/9/2013 3:30 PM  View respondent's answers  Categorize as...

- Internet access is a key component to research. Smartphones have that. Nuff said
  2/8/2013 6:33 AM  View respondent's answers  Categorize as...

- I'm less inclined to go for this than tablets. I know students email me from their iPhone, but the screen is so small I would be surprised if someone wrote anything of length on it.
  2/7/2013 10:35 PM  View respondent's answers  Categorize as...

- Don't know...possibly a second research screen.
  2/7/2013 6:56 PM  View respondent's answers  Categorize as...
How do you think smartphones might aid students in writing academic papers?

Answered: 16  Skipped: 1

- I'm not inclined to go for this kind of product. Many students think a lot from their phones, but the screen is so small I would be surprised if someone wrote anything of length on it. 2/7/2013 10:35 PM
- Don't know...possibly a second research screen. 2/7/2013 6:56 PM
- I really don't know...(-) 2/7/2013 6:34 PM
- Definitely for research, but I'm not certain about the writing piece. 2/7/2013 5:00 PM
- Quick to pull up and look something up. 2/7/2013 1:56 PM
- I don't think it will aid students in their paper writing process. 2/7/2013 10:57 AM
- Quick checks for information, like dictionaries. 2/7/2013 10:48 AM
### Script for first interview session (1 hour):

<table>
<thead>
<tr>
<th>Duration</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 minutes</td>
<td>Introduction of who I am and what the project is about. Have the student introduce themselves. Inform them of HSRB and have them sign consent form.</td>
</tr>
<tr>
<td>10 minutes</td>
<td>Please describe your digital literacy narrative. What technologies were/are important to you? What technology issues are important to you? Who has influenced you in the technology you use? In what ways do you use technology? In what technologies are you proficient/not proficient?</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Could you describe how you use your desktop, laptop, tablet, and/or smartphone in a typical day?</td>
</tr>
<tr>
<td>5 minutes</td>
<td>What writing assignments are you working on currently in the classes (including GSW) that you are taking?</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Please take me through your writing process for the last academic or GSW paper you wrote.</td>
</tr>
<tr>
<td>5 minutes</td>
<td>For what reasons do you use your desktop, laptop, tablet, and/or smartphone for GSW? Compare this with other classes. Is it similar or different? In what ways?</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Could you describe the most important lessons you’ve learned using your desktop, laptop, tablet, and/or smartphone in regards to college?</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Have any on campus resources or organizations been helpful for you when it comes to using technology to write your papers?</td>
</tr>
<tr>
<td>5 minutes</td>
<td>In what ways did you use desktops, laptops, tablets, and/or smartphones in high school, middle school, or elementary school?</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Conclusion to the session. Is there anything else you might want to tell me that you think is relevant to our discussion today? Schedule a future session.</td>
</tr>
</tbody>
</table>

### Script for second interview session (1 hour):

<table>
<thead>
<tr>
<th>Duration</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 minutes</td>
<td>Make the student feel comfortable. Go over our previous interview to clarify anything and to</td>
</tr>
<tr>
<td>Duration</td>
<td>Questions</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Make the student feel comfortable. Go over our previous interview to clarify anything and to make sure I’m representing the student properly.</td>
</tr>
<tr>
<td>5 minutes</td>
<td>What writing assignments are you currently working on in GSW? In other classes you are taking?</td>
</tr>
<tr>
<td>10 minutes</td>
<td>Please take me through your writing process for the last/current academic/GSW paper you wrote. In what ways has technology (desktop, laptop, tablet, and/or smartphone) played a role in your writing process? Has this changed any from last time or from previous semesters, or from high school?</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Imagine you are an incoming student/GSW teacher. What advice would you give to her/him about using desktops, laptops, tablets, and/or smartphones in GSW?</td>
</tr>
<tr>
<td>5 minutes</td>
<td>In what ways do you notice yourself using your smartphone/tablet/desktop/laptop differently/similarly for school as opposed to personal use?</td>
</tr>
<tr>
<td>5 minutes</td>
<td>In what ways do you use your tablet/smartphone?</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Conclusion to the session. Is there anything else you might want to tell me that you think is relevant to our discussion today? Schedule a future session.</td>
</tr>
</tbody>
</table>

Script for third interview session (1 hour):

<table>
<thead>
<tr>
<th>Duration</th>
<th>Questions</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 minutes</td>
<td>Make the student feel comfortable. Go over our previous interview to clarify anything and to make sure I’m representing the student properly.</td>
</tr>
<tr>
<td>5 minutes</td>
<td>What writing assignments are you currently working on in GSW? In other classes you are taking?</td>
</tr>
<tr>
<td>10 minutes</td>
<td>Please take me through your writing process for the last/current academic/GSW paper you wrote. In what ways has technology (desktop, laptop, tablet, and/or smartphone) played a role in your writing process? Has this changed any from last time or from previous semesters, or from high school?</td>
</tr>
<tr>
<td>5 minutes</td>
<td>Imagine you are an incoming student/GSW teacher. What advice would you give to her/him about using desktops, laptops, tablets, and/or smartphones in GSW?</td>
</tr>
<tr>
<td>5 minutes</td>
<td><strong>smartphones in GSW?</strong></td>
</tr>
<tr>
<td>-----------</td>
<td>-------------------------</td>
</tr>
<tr>
<td></td>
<td>In what ways do you notice yourself using your smartphone/tablet/desktop/laptop differently/similarly for school as opposed to personal use?</td>
</tr>
<tr>
<td>5 minutes</td>
<td><strong>What types of writing do you do on your smartphone/tablet/desktop/laptop for personal reasons? For school reasons?</strong></td>
</tr>
<tr>
<td>5 minutes</td>
<td>As you look back on this semester in GSW, are there any events that stand out in your mind about your experiences with technology, or experiences you saw other students have, or experiences you saw the teacher have?</td>
</tr>
<tr>
<td>5 minutes</td>
<td><strong>Conclusion to the session. Is there anything else you might want to tell me that you think is relevant to our discussion today? Go over this interview to clarify anything and to make sure I’m representing the student properly. Thank the student for her/his time.</strong></td>
</tr>
</tbody>
</table>
You are invited to participate in a research study. The study is being conducted by Matthew A. Bridgewater from Bowling Green State University, Department of English as part of his dissertation. Your participation in this study will consist of completing one brief survey.

Because you are a student in a research writing course, you are receiving this email asking you to complete the electronic survey anonymously. By completing and submitting this survey you are indicating your consent to participate in the study and giving permission to use your responses, which will help to answer how smartphones enable, disable, or complicate revision practices and research practices in writing classrooms. The total amount of time you will spend on this survey would be no more than 20 minutes. Furthermore, if you are interested in having your voice heard by being interviewed, there will be an option at the end of the survey to consent to this. If you agree to be interviewed, your electronic survey data will become confidential. This means that I will be able to know who you are in order to contact you regarding an interview, but your interview data will be published under a pseudonym.

There are no foreseeable risks associated with this study.

While the information collected may not benefit you directly, the information learned throughout this study may be helpful to future students and teachers of writing.

Your participation in this study will remain anonymous unless you choose to be interviewed. If this is the case, your data will become confidential. This means that I will be able to know who you are in order to contact you regarding an interview, but your interview data will be published under a pseudonym. Please note that email is not 100% secure, so it is possible that someone intercepting your email will gain knowledge of your interest in the study. I will protect your confidentiality as a respondent and your responses. No one outside of the researchers will know which responses belong to you. Only I and my dissertation committee will have access to the information you provide, and your identity will not be revealed in any published results unless you specifically request identification by contacting me at 586-420-4656 or mabridg@bgsu.edu. All data will be stored in a locked filing cabinet when not in use by me and I will destroy all data at the conclusion of the research study.

Your participation in this research study is voluntary. You are free to withdraw your consent at any time without penalty. Your participation will have no impact on your grades, class standing, or relationship to the institution in any way.

If you have any questions about the study, please contact Matthew Bridgewater (cell): 586-420-4656 or (email): mabridg@bgsu.edu. You can also contact Dr. Kristine Blair, my project advisor, at kblair@bgsu.edu. If you have questions about the conduct of this study or your rights as a research participant, you may contact the Chair of Bowling Green State University's Human Subjects Review Board at (419) 372-7716 (hsrb@bgsu.edu).

By completing and submitting the electronic survey linked below, you agree that you have read and understood the above information, are at least 18 years old, and hereby consent to voluntarily participate in this study. Some employers use tracking software to monitor and record keystrokes, mouse clicks, and web sites visited. This could impact the confidentiality of your responses. Therefore, you may wish to complete the survey on a home computer. Do not leave the survey open if using a public computer or a computer others may have access to. Upon completion of this survey, please clear your web browser’s cache and history page after you
submit the survey in order to protect your privacy. To continue on to the survey, please click on the link below:

https://www.surveymonkey.com/s/gsw-writing_technology_survey
You are invited to participate in a research study. The study is being conducted by Matthew A. Bridgewater from Bowling Green State University, Department of English as part of his dissertation. Your participation in this study will consist of completing one brief survey.

Because you are a teacher in a research writing course, you are receiving this email asking you to complete the electronic survey anonymously. By completing and submitting this survey you are indicating your consent to participate in the study and giving permission to use your responses, which will help to answer how smartphones enable, disable, or complicate revision practices and research practices in writing classrooms. The total amount of time you will spend on this survey would be no more than 20 minutes. Furthermore, if you are interested in having your voice heard by being interviewed, there will be an option at the end of the survey to consent to this. If you agree to be interviewed, your electronic survey data will become confidential. This means that I will be able to know who you are in order to contact you regarding an interview, but your interview data will be published under a pseudonym.

There are no foreseeable risks associated with this study.

While the information collected may not benefit you directly, the information learned throughout this study may be helpful to future students and teachers of writing.

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submit the survey in order to protect your privacy. To continue on to the survey, please click on the link below:

https://www.surveymonkey.com/s/gsw_teacher_survey
APPENDIX F: RECRUITMENT SCRIPT (STUDENT INTERVIEW)

**Note, the recruitment script for the interview is the last question of the electronic survey.

I plan on interviewing several students about how they use smartphones or tablets. The interview sessions would occur in the Spring Semester 2013. There would be a total of three interview sessions lasting about an hour for each one. I am specifically interested in students who have used tablets and smartphones to write part or all of GSW papers. If selected, your voice will become an important part of this study.

There are no foreseeable risks associated with this study.

While the information collected may not benefit you directly, the information learned throughout this study may be helpful to future students and teachers of writing.

I will protect your confidentiality as a respondent and your responses. No one outside of the researchers will know which responses belong to you. Only I and my dissertation committee will have access to the information you provide, and your identity will not be revealed in any published results unless you specifically request identification by contacting me at 586-420-4656 or mabridg@bgsu.edu. All data will be stored in a locked filing cabinet when not in use by me and I will destroy all data at the conclusion of the research study.

Your participation in this research study is voluntary. You are free to withdraw your consent at any time without penalty.

If you have any questions about the study, please contact Matthew Bridgewater (cell): 586-420-4656 or (email): mabridg@bgsu.edu. You can also contact Dr. Kristine Blair, my project advisor, at kblair@bgsu.edu. If you have questions about the conduct of this study or your rights as a research participant, you may contact the Chair of Bowling Green State University's Human Subjects Review Board at (419) 372-7716 (hsrb@bgsu.edu).

Would you want to take part in these interview sessions?
APPENDIX G: INFORMED CONSENT FOR STUDENTS (INTERVIEW)

Introduction and Background Information
You are invited to participate in a research study. The study is being conducted by Matthew A. Bridgewater from Bowling Green State University, Department of English as part of his dissertation. Your participation in this study will last for one academic semester and is voluntary.

Purpose
The purpose of this research study is to understand how smartphones and tablets intervene in the writing process, specifically in terms of revision practices and research practices. This study incorporates student voices via interviews that will be videotaped and audiotaped in order to complement survey data in to better understand how students use their smartphones in a writing program.

Procedures
In Spring Semester 2013, I will be interviewing 5 students. These interviews will be recorded on audiotape and on a digital video camera. These interviews will be used as a way to understand how smartphones and tablets are utilized or potentially utilized by students in a first-year research writing classroom.
Throughout the semester, you will be asked to participate in three (3) one-hour interview sessions where I will ask for your reflections on the revision process, the invention/research process, specific assignments, and your past experiences with smartphones both in school and out of school in regards to writing.

Potential Risks
There are no foreseeable risks associated with this study.

Benefits
The possible benefits of this study include a better understanding of how students at a specific program are using smartphones and tablets and how these findings could translate to smartphones and tablets being used at other institutions. While the information collected may not benefit you directly, the information learned throughout this study may be helpful to future students and teachers of writing.

Confidentiality
Although absolute confidentiality cannot be guaranteed, confidentiality will be protected. Pseudonyms will be used to refer to participants. Audio and/or video tapes and other collected documents will be kept indefinitely by me and will be stored in a locked filing cabinet. Only members of the research team will have access to the information you provide, and your identity will not be revealed in any published results unless you specifically request identification. I will destroy all data at the conclusion of the research study.

Voluntary Participation
Your participation in this research study is voluntary. You are free to withdraw your consent at any time without penalty. Your participation will have no impact on your grades, class standing, or relationship to the institution in any way.

Research Subject’s Rights and Contact Persons
You acknowledge that all your present questions have been answered in language you can understand and all future questions will be treated in the same manner. If you have any questions about the study, please contact Matthew Bridgewater (cell): 586-420-4656 or (email):
mabridg@bgsu.edu. You can also contact Dr. Kristine Blair, my project advisor, at (cell): 419-372-7540 or (email): kblair@bgsu.edu.

If you have questions about the conduct of this study or your rights as a research participant, you may contact the Chair of Bowling Green State University's Human Subjects Review Board at (419) 372-7716 (hsrb@bgsu.edu).

Consent
By signing below you agree that you have read and understood the above information, are at least 18 years old, and hereby consent to voluntarily participate in this study. You also agree that you have been given a copy of the consent.

Date

Signed
Activity Log (for students for consent to be interviewed)
Please log and describe your writing habits on your smartphone, tablet, laptop, and/or desktop. As you write down your activity, you may want to address the following questions: What type of writing did you do? When did you do it? Why did you do it (e.g., personal, school)? With what device did you do it?

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APPENDIX I: BREDA INTERVIEWS

Interview 1 with Breda
February 25th, 2013

INTERVIEWER: So Breda, I’m kind of interested in what’s called a digital literacy narrative and it’s essentially what technologies have been important to you, in general, growing up, in school, for personal use. So, how would you first describe your relationship to technology? Do you like to use a technology? Do you not like to use technology? Do you have any particular devices or computers that you’ve used over the years that come to mind at all?
BREDA: Um, well, mainly, computers have been very important to me. We’ve been using computers since I’ve been in elementary school. And I remember when we got the first Macintosh computer with the colors on it, and they taught us how to type on it, how to do research on it, how to use PP. So we were able to do lots of different things in 4th grade. And then when my mom got our first computer I always used that for research and for essays and stuff and now I have my own laptop and I’ve been using that ever since.
INTERVIEWER: Great. Who has influenced you in the technology that you’ve used, for example your school, your parents, your friends, how would you talk about that?
BREDA: Um, I would say that most of my influence comes from school actually because they always tell you to use different technology. Like the libraries here give you EBSCO, they give you different resources to use for it, it’s what I’m actually doing in my GSW class right now, I’m using EBSCO. So, they give you lots of different resources to use for it, they encourage you to use technology.
INTERVIEWER: In what technologies are you proficient or not proficient in. For example, are you an Apple person or a PC person, or…
BREDA: Um, I actually used to be a PC person. We used to always have Windows and stuff at my house. But in August my mom got me the MacBook Pro because she said that she researched it and said this was the best laptop to use in college, it was supposed to last me for the next four years. And I actually like Mac a lot more than I like PC. I find it a lot easier to use, a lot easier to handle, I find it a lot quicker and actually goes a lot faster than my windows computer does.
INTERVIEWER: Great, um, let’s see…could you describe how you use your desktop or laptop or tablet or smartphone or cellphone in a typical day. Like, you could use yesterday or today as an example. Um. How often do you use them, like over the course of a week do you use one more than the others?
BREDA: Um, I use my tablet once in a while. Usually it’s for reading my books. Um, my laptop I bring everywhere with me. I use that for a lot of reading, a lot of research, and I even use it in my classroom for taking notes. Um, today I used my laptop to read Adobe PDF files because of my GSW class I’m researching the JFK assassination. So I’m highlighting all of the PDF files on my laptop and saving it there.
INTERVIEWER: Oh great. So on your laptop do you take, uh, you said you read on your laptop and you also take notes and do your papers on your laptop
BREDA: Yeah I do my papers, I do essays, um, I can take notes and when I forget my notebook I do. But I prefer to hand write notes as opposed to my laptop.
INTERVIEWER: You say you use your tablet for reading? Do you use it for personal reading or for school reading?
BREDA: Um, I use it for personal reading, I’ve never really tried it for school reading. But honestly I’m pretty sure I could. Like, not that I think about it, it’d save me a lot more money, being digital.
INTERVIEWER: So cost could be a factor for you?
BREDA: Yeah, I like the cheaper stuff, but if something’s more expensive and it works better than I’ll use it.
INTERVIEWER: Great, um, you said that your laptop you use for Adobe PDF files, uh, you write your papers on it, and for your tablet I noticed that you hinted at the reading part specifically, um, so why would you say you prefer to use your laptop over your tablet for reading?
BREDA: Um, compared to my tablet, my tablet doesn’t have a keyboard, the tablet isn’t as big. I just have a little small Kindle Fire. And I like the Kindle Fire because I can have like 40 books on there rather than carry multiple things. With my laptop it gives me a lot more access to things that I get at a lot quicker pace rather than on a regular tablet.
INTERVIEWER: Ok, so, uh, moving on. What writing assignments are you working on currently in the GSW class you are taking right now?
BREDA: Um, well. On Friday I just turned in my Multiple Source Essay which was comparing lots of different resources and sources to an article. And I was writing about identity. But right now we are writing about our own article where we get to pick our own topic so I picked the JFK assassination. Because there are lots of different theories behind it so I’m reading lots of different articles behind that because we have to have 10 sources for it. So, I like it, I like JFK.
INTERVIEWER: So the JFK assassination, is that going to be your research essay?
BREDA: Yeah, it’s our research essays are our own topic. So, it’s different from our 1100 class because they gave us the topics we could choose from, so.
INTERVIEWER: Friday, you said you turned in MSE1. And could you take me through, as best as you can remember, your writing process when you wrote that. Say, starting from scratch to the finished product. As much as you can remember. (6:18)
BREDA: Um, well I usually start with an outline because when I have an outline I feel a lot better when I got to write it out in the future. And so I started with an outline, and then I did that on Microsoft Word. And then I made another document and started to write based off of my outline. And then I wrote for about 4 hours while I was also looking at some of the articles that I had because I had paper articles right in front of us. And I did that. Then I finished that, then I turned it in. And then Christine, she edited it all for us and sent it back through email through Canvass and it was through Microsoft Word so it had all the highlights, edits, annotations on our articles, so then we revised our articles based off of that.
INTERVIEWER: When you print it off and you have a hard copy of your own with Christine’s comments, do you just follow Christine’s comments or do you do your own revisions?
BREDA: Yeah I do revisions on my own. I find it better for me because she gives us ideas about what we could do to fix it and I try to find out the best way to write it myself.
INTERVIEWER: Ok. So Christine’s comments are open ended you would say?
BREDA: Yeah, some say, she’ll highlight something if I did it wrong and won’t say anything about it so I have to figure it out on my own. And she gives lots of different things like that.
INTERVIEWER: Ok, and then, uh when you revise the paper, do you prefer to print it out in front of you and make notes with a pencil or pen or do you prefer to open it up on the laptop or some other computer and work just digitally.
BREDA: Um, I actually prefer to work digitally. I highlight it, I underline it, and on MS Word they have that thing where you can cross out the whole thing and it’s one of the fonts you can do and you can just drop a line through it. And I do that most of the time and figure out what I need to do.

INTERVIEWER: Ok, and so that’s a font where if you type the letter “S” it’ll automatically have a line through it? What’s the point of that exactly? Because I never use that function.

BREDA: The way I see it, if I have a line through it, I don’t like to change it at that point, I try to write what I need to do first before I make changes. That way I have an idea of what exactly I need to go through.

INTERVIEWER: Oh, so this keeps track of your changes so you have your original copy next to your new one.

BREDA: Yeah, so I have lots of drafts. I think I turned in Multiple Source Essay number 5 or 6. Like I was through quite a few. And I can follow the whole transition of how I got it there and it usually helps me.

INTERVIEWER: yeah that’s great, you’ve given me a lot of details with that. That’s wonderful. Uh, So I know that GSW classes are laptop initiatives so you need your laptop there, it’s what it says on the syllabus, and most instructors encourage on a day-to-day basis to bring them. Um, I’m assuming you bring your laptop in, you’re not in a computer lab or something?

BREDA: Well, we are in a computer lab but we have the option to use our laptops. And that, there’s not that many GSW classes who have that. But a lot of the students do bring in their own laptops.

INTERVIEWER: And why do you prefer to use your laptop instead of the desktop in the computer lab?

BREDA: Well, with my laptop I know what I want to do with it and it saves me some time rather than working on the computer and emailing it to myself. I save it I know exactly where it is. I don’t worry about it. Don’t have to try finding it later and I don’t have to use the flash drive either.

INTERVIEWER: Great, so there’s a sense of familiarity, it’s about ownership of your laptop and it’s also about being more efficient or something like that. Now thinking about other classes that you take here at BGSU. Do you bring your laptop to those classes as well?

BREDA: Yeah, I bring my laptop to every class except sociology because she says we have to sit in the back of the class to use our laptops and I’d rather sit closer to the front. So I don’t use my laptop in there.

INTERVIEWER: Do you know why she says sit further in the back?

BREDA: Because a lot of students go on social networking sites and they aren’t doing what they’re supposed to be doing. So, she says it distracts the people behind them.

INTERVIEWER: Oh I see. There’s irritation at social media and she wants those people to…

BREDA: Sit in the back…and I understand that.

INTERVIEWER: What do you think about students who use social media during their classes or they have stuff opened on their computer where they’re browsing the internet or reading email. Do you do this yourself?

BREDA: Yeah. It doesn’t bother me when people are doing this in front of me but I don’t like when they’re watching videos. That bothers me. But if you’re checking your email, checking your grades, even working on another assignment, as long as you’re not interfering with the way I’m learning it doesn’t bother me. Like, there was a girl that used to sit next to me in my education class. And she had the laptop always on in front of her so another girl asked her to turn
it off. So if anyone had a problem with what I was doing I’d hope they would just ask me to turn it off.

INTERVIEWER: I remember when I was in college I never brought a laptop with me. I didn’t have one, just a desktop in my dorm. But that was 10 years ago.

BREDA: Like I have my own laptop but I also have notebooks for each class.

INTERVIEWER: So you use a laptop and notebooks together?

BREDA: Yeah, I use both. It helps me learn better because I have test anxiety and I think I have ADD because all of my family does but I’ve never been diagnosed with it because I’ve never been to the doctor for it but I lose focus very easily so I write it down and it makes me learn better.

INTERVIEWER: So then you would say that you use the laptop in GSW the same way you do in other classes except for the sociology class because of the teacher’s policy you’d prefer not to bring your laptop to class?

BREDA: Yeah.

INTERVIEWER: This is kind of a strange question so take some time to think about it. Don’t feel like you need to answer right away. But I was wondering if you could describe the most important lesson you’ve learned from using laptops, desktops, tablets, or smartphones here in college?

BREDA: I’ve learned that colleges really rely on technology. And you don’t, like my dad is in his 60s. He always told me that he never used email, he had to go to class, learned everything in class, went back, already had the homework assignment, you didn’t go online to get your homework, you didn’t go online to do anything. It was always through a book. And so that’s how I thought college would be like. Because that was what my parents told me. And then when I came here, and I got my homework online, and I didn’t get a planner like in high school, and they told you what it was in class, they don’t tell you what it is here you have to check online on your own. So they give you all the resources you need to make sure you can do as well as you can, but like you have to do it all on your own. So, it’s important to know that when you first get into a college situation. Realize how you need to be. And aware of everything with technology.

INTERVIEWER: Have any campus resources or organizations been helpful to you when it comes to writing your papers? For example the learning commons, have you attended any, or taken any technology club or social media club or something like that?

BREDA: I haven’t done anything like that. But I have gone to the learning commons for GSW 1100. I haven’t done it yet for GSW 1120. Um, but I use EBSCO a lot which was a library technology thing. It’s this online database where you get all these online articles from. They give you PDF file. I use that a lot. But I don’t have any technology courses.

INTERVIEWER: You’ve mentioned EBSCO a couple of times. I’m just curious. For GSW but also for you classes in general do you use EBSCO and JSTOR and sites like that, would you also go to Wikipedia or do Google searches, or…

BREDA: Yeah, I do that too, but I always…I think EBSCO is a lot better because it’s just the one word and then have the articles right there. When you go online you have to search through a lot of different sources and you don’t know if they’re always reliable. Like they say Wikipedia is not always the most reliable thing. But EBSCO…but if I go to Wikipedia I find something and see it where they got the information from. Then I go to those sites. Yeah, EBSCO is my favorite. I love EBSCO.

INTERVIEWER: You’re very conscientious of these things. A lot of the other students would prefer the other places. But a lot don’t. A lot will prefer EBSCO for the precise reasons you’ve
outlined. But with EBSCO you know you’re getting reliable and relevant sources. You don’t have to rummage through all of these TMZ articles and Google and stuff like that. So we talked a little about BGSU and all of the, for example how you wrote MSE1, you gave some information on that, uh, you also talked about your technology use in general at BG. And I’m wondering if we could spend just the last portion of the interview talking about perhaps your experiences with technology in high school and middle school, elementary school even because I know you said you got started early with a lot of stuff. How would you describe your technology experience in elementary, middle, and high school?
BREDA: Um, in elementary school it was more we wrote little books. Like they were teaching us how to look up things online. Like, I remember, they’d give us a topic for something for us to look up and I’m pretty sure I picked my dog. And then we had to google it. So I googled Maltese and they gave us all the research on it and I wrote a half a paragraph on how my dog was different than other dogs. So I would say, “Maltese’s are defined as white.” Well, not defined, but I’d have to explain how she was different from other dogs. And then…
INTERVIEWER: Do you remember if you wrote that paper handwritten out? Were you practicing your cursive?
BREDA: I typed it.
INTERVIEWER: Do they even still teach cursive?
BREDA: Yup. In second grade I learned cursive. But um, yeah we also got to type books and I have three little kid books and they have poems inside of them and we had to type those out too. Cause we had computer lab and computer class every Thursday for an hour. And then in intermediate school, which was 5th or 6th grade, I was typing more reports. I wrote a report on Eleanor Roosevelt. And I did the research off of a bibliography and then an online database as well through our school.
INTERVIEWER: You said that was 5th–6th grade, and it’s called intermediate school?
BREDA: Yeah, we have elementary school, intermediate school, and then the middle school which is the junior high, and then our high school.
INTERVIEWER: And junior high is 7th and 8th?
BREDA: Yeah. 7th and 8th and then high school.
INTERVIEWER: Is the 5th and 6th in a different building than the 7th and 8th?
BREDA: Yeah, I went through 5 schools. I had preschool, then kindergarten, elementary school, then intermediate school, and then our high school. It’s a small town, I don’t even know why we have that many buildings.
INTERVIEWER: So, you typed up some reports in 5th and 6th grade. In 7th and 8th grade did anything stand out?
BREDA: Um, I did a report on Washington DC. And I did a lot of research online for that I remember because everyone took a trip to DC in 8th grade but I couldn’t go so I had to write the report. And for the 3 days they were gone I spent two of those days sitting in a computer lab researching and I’m pretty sure I did a report on the Lincoln Memorial and Washington Monument. And I spent two days just researching things, looking on Wikipedia, looking online, looking at video sources, and I had to cite them all. I had to learn MLA that year. It wasn’t as complex as it is now. So we didn’t have to have as many things. We had to have the name, the date it came out, and then like how many pages the article. But in 8th grade that’s still a lot. And then high school is where we went all out. It was kind of like here, we had the online files we could use, we had, um ,full out MLA like it is here, we had college preparation, we had AP lit classes where we had to write a lot. It changed a lot over time.
INTERVIEWER: The online files, what do you mean by that?
BREDA: Um, our library had set up a thing, I forgot what it’s called…LECCA…it was an online database for all the city schools and you could use it and search for whatever you wanted. There were so many things. It’s kind of like EBSCO, but it’s dialed down a bit because it doesn’t have as much information on it. It’d have like two pages of information rather than 20.
INTERVIEWER: Ok, so it was an online database.
BREDA: Yeah, it was an online database that we got to figure out how to use in high school, so. I liked it, I didn’t use it as much. I used the online searches more.
INTERVIEWER: Um, you said there was also a college prep class? Was this a general college preparation or college prep math or college prep science?
BREDA: Oh, it was college prep English and that was AP, which is advanced placement. Ok so college prep and AP are the same thing. Yeah and we had PSO classes which were college classes.
INTERVIEWER: P..S...E…O…?
BREDA: PSEO classes were in the college, you’d get the college credit. AP classes weren’t in the college but you’d get college credits. My boyfriend got 20 credits worth of college classes and he’s almost a junior now. And I’m just a freshman, he got a lot.
INTERVIEWER: Did you, um, other than the online files which taught a lot of research skills, or it’s what they were trying to do. Did you take a technology class or how much did you use technology on your own time to write papers, to do research, to do math homework…
BREDA: I had technology credit every year up until 10th grade. I took a technology class every year. We had, um, we had computer labs in elementary school, as well as intermediate school. At Leerwood we had, um, because in 7th and 8th grade they divided us into separate classes. So I had my, um, technology class where we learned how to make different websites and stuff. And that was pretty interesting.
INTERVIEWER: And did you do that with DreamWeaver or Google sites, or…
BREDA: I’d tell if you if I knew the name. It was a free website, a free online web making database.
INTERVIEWER: So template based, I was just curious if it was HTML you were learning or…
BREDA: I think it was HTML. It had HTML on the end. So we could also add graphics and stuff to it. It was cool. I had a little website, a blog…which I totally forgot about.
INTERVIEWER: Oh I would hate to go back to my high school days. I would hate to see what I was writing about. Oh my gosh.
BREDA: Well high school was fine because I took a keyboarding class. Yeah, um, because you needed a technology credit. You needed one technology credit to graduate high school. I’m not a big technology person. I try to use it as much as I can but I don’t like computer science and stuff. And it also counted as business credit. So I was like, “Oh I’ll just take keyboarding” and it was the last class that they would ever have keyboarding. And I took that last class and got it done with. So it was good though. She had a piece of cardboard over our hands so we couldn’t see what we were typing and stuff. But it helped me, it helped me a lot.
INTERVIEWER: I remember that when I took typing, too. They’d put the cardboard or some screen over…
BREDA: Yeah, like a cardboard lid and put it right over my hands.
INTERVIEWER: So the last thing I want to ask you about and who knows how this’ll take, probably not that long, let’s see…going back to your tablet that you used. Do you know what brand or type it is?
BREDA: Kindle Fire.
INTERVIEWER: And so that basically allows you to…is it more of a reader would you say or does it have a screen like this where it has apps on it and such.
BREDA: Yeah, it’s very similar to an iPad except it’s much smaller. And I should have brought it with me. I can bring it next time. But they have all of these different apps on it that you can go through but compared to an ipad it’s more about books. Like if you try to read a book on an iPad it’s much more glary and stuff. But with the Kindle Fire it’s very easy to read and stuff. And they try to make it look as close to a book as they can.
INTERVIEWER: Right I just wanted to make sure I had that information. Lastly, is there anything you’d want me to know or to add to this…in regards to this topic in general or…
BREDA: I don’t think so. Is there anything else you need to know?
INTERVIEWER: Not really. We’ll schedule a future session.
Interview 2 with Breda  
March 25th, 2013

INTERVIEWER: Ok, so this is our second interview session. And, um, I guess I’ll start off with the question “What assignments are you currently working on in GSW 1120? And also, what types of assignments are you working in other classes? Be it writing or other assignments.

BREDA: Ok. Today I just turned in my source synthesis essay. Well, it’s due at 11:59. I have to edit it a little bit more. And I’m just finishing that up right now. And the assignment was where I had to find 10 articles, whether a book, which she counted for three articles, or a video as long as it came from good references. And then I had to write a summary about it. And then to composite with all my other articles. It was like 10 pages total. And I just turned that in today and I will use that for my research paper which is going to be due in 3 weeks.

INTERVIEWER: How did you research for those articles? Did you go to the library, did you work from home? What databases or what search engines did you use?

BREDA: Um, I used EBSCO mostly, and then, um, Christine told us that it’d be really beneficial for us if we tried to look online and see if we could find stuff off the internet. So I went onto YouTube and I researched who shot Kennedy. And I found a Nova video. I asked her if I could use this and she said “yeah it was fine.” It was very informative so I used that for a reference. And then I used the book, called “Case Closed.” And so that was very informative and Case Closed was the best source I had because it had so much information.

INTERVIEWER: Is that a novel or a historical book or something? Or is it from the textbook that you use for class?

BREDA: No, it’s just, um, a book I found in the library. And it was just, the whole book was about Kennedy and the assassination and his life. And um, Lee Harvey Oswald and his life. And even different conspiracies that they have about Kennedy. Like they have the, uh, mafia one, and they had lots of different ones that they were explaining. So I used that and then I used a few more articles as well. So it was good.

INTERVIEWER: Ok, well so all those other articles you pulled off of EBSCO?

BREDA: EBSCO. Yeah I used EBSCO, YouTube, and the library.

INTERVIEWER: I guess I have a question about when you take the articles off of EBSCO. Do you tend to just read the abstracts and get a feel for the article and what it’s talking about? Do you read cover to cover? Do you skim more?

BREDA: When I decide on them, I read the title first, then I click on the article and I read little portions of it. Like they usually have subtitles and stuff and I try to read those to see if they give me any hints about what it’s going to be about. Cause one of the articles I got was Case Closed on EBSCO but it was just a summary of the book Case Closed. So I thought that doesn’t really help me that much I should read the book. That’s why I got the Case Closed book at the library.

INTERVIEWER: When you were reading the EBSCO articles, did you print them off, did you look at them on the desktop or laptop, or how did you view them?

BREDA: Um, I prefer to print them off but I actually tried for this time to leave them on the computer. And it still works the same but I just like being able to highlight by freehand. But I used PDF files so I was able to highlight text and stuff so it was pretty useful and I was able to do that on my Mac and I was able to take that home with me and everything. Which I really like.

INTERVIEWER: So you basically prefer to print them off so you can highlight on them.

BREDA: I always like hard copies, that’s why I’m not crazy about my Kindle and use it for different things.
INTERVIEWER: But this time around you used your iBook or Mac?
BREDA: Yeah, but that was mainly because printing here is expensive. The articles that I had were like 15 pages long. So I don’t have my own printer and 5 cents per 1 sheet, 9 for two, and it just keeps going up there. So I was like, just, I’ll try regular…
INTERVIEWER: That is pretty expensive…
BREDA: Yeah, I don’t like it. I have a printer at home so I printed off a couple of articles while I was on Spring Break. I printed off a couple at home and read them like that but I had to highlight online because they were still…to keep everything in one spot.
INTERVIEWER: You’re on your MSE2? Or, what’s the name of the assignment?
BREDA: Source synthesis. And then I have. That’s my third and then my next one is due is my research essay and that’s number 4.
INTERVIEWER: Ok. How far along are you on the source synthesis assignment or are you almost done?
BREDA: I just have to revise it right now. It’s due tonight.
INTERVIEWER: How do you plan on revising it? Do you have comments on it already?
BREDA: Um, yeah, because last Monday I met with Christine and we had a little short interview because we didn’t have classes last week. And she told me that I needed to add a little more quotes from all of my articles and that I need to synthesize more…because I am very bad at synthesizing, I am bad. But um, so, I tried to synthesize a little more last night and the night before so tonight I was going to add some quotes that I already highlighted and it will take me 5 minutes.
INTERVIEWER: Ok, so you’ll be focusing mostly on synthesis and incorporating sources and things like that?
BREDA: Yeah.
INTERVIEWER: Um, have you written an assignment like this before? I’m curious.
BREDA: No, not source synthesis. For our last essay she had us practice these synthesis and I practiced it a little bit but I wasn’t very good at it and this one she said you’ve got to get it in a lot, when they read these articles they look for synthesis. So I’m trying to use it more, but it’s difficult for me.
INTERVIEWER: How did you originally become interested in this topic? Some try to generate ideas by looking on the internet, or they wrote about a similar topic in a previous class.
BREDA: She gave us the worksheet that had the people, the controversies, the histories, places. And we had to fill out all of these things that we liked about them. And from that we had to pick topics that we liked. And I picked the JFK assassination because that was something that I’ve always thought about since I was younger cause my mom’s from Ireland so we’re a big Catholic family and so it was the Kennedy’s and my dad is Catholic as well. And whenever he’d see stuff about the Kennedy assassination…he had this big 1,000 page book that he actually just finished reading about last month, just filled with all of this information about the JFK assassination. And, um, so my family is just really interested in that stuff. So I figured I might as well take it into my own….stand to try and do that as well and I actually really like it, it was a good topic for me to look up. And my dad gave me, um, he had an old time magazine from 1963 about the JFK assassination…so I got to use that too. And I didn’t use it in my essay because…Time magazine. But I still really like to read it.
INTERVIEWER: So, other classes. Is there another writing project or type of assignment you are working on right now in another class?
BREDA: Um, in my education class I have a topic where I’m supposed to…I haven’t started it yet…I’ll have to research different types of activities that you can use in the classroom for children with cultural diversity. But that should be pretty easy I just have to look for it first. But I have an essay due on Friday in my Intro to Communication disorders class. And, um, we had to pick two popular people that contributed to communication disorders. And I found two guys that there was a little bit of information on. But most people she gave us, you just couldn’t find them. And I picked those two people and I have to write a good 5 paper essay. And I think I’m going to go to the library to see if I can find any information on them. And I’m forgetting their names right now. So I need to start that. I’m actually going to start that when I get back from this interview tonight.

INTERVIEWER: How many education classes are you taking currently?
BREDA: Um, I’m in one education class right now. But that’s also…I have a field experience in there too. And every time I have a field experience I have to write a 400 word journal. I have to do a lot of writing for it. We originally had to read the entire textbook that we got and I had to respond to answers for all of those. So it’s just more busy work for us than anything else. And I have an A in it, so…

INTERVIEWER: Great, um. A follow up question for this whole synthesis essay, too, is do you feel that the way you’ve gone about researching this topic, and writing it and drafting it, and communicating with Christine back and forth, is this um, the process for this essay similar to previous essays that you’ve written?
BREDA: This essay…I’ve put the most work into this. I did a lot of research on it. I worked the entire Spring Break…I was at home at the beginning but then went to Ohio State to spend time with my boyfriend. And when he was at class I would sit in his dorm and just like read my articles because I had to get those done. And so I spent a good, 9-10 hours reading the articles trying to put them in. And like Christine even said, this is going to be the most time that’d we spent on it. Which is good because now for the research essay I already have all of that information without, like, a problem. But yeah I spent the most time on that. And when I drafted it, I drafted it while having the flu. So, I told Christine when I turned it, “It’s not that good, I’ve been sick all week. I’m really sorry.” So I had to correct a lot of little spelling errors I made and stuff while researching it. I put as much as I could in it in so I hope it benefits me in the end. So hopefully I’ll get a good grade. She said it was one of the best essays she had seen from our class and said I have all the information there, that I just had to fix my citations and stuff. It was just little things I had problems with, so.

INTERVIEWER: Could you describe the most important lesson that you’ve learned writing this paper?
BREDA: I’ve worked a lot on grammar and how the structure of how essays should be college students and that’s the reason I like GSW because…I’m not a very good writer. Like last semester I was in GSW 1100 and my teacher in there helped me a lot and that’s how I got up to 1120. But, um, I like how they show you how you’re supposed to write for college students and I find that really beneficial for me. And so with the synthesis, she says you’re supposed to use that in a lot of college essays when you’re looking up different sources and stuff and when you’re writing it for just a regular class. So I hope that in the future if I have to do that for one of my education classes or for one of my gen ed classes I’ll just be able to, like, I’ll be able to synthesize it a lot easier and get a lot more out of regular sources. So it’s been very beneficial for me.
INTERVIEWER: Um, and I guess if uh, if you’re working on, working for orientation wearing the orange…maybe you remember them from last year…imagine you’re one of these people so you’re working for orientation, and, uh, what advice would you give to an incoming student about GSW?
BREDA: I would tell them to always go to class because you get a lot of work done in class as well as get a lot of information from inside the class as well. Work as hard as you can in the class because in the end it will benefit you because they are preparing you for the college you are going to. So if you’re not doing good in that class you’re going to keep on taking it over and over again.
INTERVIEWER: Yeah.
BREDA: And just, talk to your teacher if you really feel like you need to and get as much help as you can, go to their learning commons. I did that a lot for my last semester’s class. Just get as much help and practice as much as you can. Put your heart and soul into these papers.
INTERVIEWER: You’re in a laptop section right?
BREDA: Well, mine’s in the media center right downstairs.
INTERVIEWER: Oh, okay I remember now. For you it’s not difficult to travel between MS and Mac?
BREDA: No, I have everything that I use on Mac. Like I have word, powerpoint, excel on my Mac too. And we got that when we bought the Mac because I wasn’t changing all of that. And, um, so everything I need to use, I’m able to use PDF files. I can use those on MS or Mac. I like my computer it’s pretty good.
INTERVIEWER: Do people bring in laptops, tablets, or phone usage?
BREDA: I’ve never seen anyone use a tablet in class. I’ve seen a few people use laptops. A couple use their phones because they have iPhones. I saw one guy use…I don’t know what it was…he was reading a book…maybe a Kindle.
INTERVIEWER: Do you find that other people have things loaded up on their devices, like Facebook or Twitter?
BREDA: Yeah, even I have that as long as I’m paying attention to what she’s saying. It’s fine, so.
INTERVIEWER: So a lot of people can multitask between their personal accounts online and…
BREDA: Yeah, I see these people go on there and stay on for the entire class and stuff. I’ve done that before too but I’m able to pay attention and do a lot of things at once.
INTERVIEWER: Um, over the past year, since you started here at BG, would you say that your use of computers has changed at all? Do you text message more because you’re away at school or using your Kindle to read a lot more, now that you’re here at BG, maybe you use computer labs more?
BREDA: Well, I do use my cellphone quite a bit much. Like, as soon as I go home I don’t use it. I use it only when I’m here [BG]. Cause I text my boyfriend. Um, yeah. So I text a lot more. I go on the internet a lot more than I used to, even social networking sites. I go to them more because I like to keep in contact with people. [transition to college, changing spaces, encourages students to expand digital literacies to keep in touch with others]. But I also go on when I have to write the essays because I use EBSCO a lot now. I didn’t use them in high school, like, I knew what they were but I just didn’t use them. Um, I go to the computer lab once in a while. I used to go to the library a lot at home and I do the same thing here. And I go to the computer lab if I don’t want to walk to the library to just print something out. Or if I just need some place quiet where I can think and stuff because they have a couple of chairs in the back corner and I use those once
in a while instead. Um, what else… I actually use my Kindle less here than I did at home and um, I used to read a lot, and I liked reading my books and when I used my tablet I’d go on the internet read different things online like read CNN, watch the news, and I could just do that on the TV or with my Mac now. And I have my hardcover books. I actually use my Kindle less. But, um, I think that’s all the technology I use…I use my iPod more. But that’s just for music.
INTERVIEWER: Great, that’s fantastic. Let’s see, is there anything from the previous questions that you’ve thought about that you want to add?
BREDA: No, I don’t think so.
INTERVIEWER: ok, well you’ve given me a lot of information…I guess I have a follow up question about YouTube. Have you used YouTube as a source before?
BREDA: No, never. Cause we had to cite in MLA and before that I never knew how to cite it in MLA. And then I was like, “Christine! Help!” So we set up the MLA for that. I like using YouTube but there are some many things on YouTube that when you find something informative like Nova you want to use it but not many people have that much informational stuff because people don’t want to upload that and you can’t copyright things. So, if a lot of people don’t want to upload it they don’t. Like a lot of CBS TV shows will delete it off YouTube. A lot of NOVA things if it not from Nova it gets deleted. I saw a couple of things from Nova but it was flipped backwards so I don’t want to use something that wasn’t actually from Nova but this was from Nova. Yeah I like YouTube I can find more I’ll always use them because they’re informational. As long as they come from the right source.
INTERVIEWER: Okay, this will conclude this session more or less…
Interview 3 with Breda
April 22\textsuperscript{nd}, 2013

INTERVIEWER: So you’re working on the self-reflection. Have you finished the research paper?
BREDA: Yes, I just turned that in last week and, oh god that was awful. It ended up coming to about 10 pages of writing. And um, I had to write a lot of counterarguments. I had to write 2 or 3…I wrote 2. And um it was just a lot of writing and a lot of revision, just going back and forth through it all. And I had to go read some of my articles again. Watch the video again.

INTERVIEWER: Could you explain and I’m not trying to put you on the spot about your paper, could you explain what your paper was generally about? You said you had some counterarguments? Can you talk me through your paper?

BREDA: My whole argument was that Lee Harvey Oswald was the assassin. But he was the lone assassin because some people said that even though it was just him, they believed there were others he associated with. So I said it was just him, there was no one else involved, it was just him. So, um, I wrote about that and then I wrote about what I thought about it and one of the examples that I used was this picture of him and online you could see the picture and he had a belt with a pistol strapped to it and he was holding a rifle and holding two magazines. And the argument was that people thought this was fabricated. So then I had to just explain why I believed it wasn’t fabricated based off of his wife’s testimony and I had a whole article by her saying what she did, she said that he came out he wanted her to take a photo, but she didn’t know how to take photos so he taught her how. Um, I also explained why he gave a picture of that to his daughter because after that he tried shooting someone, it was like a colonel or something, he tried to shoot him even before he tried to kill JFK. So there was a reason that was backed up behind there. I just had to do a lot of research to get all that information behind it.

INTERVIEWER: So, your main argument of the paper was focusing in on a picture that said this picture isn’t fabricated…

BREDA: Yeah, I explained that in a good page and a half of writing. And then another point was that…

INTERVIEWER: Did you include the visual in the research paper at all?

BREDA: We weren’t allowed to include the visual. I tried to explain it as best as I could so I said in the photo he had a pistol strapped on, he’s holding the two Marxist magazines that he reads and the rifle that was used in the assassination. So I said if he has the rifle and he’s also in the book depository, like, and that was another of my arguments they said he wasn’t supposed to be at work that day. And I had to go back and find research that he was working that day, that’s the rifle bullet that matched his actual rifle, the name matched and everything, so I had to explain that in another argument too. It was just like, for the research essay it was about how in depth I explained everything. That’s what took a lot of time because I understood it but Christine kept telling me what if someone else didn’t understand it so I had to explain everything behind it. So…
INTERVIEWER: Were there any other points that you brought up with the assassination? About how, why you thought it was Oswald or a part of the conspiracy theory that you argued with in your counterargument?

BREDA: Um…another argument was that the mafia was involved. They believed, someone I can’t remember right now, was behind it cause JFK and his brother Robert were trying to take down that whole mafia gang. They were trying to take down his family and stuff. So they believed he was behind it. But, um, he even admitted that he did in a couple of articles that I read. But according to the Warren Commission, even if that, um, mafia was involved they would make sure it couldn’t be traced back to them in any way. And why would they have Lee Harvey Oswald who already has enough problems do that anyway. And they thought Jack Ruby killed him because they thought he was involved with the mafia. But it also said he was on anti-depressents, he was an alcoholic and he was doing something else. Because they said he was drunk, very drunk, when he killed Lee Harvey Oswald. So…

INTERVIEWER: So I really understand your paper. Seems like you did a good job since you can explain it well to me…

BREDA: I tried to explain everything as best as I could.

INTERVIEWER: In what ways did you write or compose with technology. You couldn’t use the picture so you had to type up a description of it. So did you use the computer to do research in any way, did you use any other type of technology to do any type of research or reading on the computer.

BREDA: I did so much research on the computer. Like every argument I had. I had an article that stated the information but I always wanted to go deeper. I always wanted to find more information even if it wasn’t the articles so that I could try and understand it better. So I was online all the time. I went home two weekends ago before my essay was due to like just bring some of my stuff home before we get out of school. And I sat in my bed for 6 hours looking up…for two hours I wrote about Jack Ruby and the problems behind him. I read about the picture. I read about something else too. I read a little about the mafia but I’ve read a lot on that before. But I read something else for about 2 hours too. I spent about 2 hours on each of the things I was looking for. And that was just off Wikipedia, the news, I actually read something on CNN about it. Like even if it wasn’t included in my article I tried to read as much as I could so I was as well informed as I could be.

INTERVIEWER: Did you prefer to do your research, or your reading, or your writing at school, on a computer lab, at home, at a desk, in your bed, at the kitchen table? Where did that take place?

BREDA: I’d go into the computer lab if I have to print stuff. Like I’ll sit there….I’ve done some research in the computer lab before and it also runs faster than the WiFi here. But um, I usually kind of usually do it in my room, sit in my bed, read it and then I up, on my laptop I can take screen shots. So with the screen shots I’d grab my highlighter point and underline it even in the picture just so I could remember it and the URL is right there and I can bookmark it and stuff.
INTERVIEWER: Did you then take notes or high light or underline on the PDF thing on the computer on the desktop or the laptop?

BREDA: Yeah, that’s what I did for most of my JFK research. I emailed them all to myself and I had that but for the book I had to write out everything else because I didn’t have an electronic book. But for my articles I didn’t want to spend like $5 on like all my papers to print. Because I like hard copies but I tried using electronic for the first time and it wasn’t too bad. Like I didn’t mind it. I’m one of those people that I like hard copies. I will use the internet like crazy, I like technology. It’s very useful. But I’m still one of those persons who likes the hard copy [snaps fingers]. But I’m not going to go spend $5, $7 on it. Because last semester in my GSW class I wasted a good $15 printing out articles. So I didn’t want to do that this time.

INTERVIEWER: That’s something that’s been brought to my attention.

BREDA: My roommate, she has a printer, and I use hers once in a while but it’s not real ideal to say “Hey can I print out 25 pages of this stuff I’m reading off your printer?”

INTERVIEWER: Um, so let’s see. Imagine…you are an incoming student. What advice would you give this incoming student about the research essay paper?

BREDA: Just read. Um, like, I’m sitting next to a guy in my class right now and he was telling me how he only read about 2 paragraphs out of each of his journals, or sources, and stuff. And I was like “How do you do that?” And he kept telling me he BS’d everything. And then we got her grades back today and it was out of 15 points. I got a 14 out of 15. Or a 13 out of 15. He had a 2. And I was like, well, see, I don’t feel bad. If you’re only going to read 2 paragraphs out of each source and you’re trying to BS everything I don’t blame her. But I think reading. If you think you understand what you’re writing about that’s one of the best things you can do. That and rereading your essays. I reread my essay about 4 times. Proofread. Take your time on it and it’ll be good.

INTERVIEWER: Is there anything that stands out about you in your 1120 class that were using technology in any way. This could be very broad. For example, are students using a laptop, a tablet, or a smartphone. Do they prefer to PDF or print stuff out? Did they prefer to find sources online?

BREDA: So, I know with a lot of the sources we went on EBSCO. We had a whole day just looking on sources and Christine would come around and help us. We went to the library a lot and she said book are always helpful but most people didn’t want to read the books they didn’t want to spend their time doing that. Which is understandable. I spent a good 12 hours reading mine. So I get it. Um. Then, there was the one girl who had everything printed out. And she had a huge folder and had paper clips, tabs and everything. She’s very focused and always focused in class and comes to class every day and I really like her. She’s the only one that printed everything out. But a lot fo the people I saw had online articles. But I never saw them highlighting I just saw them read the articles.

INTERVIEWER: I noticed this personally, I just started using a PDF reader for this. It’s intuitive and easy to use. But the PDF reader on the desktop is clunky to use. On the app it’s streamlined. You just load it up and you save it and boom.
BREDA: The one on my mac I love. It’s not even PDF, you have to download the PDF application. I think it’s called preview document, and then you can highlight, bold words, underline in different colors. I love it it’s so much better.

INTERVIEWER: Um…going forward in your other classes, especially since you’re an education major, what role do you expect technology to play in your future classes but also when you become an educator.

BREDA: Oh, technology is going to be huge. Um, for education majors, like, as children get older, even at a young age, they want to use technology. My 4 year old cousin has an iPad and he knows how to do it. He has no problem just going on it and coloring on it and going on the internet and typing in Barney. So, he types in Barney on Google and just clicks the first one. He’s 4, turning 5 in October and he already knows how to do that. Technology in the classroom is something for students where they get to understand how it’s going to benefit their future as well as learn a lot from it cause they’re excited to use technology. In the place I was last year, my teacher had iPods. She had little iPods that were glued and plugged into the charger at all times against the wall so the students couldn’t take them out or anything. And she had like different study groups and every 15 minutes they’d move. Those kids would sit there and play educational games on the iPod learning about the alphabet, numbers, sentence structure and stuff. Technology has some many opportunities for kids and they’ll get to learn them. Cause I got to learn about that when I was in elementary school. Cause we had little Apple computers and I got to learn how to use those in third grade.

INTERVIEWER: What do you think…in a few years you’ll be teaching yourself, so what type of support or resources would you like to see in your classroom or school that you end up teaching in so that you can use technology effectively so students can get the technology. What type of support or resources would you like to have?

BREDA: Um, I love smartboards. We have the smartboards in my hometown, well, they’re active boards. And we’ve had those since I was in 7th grade and to see those little kids go and use them and play interactive games. Just to make presentations, just to do so many things with the one board is just astonishing to me and I think it’s the coolest thing ever. I like those and I want to be able to use technology as much. I don’t need cellphones, but just the ability to use PowerPoint and interactive games and sit there and be able to learn vocabulary, grammar, sentences is cool. But there’s a limit. Too much technology is not best for them. Just sitting on the computer all day is not the best for them.

INTERVIEWER: Ok, so this has been extremely informative.
DATE: December 4, 2012
TO: Matthew Bridgewater
FROM: Bowling Green State University Human Subjects Review Board
SUBMISSION TYPE: Revision
ACTION: APPROVED
APPROVAL DATE: December 4, 2012
EXPIRATION DATE: September 25, 2013
REVIEW TYPE: Expedited Review
REVIEW CATEGORY: Expedited review category #7

Thank you for your submission of Revision materials for this project. The Bowling Green State University Human Subjects Review Board has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a project design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

The final approved version of the consent document(s) is available as a published Board Document in the Review Details page. You must use the approved version of the consent document when obtaining consent from participants. Informed consent must continue throughout the project via a dialogue between the researcher and research participant. Federal regulations require that each participant receives a copy of the consent document.

Please note that you are responsible to conduct the study as approved by the HSRB. If you seek to make any changes in your project activities or procedures, those modifications must be approved by this committee prior to initiation. Please use the modification request form for this procedure.

You have been approved to enroll 3018 participants. If you wish to enroll additional participants you must seek approval from the HSRB.

All UNANTICIPATED PROBLEMS involving risks to subjects or others and SERIOUS and UNEXPECTED adverse events must be reported promptly to this office. All NON-COMPLIANCE issues or COMPLAINTS regarding this project must also be reported promptly to this office.

This approval expires on September 25, 2013. You will receive a continuing review notice before your project expires. If you wish to continue your work after the expiration date, your documentation for continuing review must be received with sufficient time for review and continued approval before the expiration date.

Good luck with your work. If you have any questions, please contact the Office of Research Compliance at 419-372-7716 or herb@bgsu.edu. Please include your project title and reference number in all correspondence regarding this project.
This letter has been electronically signed in accordance with all applicable regulations, and a copy is retained within Bowling Green State University Human Subjects Review Board's records.