BEHIND THE SCREENS: A CASE STUDY EXPLORING THE INTEGRATION OF DIGITAL READERS INTO A 12TH GRADE ENGLISH CLASSROOM

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BEHIND THE SCREENS: A CASE STUDY EXPLORING THE INTEGRATION OF DIGITAL READERS INTO A 12TH GRADE ENGLISH CLASSROOM

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Dissertation

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ABSTRACT

This study sought to determine the impact digital readers had upon the meaning-making behaviors of secondary students as they read a canonical text on digital readers as part of a traditional high school English curriculum. A secondary purpose of the study was to determine how students’ screen-based literacy practices did or did not intersect with their in-school practices. In addition, the study examined how the teacher made pedagogical decisions related to implementing the digital readers during a unit studying Frankenstein as part of a traditional English class course of study.

Employing a descriptive case study design (Merriam, 2009; Stake, 1995), this qualitative study sought to explore how interacting with the unique features of a digital reader within a school context can affect secondary students. The case of this study was defined as one secondary language arts teacher and a class of her students. The 16 students participating were all high school seniors nearing the final weeks of school.

In order to understand the phenomenon of interest more fully, 11 students participated in individual interviews. In addition to semi-structured interviews of the teacher and students, data collection included transcribed observational notes, responses to two questionnaires, and pertinent artifacts. Inductive data analysis was ongoing during data collection (Merriam, 2009) through use of the constant-comparative method (Glaser & Strauss, 1967; Miles, Huberman, & Saldana, 2014).

Data analysis revealed four findings: (a) students’ use of the digital readers significantly altered the transactional nature of a reading event; (b) implementing digital
readers allowed students’ greater agency than conventional print text; (c) students
defended a traditional autonomous model of literacy at school; and (d) situational factors
inherent to schools challenged the teacher’s implementation of digital literacy practices.

Scholars have begun to examine the social, cultural, and political contexts
encapsulating literate acts and the intrinsic meaning of these events (Perry, 2012). As a
result, researchers continue to grapple with their understanding of what literacy means
and how it can be defined in the new world of digitally-based communication.
Ultimately, results of this study deepen these bodies of research confirming earlier
findings.
DEDICATION

To my husband, Steve, for his steady support, wisdom, and love.

To my children, Nathan, David, Annalise, and Sophia, whose patience with their “Mamalisa” blessed me. Sophia, thank you for “having my back.”

To my parents, Ron and Patty Martell, for always believing in me.

And last but not least,

To my Lord Jesus Christ, my Rock and Redeemer, without Whom I would never know peace.
When I met Dr. Evangeline Newton in March of 2006, I could never have imagined the influence she would have upon me. I value her fierce love of learning and literacy. Over time, her passions fueled my own desire to pursue scholarship in literacy. I am forever grateful to her.

Shortly after I met her, Dr. Newton persuaded her friend and colleague, Dr. Ruth Oswald, to hire me as her graduate assistant working with her on a large grant to train literacy coaches. Through my interactions with Dr. O and the wonderful coaches, I gained experience working with literacy leaders and exposure to the prevailing conversations of the literacy profession. I had the pleasure of a terrific working partnership with Dr. O that I will always treasure.

Dr. Hal Foster taught me how to teach English. As his student, I spent time in the field, learning from a master teacher, Paulette U-Rycki. Hal later became my mentor, colleague, and friend. His unflappable optimism and forgiving spirit have, hopefully, rubbed off on me a little. Over the course of my career, I hope I can have as rich of relationships with teachers, colleagues, and administrators as he has had.

From Dr. Susan Kushner Benson, I have learned techniques of research and evaluation. When I was a classroom teacher, the lessons I learned from her helped me contribute to my school’s professional learning communities. As a researcher, I have valued the training I received from her. She was among the first to ask me if I had considered doing doctoral work and has continued to encourage me in this pursuit.
I am thankful that Dr. Denise Stuart mentored me and invited me to participate in her summer Cyber Café. Because of her research interest into e-readers, I developed ideas for this inquiry. I am grateful for her influence.

Dr. William Kist has been a wonderful mentor and friend. I am grateful to him for sharing his knowledge of new literacies with me, particularly in helping me think through aspects of my study. Professionally, I also am very grateful to have had the opportunity to work with Bill and learn from him as he teaches preservice English education students.

Finally, I thank “Mrs. Bennet” and the students in her class who graciously shared their time and insights with me. The title of this work, Behind the Screens, comes from Mrs. Bennet. Her vested interested in the inquiry inspired me. We all should celebrate teachers like her, who are willing to risk venturing out of familiar teaching patterns.
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CHAPTER I
INTRODUCTION

Introduction to the Problem

The school day is about to begin in a typical American high school. A hallway is lined with teens, some with heads bowed over cell phones texting the friend sitting further down the hallway, some sending selfies through Snapchat or Instagram, some reading a novel on their Kindle or iPod, tweeting to friends where they are in the story. An unnerving quiet bathes the space. The noisy din, historically expected from groups of adolescents, is missing; instead their socializing is being written and silently read, rather than spoken. The tardy bell rings, the students turn off their devices, then zip them into their backpacks, out of sight and use for the next six hours until the school day ends.

This vignette illustrates several cultural shifts taking place today that have implications for literacy teaching and learning. The first is the changing definition of what constitutes a text: The students in the vignette were reading and composing digital texts that are formatted and constructed quite differently from the print-based texts historically found in schools. Traditional definitions of text describe it as a print-based entity that is “linear, static, temporally and physically bounded, often with clear purpose, authorship and authority” (Dalton & Proctor, 2008, p. 297). Scholars contend that the definition of text must be broadened to include multimodal texts such as those that feature the integration of images, sound, design elements, and video (Bean, 2010; Kress,
Bean further asserted that since screens are now the dominant sites for texts to be read, the act of multimodal reading requires new dispositions, strategies, and skills on the part of the reader (Coiro & Dobler, 2007; Fox & Alexander, 2009; Leu, Kinzer, Coiro, & Cammack, 2004; Tierney, 2009).

A second implication for educators found in the vignette is the changing notion of what constitutes literacy practices (New London Group, 1996; Street, 1999). These students used new literacies to make and to convey meaning across various communication platforms. Such endeavors involve sophisticated literacy practices that offer opportunities for complex communication to take place. Moreover, literacy practices, situated within a New Literacy Studies view of literacy, consist of producing and making meaning of digital texts, an undertaking that requires a new type of “reading” typically ignored in schools because of its ideological nature. This view of literacy involves more than a combination of disparate, autonomous skills working in tandem to make meaning. Rather, this perspective on literacy also considers the world in which the text is culturally and socially situated (Christenbury, Bomer, & Smagorinsky, 2009; Kress, 2003; Street, 1999).

A third implication is found in the school policy of excluding these devices and those literacy practices involved in using them. Although BYOD (Bring Your Own Device) policies are becoming more common in schools (up 47% from 2011-2012, according to Project Tomorrow’s April 2013 release of “Speak Up—from Chalkboards to Tablets: the Digital Conversion of the K-12 Classroom”), the majority of principals and administrators are still opposed to these policies (Project Tomorrow, 2013).
Moreover, although most adolescents have richly literate and technology-centered lives outside of school, there is a clear disparity between adolescents’ out-of-school uses of technology and their in-school experiences with technology (Alvermann, 2002, 2008; Hagood, Stevens, & Reinking, 2002; Project Tomorrow, 2013). According to the National Council of Teachers of English, “Adolescent Literacy” Policy Research Brief:

Teachers often devalue, ignore or censor adolescents’ extracurricular literacies, assuming that these literacies are morally suspect, raise controversial issues, or distract adolescents from more important work. This means that some adolescents’ literacy abilities remain largely invisible in the classroom. (NCTE, 2007, p. 3)

Some scholars regard this as a missed opportunity to tap into the lived experiences of adolescents’ independent literacy practices which have been characterized as complex, rich, and involving multiple literacies (Hagood et al., 2002).

Yet the expectation that American students successfully learn complex literacy practices has never been greater. These complex literacy practices are often deemed “21st-century literacy skills” because they require the integration of technology in reading, writing, speaking, listening, and viewing activities (P21, 2013). Teachers and school systems are facing increasing pressure to meet these expectations that outside stakeholders are placing on students: expectations that warrant increased attention to the development of all students’ complex literacy activities, especially those related to technology (NGA Center & CCSSO, 2010; P21, 2013).

For today’s adolescents, the projected literacy demands of the future will require them to read with increasing skill and acuity. In their “NCTE Framework for 21st Century Curriculum and Assessment,” the National Council of Teachers of English, in
partnership with the International Reading Association, adopted the following definition of 21st century literacies:

Because technology has increased the intensity and complexity of literate environments, the twenty-first century demands that a literate person possess a wide range of abilities and competencies, many literacies. These literacies—from reading online newspapers to participating in virtual classrooms—are multiple, dynamic and malleable. (NCTE, 2013, p. 1)

The elements of the NCTE Framework include detailed means to evaluate whether or not students are developing all the literacy skills needed to function as adults in a global community. Furthermore, the definition of these skills is being influenced by business leaders and policy makers who are largely driven by assumptions that the economic competitiveness of the United States hinges on its ability to produce a more skilled and highly educated work force.

One such group, The Partnership of 21st Century Skills, an alliance of business members, education leaders, and policy makers, was founded in 2002 to spearhead a national movement toward incorporating 21st century skills into the curriculum of all classrooms. These skills are defined as the “3Rs fused with the 4Cs (Critical thinking and problem solving, Communication, Collaboration, and Creativity and innovation)” (P21, 2013). The Partnership has even developed a Framework for 21st Century Learning, a conceptual model that “describes the skills, knowledge and expertise students must master to succeed in work and life; it is a blend of content knowledge, specific skills, expertise and literacies” (P21, 2011, p. 1). Multiple literacies are included in the framework, such as civic literacy, health literacy, environmental literacy, information literacy, media literacy, and ICT (Information, Communications and Technology) literacy (P21, 2011). The Partnership has led a charge to reform K-12 curriculum in order to
“successfully face rigorous higher education coursework, career challenges and a globally competitive workforce” (P21, 2014).

Likewise, in an effort to address the issue of what it means to be a literate person in a globalized 21st century, another national alliance created the Common Core State Standards Initiative (CCSSI). In 2010, under the auspices of the Council of Chief State School Officers (CCSSO) and the National Governors Association (NGA), the CCSSI released its Common Core State Standards for English Language Arts & Literacy in History/Social Studies, Science, and Technical Subjects (CCSS.ELA-Literacy). These standards are aligned to international standards of high-performing nations that routinely outperform the United States on international assessments (Rothman, 2011). The CCSS.ELA-Literacy standards assert that new levels of literacy are required in the information economy of today (Calkins, Ehrenworth, & Lehman, 2012; NGA Center & CCSSO, 2010). Conspicuously embedded in these standards is a call for students to learn how to “habitually perform the critical reading necessary to pick carefully through the staggering amount of information available today in print and digitally” (NGA Center & CCSSO, 2010, p. 3, emphasis added).

In both the NCTE Framework and in the CCSS.ELA-Literacy, particular attention is given to three aspects of literacy learning. The first concerns the level of fluency students have in using various types of technologies; the second focuses on students’ ability to construct meaning from digital texts; and the third highlights students’ proficiencies in conveying their interpretations of texts through writing clear arguments or explanations (NCTE, 2013; NGA Center & CCSSO, 2010). As a result, teachers are expected to create instructional situations that strengthen students’ 21st century literacy
skills. One method for doing this is to enlist students’ out-of-school literacy practices as a way to enhance their in-school digital comprehension skills. This would enable students to accomplish school tasks that are similar to those they may be required to perform even after they have graduated.

Consequently, since the genesis of the accountability and standards movements during the late 1980s and 1990s, many teachers have found their professional agency stifled (Canestrari & Marlowe, 2010). As states implement the CCSS.ELA-Literacy standards and increasingly tie teacher performance reviews to student test scores, more teachers might choose to teach to the test, taking fewer risks to teach content and skills in innovative or atypical ways (Dodge, 2011/2012). For English-language arts teachers this means the need to employ innovative methods, often requiring the use of digital tools (including digital texts) for instruction. Additionally, without supportive professional development, English-language arts teachers might delay implementation of new literacy activities into their teaching practice (Beach, 2012).

But even given the shifting literacy practices of youth and the curriculum emphasis on new literacies, teachers still have barriers for full implementation. According to a recent national survey sponsored by Project Tomorrow, two major obstacles for the implementation of more digital tools in classrooms continue to be the lack of computers in schools (up from 31% in 2008 to 55% in 2012) and too little professional development in technology integration (up from 9% in 2008 to 33% in 2012).
Statement of the Problem

Adolescents’ richly literate lifestyles outside of school often go untapped in school-based literacy practices and activities (Alvermann & Hinchman, 2012; Hagood et al., 2002; King & O’Brien, 2002). Likewise, teachers often fail to capitalize on students’ inherent interest in digital technology, including their established knowledge of literacy practices associated with information and communication technologies and popular culture (Hagood et al., 2002). One aspect of this problem is rooted in the ways teachers view the general nature of adolescence, often seeing their students as “not-yet adults” who lack the kinds of knowledge traditionally assumed to be appropriate for sharing in the classroom (Alvermann, 2002). A second aspect is a generational misunderstanding about how Millennials collaboratively build knowledge through the shared co-construction of various types of texts (Hagood et al., 2002). A third aspect of the problem is the rapidly changing landscape of digital technologies that affect new literacies, making it difficult for teachers to stay current with the technologies their students are using (Leu et al., 2004).

Yet scholars argue that teachers must learn how to remix their understandings about student knowledge, effective literacy, and new literacy instruction in order to “facilitate the building of bridges between the literacies of our students’ out-of-school lives, our classrooms, and the greater world in which we live” (Gainer & Lapp, 2010, p. 2). Concurrently, there is a clear call for English teachers to prepare their students to read complex texts that are digitally accessed (NCTE, 2013). Scholars further argue that teachers must accept the charge to equip students with skills and strategies that will enable them to use technology not only to access information but also to evaluate and
synthesize this information before they can effectively communicate their knowledge through appropriate genres (Coiro & Dobler, 2007; Leu et al., 2004).

Considering this charge, it bears to consider that aspects of English education have changed little since its inception in the late 19th century (Applebee, 1992; Stallworth & Gibbons, 2012). Of the book-length works taught in secondary schools, canonical works continue to dominate (Stallworth & Gibbons, 2012).

This charge must also be undertaken within the politicized educational environment existing after the No Child Left Behind and Race to the Top federal reform legislations. During the last decade, some critics of school reform raised the alarm that standardized testing in reading and writing has limited the focus of English language arts teaching by reducing the curriculum to the content most commonly tested (Beach, Thein, & Webb, 2012, p. vii). Even worse, some school districts and teachers narrowed the curriculum to feature inordinate amounts of drill and kill activities as forms of test preparation (Moon, Brighton, Jarvis, & Hall, 2007). Most recently, the continued push from the federal government for greater accountability has led many state legislatures to pass laws requiring teacher performance be tied to students’ scores on standardized tests (Institute for Democracy, Education and Access, 2012). The emphasis on testing may deter teachers from taking risks to try new literacies, such as reading on digital readers, in their classrooms. Since the Common Core State Standards do not describe or prescribe how new literacies should be integrated into secondary English teaching, teachers have latitude to use their professional judgment as to how best to integrate, or not, these practices into their classrooms (Beach et al., 2012).
Purpose of the Study

In the multimodal world of today’s communication, the e-reader interface may appeal to adolescents who are more at home reading from screens than are their parents and teachers. Using digital readers in schools, as e-readers (e.g., Kindles and Nooks), tablets (e.g., Kindle Fire or iPad), or web readers (e.g., Google Play or the Kindle app for smartphones of iPods), might be one way to enhance students’ abilities to construct meaning while reading complex academic texts. Likewise, the use of digital readers in secondary language arts classrooms may develop students’ fluencies in critically reading and interpreting digital texts. The January 2013 release of the Pew Internet Project in a presentation entitled, “Teens and Libraries,” reported that 50% of American young adults own an e-reader or tablet computer; and 47% of American teens have a smartphone (Rainie, 2013). Another Pew Internet Project report, “Teens and Technology,” found that teens living in the lowest-earning households (under $30,000 per year) are just as likely as those living in the highest-earning households ($75,000 or more) to own smartphones (Madden, Lenhart, Duggan, Cortesi, & Gasser, 2013). These findings suggest the ubiquity of these technological gadgets and their potential for in-school use.

In addition to evidence that adolescents respond positively to the reading experience offered by an e-reader, studies suggest that e-readers may support understanding (Larson, 2010, 2012; Pryor, 2013). Some features of the e-reader assist meaning making, either through easy access to definitions or note-taking features that enable the reader to record incipient insights. Since the goal of reading is to make meaning and the act of applying comprehension strategies is central to the meaning-making process, literacy researchers must understand how adolescents reading on digital
readers construct meaning. To that end, this study hoped to determine what, if any, impact the digital reader has upon students’ abilities to use the features of the device to apply comprehension strategies as they read complex texts on the digital reader.

The ultimate purpose of this study then was to explore how reading on digital readers affects secondary students as they interact with some of the unique features of digital readers. Furthermore, this study explored these behaviors while students were reading a complex academic text assigned as part of a high school curriculum. Its goal was to describe how the e-reader technology influences the meaning-making process of a group of secondary students. A second purpose of the study related to understanding how students’ out-of-school, screen-based, literacy practices intersected, or not, with their in-school uses. A third and final purpose was to describe how one classroom teacher makes pedagogical decisions as she implements the digital readers.

**Research Questions**

The following questions shape this inquiry:

1. How do secondary students appear to use digital readers to construct meaning as they read complex texts, such as *Frankenstein*?
2. How does the teacher make pedagogical decisions about the use of the digital reader in the teaching of complex texts, such as *Frankenstein*?
3. How do students’ outside uses of screen-based text intersect (or not) with their in-school uses?
4. What are the literacy practices of students at school when using digital readers?
**Significance of Study**

By studying secondary students as they interact with the features of digital readers while reading complex texts and then determine how this technology influences their meaning-making processes, new knowledge will be generated about literacy in general and digital comprehension among adolescents in particular. In addition, the study explored how a secondary English teacher makes pedagogical decisions as she implements the digital readers within the context of the Common Core standards and its mandatory testing requirements. Ultimately, the study should result in new and deeper understanding about teacher implementation of digital technology in the secondary literacy classroom within the social and political environment of contemporary American public schools.

To date, there is little research on the e-reading habits of adolescents, particularly on those comprehension skills and strategies supported by the features of e-readers (Pytash & Ferdig, 2012). Moreover, this research explored ways to understand the relationship between students’ in-school and out-of-school literacies by including web reader applications that can be accessed on mobile devices as part of the e-reading platforms the participants may use during the study. Also, this research investigated teacher efficacy in implementation of new technology within a traditional print-centric school setting.

**Assumptions**

The study assumes several things. First, because of the complexity and the situated nature of reading, participants will have varying degrees of knowledge and practice in the application of comprehension skills and strategies. Reading is a complex
process involving foundational skills such as the ability to decode and construct meaning from words at the morphological and syntactic level as they appear in the context of sentences and whole text (Beach et al., 2012; Weaver, 2002). Additionally, the process involves “drawing upon prior knowledge, recognizing and interpreting textual forms, analyzing arguments, inferring ideas, and integrating new concepts with previous understandings” (Beach et al., 2012, p. 96). In addition, each reading event occurs within a situational context that is influenced by a variety of sociocultural factors (Galda & Beach, 2001; Rosenblatt, 1938/1995). Furthermore, the proficiency of adolescent readers ranges across a broad continuum; therefore, the researcher recognizes that motivation to read various texts within the context of a secondary classroom is another element of the complexity of the reading process (O’Brien, Stewart, & Beach, 2009; Rosenblatt, 1938/1995).

Second, it is assumed that the unique features of digital readers support comprehension (Larson, 2010, 2012; Pryor, 2013). Third, because features of the digital reader allow hyperlinked material to be accessed from within the device, it is assumed that the construction of meaning with a digital reader is significantly different from its construction with printed text (Leu et al., 2004). The degree of difference may be idiosyncratic across the population studied, but the assumption is that nonlinear reading may occur. Fourth, it is assumed that all participants will possess sufficient metacognitive awareness (Palinscar & Brown, 1984) to recognize their own meaning-making activities. Students will, for example, be aware of how they are affected by features of the digital reader and will also be able to communicate this awareness clearly and truthfully. A fifth and final assumption is that students to some extent will be digital
natives (Prensky, 2001) having grown up in post-Internet era, technology-driven environments.

Definitions of Terms

Adolescence—Adolescence is more than a developmental stage defined by the physiological changes of puberty and the behavioral marker of individuation from parents. Similarly, adolescence is more than a time-period marking individuals as “not yet” adults who are viewed as less competent and less knowledgeable than adults (Alvermann, 2002). For the purposes of this study, adolescence will not only be viewed as a time period of the human life span but also as a phase of human development marked by varying degrees of agency and expertise shaped through lived experience (Christenbury et al., 2009).

Comprehension—Comprehension is defined as “the construction of the meaning of a written or spoken communication through a reciprocal, holistic interchange of ideas between the interpreter and the message in a particular communicative context” (Harris & Hodges, 1995, pp. 38-39). A presumption of this stance is that meaning resides in the “intentional problem-solving, thinking processes of the interpreter during such an interchange” (Harris & Hodges, 1995, pp. 38-39). Consequently, a reader makes meaning during the transaction between himself or herself and the text (Rosenblatt, 1938/1995). This transaction is bound by a specific time and place. Rosenblatt (1978) further denoted the transaction as falling along a continuum of antithetical reading stances that she called efferent and aesthetic. Moreover, a reader’s stance depends on both the characteristics of the text and his or her purpose for reading it. According to Rosenblatt, reading primarily for the purpose of information gathering results in a
detached, or efferent, stance; reading primarily for the purpose of literary interpretation results in an affective, or aesthetic, stance.

Because a central premise of this study is the belief that comprehension involves the reader-driven act of generating meaning, a broader definition of comprehension is also appropriate. Smith (2012) contended that comprehension “may be regarded as relating aspects of the world around us—including what we read—to the knowledge, intentions and expectations we already have in our head” (Smith, 2012, Location 492 of 8586, Kindle Cloud Reader). Smith further described comprehension as “a kind of up-market synonym for understanding” (Smith, 2012, Location 282 of 8586, Kindle Cloud Reader). Throughout this writing, the phrases, “making meaning” or “constructing meaning” may be used synonymously with comprehension.

*Comprehension strategies*—Skilled readers actively regulate their meaning-making process by employing strategies to deepen their understanding of what they are reading. These strategies include: making connections between prior knowledge and the text, asking questions, visualizing, drawing inferences, determining important ideas, synthesizing information, and repairing understanding (Harvey & Goudvis, 2000).

*Curate (curating)*—originally from the Latin, *curare*, meaning arrange, see, attend to; recently the meaning has been applied to online collections. The Oxford English Dictionary defines curate as, “Select, organize, and present (online content, merchandise, information, etc.), typically using professional or expert knowledge” (“curate,” n.d.). Using Web 2.0 applications, that is, Pinterest, Evernote, Storify, users collect images, links, clippings of web pages organized around a theme.
**E-reader**—According to the Merriam-Webster English dictionary, an e-reader is “a handheld electronic device designed to be used for reading e-books and similar material” (“E-reader,” n.d.). Common e-readers include the Amazon Kindle, the Barnes and Noble Nook, and the Sony Reader. When e-reading apps are downloaded onto smartphones and other hand-held mobile devices, such as iPods or tablets, they may also serve as e-readers. In this study the phrase *digital reader* is used to denote the broader range of e-readers that includes smartphones, handheld devices, and apps.

**Features**—Components of an e-reader that allow the reader to highlight text, create notes, search the text, look up words in the dictionary or have the text read aloud.

**Literacy practices**—According to Barton, Hamilton, and Ivanic (2005), literacy practices are “the general cultural ways of utilizing written language which people draw upon in their lives. . . . [These] are what people do with literacy” (p. 7). Beach et al. (2012) situated literacy practices within an approach to teaching the English language arts that “builds on the knowledge and experiences of . . . students, draws on the worlds they live in, and connects those worlds to texts, language practices, and critical issues” (p. 6).

**Literacy**—According to Alvermann (2002), “Literacy includes performative, visual, aural, and semiotic understandings necessary for constructing and reconstructing print and non-print texts” (p. viii). Leu et al. (2004) described literacy as a “moving target,” constantly changing as societal expectations of literate behavior change (p. 1584). Therefore, literacy is more than a person’s ability to read and write; it is also inextricably bound to social contexts, including those of the classroom and school (Barton et al., 2005). According to Street (1999), an ideological model of literacy recognizes the culturally embedded nature of literacy practices and expands the notion of literacy
beyond a set of skills, strategies and cognitive notions of literacy that dominate an autonomous model. An ideological model recognizes the significance of social positioning upon meaning making; therefore, social situations in which literacy practices take place add an important dimension to this model.

*Text*—Traditional definitions of *text* describe it as a print-based entity that is “linear, static, temporally and physically bounded, often with clear purpose, authorship and authority” (Dalton & Proctor, 2008, p. 297). The nature of what constitutes a text has broadened to include multi-modal elements:

Unlike traditional text forms that typically include a combination of two types of media—print and two-dimensional graphics—Internet texts integrate a range of symbols and multiple-media formats, including icons, animated symbols, audio, video, interactive tables, and virtual reality environments. (Leu, Kinzer, Coiro, Castek, & Henry, 2013, p. 1160)

In this study, then, the term *text* refers primarily to fiction accessed through multiple-media formats.

**Summary**

Digital technology continues to impact the way literacy practices and activities are implemented in secondary schools. Policy makers and business leaders want high school graduates who have mastered 21st century literacy skills. These skills involve digital technology. Yet chronic economic and curricular pressures on schools often make the inclusion of technology difficult for teachers. This study examined one aspect of digital literacy, that of how students use digital readers to read complex texts. Additionally, this study examined how the digital reader can impact the meaning-making processes of students as they read complex texts required in the secondary classroom. Furthermore, this study explored the intersection of literacy practices outside the school
with literacy practices inside the school. Finally, the researcher explored how a secondary English teacher integrated the digital reader into a print-centric, textbook-based curriculum.
CHAPTER II

REVIEW OF THE LITERATURE

Introduction

This study sought to determine the impact digital readers may have on the meaning making behaviors of secondary students reading a literary text as a class assignment. Moreover, this study explored these behaviors while students read a complex canonical text assigned as part of a high school curriculum. Its primary goal was to describe how the e-reader technology influenced the meaning-making process of these students. A secondary purpose of the study related to understanding how students out-of-school, screen-based, literacy practices intersected, or not, with their in-school uses. A final purpose was to describe how one classroom teacher made pedagogical decisions as she implemented the digital readers.

A review of pertinent scholarly literature is presented in this chapter. First, the study’s socioconstructivist theoretical framework, with attention to schema theory, constructivism, reader response, and transactional reading theories is offered. Second, an overview of theoretical perspectives of new literacies featuring the New Literacy Studies is provided. Third, examples of studies examining new literacies in classrooms are discussed. The final section compiles studies on digital readers in classrooms.
Socioconstructivist Perspectives

Several socio-constructivist perspectives of learning and literacy are discussed below. These theories include: constructivism, schema theory and reader response theories of reading.

Constructivism

The learning theory of constructivism provides a foundational philosophy undergirding this research. Constructivism “postulates that knowledge cannot exist outside our minds; truth is not absolute; and knowledge is not discovered but constructed by individuals based on experiences” (Yilmaz, 2008, p. 162). Furthermore, two important principles define constructivism: knowledge construction and meaning making (Yilmaz, 2008). Constructivism serves as a contrast to positivism which views knowledge as an entity to be passively received from one to another. Moreover, constructivists believe that knowledge is temporary, always a working hypothesis that can be revised as new information is acquired. This idea relates to the second principle, meaning making, which concerns the internal processes through which a learner creates knowledge. Ultimately, constructivists believe that an individual’s knowledge results from the cognitive interplay between what is already known and new experiences that cause the learner to revise prior knowledge.

Dialectical constructivism focuses specifically on the interactive nature of meaning making. Based on the work of Vygotsky (1978), dialectical constructivism “places the source of knowledge in the interactions between learners and their environments” (Bruning, Schraw, Norby, & Ronning, 2004, p. 196). Vygotsky’s theory posits that children develop more complex mental functions through social interactions
with parents, adults, and more capable peers. He developed the concept of the zone of proximal development to illustrate the difference between what a child can do alone and what he or she can do with the support of a more capable helper. Vygotsky concluded that learning occurs when children bring their nascent understanding of a phenomenon to an interaction with a more capable other. Through such contact, the child encounters and considers the knowledge of the parent, teacher, or more experienced peer, thereby gaining a new perspective. Learning is formalized as the child reflects upon the meaning of this interaction through discussion (Bruning et al., 2004; Yilmaz, 2008). One theoretical framework derived from constructivism that has had a particularly deep influence on literacy research is schema theory.

**Schema Theory**

During the 1970s and 1980s, cognitive psychologists exploring how individuals construct knowledge generated a concept of schema theory, which is still widely accepted today. Essentially, the word *schema* is used to designate an organized piece of knowledge or experience (Weaver, 2002). Schema theory posits that once individuals have an organizational framework or “schema” for a topic, they continually refine and deepen the initial construct through subsequent experiences. Each experience adds a new layer of understanding so that knowledge is fluid and contextualized, the result of multiple cumulative and overlapping schemata. Furthermore, because of the idiosyncratic nature of human experience, each person’s schemata will result in a unique understanding, even when two individuals have participated in the same experience. During the act of reading, for example, “a reader’s schema . . . provides much of the basis for comprehending, learning, and remembering the ideas in stories and texts” (Anderson,
According to schema theory, then, the memory and interpretation of two individuals who read the same text will not be identical.

According to Anderson (2013), schema theory characterizes reading as a complex process that involves six levels of simultaneous analysis with each level having a distinctive function. The first function considers how “a schema provides ideational scaffolding for assimilating text information” (Anderson, 2013, p. 482). The reader draws upon existing knowledge, often referred to as prior or background knowledge, to provide a structure for supporting the reader’s efforts to understand the text read. The second function considers how a schema directs a reader’s attention; the nature of the schema helps the reader determine importance and manage the cognitive resources for effective meaning making. The third function considers how a reader’s schema allows him or her to draw inferences implied within the text where it is not explicit; a fourth function considers how schemata allow “orderly searches of memory” (p. 480). This function considers the categorical structures of schemata and how those organize and strengthen comprehension. The fifth function entails how one’s schema aids in editing and summarizing, based on the criteria of importance within the individual’s schema (p. 480). The reader can select what he or she considers the most important information and omit the lesser. The sixth function of schemata involves the reconstruction of memory; a reader may not be able to recall all the salient information from a text, but based on the qualities of existing schemata, the reader can generate a working hypothesis to satisfy the demands of reconstructing the text (p. 480).
Reader Response and Transactional Theories of Reading

Scholars credit Louise Rosenblatt as the first reader response theorist (Connell, 2008; Probst, 1990, 1991; Rosenblatt, 1991; Sloan, 2002). Her seminal work, *Literature as Exploration*, was written in reaction to the hollow teaching of literature she witnessed in colleges and high schools during the 1920s and 1930s. Rosenblatt decried New Criticism’s (Probst, 1991) emphasis on the primacy of the text in literary interpretation and envisioned a different means of teaching literature that recognized the importance of the role of the reader. In 1938, she published *Literature as Exploration* in which she described what she called a “transactional” theory of reading. Rosenblatt argued that individual readers create, or construct, a meaning by deliberately imposing their intellectual and emotional experiences upon a text during each reading event.

Furthermore, this transaction is encased in a particular time and social context with no two reading events, or transactions, being the same. Meaning therefore resides in the event; neither the reader alone nor the text alone houses the meaning. Instead, meaning results from the synergy of reader and text during the process of the transaction (Probst, 1991; Rosenblatt, 1938/1995). Rosenblatt carefully delineated her theory from those that described the reader-plus-text event as an interaction. For her, the term *interaction* implied a mechanistic relationship, in which the text impresses itself upon the reader or the reader extracts the meaning from the text reactively like two billiard balls (Rosenblatt, 1938/1995). By contrast, Rosenblatt described the transaction as an organic relationship in which the reader and text are aspects of a larger process. Probst (1991) compared Rosenblatt’s theory of the transaction to a dance in which the two dancers...
come together to perform a work of art at that moment in time. Both are active participants; both are integral to the act of creating the meaningful event.

Rosenblatt’s transactive theory of the reading experience was heavily influenced by Dewey (Connell, 2008; Probst, 1991). In *The Knower and the Known*, Dewey and Bentley (1949) hypothesized that all ways of knowing are tentative and may be revised as new ways of knowing provide more answers to research questions (Connell, 2008). Dewey characterized the relationship between the observed and the observer as one in close proximity. Similarly, Rosenblatt claimed that the reader (observer) and text (observed) are in close proximity, both different aspects of a unified event. As the reader formulates his or her way of knowing, or response, it is tentative, that is, open to revision through re-reading and discussion.

Moreover, Rosenblatt relied on Dewey’s idea of “warranted assertions” to frame her own conceptualization of valid readings (Connell, 2008). Here Rosenblatt described the process in which a reader must engage to construct a critical, rational, and valid interpretation. She believed it of paramount importance that a reader be free to construct an initial affective meaning from a text; she recognized, however, that not all first responses are equally valid (Rosenblatt, 1938/1995). Rosenblatt argued that students should be taught to revisit their initial response and revise its meaning after participation in discussion had allowed discovery of new meanings. Rosenblatt’s revising process aligned to Dewey’s warranted assertions because the initial responses are evaluated for how well they represented the general intentions of the text.

Rosenblatt’s transactive view of the reading event is also compatible with schema theory because both theories recognize that the distinctive nature of human experiences
cause idiosyncratic readings of the same text. Likewise, both theories acknowledge the instability of a reading, noting that meanings can change over time as a reader encounters new experiences or new sources of knowledge.

**New Literacies**

In recent years conventional definitions and/or notions of what it means to be literate have been found increasingly outmoded. The rapid and continual advancement of technologies, from the Internet and other information communication technologies (ICTs) to personal computers, cell phones, hand-held gaming devices and tablets has been staggering and continues to develop at exponential rates. Each of these technologies involves communication transactions, most often writing and reading. Furthermore, each technology may be defined by its affordances, for example, the potential to transform an aspect of communication. This breathless pace of changes impacts our cultural and societal notions of what it means to be literate and our definitions of literacy.

Leu et al. (2004) have used the word *deictic* to describe contemporary conceptualizations of literacy. *Deixis* is a term used by linguists to explain words whose meanings are heavily dependent on the context that surrounds them. Pronouns are deictic, as are adverbs like *here, there, today,* and *now* because they carry no meaning in isolation. Similarly, Leu et al. (2004) defined *literacy* as deictic because its forms and function “change rapidly as new technologies for information and communication emerge and as individuals construct new envisionments for their use” (p. 1591). They concluded that new definitions of literacy must also now address the requisite skills, strategies, and dispositions needed in order to adapt to these changes across professional and personal lives.
According to Eagleton and Dobler (2007), a new literacies perspective is situated epistemologically in three traditions of learning theories: constructivism, socioculturalism, and semiotics. Eagleton and Dobler acknowledged John Dewey’s (1938) philosophical influence upon constructivism by situating knowledge not as an object to be uncovered but as a process of growth through reflection upon experiences; it is learning by doing. Socioculturalism draws heavily on the writings of Vygotsky (1978) who situated knowledge as the result of an individual’s discussion and participation in relationships that foster learning; it is learning with others. Semiotics is the study of signs. Jewitt (2009) credited Ferdinand de Saussure as founding this field, first exploring the importance of signs in social life (p. 304). The theory asserts that knowledge is acquired through the process of decoding and encoding symbols; it is learning through symbols (Eagleton & Dobler, 2007). These theories provide a framework for the range of new literacies theories that converge into the new literacies perspectives.

Leu, O’Byrne, Zawilinski, McVerry, and Everett-Cacopardo (2009) described the difference between New Literacies and new literacies: The capitalized designation refers to an overarching theoretical construct that houses the lowercase new literacies. They further explained that there are many strands of new literacies theories, including critical literacy (Luke, 2000); multiliteracies (The New London Group, 1996); new literacies as new social practices (Street, 2003); new discourses and new discourse communities (Gee, 2007), as well as a combination of several of these “lowercase” theories (Lankshear & Knobel, 2006, 2011). Additional forms of new literacies include media literacy (Hobbs, 2011) and postmodern popular culture (Alvermann, 2002, 2008; Hagood et al., 2002).
**New Literacy Studies**

One strand of sociocultural theories of literacy, literacy as social practice, is also known as New Literacy Studies (NLS; Perry, 2012). Developed from the work of Brian Street (1999) in Iran, and influenced by other ethnographic studies of literacy in homes and other settings outside of schools (Barton & Hamilton, 1998; Heath, 1983), this theoretical perspective focuses on how people use literacy in the everyday lives. Street (1999) described two opposing models of literacy: autonomous and ideological. He proposed that an autonomous model, most commonly adopted by schools, considers literacy to be “a set of neutral, decontextualized skills that can be applied to any situation” (Perry, 2012). In contrast, an ideological model considers literacy to be a set of practices grounded in their social settings, which provide cultural structures and power relations that define the literacy practice (Perry, 2012). Other scholars espousing the NLS perspective (Alvermann, 2002; Hagood et al., 2002; Lankshear & Knobel, 2002, 2006, 2011) have sought to understand how adolescents’ literacy practices shape their meaning making as they read and write not only traditional print text, but also digital media.

Another stand of sociocultural theories, multiliteracies, addresses the affect of globalization and other contemporary social practices upon literacy learning (Bruce, 2002; King & O’Brien, 2002). The New London Group (1996), a multinational coalition of 10 literacy scholars, argued for a new literacy pedagogy they called “multiliteracies” that addresses the “limitations of traditional language-based approaches . . . by emphasizing how negotiating the multiple linguistic and cultural differences in our society is central to the pragmatics of the working, civic, and private lives of students” (p.
Therefore, a multiliteracies pedagogy moves beyond earlier print-centered means of teaching literacy to espouse multiple modes of meaning making (Kajder, 2007; New London Group, 1996).

In their work, “Towards a Theory of New Literacies,” Leu et al. (2004) sought to establish a theoretical framework to understand new literacies. They offered principles that define new literacies and proposed pedagogical implementation of these principles. They asserted that mastering traditional print-based literacies are not enough for students to access the texts available through the Internet and other ICTs (Leu et al., 2004). Students need to develop new skills, strategies, and dispositions so that they can (a) identify important questions; (b) locate information; (c) evaluate the usefulness of the information; (d) synthesize the information to effectively answer the questions; and (e) communicate the information to others (Coiro, 2003; Leu et al., 2004). Similarly, some scholars suggest that a different logic or set of practices govern students’ meaning making processes as they transact with the multimodal texts of the Internet (Coiro & Dobler, 2007; Duke, Pearson, Strachan, & Billman, 2011; Rowsell & Burke, 2009).

Coiro (2003) argued that because of the Internet and ICTs, reading comprehension must be reconceptualized. Her research identified skills and dispositions needed for effective comprehension of online texts including more complex applications of prior knowledge, inferential reasoning strategies, and self-regulated reading processes (Coiro & Dobler, 2007).

Leu et al. (2009) further contrasted online and offline reading. They contended that online reading is self-directed, with each person navigating a different reading path. Kiili, Laurinen, Marttunen, and Leu (2012) found online reading is often collaborative,
allowing for greater exploration of ideas through students’ discussions and interactions. However, Leu et al. (2011) cautioned that students typically lack the critical thinking skills to read strategically on the Internet.

Moreover, new forms of strategic knowledge are central to the new literacies (Leu et al., 2004). Asserting that Goodman’s (1996) three major reading process cueing systems may not be sufficient for understanding the number of cues needed to negotiate an online text, Eagleton and Dobler (2007) speculated that up to a dozen different systems combine while reading a web page. Consequently, they suggested additional cueing systems. Therefore, in addition to the semantic, syntactic, and graphophonic cueing systems, Eagleton’s (2002) Hypermedia Cueing System offers a more complex system of cues, including operational cues (hardware, software, and navigation); organizational cues (orientation, page layout, text structure); sign system cues (text, still image, dynamic multimedia); relevancy cues (typographic, usefulness, truthfulness) (Eagleton & Dobler, 2007, p. 32).

Incidentally, the complexity of reading online requires students make a myriad of rapid-fire decisions while reading on the Internet (Leu et al., 2004). Many of these decisions affect the quality of the information accessed while reading web pages (Coiro & Dobler, 2007; Eagleton & Dobler, 2007). Developing this type of reading fluency expands the traditional definitions of fluency as an attribute of successful reading, requiring teachers to apply the same principles for building fluency in a print-based reading environment to a web-based reading environment. As a foundational reading skill, traditional notions of fluency are defined as “read[ing] expressively, meaningfully, in appropriate syntactic units (phrases, clauses), at appropriate rates, and without word
recognition difficulty” (Rasinski & Padak, 2001). Readers who struggle in any one of these facets of fluency may be overwhelmed by the cognitive load and falter in their ability to comprehend the text. Similarly, reading fluency on the web involves the same aspects of traditional fluency, with even greater cognitive demands placed upon the reader. To manage the vast amount of information found on a web page, for example, the reader must scan the web page for a particular word, phrase, or concept then skim through the selected text to determine if the selection fits his or her purpose for reading the web page (Eagleton & Dobler, 2007, p. 41). Skimming and scanning then become additional components of reading fluency unique to reading online (Eagleton & Dobler, 2007).

Besides addressing the changes to cognitive demands on reading related to new literacies, Leu et al. (2004) described sources of the changing nature of literacy demands. They asserted:

There are three sources for the deictic nature of literacy: (1) transformations of literacy because of technological change, (2) envisionments of new literacy potentials within new technologies, and (3) the use of increasingly efficient technologies of communication that rapidly spread new literacies. (p. 1591)

Since the inception of the Internet and its rise in use, there are numerous examples of how the technology impacts literacy, from the changes in composing practices and rhetoric based on the prevalence of online communities to the impact upon reading processes by the changes due to hyperlinked text (Cairo, 2003, Cairo & Dobler, 2007; Hagood et al., 2002). As new forms of technology emerge, previous literacies are transformed. For example, as new Web 2.0 tools emerge, traditional forms of literacy adapt to accommodate this new technology. New composing and reading processes evolve to accommodate the new technology.
Illustrating the second aspect of the deictic nature of literacy, with these new technologies, new literacy practices may also emerge as users interact with the technology. Moreover, a new lexicon may develop in response to the new technology. For example, avid users of Mozilla Webmaker attended Mozfest 2013, where “makers” (users of Mozilla products) “remix” (transform existing image, video and/or audio resources to create a new form of communication) or create “mashups” (synthesize several images, video clips, and/or audio resources into a new representation).

The final facet of the deictic nature of literacy that Leu et al. (2004) described is the use of increasingly efficient technologies of communication that rapidly spread new literacies. A good example of this phenomenon is illustrated from the use of hashtags (#) on Twitter. Over time and in response to the technology, users of Twitter have developed a system to tailor the content of their Twitter feeds to suit their needs by tagging tweets with hashtags designated for conversations, or chats, that engage participants interested in the same issues. In fact, the ubiquity of the hashtag is often parodied by popular culture (e.g., Jimmy Fallon and Justin Timberlake’s skit, “#Hashtag” on the Late Night with Jimmy Fallon Show); while educators across the blogosphere praise the potential of Twitter chats in professional development through personal learning networks (PLNs).

**New Literacies in Classrooms**

Traditional models of literacy instruction often employ a teacher-driven approach in which it is the adult’s role to teach skills and strategies for new literacy practices to groups of students (Leu et al., 2004). In the contemporary world of new literacies, it is nearly impossible for the teacher to be an expert in all the new literacies. Therefore, a shift in the organization of literacy instruction is needed, allowing for more social
interaction between students, with the teacher serving as the conductor, “orchestrat[ing] learning opportunities between and among students who know different new literacies” (Leu et al., 2004, p. 1598).

As English/language arts teachers strive to meet the charge to teach 21st century literacies, they are informed by a body of theory and praxis that has emerged over the last 15–20 years. As noted earlier, the theories of sociocultural perspectives of literacy draw from several bodies of knowledge about language, its functions, and its processes. Chief among them is semiotics, a field that focuses on the study of sign systems. From this perspective, meaning resides in the process of decoding and encoding various symbolic systems. In a sense, semiotics expands the discussion of new literacies to include multiple sign systems found among contemporary culture. Communication systems have broadened to include these multiple media formats. To comprehend these formats, students must possess knowledge of alternative symbolic systems, like icons. Multimodal representations on websites require a non-typographic literacy where one can decode not only written text, which is often secondary to meaning making, but also other signs and symbols (Bean, 2010; Kajder, 2007; Rowsell & Burke, 2009).

In a similar way to reading changing because of the introduction of new semiotic systems, writing is changing, too. Because being able to compose across modes requires students to understand elements of design, students must be taught multiple tools for constructing multiple forms of communication (Lankshear & Knobel, 2002; The New London Group, 1996). Hicks (2013) argued that before they can gain the requisite knowledge to compose effective digital writing, students must encounter mentor texts across various forms of digital writing to learn how to read these texts like a writer.
Within contemporary language arts classrooms, teachers and students must explore additional elements of the author’s craft to address the multiple forms of communication, elements such as website design, audio, visual presentation or design, and video (Hicks, 2013, p. 22).

Multiple social and cultural contexts are often a part of new literacies classrooms. For example, students may exchange ideas with students from other countries through in-school opportunities, like blogging, or out-of-school opportunities, like gaming. Likewise, new methods of discourse and new discourse communities originated through the Internet—such as blogs, wikis, vlogs, YouTube channels, fan fiction sites, gaming sites—have changed and are changing the ways people relate and communicate (Gee, 2002). As teachers absorb the ramifications of these multiple contexts, their practice will change to include opportunities for students to recognize and evaluate the broader social and cultural messages (Leu et al., 2004, p. 1595).

The New London Group (1996) argued that in order to prepare for a multicultural, globally-connected society, students must learn how to read and compose within varied semiotic systems. Kist (2000, 2005) has identified five characteristics of classrooms where multiple forms of semiotic representation are encouraged. Such classrooms feature the following characteristics:

- Daily work in multiple forms of representation;
- Explicit discussions of the merits of using certain symbol systems in certain situations with much choice;
- Students engaged in ongoing metadialogues involving the teacher who models working through problems using certain symbol systems;
• Student participation in both individual and collaborative activities;

• Student engagement in which students report achieving a “flow” state, one Csikszentmahalyi characterizes as optimum engagement (Kist, 2000; Kist, 2005, p. 16).

Several factors must be considered when planning high quality student experiences that will meet these increasingly more complex literacy demands. Perhaps not surprisingly, of paramount importance is students’ access to both the physical technology and to the teaching of requisite skills. According to Alvermann (2002) access also includes a teacher’s willingness to risk trying new forms of instruction that are less teacher-centered and print-centric. Alvermann believed that currently the prevailing mindset among educators views adolescence as a time when students are “not-yet” adults and have much to learn before they are ready to be adults (Alvermann, 2002). She claimed that this point of view fails to recognize how much students do know, particularly about technology.

When teachers learn to capitalize on students’ expertise as users of various types of technologies, students are empowered to be teachers themselves. As students encounter new forms of technology, they often learn how to use the technology and appropriate it into literacy practices while they are in the process of experimenting with the new technology. During this process, students learn from one another and are proud to share their expertise with both classmates and teachers alike (Alvermann, 2002; Hagood et al., 2002). Furthermore, within the technology itself are opportunities for social construction of knowledge. The Internet and other ICTs allow for students to appropriate “the intellectual capital that resides in others, enabling [them] to
collaboratively construct solutions to important problems by drawing from the expertise that lies outside [them]selves” (Leu et al., 2004, p. 1598).

The accountability movement has discouraged teachers from instructing the new literacies. Bruce (2002) and King and O’Brien (2002) speculated that a “second tier” educational system is in place, one that creates policies which provide a credential for the most basic acquisition of knowledge but does not foster real learning experiences that support deeper learning. They cited Allington (1994) who argued that all students should have access to the richer curriculum that trains everyone for leadership and full democratic participation. Gee (2002) argued that those real learning experiences are increasingly less available in school, though readily available out of school. This poses problems of equity: Those students who parents may not be able to afford pertinent out of school learning experiences are inevitably excluded.

Time is another factor that limits teachers from instructing with the new literacies (Beach et al., 2012). Because of the increased scrutiny of schools by outside forces, more is being asked of teachers in terms of collecting and analyzing data of student performance. Yet often there is no additional time in the school day to complete these tasks. Teachers must make myriad of decisions about how to incorporate new literacies into their course work. Perhaps not surprisingly, they often foreground other job requirements deemed more urgent by administrators, such as data collection and data analysis.

In his study of new literacies classrooms, Kist (2002) observed that teachers need courage and a pioneering spirit to endeavor to instruct from a new literacies perspective that includes multimodal forms of representation. Hobbs (2011) concurred with the idea
that those who approach literacy instruction from this perspective take a risk. She suggested that all literacy practices in today’s classrooms be undergirded with action so that students can develop the analytical and evaluative reasoning they need to become astute evaluators of the messages they encounter in popular media. She further believed that students should be invited to shape their own participatory responses that challenge, disrupt, and address issues to them. This method of teaching critical and media literacy evokes Rosenblatt’s (1938/1995) precept of teaching literature to develop the democratic imagination.

The work of Rosenblatt and other reader response theorists intersects with some aspects of an NLS perspective. Scholars from several disciplines have studied how the sociocultural frame encasing new literacies affect readers’ responses. Gee (2007) studied online gaming communities and the discourse occurring in these communities. He concluded that youth create affinity spaces in which they construct meaning and share knowledge of literate activities. Hagood et al. (2002) determined that Millennials understand their online spaces as places to share, co-create, and display knowledge.

Many of the responses elicited through use of the new literacies are the result of meaning which has been co-created because it occurs through blog postings, wikis, or co-authored texts on fan fiction sites. Consequently, the distinction between reader and writer is blurred, if not at times entirely dismantled (Bruce, 2002; Kajder, 2007). These phenomena alter Rosenblatt’s definition of the transaction by enabling a literal interplay between the observer (reader) and observed (text) to occur. Barthes (1977), in his essay, “The Death of the Author,” argued that the idea of the primacy of the author in creating the text is fairly new, stemming from the increase of a middle class during the middle
ages and in response to capitalism (as cited in Connell, 2008). Traditionally, stories were told orally with the emphasis placed on the quality of the storyteller to perform the story at the telling; often, no one knew who originally created the story. Response researchers in the future may further the work of new literacies researchers to study the nature of the reader and the text within online communities, such as fan fiction sites, where the texts are co-created by the participants.

**Digital Readers in Classrooms**

While designated digital readers like the Kindle and Nook are relatively new, e-books have been in existence since the late 1980s with the development of CD-ROM storybooks (Larson, 2009; Pryor, 2013). Over the last two decades, much debate has ensued about whether the features of these storybooks supported or detracted from readers’ meaning making (Pryor, 2013). Larson (2009) examined the affordances and constraints of the multimodal features of e-reading software in a multiple case study of ten 5th graders reading young adult fiction using Adobe Reader. Through observations, pre-reading survey, and analysis of class work, Larson found that all of the participants reported preferring to read e-books of print books. She found the features of the e-reading software allowed the readers to interact with the e-book text in ways that supported active reading and response. For example, readers used the annotation and highlighting features to personalize their reading through invented spellings or truncated language that enabled them to record their thinking about texts quickly.

In a multicase qualitative case study conducted in a second grade classroom, Larson (2010) further investigated how new literacy practices were fostered by reading on a Kindle. Two participants read the same novel on school-owned Kindles they
borrowed over a three-week period. The teacher modeled how to use the features of the digital reader for the entire class of 17; the participants in the study received this instruction. Data sources included observations, interviews, and the students’ digital notes. She found reader response was deepened through the use of the settings and features available through the designated e-reader because the students could determine the path of their reading experience, in a sense, transforming Rosenblatt’s metaphorical transaction into a literal one as readers used settings of the device to personalize the text for their reading preferences. Similarly, they used features, such as the dictionary or annotation tools to transform the text according to their meaning making needs. Larson (2010) suggested extending the framework of traditional transactional reader response theory to recognize the textual transformations that occur through this new digital literacy.

Two recent studies that explored how reading comprehension is affected by reading e-texts on digital readers had findings of interest to this study. Schugar, Schugar, and Penny (2011) conducted a quantitative study of 30 college students in a first-year composition course. Participants self-selected to be in the control group who read the assigned course texts in print form or the treatment group who read the same texts on Nooks. Both pre- and post-surveys were administered and statistically analyzed using descriptive statistics. Four writing responses to the readings were coded then statistically analyzed using independent t-tests and ANOVA measures of variance. The researchers compared the reading comprehension, critical reading, and study skills between students reading e-texts on digital readers to those reading paper texts. They found no statistically significant differences in reading comprehension. However, in open-ended questions
asked of the participants, students reported using active reading skills while reading paper texts, although they did not apply those skills while reading digital texts. The authors concluded that comprehension while reading e-texts on digital readers is neither better nor worse than traditional print-based reading, speculating that e-reading is “an altogether different experience” (p. 184).

Employing a qualitative case study methodology, Pryor (2013) observed and interviewed eight 5th grade students exploring how they used the functionality of digital texts to support their application of deep structure comprehension strategies while reading e-texts. He defined deep structure comprehension strategies as comprehension strategies that integrate constructivist models of reading. Such strategies include activating background knowledge, making connections, asking questions, inferring, determining importance, sensory imaging, and monitoring comprehension. Pryor asserted that the affordances of the functionality of digital texts “supports, even magnifies, readers’ efforts to apply these strategies” (p. 142). Furthermore, Pryor determined that as students used the digital dictionaries, created notes, and made highlights or conducted searches within the digital text and outside of the text using hyperlinks, students’ engagement in deeper structure comprehension strategies was more productive than traditional reading. Moreover, Pryor concluded that digital readers offer a new avenue of teaching comprehension by integrating traditional comprehension instruction that is print-based with new reading strategies involving digital texts.

Summary

The purpose of this chapter was to provide an extensive review of pertinent scholarly literature. The chapter first presented the study’s socioconstructivist and New
Literacy Studies theoretical frameworks. Second, an overview of theoretical perspectives of new literacies featuring the New Literacy Studies was provided. Third, discussion of studies examining new literacies in classrooms was presented. The final section compiled studies on digital readers in classrooms.
CHAPTER III
METHODOLOGY

For this qualitative study, I employed a descriptive case study design (Merriam, 2009), in which I sought to explore how reading on digital readers affects secondary students as they interact with some of their unique features. The case of this study is defined as one teacher and a class of her students. A naturalistic form of inquiry was chosen over more distanced forms because of the complex nature of the reading process.

Moreover, congruent with the nature of the questions guiding this inquiry, I completed the study from a constructivist stance (Cresswell & Plano Clark, 2011) and situated within a New Literacy Studies perspective (Perry, 2012).

Furthermore, because this study explored behaviors while students were reading a complex academic text assigned as part of a high school curriculum, conclusions drawn through qualitative methods should deepen awareness of how meaning making is influenced with use of a digital reader. Therefore, the goal of this study was to describe how the e-reader technology influences the meaning-making process of a group of secondary students. A second purpose was to describe how students’ out-of-school literacy practices intersected, or not, with in-school literacy practices. A third and final purpose, also informed by naturalistic inquiry, was to describe how one classroom teacher makes pedagogical decisions as she implements the digital readers. Therefore,
the knowledge generated from this study may inform teachers’ knowledge of how to teach the new literacies associated with digital readers.

**Research Questions**

The following questions shaped this inquiry:

1. How do secondary students appear to use digital readers to construct meaning as they read complex texts, such as *Frankenstein*?
2. How does the teacher make pedagogical decisions about the use of the digital reader in the teaching of complex texts, such as *Frankenstein*?
3. How do students’ outside uses of screen-based text intersect (or not) with their in-school uses?
4. What are the literacy practices of students at school when using digital readers?

**Research Setting**

Stephens High School (a pseudonym) is a suburban high school of roughly 1,400 students located in the Midwest. The majority of the students are White from European backgrounds. The largest ethnic minority group at Stephens High is African American. Roughly 14% of the students of the nearly 1,400 attending Stephens High are of Black, non-Hispanic descent (Ohio Department of Education, 2013). The students represent a variety of different socioeconomic levels, from working class families to upper-middle class families. Roughly 14% of the Stephens High population is considered economically disadvantaged by the State of Ohio. A little over 11% of their students are designated as having learning disabilities. Stephens scored an 87.9% on their overall performance indicator on the state 2012-2013 state report card (Ohio Department of
Education, 2013). Stephens High has a growing population of students (3.3%) who identify ethnically as southeastern Asian, particularly Indian. Students newer to the United States receive tutoring to help them develop their reading, writing, and speaking fluency in English.

**Participants**

I conducted this case study in the classroom of a veteran English teacher at a high school located in the Midwest. I have identified the case as Mrs. Bennet (a pseudonym) and her second period class which met each day for 48 minutes.

At the time of the study, Mrs. Bennet had taught English for 20 years, the last 15 at Stephens High School. She has been the department chair for the past nine years. She holds a bachelor’s degree in secondary education and a master’s degree in curriculum and instruction, and she continues her professional development by taking courses towards a supervisory license. She considers herself a teacher-leader, serving in several leadership capacities at Stephens High and at the district and state levels. As the English department chair, she could have scheduled herself to teach the Honors or Advanced Placement classes, but she did not. She has taught the College Prep courses—the classes with the most variety of levels of learners—because she believes in the importance of differentiation and works hard to deliver commensurate instruction for all her students.

**Setting**

Mrs. Bennet’s classroom is situated at the south side of Stephens High, in a wing designated for English classrooms. Large and long, the classroom is spacious. Windows with tinted glass line the southern side of the room allowing students to look out at the wooded lot that borders the school. A large whiteboard lines 20 feet of the front of the
room. Mrs. Bennet lists the weekly assignments and due dates on the left side of the board. Propped against the wall on a cabinet to the left of the large whiteboard is a smaller whiteboard on which Mrs. Bennet lists the learning targets for the lessons. Each of these targets is written in the form of an “I can…” statement, and each is aligned to one of the Common Core Standards for ELA-Literacy (NGA Center & CCSSO, 2010).

On the wall opposite the windows are a series of bulletin boards. One of these holds school-related information, pertinent to seniors; another has inspirational posters neatly pinned; and a third houses a graphic of the topics to be studied throughout the school year.

Mrs. Bennet’s second period class is composed of 21 students: eight females and 13 males. No students in the class are on Individualized Education Plans (IEPs). Several of them attend Stephens in the morning for their three core classes (English, Math, and either Social Studies or Science) then travel to an adjacent town to attend the joint vocational school, Valley Career Center (a pseudonym), for their afternoon classes. During the second semester of their senior year, many of the students attending Valley Career Center work at school-sponsored internships during the afternoon.

**Interview Participants’ Profiles**

The following brief profiles provide further information about each of the students who were interviewed for the study. All participants chose their pseudonyms, which have been used throughout. After the profiles were written, Mrs. Bennet confirmed accuracy of the representation of each student.

Anne is a Stephens High student who was also enrolled at the Valley Career Center. There, she spends her afternoons fulfilling coursework in dental assisting. She is
a dedicated student who works hard to clarify any misunderstandings about assignments, completing them on time and to the best of her ability. At the time of the study, she had never read on a digital reader or used a digital reading app; however, she expressed interest in buying a Kindle in the future. She enjoys reading independently and has read action series novels recommended by her father. She plans to attend college in the fall. She was an above-average student in Mrs. Bennet’s class in her performance on assignments and assessments.

Bill is an avid independent reader who reported using Reddit to compile news articles sorted by his interests, which includes politics and economics. He wants to major in economics in college. He takes AP Biology and expressed that he has been told in the past that he should have taken honors then AP English but was satisfied with the college prep English courses he has taken in high school. He had never used a digital reader, or app, before the study. He was an above average student in Mrs. Bennet’s class, completing assignments on time and doing well on assessments.

Blake came to Stephens High from a rigorous private academy where he attended the first two years of high school. Becoming a star athlete at Stephens, he adjusted easily to the culture of Stevens High. He has an iPad with a Kindle app downloaded on it and has been encouraged by his mother to read independently, but Blake admitted that he does not like to read for pleasure. He communicated that he realizes, however, the importance of reading. He expressed that he values completing assignments. He plans to attend a local private college on a football scholarship. He was an above-average student of Mrs. Bennet’s, completing most assignments on time and participating regularly in class discussions.
Charles wants to major in a medical-related field. He does not read for pleasure often but had read on a digital reader once before. After he graduates, Charles plans to attend college in the fall. He is an average student in Mrs. Bennet’s class, completing most assignments on time.

Elizabeth owns a Kindle and has used it to read for pleasure. She attends a program at the Valley Career Center and works part-time at a nursing home. Because of her work schedule, she has trouble finding time to read for fun during the school year. She also finds it challenging to complete homework. She expressed her interest in going to college once she graduates. She is a conscientious student of Mrs. Bennet’s, completing assignments on time and scoring above average on assessments.

Halle reads for pleasure regularly but had never read on a digital reader or used a digital reading app before the study. She found the experience reading *Frankenstein* using the Google Play app to be positive. Her performance in Mrs. Bennet’s class was good. She was an average student who completed most assignments on time.

James had never read on an e-reader or used a digital reading app before the study and, at the beginning of the study, was skeptical of reading *Frankenstein* this way. For pleasure, he reads articles and websites about psychology, medical information, and finance. He also watches YouTube for both entertainment and learning. Over the course of the study, his skepticism of using the digital reader changed and he expressed having a positive experience using one.

Louis was failing Mrs. Bennet’s class at the semester break, just a few weeks before the study began. He was at-risk to not graduate because of his grades in all his classes. While many high school students are devoted users of their cell phone,
according to Mrs. Bennet and to Louis, Louis’ attachment to his phone went beyond typical; he claimed it “is everything to him” (Interview, March 25, 2014). He uses it for gaming, for socializing, for completing class assignments, and for other forms of entertainment. He does not read for pleasure and had never used a digital reader or app for reading. He went to Stephens High in the morning, then left in the afternoon as part of a work study program. He worked many hours per week building furniture at a warehouse. He expressed plans to join the military after he graduated from high school. He struggled to complete assignments in Mrs. Bennet’s class.

Madison had never liked to read. Her mother had tried to encourage her to read on their iPad before, but Madison had not read on a digital reader before the study. She expressed in her interview that she had never completed a school-assigned novel before this study. She plans to attend college right after graduation, majoring in a medical-related field. She is a contentious student of Mrs. Bennet’s, completing assignments on time.

Sam is an avid reader. She reads mostly novels, having several going at a time. She is a member of Watted, an online reading community where writers submit works and readers give feedback. She is a sophisticated user of digital technologies, particularly advanced in using online tools for planning and organization. An example of this is how she uses social media to coordinate activities for the youth group of her temple. She takes AP Bio and is an above average student in Mrs. Bennet’s class.

Jeffrey expressed that writing was difficult for him and found Mrs. Bennet’s expectations challenging. He expressed appreciating the push she gave him and thought he had improved as an English student. During the interview, he explained that although
he had not enjoyed reading for pleasure, after reading the school-assigned novel, *The Hunger Games*, he became hooked on the series and read the entire trilogy. He works hard in Mrs. Bennet’s class, sometimes doing extra revision work. He plans to attend college after graduation to earn degrees in psychology and counseling.

**Researcher Profile**

At the time of the study, I had been a full-time educator for five years. Working full-time at two different state universities, I had taught literacy courses, general education courses, and English/language arts methods courses. Previous to that time, I taught high school English at Stephens High School for two years before being laid off due to budget cuts. Mrs. Bennet worked closely with me one year while we taught the same subject. Before working at Stephens, I taught reading at an urban high school.

**Research Procedures**

**General Procedures**

The study took place March 3–28, 2014. During those weeks, Mrs. Bennet’s 12th grade College Prep classes were assigned to read Mary Wollstonecraft Shelley’s (1922) *Frankenstein* and complete a variety of assignments related to the text. Because this study sought to understand and describe human behavior, the required approval from The University of Akron’s Institutional Review Board for the protection of human subjects was obtained (Appendix A). To recruit participants, I visited Mrs. Bennet’s second period class two weeks before the study began to provide an overview of the project and invite students to participate. I distributed the informed consent and assent forms (see Appendices B, C, and D) and lead the group through a comprehensive reading of the forms, explaining the risks and benefits of the study and stressing the voluntary nature of
participation. Of the 21 students in the class, 16 students participated in the study. Among the participants, 11 students agreed to participate in an interview with the researcher.

**Data Collection Methods**

Four methods of data collection were employed during this study: observation, interviews, questionnaires, and documents or artifacts.

**Observations.** Merriam (2009) considered observation a research tool “when it is systematic, when it addresses a specific research question, and when it is subject to the checks and balances in producing trustworthy results” (p. 118). I observed Mrs. Bennet and her second period class from March 4–March 21, 2014; however, several scheduling constraints affected the number of hours of observation. On March 6, all seniors spent second period posing for various class photos for the yearbook; therefore, Mrs. Bennet did not teach her class that day. On March 12, the school district cancelled school because of a snowstorm. During the week of March 10–14, all high schools across the state administered the mandatory graduation tests. Because of the testing, the second period class time was shortened to 20 minutes.

My role during all observations was that of a participant-observer because I participated in teaching the use of the digital readers. During the first day of the unit, I taught a 20-minute lesson about how to use all features of the Google Play digital reading app. I also introduced a strategy that uses the highlighting and note-taking features to code the text for motifs and themes (see notes for the lesson, Appendix E). As a participant-observer, I clearly articulated to participants my intention to record observations of the phenomena of interest: their interactions with the digital reader.
Similarly, I conveyed my intention to Mrs. Bennet that I would record the general events of her classroom including her teaching.

During observation, I took field notes in Microsoft Word, expanding these notes within 24 hours. I observed behaviors pertinent to the first three research questions. The first observations were unstructured, encompassing a wide field of behavioral and social situations, for example, noting which features of the digital readers students use in class; recording their references to their reading during in-class discussions.

Data analysis was ongoing during data collection using the constant comparative (Glaser & Strauss, 1967) method of induction. As I analyzed the data during the process of data collection, the observations became increasingly more structured to address specific questions surfacing from the data.

To enhance observational data, I audio recorded several sessions of whole-group instruction. These recordings were not transcribed and were used only to verify observations recorded in my field notes.

**Interviews.** Interviews were the second form of data collection. Interviewing is necessary when we cannot observe the phenomena of interest (Merriam, 2009). In this study, the meaning-making process of each participant is hidden, unobservable by the researcher. Therefore, a line of semi-structured questioning was necessary to collect data needed to identify students’ meaning-making efforts and literacy practices while reading on the digital readers. The interview prompts aligned to all four research questions. I interviewed students consenting to be interviewed and willing to meet with me out of class time. Of the 16 participants, 11 agreed to be interviewed. My goal was to interview information-rich participants who could articulate their thinking about their reading. I
also sought to select students with varying degrees of familiarity in using digital readers. A final consideration was that the students chosen represented a range of performance levels in Mrs. Bennet’s class.

The student interviews were semi-structured with open-ended initial probes and suggested follow up questions (see Appendix F). The interviews were conducted at the convenience of the student, either during a study hall or during early dismissal at the end of the school day. The interviews took place on March 21, 2014, or March 25, 2014, in the school library or the English department office. All were audiotaped then transcribed.

I conducted three semi-structured interviews with Mrs. Bennet that focused on her instructional planning process and her perceptions of the students’ interactions with the digital readers (see Appendix G). One interview was held at the beginning of the study and two at the end. During each interview I asked open-ended questions about Mrs. Bennet’s perceptions of how the integration of the digital readers affected student learning. The interviews were audiotaped and transcribed.

**Pre-reading questionnaire and post-reading reflection.** Questionnaires were the third form of data collection. Like interviews, questionnaires afford the researcher an opportunity to examine participants’ experiences that cannot be observed directly, such as their thoughts, beliefs, and inner experiences (Gall, Gall, & Borg, 2007). On the first day of the unit, all students completed a pre-reading questionnaire through Google Drive using Google Forms. This questionnaire asked five open-ended questions about students’ expectations for the reading unit and their familiarity with digital books and digital readers (see Appendix H). I did not include the responses of the non-consenting students in the study.
On the last day of the unit, students were required to complete an after-reading reflection. This questionnaire asked six open-ended questions about students’ impressions of their own meaning making as they read a complex novel on an e-book using either a digital reader or a digital reading app (Appendix I). Since I was able to examine a larger pool of responses than through interviewing alone, analysis of the responses deepened my understanding of how students used the digital reader to make meaning. As with the pre-reading questionnaire, I did not include the responses of the non-consenting students.

**Documents and artifacts.** Documents and artifacts are the fourth form of data collection. In qualitative research, documents and artifacts provide a rich source of data that can be creatively mined by the researcher (Merriam, 2009). Documents that were used in this study included: e-mail correspondence between Mrs. Bennet and me; copies of students’ in-class written responses to the novel; and copies of student-generated reflective responses. Artifacts included in the study were the student-constructed multimedia presentations completed in Google Presentations and videos created through the Animoto web 2.0 digital application.

**Data Analysis**

During the period of data collection, data were simultaneously collected and analyzed using the constant comparative method (Glaser & Strauss, 1967). Extensive field notes recorded observations that were analyzed to identify emerging “threads that tie together bits of data” (Miles et al., 2014, p. 86). In response, I revised observation plans and interview questions to improve the quality of the corps of data.
After the field notes were expanded and interviews were transcribed into Microsoft Word, Saldana’s (2013) methods of first- and second-cycle coding were employed. During the first cycle, I read and re-read the interviews and field notes, using descriptive coding to “assign labels to data to summarize in a word or short phrase . . . the basic topic of a passage of qualitative data” (Miles et al., 2014, p. 74). From there, pattern coding (Saldana, 2013) ensued. Saldana asserted that pattern coding is a method of second-cycle coding involving the same analytic processes classic grounded theory calls the “constant comparative method” (Miles et al., 2014, p. 285). Content analysis was one tactic used to discover patterns emerging from the data. For example, the last interview question asked the student to identify two words that best summarized their experience reading *Frankenstein* using a digital reader. By comparing their two-word responses, I determined patterns of response that became emerging themes to be explored across the data.

Clustering (Saldana, 2013) was a second tactic used to identify patterns in the data. Once patterns were determined, clustering allowed me to group similar patterns together to identify the underlying concepts. For instance, while descriptive coding, each unit of data was color-coded by research question. Then I copied and pasted each of the color-coded data into a separate document by research question. Within the research question data, I analyzed the patterns of response by clustering similar codes together, synthesizing them into themes.

A third tactic, ordering (Miles et al., 2014), involved creating matrices of the questionnaire results and pertinent interview data to visually discern patterns of response.
Analysis of the array of responses provided further supportive evidence for several of the themes.

**Data Management**

Data included text documents—transcribed field notes and interviews and typed analytic notes—documents and artifacts generated by students, and audiotaped discussions. These were generated and saved into two Microsoft Office applications, that is, Microsoft Word and Microsoft Excel. The coding and analysis of these documents and artifacts were also done within these programs. All participants were asked to choose pseudonyms, and at the point of transcription, all references to each participant were by using their chosen pseudonym. All documents, transcribed observations, and interviews were kept on a password-protected cloud-based storage site, Dropbox, using a two-step verification process that only the researcher was able to access.

**Validity, Reliability, Trustworthiness**

In order for this research to be credible, the following procedures were enacted to demonstrate validity, reliability, and trustworthiness: (a) triangulation, (b) member checks, (c) adequate engagement in data collection, (d) reflexivity, and (e) peer review.

According to Merriam (2009), triangulation is the primary way to demonstrate internal validity in a qualitative study. For this study, two means of triangulation were used. The first is by using multiple sources of data. Data were collected through observations, interviews, and analysis of documents or artifacts in an effort to check each recorded aspect of the phenomena against another instance of recording data through cross-checking the data. A second means of triangulation used were multiple theories to confirm the emerging findings. In line with the theoretical framework of this study,
constructivism, transactional theory, and a New Literacy Studies perspective, are all theories or conceptual frameworks by which the data were analyzed and interpreted.

A second method for ensuring internal validity was through member checks (Merriam, 2009). By soliciting feedback from the people interviewed, allowing them to verify the interpretations made by the researcher, a strong case for the internal validity, that is, the representation of the reality observed, can be made.

Adequate engagement in data collection was the third procedure that strengthens the case for strong internal validity in this qualitative study and was demonstrated through rich, descriptive writing and the closeness of the researcher to the phenomena of interest.

A fourth procedure I conducted during the process of data collection and analysis was a practice of reflexivity, the process of recording my thinking and musings about the data including how my understandings grew and developed over the course of the study. Included in this process was analysis of biases and assumptions made while collecting and analyzing data.

A fifth procedure, peer review, was employed. Because this research was conducted to fulfill a doctoral dissertation, my committee, particularly led by the co-directors of my dissertation, has done the peer review of my research.

To establish a case for reliability of the findings of this study, that is, the extent to which the research can be replicated, I have taken great pains to thoroughly explain the results, interpreting the data in a manner that makes sense to readers.

Because external validity “is concerned with the extent to which the finding of one study can be applied to other situations” (Merriam, 2009, p. 223), I sought to inform
my reader of how these findings may be transferable to other situations. Interpretations made are supported by ample evidence upon which my reader may base his or her own interpretations.

Finally, to undergird both validity and reliability in this study, an ethical standard comprised of intellectual rigor, professional integrity, and methodological competence (Merriam, 2009) was maintained throughout the research process.

**Subjectivity**

I believe all research requires the researcher to hold a degree of intrapersonal intelligence, meaning, one must understand the depth of thinking about both latent and visible motives, biases, and persuasions (Peshkin, 1988). Identifying subjectivity, exposing it to the light of introspection, serves to regulate its influence upon the process.

Because the study explored the development of higher-order literacy in secondary students, I had to confront assumptions I made about other readers; in particular that they would have had positive experiences with reading similar to those I have had. Additionally, my theoretical stance and their related ideological positions also influenced my perception of students’ responses to interview questions related to their reading. To guard against these subjectivities, I questioned my conclusions to expose these biases. I also chose to use quantitative methods to cross-check my conclusions. For instance, the ordering tactic I used during second-cycle coding involved determining percentages of responses participants made to interview and questionnaire items.

**Limitations to the Study**

The first limitation of the study relates to its design. Because this study employed a case study design with a small, nonrandom sample of participants, the results are not
generalizable to a larger population. However, according to Merriam (2009), the reader of a case study participates in the process of making generalizations. Therefore, knowledge produced through this study may be applied to existing knowledge through the reader’s interpretation of the findings and their implications.

A second limitation concerns the role of the researcher. Case studies are limited by the sensitivity and integrity of the researcher (Merriam, 2009, p. 52). As the primary instrument of data collection and analysis, the researcher holds great influence over the data collected and analyzed and the conclusions drawn. The problem of researcher bias is a limitation of this study. However, attempts have been made to address the biases through member checking, triangulation, and peer review.

Not all of Mrs. Bennet’s second period class participated in the study; therefore, the question of representation must be further acknowledged. The experience of the students who chose not to participate is missing from the study. Likewise, Mrs. Bennet chose what she believed to be the class most willing to engage with the digital readers and the researcher. The experiences of other students of hers, also meaningful and informative, were not included in the study. Consequently, these issues of sampling may affect the extensiveness of knowledge generated by the study.

**Summary**

In this chapter, a rationale for a case study design was provided. Efforts to richly describe the design of the study, the description of the research site, and the participants were made. Also detailed was the process of data collection, in particular, the methods involved. The four methods included observation, interviews, questionnaires, and documents and artifacts. A constant comparative method of analysis (Glaser & Strauss,
1967) undergirded both the data collection and data analysis processes. The intent of the data analysis was to identify themes and categories to address the research questions. Finally, the limitations of the study and issues of reliability and validity, and the means taken to address these, were described.
CHAPTER IV

RESULTS OF STUDY

In light of expectations that American youth acquire increasingly complex literacy practices integrated with technology, this study explored how reading on digital readers affected secondary students as they interacted with some of their unique features. Therefore, the primary goal of this study was to describe how the e-reader technology influenced the meaning-making process of a group of secondary students. A second purpose was to explore how students’ out-of-school literacy practices intersected, or not, with in-school literacy practices. A final purpose was to discover how one classroom teacher makes pedagogical decisions as she implements the digital readers.

In this chapter, each research question is addressed. Key quotations and vignettes illustrate the common patterns found across the data sources.

Overview of the Case

Mrs. Bennet taught the novel, *Frankenstein* (Shelley, 1922), from March 3 through March 24, 2014. She introduced the background of the story on Friday, February 28, 2014, which included time-period and biographical information about Mary Shelley. She had taught the novel many times in the past, but this time she was trying several new things. The first involved how the students would read the text. Mrs. Bennet decided to use a new classroom set of Chromebooks for in-class reading. Out of school, students were encouraged to read on a mobile device, such as their own smartphone, iPod, or
tablet. The school library possessed several Kindles, and these were made available for students to borrow during the duration of the unit. See Table 4.1 for a chart of the different devices on which students read during the unit.

Table 4.1

Devices Students Used to Read Frankenstein

<table>
<thead>
<tr>
<th>Device</th>
<th>Chromebook</th>
<th>Personal Laptop</th>
<th>Kindle</th>
<th>Book</th>
<th>Smartphone</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of respondents using device $n = 12$</td>
<td>11</td>
<td>4</td>
<td>5</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

*Note.* Responses compiled from After-Reading Reflection (see Appendix I).

Previously, Mrs. Bennet had used the Chromebooks for writing and research assignments and for administering the mandatory reading tests. She had not had students read a novel-length work on them; therefore, she was apprehensive about using them for the three weeks of the unit. In particular, she was concerned that the demands of learning the technology (the Google Play app) would be a barrier to students’ engagement and learning.

Another consequential change that Mrs. Bennet made was in the types of assignments and assessments she created for the unit. Rather than have students complete a study guide filled with many lower-level questions, she decided instead to have students read the text independently, guided by a brochure that emphasized certain thematic ideas of the novel (See Appendix J). The key assignments of the brochure were: text-tagging for theme, character charts, and literature groups.
Text-Tagging for Theme

As students read in class on the Chromebooks and out of class on a mobile device, Mrs. Bennet expected students to highlight and annotate the text to collect a body of textual evidence supporting their interpretation of the novel. This was a skill she had been teaching all year, and she believed the features of the digital reader could deepen students’ knowledge of it. She asked me to teach a reading strategy I called, “Text-Tagging for Theme,” on March 3, 2014. The strategy involves using the highlighting and annotating features of the digital reader or app. Students would highlight portions of text then create a note with one- or two-word “tags” of the theme they believed was illustrated in the excerpt (See Figure 4.1).

Figure 4.1. Example of text tagging for theme in the Kindle Cloud Reader for Google App
Character Charts

As students read the novel, directions on the brochure asked them to make observations about the major characters. Students were to create a chart to record these observations. After they did this work independently, they were to come together to share their charts with their literature groups and then the whole group.

Literature Groups

Before the *Frankenstein* unit began, Mrs. Bennet divided up the class into literature groups. She explained the different roles students would be required to fulfill and her expectations about how these groups would be run. Unfortunately, due to the time constraints imposed upon her because of the week of testing for the Ohio Graduation Tests (OGTs), Mrs. Bennet only had her second period students meet with their groups twice during the duration of the unit.

Summative Assessment

Instead of having a test or essay as the summative assessment for the unit, Mrs. Bennet decided to have the students complete a multimodal presentation using Google Presentations and a Web 2.0 digital application, Animoto. Earlier in the school year, she had students create presentations, but they had never used Animoto to compose multimodal responses. Animoto videos are simple to create. Users choose from a variety of templates then import photos, or use photos and short videos found within the platform, to make short videos that can be embedded into presentations or posted to social media sites. Mrs. Bennet planned to use these very short films as a way for students to demonstrate their understanding of themes in *Frankenstein.*
Deciding on when to schedule the unit was challenging. After weighing the various factors affecting the calendar, Mrs. Bennet decided to teach this unit earlier in the school year than she had in the past for two reasons. First, spring break was very late. She was concerned that the students would have “senioritis” when they returned and would not be willing to work hard to read the novel and try a new technology. Second, Mrs. Bennet would be absent the last week of March; therefore, she wanted to have most of the unit completed before she left.

Two other scheduled events affected Mrs. Bennet’s planning of the *Frankenstein* unit: the shortened classroom schedule due to the OGTs and her mandatory observation by her principal as part of the state-regulated evaluation system. The observation took place on March 18th during her second period class.

**Using Digital Readers to Construct Meaning**

In addressing the first research question, “How do secondary students use digital readers to construct meaning as they read complex texts, such as *Frankenstein,*” data analysis of interviews, field notes, and artifacts yielded two main categories of evidence: description of students’ technical use of the digital reader and description of students’ strategic use of features to make meaning.

The first category involved the technical and practical ways students used the digital reader or Google Play app to read *Frankenstein.* This category includes themes relating to: (a) the perceived utility of the digital reader in terms of students’ use of the features, (b) accessibility of the text across multiple mobile devices, (c) the organizational affordances of the platform, and (d) students’ facility in adapting to new technology.
The second category concerned how the students’ strategically used the features of the digital reader to make making. Two themes emerged from the data. The first related to students’ use of close reading strategies, specifically annotation and rereading. The second related to students’ ability to make personal connections to the text primarily through the expansion project Mrs. Bennet assigned as the summative assessment of the unit. The section ends with a description of a student’s personal connection through tangential reading on the Internet about a topic related to the novel.

Woven into the description of the themes are Mrs. Bennet’s and students’ direct quotations. In choosing to preserve their voices, I did little alteration to their words. When clarifying changes or deletions of non-essential parts were made, brackets [ ] and ellipses were used to indicate the edited material.

**Technical and Practical Uses of the Digital Reader**

Through data analysis of interviews—cross-checked to the responses from the final questionnaire—I compiled students’ responses to questions about their use of various features of the digital reader into a chart (See Table 4.2). I explain the elements of the chart by describing the information salient to understanding these compiled findings.
Table 4.2
Technical Uses of the Digital Reader

<table>
<thead>
<tr>
<th>Feature</th>
<th>Highlighting</th>
<th>Note-taking</th>
<th>Keyword searching</th>
<th>Dictionary</th>
<th>Text-to-Speech or audiobook</th>
<th>Read on Smartphone</th>
</tr>
</thead>
</table>
| No. of respondents using feature  
\(n = 11\) | 10           | 10          | 10                 | 5          | 2                          | 3                 |

Students interviewed (\(n = 11\)) reported using the highlighting, note-taking, and search features the most (10 out of 11 students). Because one of the assignments of the unit, Text-Tagging for Theme, involved using the highlighting and note-taking features, these findings are not surprising. Louis was the only student who reported to never have highlighted the text. As a way to differentiate instruction in hopes of successfully engaging him, Mrs. Bennet had given Louis permission to listen to *Frankenstein* rather than read it; therefore, he did not use these features.

The search feature was the other most widely used by the 11 students interviewed. The same as the highlighting and note-taking features, searching was modeled by the researcher during the introductory lesson and followed by other demonstrations by Mrs. Bennet. Although no assignment specifically required using the search feature, students relied on it as a tactic to search the text by keywords related to the themes they were examining in *Frankenstein*. Although he listened to all of *Frankenstein* instead of reading the work, Louis did install the Google Play app on his smartphone and used the search feature to find quotes related to his theme. Bill was another student of interest.
because he never used the search feature, preferring to skim through his highlighted notes for supporting quotations.

Five of the 11 students interviewed reported using the bookmarking and dictionary feature. Within this group, the level of usage varied. For instance, both Jeffrey and Halle mentioned using bookmarking regularly as a means to quickly find where they had stopped reading. According to Jeffrey, “I used the book marking a lot especially on Google Play on my phone” (Interview, March 21, 2014). Most others did not elaborate on their use. The majority did not use this feature, perhaps because most digital readers open to the farthest location read. No students mentioned using this feature to mark key meaningful passages, relying on the highlighting feature to accomplish this task.

The dictionary feature also was reported having been used by five of the 11. Charles reported using this feature “a lot,” and when asked to expand his answer, replied that he would not have looked up as many words while reading a paper copy of *Frankenstein*. Another student, James, claimed clarifying unknown words helped him understand the novel better. Similarly, Sam related instances of using the dictionary tool to help her understand the mood or tone of the text. Additionally, in response to a question on the post-unit questionnaire asking students to evaluate how their reading habits changed because of reading on the digital reader, she wrote “more attention to the language to better understand [the novel]” (After-reading Reflection, March 27, 2014). Several of the students who stated they did not use the dictionary tool explained that they had used context clues to reason out the unknown words when they encountered them.
Few of the students reported adjusting settings to accommodate their reading preferences. Common settings across digital reading platforms include font size, margins, and line spacing. The Google Play app also had the option of viewing the scanned original pages of *Frankenstein*. The Kindle offered the option of changing the background color mode from white to sepia—with black font—or to a black background with white font for nighttime reading. Two students mentioned adjusting the settings in meaningful ways. Madison read the novel on a school-owned Kindle. During her interview, she described how she changed the background to the night feature “because it was dimmer and wasn’t as bright;” she also changed the margins so the page was narrower and she enlarged the font size. She explained that, “Less words on the page, so I wasn’t overwhelmed reading it” (Interview, March 25, 2014).

**Preferred reading platform.** Of the 11 students interviewed, eight reported they did not read *Frankenstein* on their smartphones. Of those eight, the most common reason was the smallness of the font and the eyestrain caused by reading it. The three who reported reading on their phones explained that they had only read a little on them. The phone app appeared to be a secondary option. As Jeffrey put it, “I used the Chromebook a lot during classes. During my free time, like if I was trying to catch up with my reading, I’d use my phone” (Interview, March 21, 2014). He further explained his feelings about reading on his phone:

> It was hard just because it’s so small and when I’m trying to read, I flip a page and it’s still that same page. So it seemed longer, but . . . I’m on it [his phone] all the time so it was kinda easy just having it there so that . . . I can just pull it up really fast and read it. (Interview, March 21, 2014)

Aside from the issue of size of the text on the phone, another issue that students mentioned was the possibility of distractions. As Madison, who listened to an audiobook
version of the text while reading along on a Kindle, explained, “I got way too distracted using my phone to read. I’m an avid texter, I’m on Twitter a lot, I Instagram a lot, [and] I do lots of emailing on my phone” (Interview, March 25, 2014). For her, and others, notifications from social media or email posed potential interruptions to meaning making while reading on the phone.

Contrary to the negative reactions to reading on the smartphone, students interviewed conveyed their approval of using the Google Play app on the Chromebooks or their personal laptops. Anne, among those who disliked reading on the phone because of the small size, wrote that she preferred the Chromebook “because it was larger” (After-reading Reflection, completed March 28, 2014). Some appreciated how easy it was to use the Google Play app. James related that “it was easy to get on, I just had to log in, pull up the book and it was on the page I left off on” (Interview, March 25, 2014). On his after-reading reflection, he summarized the experience, writing “Reading on the Chromebook is not different to me than reading a book, but the Chromebook offered more tools that I found useful for class” (Interview, March 27, 2014). Halle, whose experience with the digital reader was solely in class on the Chromebooks, recounted, “It was easier to read online than a paperback. There were a lot of helpful tools on the e-book” (After-reading Reflection, March 28, 2014).

Besides the overall ease in using the Google Play app on the Chromebook, students appreciated the organization offered within Google Play and other Google Drive apps. Bill, the most reluctant to offer positive comments about the digital readers, explained during his interview:

It was actually kind of cool [be]cause I could go from one tab with the book on it to a tab with the doc on it to a tab with a Google search for an image or
something. That was cool to be able to go from one thing to the next without having to open up a book on the computer, that was interesting. (Interview, March 25, 2014)

Like Bill, Blake approved of the Google platform overall; as he concisely stated, “And I dunno, I just like the whole Google. I mean we’re using Google docs so I just stick with Google [Play app]” (Interview, March 21, 2014). Halle expanded upon this idea during her interview:

I like [the Google Play app], it was easier to access so that . . . if I forgot my book at school I didn’t have to worry about that. And . . . all my notes were on there so it was easier than having a regular book and having to use sticky notes [because you can lose those easily and forget the book somewhere. (Interview, March 21, 2014)

In a similar manner, Elizabeth described how the Google Play app helped her in practical ways:

When we were doing the [multimodal] project that we’re doing now, I can go back and look up my notes and everything will be there, and it’s all organized and it’s not a crazy mess in the actual book. (Interview, March 25, 2014)

To some degree, these positive responses were not surprising. Mrs. Bennet had been regularly using the class set of Chromebooks for several months. Stephens High School had been a Google-supported school for the previous three years. Students’ familiarity with the Google platform was one of the reasons Mrs. Bennet chose to use the Google Play app rather than the Kindle Cloud Reader app or other digital reading app. Students communicated times in other classes when they had used Google Drive and the various applications on that platform. Mrs. Bennet conveyed her belief that this familiarity produced a degree of comfort for the students. During an email correspondence after the unit was completed, she wrote, “A piece that was very pertinent for me was the level of confidence that the digital reader provided for them” (Personal
correspondence, May 15, 2014). Previously, during the first interview she had expressed concern based on her observations that students are not as technologically savvy as conventional wisdom has implied, and she saw that as concern. When I asked about this after the unit was completed, particularly if she perceived them to struggle with the technology or not, she replied:

I think I was wrong. I think I had a misconception of how adept or how quickly they were able to adapt to using those Chromebooks. I think that those kids were more engaged with something tactile in front of them that they were typing on and focused on. [E]ven when we were doing some of those dialogue sheets [a Google doc shared with Mrs. Bennet] back and forth [with me], the responses that the kids put down on the Chromebook [were more in-depth than those completed on paper]. I think you know Rachelle, she never speaks and she . . . had more conversation on that dialogue sheet, . . . I think it gave her a sense of comfort instead of anxiety. (Interview, April 14, 2014)

Anne described how she was intimidated by the technology at first, but how she persevered. For her, “play[ing] with” the digital tool—be it the Google Play app, the Google presentation application, or Animoto—helped her to adapt to the technology and successfully complete the assignment. She summarized the process this way, “it’s something that you’re gonna have to play with and get a feel for. . . . It’s technology, it’s definitely something that you’re gonna have to mess around with to learn how to use” (Interview, March 21, 2014).

**Strategic Uses of the Digital Reader to Construct Meaning**

Students purposefully used features of the digital reader to deepen their meaning making. Three themes emerged from the data that describe how students used the digital reader to construct meaning: (a) using features strategically, (b) rereading to deepen understanding, and (c) making personal connections to build meaning.
Using features strategically. Students reported using two features, highlighting and note-taking, to aid in their understanding of *Frankenstein*. As explained earlier in the chapter, the students had been taught an approach to reading I have called, “Text-Tagging for Theme.” As students read *Frankenstein*, they were to highlight excerpts that illustrated a theme of the novel, then “tag” the highlighted section by typing a one- or two-word caption in the notes. As part of Mrs. Bennet’s assignments for the unit, students were expected to collect a body of textual evidence to support their interpretation of a theme they chose to follow throughout the novel. In response to a questionnaire prompt asking how the respondent would advise next year’s seniors about the choice of reading a print copy of *Frankenstein* or an e-book version, Rachelle wrote, “I would recommend the e-book because you can make notes which makes the text easier to understand” (After-reading Reflection, March 28, 2014). She also commented that reading the e-book made her “notice the themes I was supposed to get out of the book because I was looking for them to make notes.” Attention to themes was a common report among the students. Elizabeth wrote that reading the e-book “made me realize all the themes in the novel” (After-reading Reflection, March 28, 2014). However, not all found this acute attention positive. Elizabeth shared conflicted feelings about tagging the text on the same questionnaire when she wrote, “I wasn’t focused on the text, more about tagging.” Similarly, Halle explained:

I think I was so focused on tagging for text that it was hard to . . . see other words or . . . comprehend the plot or anything. . . . I can use the tagging for text, that helps me, and also it doesn’t help me in a way. I think it distracts me from the plot a little. (Interview, March 21, 2014)

On the after-reading reflection, seven students reported highlighting to be a feature that helped their understanding of the novel, while five of the nine responded that
note taking helped them (see Table 4.3). This disparity may have been due to the highlighting capabilities Google Play app, which included several highlight colors; therefore, students could use colors to designate different themes rather than using the note-taking feature to tag the highlighted text.

Table 4.3
Uses of the Digital Reader to Construct Understanding

<table>
<thead>
<tr>
<th>Feature</th>
<th>Highlighting</th>
<th>Note-taking</th>
<th>Keyword searching</th>
<th>Dictionary</th>
<th>Bookmarking</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of respondents using feature</td>
<td>7</td>
<td>5</td>
<td>5</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>$n = 9$</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Of the 12 surveys completed, nine students directly answered this question.

Two students, Louis and Madison, listened to audiobook versions of the novel. Madison read along on a Kindle. Both finished reading the novel; none of the other 14 students participating in the study reported completely reading the novel. Louis and I had an interesting exchange in which he described how listening impacted his understanding.

**Researcher:** What do you feel you’ve learned from this [unit]?
**Louis:** There’s a lot more themes . . . you could see in the book when you actually listen and focus on the text.
**Researcher:** Well that’s an interesting way to put it. What do you mean by that?
**Louis:** Like instead of just reading. When I’m reading, it’s just visualizing all the words going through my mind, but when I’m
listening to it I can focus on what words are being said and just creating a movie in my head. (Interview, March 27, 2014)

In a similar manner, Charles described being able to visualize the text better when he listens rather than reads. When asked if he would read another book on a digital reader, he answered that he would, “especially [an] audiobook . . . I’ve [listened to one] once, and I actually liked it [be]cause I can actually picture it in my mind” (Interview, March 25, 2014). Although she doesn’t mention visualizing, Madison’s experience listening also improved her understanding. When asked to explain the features she used, she excitedly answered:

Definitely the read to me thing . . . helped a lot cause I’m just not a comprehension person and someone reading to me helped a lot with this project and having the notes and the tagging and the dictionary right there in one piece of technology was really helpful. (Interview, March 25, 2014)

Important to note, of the 11 interviewed, Madison conveyed the most dramatic experience using the digital reader. She felt that the experience of reading on the Kindle changed her. At the beginning of her interview, she vehemently stated, “I’m not a reader and the Kindle made me a reader” and later in the interview, “I hate reading, I’m telling you, I’m not a reader and I got through the whole book” (Interview, March 25, 2014).

Madison said her mother noticed and expressed her amazement that Madison was reading on the Kindle.

**Rereading to deepen understanding.** Rereading to deepen understanding was the second theme that emerged about how students used the digital reader to construct meaning. As part of the requirements for the multimodal presentation, students were to analyze quotations from Frankenstein to include in their thematic interpretations. One of
the objectives Mrs. Bennet had for this activity was to strengthen students’ abilities to logically evaluate their tagged textual evidence. As she conveyed to me in an email:

I think I am going to . . . focus a little on what makes one example of textual evidence better than another. Some have struggled along the way with that, and I see it as an area that I will probably need to differentiate a bit as they tackle this text and tag it for evidence. (E-mail correspondence, February 25, 2014)

The thinking involved in this type of decision-making often required students to reread their annotations and the surrounding context. As Bill explained:

I looked at the notes I had taken earlier—I took notes while I was reading stuff that I thought was related to the topic I was gonna choose for the quotes—and I went and saw what I highlighted, [then] read around that. (Interview, March 25, 2014)

A tactic Sam used to help her better understand her body of textual evidence involved creating summaries. She explained how she used the note-taking feature to do more than tag the text for themes, she “jot[ted] a note down on a section [to] overall summarize it” (Interview, March 25, 2014). She further explained that note-taking helped her understanding, “especially going back” to reread them.

Students searched the novel by keywords related to their chosen themes. For example, one student was interested in understanding the theme “the pursuit of hidden knowledge,” so she searched the e-book for the keywords knowledge, learn, school, understand, power, and philosophy. As the keywords were located, she read the context around the keywords to determine the appropriateness of the quotation to support the theme. Students spent a great amount of their in-class reading time conducting these keyword searches. According to my interviews and informal questions to students, most students read little of the novel; nonetheless, almost all conducted many keyword searches to build their body of textual evidence. Mrs. Bennet believed this type of
reading helped students construct an understanding of the novel. As she explained in our exit interview:

The searching of the text [caused] a lot of them . . . to have a better grasp [of the novel]. I think . . . when they did the searching for the theme it did still give them huge amounts of text that they would have to sift through and read through, . . . even though it was segmented parts of the text from the beginning, middle, and end of the novel. I think they were more engaged with that text than if I had said read it from cover to cover. At least in this point in their senior year, I think that—to be honest even though they all weren’t reading it—I think they felt it was safe to say aloud that they weren’t reading it, where in the past who knows who has read and who has done summaries or who has done Sparknotes. I think that looking at their text tagging, walking around looking and seeing what they were doing and listening to their conversations, I think they were more engaged in the text than they had been in the past because of that Chromebook or the ereader. (Interview, April 14, 2014)

Making personal connections to deepen understanding. Making personal connections was the third theme that aligned with using the digital reader to construct meaning. As Mrs. Bennet and I discussed the Frankenstein unit plan in February 2014, we talked about the Internet capability of the digital reader that allows students to conduct self-determined tangential reading through its search feature. I explained that I hoped students would engage in instances where they went outside of the novel to explore topics of interest. I called these types of readings, “bunny trails,” meaning, the type of inductive learning through reading that is driven by curiosity. As she thought about how to foster opportunities for this type of learning experience, Mrs. Bennet developed the idea of an expansion project. In the brochure she created for the unit, she introduced the expansion by inviting students to be mindful of topics of interest that they will discover as they read the novel. She stated, “You will investigate them to expand your learning as you research your topics” (Teacher work sample, Appendix J). On
March 18, 2014, she taught a lesson explaining the process a student would take to
determine a topic of interest and to research this topic.

Although Mrs. Bennet’s expansion assignment ran somewhat counter to my
interest in observing tangential reading as it naturally occurred, all of the students
interviewed commented positively about the assignment. When asked what she thought
about the expansion project, Sam responded:

The expansion? I found it was easy because basically what we were doing [is] tying [the novel] into the real world. [The project] helps bring everything
together, that’s what I would say. . . . It wasn’t like this is just something we’re
reading that doesn’t really matter, but when you took those themes especially and
brought them to the real world it really broadened the understanding I guess. . . . I
felt like I knew the book better, like I understood it better by bringing [in] outside
examples and expanding on it. (Interview, March 25, 2014)

Elizabeth generalized what she had learned through the expansion project, even
claiming it had changed her mind about reading:

The expansion project I feel like changed my mind about reading, and it . . . made
me realize you could connect with the book on a whole other level than you
thought you could, even if it has nothing to do with . . . you personally, or it could
but you could expand [upon it]. (Interview, March 25, 2014)

Later in the interview, Elizabeth and I further discussed the expansion project:

Researcher: What did you think about the expansion activity?
Elizabeth: I liked it cause it even made me . . . realize how much more the
book means . . . and how everybody interprets it in different ways.
Researcher: Just in general, how do you learn about a topic that interests you?
Like how did you [learn during] the expansion activity?
Elizabeth: I feel like I’m more connected to . . . myself first and then [I] go
and research things. Like my expansion activity is Alzheimer’s
disease [be]cause I work in an Alzheimer’s unit and when I was
doing my . . . quotes and everything, I actually . . . got more
interested and was researching on the Internet. Like the doctors
that are in[to] Alzheimer’s [research] right now that are trying to
find out . . . the source of the disease and how they cure it. So I
learned more about the disease through . . . the expansion topic
through researching on the Internet. (Interview, March 25, 2014)
Another student, Jeffrey, explained his sparked enthusiasm as he explored his expansion topic:

At first I thought [the expansion project] was hard because I just didn’t understand it. Once I finally figured out what it was really talking about I got an interest in it because I wanna become a family counselor. So [applying] the psychological view [of literary criticism to the novel] really sparked me to write something I really like to do. So that was the one good thing about that, that I can write whatever I wanna write about it’s not a limit. (Interview, March 21, 2014)

One student, James, relayed to me an experience he had that fit my definition of tangential reading driven by curiosity. We were talking about his impression of the expansion project. He explained that he thought “it was interesting because it’s a different way of analyzing the text by putting something personal into it and connecting to it” (Interview, March 21, 2014). In sensing his politeness by choosing the innocuous adjective, “interesting,” I asked for clarification. He explained that he felt making personal connections was “distracting because I tend to ruminate a little more, so it’s easier just to stay on topic” (Interview, March 25, 2014). I asked him to clarify what he meant. The following exchange illustrates his experience with tangential reading.

Researcher: So let’s say you’re reading that and you’re ruminating. There’s something maybe even in *Frankenstein* that caused you pause to think. Would you go off on a tangent and look for it to find out more information about it?

James: Actually, in class, it was exactly that. I looked up things that people had tried to reanimate objects, like people. Which is why I ruminated. I didn’t do anything that day.

He went on to explain that people had successfully reanimated monkeys by transplanting a brain, but that the monkey becomes a quadriplegic and just screams all the time. I asked what he meant when he said that he didn’t do anything else that period. He answered:
James: When I was reading the text I started to get curious about if anybody else has done something like Frankenstein because it seems very possible. . . . So instead of reading the text and going through and doing my project I kind of just started looking up stuff on my phone about it.

Researcher: Okay, and you don’t think that’s what you should do?

James: No. You should be focused on class because that’s the main idea. (Interview, March 25, 2014)

When asked if he had shared the information about reanimation with anyone, he said he shared it with Akshay, a student who sits next to him, but no one else.

**Pedagogical Decision-Making Related to the Unit**

Three themes surfaced from the data generated to address the second research question relating to pedagogical decisions. The first I named “remixing literacy pedagogy and practices.” I have chosen the word *remix* to signify the taking of ideas, both old and new, and reproducing these in a manner that creates a unique form.

Drawing from the semi-structured interviews, I provide a description of Mrs. Bennet’s perception of these pedagogical changes as she planned and taught the unit.

The second theme, “interruptions,” emerged from the observation data. To illustrate the many interruptions, I draw several vignettes from my field notes and quotations from interviews with Mrs. Bennet.

Relating to all of the demands upon Mrs. Bennet, the third theme, “tensions,” describes the various responsibilities vying for her time and attention. A powerful vignette, her teaching evaluation by her principal, illustrates the complex professional demands she juggled during the time of the study and how these impacted her pedagogical decisions.
**Remixing Literacy Pedagogy and Practices**

As Mrs. Bennet planned the unit, she emailed me and communicated by phone ideas she was developing for assignments and assessments. This level of collegial feedback encouraged her. During her first interview with me, when asked why she would allow me to conduct the study in her classroom, she related her enthusiasm for having the opportunity “to implement new technologies and new concepts with support” (Interview, March 3, 2014). After I prompted her to explain what she was referring to, she replied:

This is the first year that I’ve really focused on . . . not doing 200 million questions per book, so that’s a new strategy for me to go through . . . where I’m going to push them to . . . take a little more personal investment in reading the book as opposed to me handing them worksheets or guiding them through it. (Interview, March 3, 2014)

In the past, she and the other British literature teachers used study guides that asked many questions related to the plot to guide students’ reading. Wanting to adopt a more student-driven approach, she developed the plans for this year’s unit to include student-led discussion and a summative assessment based upon students’ research about a self-selected topic related to the novel.

A second shift in her practice included implementing the Chromebooks into her daily instruction as the means for students to access the digital reading application, Google Play. Prior to the study, Mrs. Bennet had been using technology in her teaching through her class wiki. For the previous three years she has used the site to post assignments, summaries of novels, and video clips related to their readings. Her *Frankenstein* pages contained all of these elements. She had tried using the blogging feature of the wiki platform in the past, but did not believe she had successfully implemented the assignment. She obtained the set of Chromebooks just a few months
before the study and had been using them for students for word processing, research, and testing. She was eager to try having students read a novel on them.

Because this was the first time she had done it, Mrs. Bennet was concerned about how to structure the assignments using the digital readers and how to develop a routine for students to use the Chromebooks for their in-class reading. She mentioned this concern to me, stating, “it’s something new and shiny, but . . . if it doesn’t become a routine procedure of how to make a note or a routine of how . . . to look up a word, they are not as apt to do it” (Interview, March 3, 2014). One way she thought she would address this concern with her first period class, which had 12 students with IEPs among its numbers, was by starting the daily instruction in a large group. She explained that she would share “key comments or speeches or quotations . . . that we should all be aware of” (Interview, March 3, 2014). She further explained that she would practice tagging texts then discussing the possible themes that may be illustrated by the passage. She mentioned needing to recap the plot in the large group.

As I observed Mrs. Bennet teaching the unit, she often included a large-group teaching time to review the plot or to teach a procedure. Much of my field notes were dedicated to recording her establishing routines and procedures for using the Chromebooks to read the novel. For instance, during the March 4 class, half of the class period was devoted to re-teaching procedures, such as logging on to the Chromebooks, accessing the novel, tagging the text, and creating notes. Some of this time also was spent answering students’ questions about the digital readers and their assignments.

Another aspect of planning that concerned Mrs. Bennet was the grouping of students. Because she wanted to focus on the Common Core speaking and listening
standards, Mrs. Bennet had planned to include structured group discussion as a regular in-class activity during the unit. During our first interview on March 3 at the beginning of the unit, she expressed apprehension about this activity, stating:

I still have the worry of [whether or not] the group activity [is] structured the way I want. Is my outcome going to be what I want it to be, because it’s a new structure. . . . With the whole rotating of groups. So my problem is not with the use of technology, my problem is [similar to] any other lesson . . . I haven’t done yet. (Interview, March 3, 2014)

She continued to explain her struggle. She had created the groups based on students’ reading levels. Since *Frankenstein* would be a challenging novel for students reading at the lower end of the range of reading levels, she was hopeful that these groups would create a safer place than the large group for students to feel less intimidated. She wanted to see who would participate in the discussion and “shine.” She explained her reasoning to me:

And one of the standards that I am incorporating in here with these group activities is that speaking and listening component. What can you contribute to a discussion, how can you move a discussion along, and what does that mean to contribute to a discussion? So I’ve structure it very rigidly with these . . . jobs. (Interview, March 3, 2014)

She planned to have four roles for each literature group: a reporter who covered the plot summary; a detective who shared coded passages and expansion ideas; a facilitator who led the discussion about themes, characters, and assignments; and a recorder who summarized the group discussion through a tweet to #FrankieNHS. She also planned to have the literature group’s recorder submit a Google doc that summarized their discussion. As she read through these, she would assess students’ understanding of the novel.
Mrs. Bennet conveyed to me her rationale for wanting to focus on the speaking and listening standards during this unit. During the first interview she stated:

I don’t think secondary ELA focuses enough on that, the importance of those speaking and listening skills. I think those are always the standards that are left out. . . . I think people try to isolate those and say this is a speech, you’re doing speaking and listening, but the Common Core’s not really about standing up and giving a speech, so that was my first, to be honest, that’s my first and foremost focus of this particular unit because with the heavy level of literature group [work]. (Interview, March 3, 2014)

As she and I emailed ideas about the unit, I offered a suggestion of using Animoto for students to create 30-second videos illustrating their theme. Mrs. Bennet liked this idea. She included the creation of one as part of the Google presentation students would make as their summative assessment. In my email to her, I had suggested having students create a director’s cut video to explain the choices they made in creating their Animotos. By explaining their thinking, the students could better understand the theme they had chosen and deepen their understanding of the novel. I thought students could use an app of their choice to produce these. Mrs. Bennet did not add the directors’ cut to the assignment; however, she recommended the assignment to a colleague as part of her unit on Brave New World. She explained to me how she had struggled to decide how to have students probe their thinking about the personal connections they made in their expansion projects, including their Animoto videos, saying:

I was really looking for a kid to explain where the expansion piece came from, like what was your trail? How did you get to that point? How does that connect back to Frankenstein? I really wanted to be able to see that connection, and I don’t think they’re [the students] accustomed to doing that in any regard cause a lot of them didn’t grasp what I was going for on that. (Interview, April 16, 2014)

Students noticed Mrs. Bennet’s different approach to teaching the Frankenstein unit. Halle described her thoughts about the expansion activity; “I’ve never really done
anything like it. I’m used to just doing papers all the time. But I do like it because it gives us something different” (Interview, March 21, 2014). When pressed to explain what she meant by “different,” Halle explained:

We can all take from personal experiences and what we want to say. It’s not, “Well, what does the teacher want us to put in there?” It’s more of what we want to be able to put in there. So we can all have . . . our own ideas about it. (Interview, March 21, 2014)

In a similar way, Jeffrey noticed the difference in Mrs. Bennet’s instruction:

At first it was a little difficult because we didn’t really understand it. People were, I was a little confused because we’re used to writing papers, so usually we get the outline and it says, oh you have to have this in there, so many of this, and it’s . . . specific and now it’s kind of, well you have to pick a topic and she didn’t give you five topics to pick from and you got to pick your own topic, so it was a little different and confusing at first but . . . but I liked it. (Interview, March 21, 2014)

Perhaps the most dramatic alteration in her teaching approach involved Louis. As mentioned earlier, Mrs. Bennet decided to allow, to encourage, Louis to download an audiobook version to listen to the novel rather than read it. She believed having the audiobook on his phone would appeal to Louis’s affinity for the device. As he related to me during his interview, “I use it for everything” (Interview, March 25, 2014). As I probed further, he explained how his phone is always on him because it is entertaining.

The week before the unit began, Louis shared with Mrs. Bennet various free audiobook versions of *Frankenstein*. She was amazed at his determination to find the best free audiobook version. He even messaged her through Facebook on a Friday night to send her a link to the one he decided was best. When I asked him during his interview about this quest, he explained that he wanted a version where the reader used different voices for the different characters. He stated that he wanted to be entertained by the reading (Interview, March 25, 2014).
On March 6 while during my observation, I noticed that Louis was playing a video game while listening to the audiobook. I thought the game was the popular building game, *Minecraft*. After class, I told Mrs. Bennet about what I had seen. I asked her what she thought of an idea I had; what if Louis built a Minecraft world to show his interpretation of a theme in *Frankenstein*? Mrs. Bennet agreed that appealing to Louis’s interest in video games might improve his engagement. She relayed to me that he was failing her class at the beginning of second semester. She had been working with him to help him to complete assignments and to achieve mastery. She decided to speak with Louis about this idea to see if he would be interested in the Minecraft project.

Louis was interested in building the Minecraft world and seemed excited to do it. When he recounted the experience to me during his interview, he said:

> It’s [creating a Minecraft representation] actually really difficult compared to what I could’ve done, but at the same time it’s actually a little bit better. Granted I can’t really cite anything because of the fact that I listened to it, but you can actually really see the theme that I’m doing... tampering with a godlike domain.

Later in the interview he relayed that building the Minecraft world was “definitely a lot more fun, and you actually want to do the work instead of just putting up with it” (Interview, March 25, 2014). Arguably, Louis spent many more hours creating his Minecraft representation than he would have spent completing the presentation and Animoto video like the rest of Mrs. Bennet’s students. However, his enthusiasm and joy were noticeable to Mrs. Bennet. He stretched himself to learn new things from this project, such as how to record the Minecraft world into a file he could send to Mrs. Bennet (see Appendix K, a link to Louis’s Minecraft representation).
**Interruptions**

During the study, I observed Mrs. Bennet leading instruction during her second period class 14 times. Interruptions were the second theme emerging from my coded field notes that related to the changes in Mrs. Bennet’s pedagogy. As she sought to make changes in her teaching, she encountered interruptions that challenged the effectiveness of the new practices. Many interruptions were related to administrative tasks assigned to the English teachers. Because students are required to take English all four years of high school, paperwork or announcements are often distributed during English class time.

During the *Frankenstein* unit, Mrs. Bennet passed out papers from the guidance office, she allowed the senior class advisor to explain how students could order senior announcements, student council members pitched their blood drive, and students had to cast their ballots for senior superlatives and manhood/womanhood awards. All of these interruptions took time from class instruction; all required Mrs. Bennet to juggle teaching responsibilities with administrative duties.

The school schedule was another common reason for interruptions. On March 6, the entire second period was devoted to senior class pictures; therefore, Mrs. Bennet’s class did not meet that day. The next day, March 7, was a scheduled district-wide conference day. Because of these two school-wide scheduled events, her second period class started reading *Frankenstein* on March 3, and then had only three class periods to begin reading of the novel. Mrs. Bennet was not able to start the literature groups during that first week because of the shortened number of class sessions.

During the following week, March 10–17, the entire school was on a modified schedule because of the OGT testing. Each morning that week, sophomores (and those
juniors and seniors needing to pass parts of the OGTs) would take the five individual content tests. Freshmen took practice OGTs on those days. Juniors and seniors, who had passed the tests, were not required to come to school until first period began at 10:15am. For that week, the class periods were shortened to fit into a 10:15am–2:15pm school day. Second period met for 20 minutes each day that week. Unfortunately, this shortened schedule affected students’ ability to engage in all of the activities Mrs. Bennet had planned for the unit. Her three classes with shortened class periods—first, second, and third periods—did not have the chance to meet in small groups to the extent that her fourth period class did. That class met for the normally scheduled time because state law does not allow lunch periods to be shortened.

Mrs. Bennet expressed her frustration to me about the schedule. She had to adjust her expectations of what students could complete during the shortened time frame. She also had to think through procedural things, such as having the Chromebooks out and ready for students to quickly log on so that precious time was not wasted.

A final interruption to instruction could not be foreseen. On March 12, Stephens High School, and the entire district, was closed because of winter weather. At that time, the school did not have a policy in place where students were required to log in to a learning management system to complete assignments, so any reading students did was on their own and not formally assigned.

**Tensions**

During the *Frankenstein* unit, Mrs. Bennet experienced many tensions, the third theme related to pedagogical decisions that surfaced from the observational and interview data. These tensions were partly due to the challenges she faced in adapting her plans to
the shortened schedule and partly due to the newness of the instructional approach she had taken. The greatest cause of tension, however, was produced by the stress of preparing for her teacher evaluation.

The tensions related to the shortened schedule have been described. I described tensions related to the new instructional approaches Mrs. Bennet implemented. During observations, I noted the questions students asked about the novel or about the assignments. Most questions were procedural in content. For example, on March 4, she spent the first 20 minutes of class helping students log onto the Chromebooks then onto the Google Play app. By show of hands, three quarters of the students appeared to not have read the portion of the novel assigned for homework. Therefore, they also did not practice using the Google Play app on their own. Students’ lack of independence appeared throughout the study. A tension arose between Mrs. Bennet and her students as she decided how much re-teaching was appropriate. Her typical response was to patiently re-explain a procedure for the students. I never observed her telling students to figure something out on their own.

The assignments for the unit were novel, causing students to have many questions about how to complete them. For example, on March 10, one student asked if there was a right or wrong way to read the text. Mrs. Bennet assured her that there was no wrong way to tag their texts for themes, as long as the student could explain how the highlighted text exemplified the theme. This same student needed further one-on-one explanation of how to complete the text-tagging. The next day, the students were to meet with their literature groups. They were to turn in a shared Google document that summarized their discussion. Mrs. Bennet explained what collective thought could be like. She asked that
the facilitator of each group record their conversation, documenting what they were saying. Students broke up into their groups and met for the remainder of the class. None of the members of the group I observed that day had done the readings. This was a pattern among most of the groups. Even though Mrs. Bennet had suggested they use the mornings to catch up on their reading before they come to school, it appeared that few took that advice.

Because the previous day was a snow day, Mrs. Bennet started class on March 13 by having students read silently in class. She showed me the shared Google docs that the groups had completed on the Tuesday before the snow day. She was excited about being able to differentiate instruction by having chats on the side of the Google doc with students as they were reading and annotating the text. The ability to address students’ questions eased some of the tensions because Mrs. Bennet could help students at the point of their confusion. Students appreciated being able to have one-on-one access to their teacher without having to wait until she could answer their questions during the limited class time.

During the third week of the unit, the Stephens High principal observed Mrs. Bennet. This was her second observation of the school year in fulfillment of the state teacher evaluation system. The 2013–2014 school year was the first year in the implementation of this high-stakes evaluation process. I was concerned that Mrs. Bennet would be having her observation conducted during the study. After all, she was employing new methods for teaching that included using the Chromebooks for digital reading and new assignments. She assured me that she was up for this challenge.
The weekend before the Tuesday, March 18, 2014, observation, Mrs. Bennet reported spending several hours completing the required online documentation for the evaluation. This included the plans for the lesson and lengthy rationales for the instructional choices made. Among the instructional activities for the class, Mrs. Bennet created a new formative assessment to be accessed through the Chromebooks, a shared Google doc she called a “dialogue sheet” (Field notes, March 18, 2014). Similar to the Google doc she used with the literature groups, the dialogue sheet would also allow students to share their thinking and ask questions about the novel and the expansion project that she would be introducing that day. The difference between the two documents was that every student was required to complete a dialogue sheet and share the document with her; it was not a group activity.

Her pre-observation interview with her principal was the Monday before, during her planning period. Mrs. Bennet was very sick that day. So sick, she had emailed me to warn me to stay away from her so I would not catch the terrible virus she had. She could barely speak. On Tuesday, armed with cough drops and hot tea, Mrs. Bennet conducted the lesson with her first period class. She felt it went very well and was pleased with the students’ responses on their dialogue sheets. Her principal came in at the end of first period, taking a seat at the round table located in the far end of her classroom. He opened his laptop and began typing. The evaluation protocol is rigidly structured, with a common rubric used by all evaluators across the state. Mrs. Bennet was familiar with the rubric and the expectations.

Mrs. Bennet appeared confident and relaxed as she began class. Written on the board were the learning targets for the lesson. She had explained that she would be
introducing the expansion project to the class. Students were directed to log onto their Google drive then to go to the class wiki to download a copy of the dialogue sheet. Students were noticeably more independent as they located their documents and prepared for class. Mrs. Bennet explained that they would be typing directly onto this document then turning it into their shared Google folder at the end of the period. She asked the class, “What does it mean to expand something? How do you stretch an idea?” After fielding several responses, she led the group in a brief conversation about how we can expand an idea by connecting it to other thoughts. Then she had them practice. She showed a short movie clip, the trailer from the 1994 version of *Frankenstein* starring Kenneth Branagh and Robert De Niro. She asked the students to identify one theme as they watched the clip. This theme could be one they were tagging as they were reading the novel. She asked them to write a little note to her on their dialogue sheet about the theme they saw. During this direct instruction, the principal was busily typing notes.

Mrs. Bennet then shifted the topic back to the idea of expansion. She explained that as they have been reading the novel, they may have thought of ideas about topics that are interesting to them. She encouraged them to stretch the theme to include concepts from the novel presented in society today. She offered some suggestions, such as stem-cell research and cloning. Then she showed the clip again and asked them to look for possible expansion topics.

At this point in the lesson, a tension appeared to settle among the students. They were having difficulty generalizing the themes and projecting them onto contemporary society. Mrs. Bennet allowed the tension to build. She asked them to brainstorm on the dialogue sheet, listing their ideas and connections. Jeffrey asked if he could employ
psychological literary theory, a lens they had been taught to apply to literary criticism, to *Frankenstein*. He asked, “Is the creature the Id of Victor?” Other students appeared to struggle.

Mrs. Bennet continued to press them saying, “Stretch the topic to be something you are interested in learning about. If you have a personal connection to the item you are interested in, that will make a better connection.”

Charles asked if he could interview his father because he is a nurse. Mrs. Bennet answered by directing him, and the rest of the class, to the dialogue sheet. A question on the sheet asked the students to identify the logical connection between their topic and their theme. She asked them to think out loud, in writing, on their sheet. Jeffrey asked for clarification. Mrs. Bennet passed out a rubric that gave an overview of the expansion project and its specific requirements. From this point on, the lesson focused on procedural knowledge, that is, how to complete the assignment. The lesson ended and Mrs. Bennet met with the principal later that day to discuss the evaluation.

Her principal liked the lesson so much that he invited a board member to come later that week to watch Mrs. Bennet teach using the Chromebooks. He told her he had never seen someone use the Google doc for one-on-one differentiation like that and believed what she was doing exemplary. A few weeks after the observation, the principal nominated Mrs. Bennet to be videotaped by a state-endorsed company the school district contracts with for professional development. He wanted her to demonstrate how she was using Chromebooks and the shared Google documents for formative assessment. In April 2014, the company recorded Mrs. Bennet’s teaching and interviewed her for a
feature on their website. Examples of some of the pedagogical practices she developed for the *Frankenstein* unit can now be accessed from this vendor’s website.

**Intersections Between Out-of-School and In-School Uses of Screen-Based Texts**

In addressing the third research question, “How do students’ outside uses of screen-based texts intersect (or not) with their in-school uses,” data analysis of interviews, field notes, and artifacts yielded three themes relating to the intersections: (a) students’ aversion to classroom use of social media; (b) texting-like communication during group discussion; and (c) sophisticated Internet searching beyond “Googling it.” Each theme is described and illustrated through key quotations and vignettes from the data.

**Students’ Aversion to Classroom Use of Social Media**

As Mrs. Bennet planned the unit, she decided to try something new, to use Twitter as the platform for students to share their literature group summaries. Students were to post these to the hashtag, #FrankieNHS, at the end of their group discussion. At the beginning of the unit, during the March 3 introduction she had asked me to lead, Mrs. Bennet also asked me to demonstrate how to post comments to the hashtag. During the conversation revolving around this demonstration, I shared information from a February 2014 release from Pew Research Internet Project about Twitter use. I explained that Twitter users were a smaller percentage of the total adults using social media. I explained how the study found people used Twitter for specific purposes including building professional or political knowledge through following different groups or participating in chats through hashtags. When I said that fewer people used Twitter, scoffs and guffaws rumbled among the students. Because Mrs. Bennet was observing me
lead instruction, she noticed these grumblings and spoke with me about it later. She asked me if I noticed the response and said,

You said in one of the classes it’s not as popular and behind you there were three or four kids saying [it was]. . . . In their little bubble for social media, yes, but if you look at the [total] numbers of users on Twitter there are not [as many].
(Interview, March 3, 2014)

As I interviewed students, I asked them how they used Twitter. Of the seven Twitter users asked, all but one answered that they only used it to post updates for their friends and to follow their friends’ postings. Only one student, Sam, used Twitter to follow news stories; she explained, “I’ve [followed a hashtag] for world news like what happened in Ukraine. . . . [When] you want to know what’s going on real fast, the most updated version, usually that’s on Twitter” (Interview, March 25, 2014).

As the unit progressed, students and Mrs. Bennet resisted using Twitter to post to the class hashtag. When I asked Mrs. Bennet about it, she explained that it felt like too much, too many things to be managing during the unit. When I asked the students, most were hesitant to use social media in the classroom. Sam explained, “I didn’t think it would really help because people didn’t seem enthusiastic about it, like it felt like—no disrespect—like a chore. . . . Like we had to get it or we might get in trouble” (Interview, March 25, 2014). No postings, other than mine, were made to the class hashtag.

All of the students interviewed reported using their cell phones daily for various purposes (see Table 4.4 for a chart of their phone use). Even though phone use was ubiquitous, students did not like reading at any length on their phones nor did they welcome the intrusion into their social spaces by school-related use of social media.
### Table 4.4

Students’ Reported Uses of Cell Phones

<table>
<thead>
<tr>
<th>Student</th>
<th>Phone use</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANNE</td>
<td>I use my phone for texting, calling, emailing, sharing photos, twitter, checking my grades and as a calendar. Sometimes I play some games and I use Google to find out any information I don’t know. I used my phone to fill out college applications and to check their statuses.</td>
</tr>
<tr>
<td>BILL</td>
<td>Calling, Texting, Email, Entertainment</td>
</tr>
<tr>
<td>BLAKE</td>
<td>Texting, Vine, snapchat, talking, twitter, youtube, picture taking, listening to music, etc.</td>
</tr>
<tr>
<td>CHARLES</td>
<td>Texting, twitter, instagram, snapchat, calling, taking pictures</td>
</tr>
<tr>
<td>ELIZABETH</td>
<td>texting and calling people, social media a lot like instagram and facebook. gps system. I listen to a lot of music on my phone also. I use my phone to online shopping</td>
</tr>
<tr>
<td>HALLE</td>
<td>Texting, social media</td>
</tr>
<tr>
<td>JAMES</td>
<td>Texting, snapchat, twitter, internet and games...cube runner, clash of clans.</td>
</tr>
<tr>
<td>JEFFREY</td>
<td>Well I play games like racing and words with friends but I also look up information. I also look at facebook and twitter. I also play balloons tower battles.</td>
</tr>
<tr>
<td>LOUIS</td>
<td>Everything: google docs, email, FB, texting, games (World of Warcraft), uses search features to game</td>
</tr>
<tr>
<td>MADISON</td>
<td>iphone: texting, vine, email, checking grades, snapchat, instagram, twitter, playing games, FB with family, other apps</td>
</tr>
<tr>
<td>SAM</td>
<td>texting, video chatting with friends and family, blogging, watching and editing videos on vine and youtube, photosharing and editing, reading on kindle and wattpad, writing, talking, social media like tumblr and pinterest and twitter, games like flappy bird and candy crush or bejweled, listening to music</td>
</tr>
</tbody>
</table>

*Note.* Responses compiled directly from After-Reading Reflection (see Appendix I).
Texting-Like Communication During Group Discussion

During the course of the unit, I observed three different groups having literature group discussions. All groups were expected to have a facilitator lead the discussion and a recorder to type the main points onto a shared document. This document was housed in a folder on Google drive that Mrs. Bennet had created for the class. One group I observed on March 5 seemed to not function as a group. The students were reading independently and one person was completing the group assignment. I asked one of the group members about this during our interview, and he confirmed that all were working independently. Perhaps one reason this group had a limited discussion because not one of the members had read the novel at that point.

On March 13, I closely observed a group having their literature group discussion. I chose to observe this group because they appeared determined to work hard. As I walked over to sit near them, I heard them talking about wanting to complete the character chart to turn into Mrs. Bennet by the end of the period. After the students logged onto their Google drives and opened the shared document, Jeffrey asked if they wanted to finish the discussion on chapters 1–4. In my field notes, I wrote, “I cannot see what they are typing. This is a group discussion mostly in writing, not out loud.” An eerie silence disturbed by half-sentences and quick questions ensued. During interviews, I asked participants in this discussion what they thought about it. Sam gave a thoughtful response:

I guess it helped—it became a little . . . strange because people would be typing over each other but I think it helped a lot especially for everyone who couldn’t get their words out properly. Like when they typed it up, I know Rachelle didn’t know what was going on but then when she saw what we were writing she understood it better, and everyone like got it at the same time. . . . I don’t know how to explain—like someone else they [may seemed to be] away from the group
but they were still seeing our writing and what we were typing in. They were still participating. (Interview, March 25, 2014)

Halle, another member of the group, recounted the discussion:

We discussed a little bit and then we’d add in [the words of] whoever was talking. They were typing some and then some of us would add stuff in as they were talking so it wasn’t - we weren’t all fighting to talk, we kinda could see . . . what was being communicated. (Interview, March 21, 2014)

When probed further to clarify what she thought of having a discussion tied to a document, she explained:

I liked it because we were able at the same time as we were talking we were able to type it so you wouldn’t forget what someone said, it would all be there. And like I said before it was everybody doing it at once, it wasn’t one person was writing everything down or someone didn’t get something, we all had the same thing. (Interview, March 21, 2014)

Students in other group also found the document-housed discussion to be positive. Elizabeth stated, “I liked that . . . everybody could put in . . . their input too, so when you’re lost in the project you can look at your groups [ideas] . . . and then it can like further your idea” (Interview, March 25, 2014). Madison had mixed reviews:

It would’ve been a lot better if my group actually participated because I had some people in my group that just didn’t really care. But I feel like it was a good thing to do with sharing it with Mrs. Bennet. I felt like she could just see whatever we were working on, she could comment on it and that could be that and we could just go fix it and that was really helpful too cause she did that a couple times for me. (Interview, March 25, 2014)

Elizabeth alluded to the dialogue sheet, the formative assessment Mrs. Bennet used during her explanation of the expansion project. This assignment also involved a written discussion or chat. Mrs. Bennet related a successful experience with the sheets to me:

Second period when I was doing their dialogues I was shocked by how much intellect they actually had. And it was with those expansion—that expansion lesson that they were going through those. And their—what you call bunny
trails—were way more in-depth than I thought that they would . . . you know I thought that they would just mimic me . . . I thought they would just mimic what we did in class but a good percentage of them went completely different. (Interview, April 14, 2014)

The students produced informal writing on the dialogue sheets resembling language usage found in texting. Incomplete sentences, run-on sentences, unconventional spelling, and language forms abounded. Here is an excerpt from Elizabeth’s dialogue sheet:

The topics i want to explore further in this novel is Thirst for knowledge and why he pushes himself so much to the point that he pushes away his family for years in the middle of the novel. What does victor want so bad?? is it to be a hero or is it to find a cure?? (Student work sample, March 18, 2014)

And from Jeffrey’s, “Yes I do and it fits together. revenge and abandonment is the id and the superego is trying to go for life” (Student work sample, March 18, 2014). Because these responses were written in class using the Chromebooks, auto-correct caught some of the spelling errors. Of the seven dialogue sheets shared with me, none of the students used truncated texting forms, such as IDK (I don’t know) or U (you). However, the pronoun, “I”, was frequently not capitalized, as were other proper nouns.

**Sophisticated Searches Beyond “Googling it”**

During the interviews, I asked students to describe how they learned about topics that interested them. Often I had to follow up with an explanation, such as, “When you want to learn something on your own, what do you do?” Not surprisingly, the most common first response was, “I go on to Google” or “I Google it.” The next question, “After that, what do you do?” elicited varied responses that demonstrate students’ aplomb in locating material on the Internet. The following exchange illustrates how James goes beyond “Googling it” to learn:
Researchers: So what do you do when you want to learn something about a topic, how do you do it?
James: I try to narrow it down as specific as possible, put it into a topic and Google it.
Researcher: Okay. Any other places that you might look besides Googling it?
James: Maybe if they have something on YouTube.
Researcher: Okay. How much do you rely on YouTube to learn things?
James: It depends, like sometimes it’s really useful for like learning to tie a tie or a knot or something you need to know, that’s where you go... I used it to fix my car once. (Interview, March 25, 2014)

Two other students, Louis and Charles, referenced YouTube as a learning tool.

Louis clearly communicated his dependence upon YouTube and Kahn Academy for learning. As follows is an exchange illustrating his familiarity with YouTube:

Researcher: How do you learn something? Like something that’s just interesting to you.
Louis: I go look up a video in YouTube. That’s how I’ve been learning math for a little bit now.
Researcher: Really? What are you using?
Louis: I Googled Kahn Academy. And then I watch their videos and then I’ll just make like random problems and then I’ll solve them. So, I’m doing the same thing that they’re doing except different problems so I don’t get their answer. (Interview, March 25, 2014)

According to Charles, he extensively used YouTube and online music sites for learning and recreation. Following a line of questioning about his out-of-school reading interests, I asked if he ever researched any of the musicians he read about in his music magazines. He explained:

Charles: I’ll sometimes look up videos of a musician, [to] see how they play, or if I’ll look up an article or something online about that musician to see how they’ve gotten that far.
Researcher: Yeah. Where do you find videos?
Charles: YouTube usually.
Researcher: How much do you do that?
Charles: Most of the time, because I’ll learn how to tune my drumset or if I wanna get a certain sound out of something I’ll watch a video.
Researcher: So would you say that that’s one of the [ways you learn]. What are the chief ways you get information?
Charles: From the Internet and YouTube...
Researcher: Are there other sites you use to learn new music?
Charles: Soundcloud, Pandora, iTunes radio. . . . Yeah, that’s how I learn all my music. (Interview, March 25, 2014)

Other students explained how they narrow a topic either before searching Google or as they choose from the search results. In response to the question of how she learns about a topic that interests her, Sam explained her process:

I usually Google it. And if it’s a news thing, I’ll just browse through the articles on the news part. If it’s a . . . different topic, I’ll [search] Wikipedia or just get some general knowledge on it. And if I’m more interested, I’ll go deeper and find organizations or different websites related to it.

When pressed to give an example, she shared:

For my AP bio paper we were working with these different strains of bacteria and diseases with them, so I got interested in one of them. So, I was trying, I guess, [to] look through and find how it’s affecting the world right now.

I asked if this search was directly tied to her paper, that is, that she referenced the search in her AP biology paper or not. She replied: “This was tied to my paper. But it kind of sparked interest, so I was going past the paper topic and just, like, looking into it more” (Interview, March 25, 2014).

Students engaged in sophisticated searches to complete the *Frankenstein* assignments without having to read the novel. Anne explains the online searching she did to find quotations to illustrate her chose theme:

Like for a project how we have to find quotes that support our theme, online there would be quotes [found] in the book. . . . They wouldn’t have page numbers, obviously, so I would just . . . find it in the book to make sure it was actually a real quote [that I could] cite.

When I asked where she found these quotations, she explained:
I just Googled them and there was a few . . . English websites about Mary Shelley, and then there was a website called Shmoop. I’m not sure if that’s credible or not but I tried—I had to go in the text to find it actually so that I didn’t just write down a quote that maybe someone made up or in the movie or something. (Interview, March 21, 2014)

Although the trend among the students interviewed demonstrated that students went beyond Google to find information, overwhelmingly they chose to start an online search by typing into Google search. Perhaps Louis best summarizes students’ understanding of the Internet as a learning tool: “You can find anything on the Internet. Just period. All you have to do is just go [and] Google it” (Interview, March 25, 2014).

**Students’ Literacy Practices When Using Digital Readers**

In addressing the final research question, “What are the literacy practices of students at school when using digital readers,” data analysis of interviews, field notes, and artifacts yielded two themes: a) schooled literacy practices, and b) resisting an autonomous model of literacy. Each theme is described and illustrated through key quotations and vignettes from the data.

**Schooled Literacy Practices**

Context anchors all literacy events and literacy practices. According to Street (1999), literacy is ideological, meaning, as a social practice, literacy is situated within hierarchies of power. Schooled literacy practices espouse an autonomous model of literacy that defines literacy as a set of skills, rates of literacy, or levels of literacy (Street, 1999). Overwhelmingly, participants in this study implicitly defined literacy learning according to school-based expectations. Students compartmentalized their ideas about reading and writing into task-related or skills-based definitions. The pattern of discourse surrounded completion of the assignments.
When asked about the process he took to read the novel on the Chromebook, Jeffrey described his reading of the novel in skills-oriented language:

I tried to take it like just read each sentence because I knew if [Frankenstein were] like most books [we read this] year have been hard . . . to read. . . . you have to like take it step by step. So, I was kinda just taking each sentence and like trying to connect it with the next just to see where it was going. That kinda helped a lot more because I could understand [what] the letters [at the beginning of the novel] were about and the chapters became easier to read after that. (Interview, March 21, 2014)

He went on to describe how he skipped tagging the text for several of the chapters because he was trying to catch up on the assigned reading. He also explained that he read according to a specific purpose: “I was trying to find out my specific expansion topic [in the assigned chapters]. I didn’t find anything that I could really use” (Interview, March 21, 2014).

Another student, Blake, conveyed a similar purpose in doing the readings for the unit. He explained his rationale for how he used the features of the digital reader while reading Frankenstein: “Because I knew we would have a project . . . and I was trying to prepare for the project at the end” (Interview, March 21, 2014). Blake described using the digital reader from primarily a utilitarian view. He used the words easy or easier six times to explain his thoughts about using the Google Play app. The two words he chose to describe his experience with the digital reader were convenient and resourceful.

James, one of the strongest students among those in Mrs. Bennet’s second period class, articulated his understanding of schooled literacy practices, as he described what he did not like about the expansion project. He explained:

James: Sometimes I think when you add something personal to it [the reading of a novel], you spend more time thinking about an idea to add to it instead of just getting to the basics.
Researcher: What do you mean by “basics”?
James: Well when you just have to—like in math class, you’ll use one formula and then information is given to you so you just have to pull it out. This [the expansion project] you have to... find something to connect to, which is what you spend most of your time on.

Researcher: Okay, and you don’t like that?

James: I don’t like that... To me it’s distracting because I tend to ruminate a little more, so it’s easier just to stay on topic.

(Interview, March 25, 2014)

As discussed earlier in this chapter, James was the only student to articulate having conducted a tangential search while reading the novel. During his interview, he stated that the search was a distraction because “instead of reading the text and going through and doing my project, I kind of just started looking up stuff on my phone about it [reamimating life].” He further explained that he believed that “you should be focused on class because that’s the main idea” (Interview, March 25, 2014).

Resisting an Autonomous Model of Literacy

In contrast to students’ acceptance of schooled literacy practices, students took action in resistance to this autonomous model of literacy, the second theme that emerged from the data relating to the fourth research question. Little of the decision making about the Frankenstein unit was student led. The novel had been part of the curriculum for many years, and Mrs. Bennet chose the structure of the reading assignments and the summative assessment. The students, however, did have choices related to the topic of their expansion project. In spite of their limited choices, students creatively found ways to complete the Frankenstein unit assignments without reading the novel. The following is a vignette, from the third week of the study, illustrating students’ resistance to an autonomous model of literacy.
Anne, Madison, and Elizabeth chose to work independently during the classroom work session on March 21, 2014. All three appeared to be using the search feature of the Google Play app to find significant quotes for their presentations. As I watched more closely, I could tell they were not finding these quotes within the e-text, but were using another website to find them. During my one-on-one interview with Anne later that day, I asked her about the searches. She explained that she had been using the website Shmoop.com to find quotations from *Frankenstein* related to her theme. When I asked her the extent of her use of the website, she stated that she “hadn’t really played around with it. I was just looking into quotes mostly, so I didn’t really have that much time during class. I was just trying to find the quote” (Interview, March 21, 2014). She used Shmoop to identify quotations that exemplified her theme. She confessed to me that she had not read very much of the novel but had been completing the assignments.

Mrs. Bennet knew students were not reading the novel and were relying on outside sources and summaries to understand the plot and key themes. She posted summaries of *Frankenstein* she had written to her wikispace. Students could read these to gain chapter-by-chapter knowledge of the plot. As Mrs. Bennet and I talked about the lengths students went to not read the novel, she explained her perception of the students’ complex literacy practices employed as they resisted reading *Frankenstein*. She had asked the students how they differentiated between the best quotations to illustrate their theme. The students she asked told her that they would cross-reference the quotations to the chapter summaries. They read the summary well enough to understand the plot so that they could analyze the appropriateness of the quotations. She then asked about the amount of time this took. She recounted:
Then I said, didn’t that take you a lot of time? Because you had to read the summary, you had to read the quotes, isn’t that just as much time as it is to read the text? Why wouldn’t you just read the text? . . . One answered . . . because when you’re reading the book it’s boring so I lose track of what I’m reading and then I have to keep reading. But the way you wrote the summaries, it was . . . just like telling [us] the story. (Interview, April 14, 2014)

She then discussed with me the complexity of this practice. The students would search the text by key word to locate quotations. Then they would read the context surrounding the quotation to understand how appropriate the quotation would be. For their presentations, they had to provide their reason for choosing the quotation and how it illustrated the theme. To do this degree of analysis, she felt, they had to read the quotation closely enough to understand the intent of the text. She went on to state, “I told them I feel very confident that they will be successful in high ed or in college because [they were amble to pull ideas together from multiple sources” (Interview, April 14, 2014).

Summary

Throughout this chapter, the themes determined through data analysis have been described. In response to the first research question seeking to explore the impact of the digital reader upon students’ meaning making, I found two overarching answers. First, the digital reader granted students attractive technical capabilities that provided a more convenient, accessible, and organized reading experience. Second, these capabilities, or affordances, included features students used strategically to foster meaning making. Students used some of these features because they were part of assignments, but some were explored independently. At the end of the unit, students reported preferring the e-book version of Frankenstein to a paper copy; 11 of the 12 students who completed the after-reading reflection recommended the e-book for future students.
Three findings surfaced from the data addressing the second research question that sought to describe Mrs. Bennet’s pedagogical decision-making while incorporating digital readers into her classroom instruction. First, Mrs. Bennet stretched her current teaching practices to not only incorporate the digital reader but also to provide students with more self-determined learning opportunities. While she planned these changes and led the classroom instruction, she faced many interruptions due to systemic functions of the school. These interruptions caused tensions that also affected her ability to lead and deliver instruction. Her response to the interruptions and ensuing tensions provided glimpses into the challenges teachers face as they employ new literacies in their classrooms.

The third and fourth research questions explored how students’ personal, or out-of-school, literacy practices intersected with those found in school. I found that students seemed to value the schooled literacy practices they have come to espouse over their 12 years of formal education. Yet, students resisted aspects of an autonomous model of literacy (Street, 1999) when they completed assignments without completing the requisite assigned reading. In the next chapter, I interpret these findings in an effort to explain connections to previous research and to suggest further studies to forward the work of this study.
CHAPTER V

CONCLUSIONS AND IMPLICATIONS

This chapter is comprised of three sections. The first section is a summary of the study, which includes the purposes of the study, the research questions, and an overview of research methods. In the second section, I describe the conclusions drawn from the results of the study. The third section suggests implications this research may hold for literacy educators in both secondary and higher education settings, informing their knowledge of how to teach the new literacies associated with digital readers and offering recommendations for future research.

Summary of the Study

In recent decades, advances in technology have significantly impacted the field of literacy education. The changes have led scholars to challenge the adequacy of traditional definitions of written text as a print-based, static entity, read in a linear manner. New broader definitions have embraced the concept of multimodal texts, such as those encountered on the Internet (Kress, 2003; New London Group, 1996). Similarly, scholars have begun to examine the social, cultural, and political contexts encapsulating literate acts and the intrinsic meaning of these events (Perry, 2012). As a result, researchers continue to grapple with their understanding of what literacy means and how it can be defined in the new world of digitally-based communication.
Theoretically situated in a New Literacy Studies perspective (Barton, 2007; Knobel & Lankshear, 2014; Perry, 2012; Street, 1999), this study sought to determine the impact digital readers had upon the meaning-making behaviors of secondary students as they read the novel *Frankenstein* on digital readers as part of a traditional high school English curriculum. A secondary purpose of the study was to determine how students’ screen-based literacy practices did or did not intersect with their in-school practices. In addition, the study examined how the teacher made pedagogical decisions related to implementing the digital readers during the *Frankenstein* unit.

Employing a descriptive case study design (Merriam, 2009; Stake, 1995), this qualitative study then sought to explore how interacting with the unique features of a digital reader within a school context can affect secondary students. Because the reading process itself is driven by the individual reader (Rosenblatt, 1938/1995), a naturalistic form of inquiry was chosen over more distanced forms. Moreover, congruent with the nature of the questions guiding this inquiry, the study was undertaken from a constructivist stance (Cresswell & Plano Clark, 2011) and situated within a sociocultural/New Literacy Studies perspective (Lankshear & Knobel, 2014; Perry, 2012).

**Research Questions**

The following questions shaped this inquiry:

1. How do secondary students appear to use digital readers to construct meaning as they read complex texts, such as *Frankenstein*?

2. How does the teacher make pedagogical decisions about the use of the digital reader in the teaching of complex texts, such as *Frankenstein*?
3. How do students outside uses of screen-based text intersect (or not) with their in-school uses?

4. What are the literacy practices of students at school when using digital readers?

The case of this study was defined as one secondary language arts teacher and a class of her students. At the time of this study the teacher, Mrs. Bennet, had been teaching for 20 years. The 16 students participating were all high school seniors nearing the final weeks of school. In order to understand the phenomenon of interest more fully, 11 students participated in individual interviews. These students were chosen based on their willingness to be interviewed and requisite availability. The majority of the data were collected through semi-structured interviews of the teacher and students. Additionally, transcribed observational notes, responses to two questionnaires, and pertinent artifacts provided other forms of data.

Inductive data analysis was ongoing during data collection (Merriam, 2009) through use of the constant-comparative method (Glaser & Strauss, 1967; Miles et al, 2014). During the process of descriptive analysis, preliminary codes were assigned and then categorized during second-cycle coding (Saldana, 2013). To ensure the validity, reliability, and trustworthiness of the study, several procedures—triangulation, member checking, adequate engagement in data collection, reflexivity, and peer review—were practiced. Finally, efforts were made to offer “vicarious experiences” (Stake, 1995) to the reader of the report by richly describing the design of the study, the findings, and the conclusions drawn. The goal is to provide a backdrop for the reader to render his or her
own generalizations about the findings and their interpretations (Merriam, 2009; Stake, 1995).

Conclusions

Four conclusions may be drawn from the results of this study. First, students’ use of the digital readers significantly altered the transactional nature of a reading event (Rosenblatt, 1978/1994, 1988, 1938/1995). Second, implementing digital readers allowed students’ greater agency than conventional print text (Caron, Caronia & Gagne, 2011; Holland, Lachicotte, Skinner, & Cain, 1998; Moje & Lewis, 2007). Third, students defended a traditional autonomous model of literacy at school (Barton, 2007; Knobel & Lankshear, 2014; Street, 1999). Fourth, situational factors inherent to schools challenged the teacher’s implementation of digital literacy practices.

Students’ Use of the Digital Readers Significantly Altered the Transactional Nature of a Reading Event for Some Students

As the students read Frankenstein on the digital readers, they constructed multiple meanings from various stances in relation to the text. Rosenblatt (1978/1994, 1988, 1938/1995) postulated that as a reader approaches a text, he or she adopts a stance relative to the reader’s purpose. She alluded to William James’ (2007) idea of selective attention, stating that, “As the transaction with the printed text stirs up elements of the linguistic/experiential reservoir, the reader adopts a selective attitude, bringing certain aspects into the center of attention and pushing others into the fringes” (Rosenblatt, 1988, p. 5).

Moreover, Rosenblatt rendered these various positions of stance along a continuum. At one end, she saw an efferent stance representing the informational aspects
of meaning that can be carried away from the text. At the other end, she saw an aesthetic stance from which, “the reader adopts an attitude of readiness to focus attention on what is being lived through during the reading event” (Rosenblatt, 1988, p. 5). According to Rosenblatt, readers deliberately situate their attention from a predominantly efferent or aesthetic stance according to what they see as the purpose of a reading event.

In this study, the students’ purposes for reading were overwhelmingly related to completion of their assignments. Additionally, the nature of most of the assignments favored an efferent stance. For example, one of the assignments required students to complete a chart listing the personal qualities of each character and then inferring the goal of each (Appendix J). As students read the chapters, they directed their attention to locating the information needed to complete the chart. In the same way, the assignment, “Text-Tagging for Theme,” led students to adopt an efferent stance. Some students—Elizabeth and Anne cited earlier—commented that the focus on reading for textual evidence distracted their understanding of the plot. As Elizabeth put it, “I wasn’t focused on the text, more about tagging” (Personal Interview, March 21, 2014). Identifying supporting textual evidence of a theme became an activity driven by an efferent reading purpose. These findings corroborate results of a recent Pew Internet and American Life Project research. In the presentation, “Teens and Libraries,” Rainie (2013) reported finding that 81% of 16–29 year olds surveyed (n = 628) report reading instrumentally which was defined as reading to complete school or work requirements or to conduct research to complete school or work requirements.

Curiously, most of the students interviewed admitted they had not read the entire novel; therefore few of them engaged in Rosenblatt’s idea of an aesthetic, lived-through,
experience with a literary work. Nevertheless, one student, Louis, articulated having an aesthetic transaction with the text. As related previously, Mrs. Bennet allowed Louis to listen to the novel rather than read it. During his interview he explained that when he listened to *Frankenstein*, he was so captivated by the story that he could not multi-task, apparently an unusual phenomenon for him. Instead, he fixed his attention on experiencing the story through the act of visualization (Interview, March 25, 2014). His reported experiences correspond to Rosenblatt’s notion of the aesthetic evocation of a text through the reader’s personal transaction. She argued that “to produce a poem or play, the reader must broaden the scope of attention to include the personal, affective aura and associations surrounding the words evoked and must focus on—experience, live through—the moods, scenes, situations being created during the transaction” (Rosenblatt, 1938/1995, p. xvii). Furthermore, Rosenblatt declared this shift of attention to be so essential to experiencing the whole understanding of a text that it is analogous to breathing. Louis recognized that listening afforded him the ability to hone his attention upon meaning making. He also insightfully recognized the limits of his attention and how experiencing the novel required a great quantity of his focus.

Results of this study not only substantiate Rosenblatt’s theory of stance but also extend her theory of reading as a transactional event. According to Rosenblatt (1938/1995), “the meaning—the poem—‘happens’ during the transaction between the reader and the signs on the page” within a particular context (p. xvii). As students read the digital version of *Frankenstein*, they created personalized versions of the text through their interactions with features of the digital reader, which enhanced their access to potential interpretations. For example, several students mentioned using the dictionary
feature to find the meaning of unknown words. As students highlighted the unknown word or phrase, they then engaged in an online search of a dictionary web site or Wikipedia. Other students researched topics of interest arising from their reading of the novel. As they chose how far to pursue their inquiry into the meaning of the words or ideas, they literally changed the original text—akin to Rosenblatt’s “signs on the page”—through their tangential readings.

Consequently, use of technological features also influenced the stance some readers appropriated. For instance, when James conducted his online tangential search for information on the regeneration of tissue, he deepened his efferent stance by adding more information to the transactional experience. When Elizabeth investigated current research on curing Alzheimer’s disease, she connected this information to her personal experiences with Alzheimer patients at work. She reported that she observes the patients she serves at the assisted living facility, “trying to piece together what their life was like before the disease infused their brain” (Work sample, March 30, 2014). She related her empathetic understanding of her patients to Victor Frankenstein by connecting his isolation and its effect on his mental well being to how she had observed isolation affecting her patients. The tangential reading and research she did fueled the elements of her affective response to Frankenstein illustrated in her Google presentation and Animoto video. Consequently, as she composed these multimodal works, her aesthetic response was deepened through the personal connection she made between Frankenstein and her work with Alzheimer patients.

Two other studies of intermediate students’ reading behaviors have also described how digital readers altered the transactional event for some readers. Larson (2009, 2010)
found that the digital reader extended Rosenblatt’s transactional theory. Scholars have concluded that the transaction between the reader and the text changes in the digital reading environment because as the reader navigates within each page of the digital reading interface or leaves the interface to access hyperlinked definitions and online searches, a literal rather than figurative transaction takes place (Ciro & Dobler, 2007; Eagleton & Dobler, 2007; Kress, 2003). Findings of this study are consonant with this earlier research. Because the digital text is not static, some readers left the linearity of the traditional version of *Frankenstein* using features of the digital reader to enhance and deepened their interpretation of the work. Through the affordance of hypertextuality, which the digital reader offered, some students experienced greater semiotic power (Kress, 2003).

Additionally, by providing examples beyond the change imposed by online tangential readings, this study deepens our understanding of how digital readers change the transaction for some readers. For example, when students appropriated the search feature to locate words and phrases related to their pursuit of themes in *Frankenstein*, they moved beyond the literal text. Students used the search feature to produce a list of contextually bound keywords, altering the original text in ways strategically determined by the student. This alteration allowed the student to generate a different kind of meaning, one less dependent upon the linear development of plot and more dependent upon the author’s use of language. Consequently, a different kind of transaction with the text ensued, one best understood as a second draft reading (Gallagher, 2004). A second draft reading occurs when one re-reads to move beyond a surface-level understanding of a text (Gallagher, 2004, p. 80).
During this study, most students read the context surrounding their keywords. They often had to re-read quotations before they could confidently make sense of the passage. They were later required to collect eight to 10 quotations related to their theme and explain how the passages connected. Because so few of the students reported reading the novel from start to finish, it can be assumed that reading these selected passages was their first encounter with the text. Moreover, since they had to do something with these passages—form an interpretation—they engaged in a close reading and re-reading of each passage. It appeared that the meaning made through the students’ keyword searches led to a predominantly efferent reading; however, most students used their understanding of the passages to construct an aesthetic response (their Animoto videos). Therefore the argument could be made that the digital reader plus the classroom assignment encouraged both an efferent and aesthetic reading experience.

To summarize, the use of the keyword search altered the reader + text + context transaction in two ways for some students. The first is through a literal change in the text read, from a complete passage of connected text to short excerpts identified by a topic or keyword. As the students curated a collection of quotations, the immediate context of the passage was juxtaposed with other passages that were not directly connected by plot events. This piecing together of a new text, idiosyncratic to the reader, personalized the reading experience in ways akin to how social media applications like Pinterest or Storify allow a user to build bulletin boards of related pins that can be shared or used conceptually to illustrate an idea.

The second dimension of the alteration relates to the change in the sense of context. Caron et al. (2011) suggested that the introduction into classrooms of mobile
technologies (e.g., a digital reader or digital reading application on a cell phone) reworks our traditional understanding of context. They posited that a new technology allows for a new repertoire of possible uses, actions, and meanings that create a new context in which learning can take place (Caron et al., 2011, p. 45).

Results of this study support their position because the digital reader or digital reading app created a new social context within which students constructed meaning. Many students conveyed their appreciation of the Google Play app on the Chromebooks as a platform through which to read the novel. Mrs. Bennet reported their disappointment in not having digital readers when they studied Victorian poetry after the Frankenstein unit concluded (Personal communication, July 15, 2014). She believed students had developed an affinity for the Chromebooks and the tools of the digital reader during the study.

**Implementing Digital Readers Allowed Some Students Greater Agency Than Conventional Print Text**

According to Moje and Lewis (2007), issues of power, identity, and agency must be included in a sociocultural perspective of literacy. Agency refers to the “strategic making and remaking of selves, identities, activities, relationships, cultural tools and resources, and histories, as embedded within relations of power” (Moje & Lewis, 2007, p. 18). Students asserted agency in multiple ways during the Frankenstein unit. At times they made minor decisions about how to use the digital reader and its affordances. Some decisions, however, carried greater agentic authority, even to the point of resistance to an autonomous literacy model.
Students’ first decisions involved the interface upon which they would read the text, that is, which app, on what device(s), and how they would read across platforms. At the beginning of the study, most students appeared eager to read the novel on their smartphones. Once they had downloaded the Google play app and started reading, however, most quickly aborted, reporting that the small size of the screen made it difficult to use. Practical considerations informed these early choices, for example, students’ familiarity with a particular app or their desire to use the same app on their personal device as the one used on the Chromebooks in school.

As noted earlier, most students displayed agency by using the digital reader to construct their own personalized renderings of the text. Although only use of the highlighting and note-taking features had been required by the teacher, students had decided to use additional tools based on their understanding of themselves as readers and learners. For example, Madison chose to borrow a school-owned Kindle to download an audio-recorded version of *Frankenstein* on her phone so she could listen to the text while she read along. This option was mentioned incidentally during a class discussion but was not required of students. Moreover, Sam expanded her use of the note-taking feature beyond what was assigned by typing brief summaries of passages onto her notes.

These examples demonstrate levels of agency in which students exerted their power by tailoring the digital reader to suit what they determined were their personal needs as learners. A few students also demonstrated how their growing familiarity with the digital reader could shape their future selves. For instance, Madison saw her completion of the novel as a success, providing an example of how her future self—a
college student—could manage the increased reading load she perceived would be coming in her near future.

The final example of agentic power occurred when most students decided not to read the entire novel. As mentioned previously, most students reported reading less than half of the novel, a fact they felt safe sharing with Mrs. Bennet. Some students claimed the difficulty of the text as one reason for choosing not to read it. Others commented on the relevance of the text choice. It may be that a novel set so long ago challenged their abilities to “live through” the text, an important constituent of meaning making according to Rosenblatt (1938/1995). Finally, students conveyed reasons for not reading related to the time of the school year. Several admitted to being tired of school and having “senioritis.” Others noted competing assignments requiring their attention (e.g., their AP Biology research paper). Still others had work or sports vying for their time. In sum, students cited several reasons for not reading the text.

To complete the unit assignments, students worked creatively to gain familiarity with the content of *Frankenstein*. They read summaries of the novel found on Mrs. Bennet’s wiki or from online sources such as Shmoop.com or Sparknotes.com. They conducted keyword searches to illustrate the development of a theme found in the novel. Some looked to Shmoop for the quotes and then went into the e-text of *Frankenstein* to read the context surrounding the quotation. Whichever course they followed, these students had to synthesize the results of these actions in order to demonstrate their understanding of the novel and successfully complete the assignment.

This example of the students’ agency relates to Michel de Certeau’s (1984/1988) work, *The Practice of Everyday Life*, introduced to the field of literacy through its
application by Lankshear and Knobel (2011) to youth-authored and self-published works known as “zines.” According to de Certeau, in everyday life, people can be divided into two groups: producers and consumers. Producers are the strong and powerful—for example, governments, corporations, and schools—whereas consumers are those who must live within the structures imposed by the producers. As those wielding power, producers enact strategies to manage the Other, an entity which includes consumers (de Certeau, 1984/1988, pp. 35-36). Meanwhile, consumers develop responses to these strategies that de Certeau called “uses” or “tactics” which may be characterized as “subversive acts in which the weaker consumers live and make habitable the spaces defined by the producers” (Lankshear & Knobel, 2011, p. 243). To some degree, the resistance enacted by Mrs. Bennet’s students aligns to de Certeau’s tactics: students forged their own tactics within the strategies established by the producer (i.e., Mrs. Bennet and the school). By not reading the assigned text yet successfully completing the assignments, the consumer (students) functioned within the system created by the producer (Mrs. Bennet and the school). In a sense, they made a habitable space for themselves (by not reading yet completing the assignment) within the expectations (strategies) of the teacher.

**Some Students Defended a Traditional Autonomous Model of Literacy at School**

During interviews, Mrs. Bennet discussed the challenges of changing her approach to teaching *Frankenstein* by adopting methods infused with technology. She believed that digital technology could be used to facilitate personal connections and develop student assignments that would elicit deeper thinking than from reading a conventional print text. Some of Mrs. Bennet’s students, however, resisted aspects of
these changes. As she planned for the unit, Mrs. Bennet hoped to engage students by tapping into their out-of-school literacy practices.

Two of the ways she planned to do this involved having students use their smartphones or personal mobile devices. First, she offered the chance for students to use their phones to read *Frankenstein*, but as noted earlier students did not persist in using their phones to read. Second, Mrs. Bennet planned to have students write short summaries of their group discussions and tweet them to a hashtag. While some students reported tweeting regularly throughout the day, few of them had ever followed a discussion organized around a hashtag. Not surprisingly, their uses of Twitter had always been dominated by social purposes. When given an opportunity to include social media in the classroom some students resisted, seeing it as work more than pleasure and perhaps an intrusion into their personal social spaces. As Sam commented: “

Honestly, I didn’t think it would really help because people didn’t seem enthusiastic about it, it felt like—no disrespect [. . .]—but it kind of felt like a chore . . . like we had to [do] it or we might get in trouble. (Personal interview, March 25, 2014)

For many of Mrs. Bennet’s students, social media plays a defining role in their lives as one of the ways they “do” literacy in their everyday world. In attempting to connect to students’ “lived experiences” (Rosenblatt, 1938/1995) by using Twitter at school, Mrs. Bennet was moving from an autonomous model of literacy toward an ideological one. According to Street (1999), an ideological model of literacy recognizes the culturally embedded nature of literacy practices and expands the concept of literacy beyond a set of cognitive skills and strategies that dominate an autonomous model. Moreover, an ideological model recognizes the impact of social positioning upon
meaning making; therefore, social situations in which literacy practices occur are an important dimension of this model.

Throughout the unit, most students focused on completing the assignments rather than engaging in affective transactions with the text. The use of the digital readers in this unit appeared to have little effect on the aesthetic transaction. In fact, it may have hampered it, evidenced, in part, by the types of questions students asked during class. Most of the questions asked were either about how to use the technology or about how to complete the assignments. Few students asked questions about the characters, plot, or artistic elements of the writing. They favored reading to complete an assignment, get a grade, and move on to the end of their program of study.

Street (1999) called these “schooled literacy practices.” A well-established concept in scholarly literature, its premise is that certain kinds of literacy practices are espoused by schools, thereby “to some extent marginalizing other literacies” and further influencing “the general public’s view of reading and writing” (Barton, 2007, p. 166). Mrs. Bennet’s students favored and appeared to almost defend schooled literacy practices through their focus on completing assignments and engaging in instrumental acts of reading. James succinctly articulated his preference for traditional, schooled literacy practices when he said stated that, “Sometimes . . . when you add something personal to [the reading assignment], you spend more time thinking about an idea to add to it instead of just getting to the basics” (Personal interview, March 25, 2014). This statement suggests that James familiarity with an autonomous model of literacy. In a sense, the school transmits to the student a commodity, literacy, for the student to then take and use to be a productive citizen.
Brandt (1998) discussed literacy as commodity in her research report, “The Sponsors of Literacy.” She asserted: “Literacy, like land, is a valued commodity in this economy, a key resource in gaining profit and edge. This value helps to explain, of course, the lengths people will go to secure literacy for themselves or their children” (p. 5). During the study, some students conveyed a similar belief about the role of literacy in their lives, in particular, reading in relation to the affordances of the digital reader. Madison explained how her mother told her “over and over that I do need to start reading” to be ready for the literacy demands she will face in college (Personal interview, March 27, 2014). She further explained her acceptance of her mother’s advice, saying, “I’m not really a reader and I think using the Internet and a Kindle and a Chromebook . . . [made me realize] I need to start reading” (Personal interview, March 27, 2014). Also relating digital reading to future literacy demands, Charles commented, “I know the future’s coming up and everything’s more tech so I like kinda being able to do different things with the book online” (Personal interview, March 25, 2014).

Situational Factors Inherent in Schools Challenged the Teacher’s Implementation of Digital Literacy Practices

While all classroom teachers continually experience unpredictable situations that hamper the effectiveness of their instructional delivery (Leonard, 2001, 2003), the incipient use of digital readers in Mrs. Bennet’s classroom had a significant impact on her ability to implement the lessons she had developed. Consequently, one conclusion of this study is the importance of acknowledging and examining such factors as they relate to instructional innovation with digital technology.
Two situational factors in particular complicated Mrs. Bennet’s delivery of instruction using digital readers. First, students frequently interrupted instruction because they required assistance with the new technologies and the new assignments. At first, the most common interruptions to the flow of instruction were students’ procedural questions about how to use the Chromebooks, where to find Mrs. Bennet’s wikipage, and how to use the features of the Google Play app. As students’ familiarity with these technologies grew, the number of questions diminished, but early in the unit, these queries consumed much instructional time.

To some extent, the need to build students’ procedural knowledge had been anticipated. During her first interview, Mrs. Bennet had commented on the importance of skillful use of digital features, observing that “if it doesn’t become a routine procedure of how to make a note or a routine of how . . . to look up a word, they are not as apt to do it” (Personal interview, March 3, 2014). However, unanticipated were the many questions concerning the assignments that also engendered additional pauses in the instructional activities. In response to students’ queries, Mrs. Bennet divided her attention among groups of students. She had to respond equitably to those questioning how to use some aspect of the technology and those who were uncertain about elements of the assignments, while simultaneously continuing to engage the students confident of both the technology and assignments.

To address students’ interruptions, Mrs. Bennet enlisted her own knowledge of the technologies and how to teach the requisite procedural knowledge to her students. Koehler and Mishra (2009) called this intersection technological pedagogical knowledge (TPK), which involves the “understanding of how teaching and learning can change
when particular technologies are used in particular ways” (p. 65). Koehler and Mishra (2009) asserted that this type of knowledge is built when teachers grow to understand the affordances (e.g., benefits of use) and constraints of various technologies as applied to specific learning and teaching situations. Furthermore, they characterized TPK as those generative, creative applications and adaptations of technology deemed by teachers most effective in developing student learning and understanding.

Aside from students’ questions, the second factor to affect the flow of instruction was nonacademic school functions. Mrs. Bennet’s classroom activities were halted when school activities, social events, and mandatory testing occurred. During the unit, one class period was lost to senior pictures, half of one to senior superlative nominations, parts of two classes to announcements by the senior class advisor and student council representatives. Mandatory graduation testing reduced one week’s instruction by 60%, shortening each day’s class period to only 20 minutes. As a veteran teacher, Mrs. Bennet was accustomed to these school-based interruptions, which appear to be ritualized into the fabric of the high school senior year experience. While such occasions are typically absorbed into classroom instruction, in this study they hampered the expertise that develops with sustained practice.

McLaren (1999) explored the complex role ritual across and within school cultures and subcultures:

Rituels are natural social activities found in, but not confined to, religious contexts. As organized behavior, rituals arise out of the ordinary business of life. . . . My interest lies with the practical and the mundane and how these domains become sanctified inside of schools. (McLaren, 1999, pp. 36-37).

The school-sponsored interruptions Mrs. Bennet’s classroom experienced were an example of what McLaren identified as the “sanctified” rituals of school. Moreover,
these social activities associated with senior year had probably once been mundane activities that over time had become sacred. Certainly students’ implicit reverence for some of these capstone activities caused teachers and staff to elevate them over academic activities.

Nonetheless, these interruptions led to tensions Mrs. Bennet experienced during the unit. Consequently, Mrs. Bennet had to navigate these as she taught this unit, tensions related to students’ uncertainty of using the technology and understanding of the assignments and to the shortened teaching schedule. In addition, as noted earlier, Mrs. Bennet faced challenges related to students’ beliefs about schooled versus personal literacy practices. These findings about instructional challenges Mrs. Bennet faced to the implementation of digital readers concur with Kist’s (2002, 2005) conclusions that when teachers move toward a new literacies’ pedagogical position, students may experience discomfort, and teachers must have courage to confront these tensions.

Implications and Future Research

Implications for the Literacy Profession

Findings of this study suggest that some students entered into a different type of reading transaction through the use of the keyword search feature of the digital reader, extending Rosenblatt’s theory of transactional reading event. When students collected a body of related quotations, they chose from those they believed best represented their interpretation of the novel. The act of collecting was akin to curating, an online activity where users of Web 2.0 applications, such as Pinterest, Evernote, or Storify, select web-accessed content and arrange it by theme. In a similar manner, as they collected the
quotations within the digital reader application, students were replicating common curating activities.

Kress (2003) contended that the act of reading is changing, moving from the paradigm of “reading as interpreting” to a new one of “reading as ordering” (p. 140). Both forms of reading draw upon the semiotic resources available to the reader. In the case of the old paradigm, these resources feature writing and speaking as the dominant communication modes. As the communication load shifts, a new paradigm of reading is needed, one that recognizes the messages conveyed via alternate modes. In this study, students reading on digital readers encountered both reading paradigms. By completing the traditional assignments, students read Frankenstein from the old way of reading as interpreting; however, through the act of curating their quotations, students read by ordering. Therefore, one implication of this study is awareness of the need to recognize affordances of the digital reader features that allow for newer ways of reading.

By viewing reading as curation, English educators can capitalize on many students’ growing familiarity with this digital and media literacy, transferring this practice from strictly online environments to the environment of the digital reader. I define reading as curation—within the environment of the digital reader—as the compilation of highlighted quotations that have been critically chosen and serve as a record of one’s meaning making while reading a digital text. Mihailidis and Cohen (2013) suggested teaching curation as “problem-solving,” by emphasizing the “sense of responsibility” nascent to the act of curating information into a story (para. 21). An implication for literacy instruction, therefore, is the need for literacy educators to broaden their understandings of what reading is. English teachers may need to re-envision their
beliefs about reading, viewing it as creation of new texts, each idiosyncratic to the reader and sometimes newly composed in a literal way by reading through curation.

Furthermore, the students’ compilation of quotations became a literal new version of the original text. Therefore, another implication of this study is the need to acknowledge how the nature of texts has changed and continues to change. In particular, this research relates to studies conducted by scholars (Rowsell & Burke, 2009; Simpson, Walsh, & Rowsell, 2013) in multimodality and new literacies who are exploring how reading paths affect meaning making. A reading path “charts a reader’s trajectory through a text and it exists as much with printed texts as it does with digital texts” (Rowsell & Burke, 2009). During the Frankenstein unit, students’ keyword searches influenced their reading paths throughout the novel. After the digital reader yielded the results of the keyword searches, the students themselves determined which results to explore and then reread the context surrounding the keywords. Results of this study may extend the theories of reading path to include the digital reader and its potentialities to meaning making afforded by the device. A related implication, therefore, concerns how English teachers facilitate the nonlinearity of reading. Because most secondary English teachers have 100–150 students, assignments designed to foster nonlinear reading would be difficult to assess and to manage the increased differentiation of instruction. Therefore, English teachers would require professional development and training to confidently and successfully implement this type of instruction.

Implications for Classroom Practice

As earlier research has also noted, classroom access to technology is a fundamental concern (Farmakidis, 2013). Mrs. Bennet had access to a classroom set of
Chromebooks; if she had not had this, then full implementation of the digital readers would not have been possible. Consequently, Mrs. Bennet chose to use the Chromebooks for the unit because the school did not have enough Kindles for her students to use. By reading the novel in-class on the Chromebooks using the Google Play app, and out of class on students’ own devices, Mrs. Bennet was able to guarantee whole class access to the text electronically. Teachers planning to have students use digital technology in instruction should be prepared to think creatively about how to access digital tools in their classrooms.

Once she had made decisions related to accessing the technology, Mrs. Bennet designed the activities, assignments, and assessments of the unit. She planned to routinize the use of the Chromebooks and took measures to address students’ questions. However, when coupled with interruptions by nonacademic school functions, time to build procedural knowledge was compromised. Moreover, Mrs. Bennet found students required more support with procedural issues than she had anticipated. One implication of this study for classroom teachers is the need to schedule ample time to scaffold students’ use of the new technologies. Likewise, teachers may also require additional technical support as they implement these new applications.

In the same way, ample time is needed to teach the kind of meaning making that develops when students “read as ordering” (Kress, 2003, p. 140). The role of rereading, particularly as related to the curation of highlighted and annotated quotations, must be demonstrated and given time for development.

Agency, identity, and power are always underlying issues within classrooms, yet often ignored. The role of students’ agency—developing self-directed learners student—
is critical. As noted earlier, students in this study exerted agency in several ways. These ways are worth exploring not only in future research but also in contemporary classrooms.

Researchers have long recognized the importance of providing choices in the literacy classroom (Iyengar & Lepper, 2000; Worthy & McKool, 1996). This study illustrated that the teacher can lead only so far in determining which choices are offered; students will make choices covertly, too. Acknowledging students’ agentic power and exposing it to the light of explicit discussion and recognition holds important implications. In the secondary classroom, then, students must be allowed, encouraged, and empowered to develop their identities as readers, writers—designers of communication.

Moreover, students bring funds of knowledge (Moll, Amanti, Neff, & Gonzalez, 1992) to school, informed by their personal literacy practices. Beach et al. (2012) recommended a shift in classroom instruction to involve students as co-learners working in redefined work sites (p. 74) in which they draw upon these funds of knowledge. As co-learners with the teacher, students become creators of knowledge and products. The teacher coaches, guides, and leads by developing learning opportunities that revolve around creating authentic forms of communication relevant to the readers of today’s messages.

Hagood et al. (2002) found that adolescents saw literacy as a way to display knowledge and to teach and learn through the display. They suggested that as agentic acts, the “practices of creating and acquiring knowledge cannot be separated from the power that one exercises in negotiation learning” (p. 77). They asserted that power is the
underlying motivation of literacy practices. Furthermore, they suggested that if schools fail to address the various contemporary literacies that adolescents partake of outside of school and are increasingly post-literate, schools are at risk of offering anti-educational opportunities that lead to obsolescence.

However, when Mrs. Bennet tried to incorporate social media into the *Frankenstein* unit, some students resisted, citing tweeting as a “chore” (Personal interview with Sam, March 27, 2014). These findings may serve as a caution for teachers, suggesting that as they move toward incorporating social media into their classrooms, they first learn not only how students use social media but also what it means to them. Perhaps one way teachers may begin is by taking time to introduce using Twitter, or other forms of social media, through informal responses rather than for formal assignments.

The choice of which texts should be read in the English/language arts classroom has long been a controversial professional issue (Applebee, 1992; Stallworth & Gibbons, 2012). Moreover, the role of canonical texts in the curriculum has been a particularly vigorous debate. In this study, students drew on the resources of technology to read and complete assignments on a text from the canon. Despite Mrs. Bennet’s attempts to engage students through activities and student-centered assignments, most of the students chose not to read *Frankenstein*. The very features, which Mrs. Bennet enlisted to engage the students, appeared to enable them to bypass an actual reading of the text while still completing the assignments. Yet students were also able to draw on the dictionary and Internet search features of the digital reader to make the language of the canonical text more accessible to them. Paradoxically, then, the affordances of the e-reader features did
enhance students’ ability to more fully understand the canonical work. Ultimately, the students themselves were agents of their own learning, consciously deciding how to move through the text. While these agentic behaviors are not restricted to the reading of canonized texts, one implication of this study is that as scholars and English teachers continue to grapple with the role of the canon in classroom instruction, they should consider how the use of digital readers may be enlisted.

An awareness of how situational factors in schools make change difficult is an important implication of this study. As noted, teachers moving towards a new literacies’ pedagogy must be courageous and undaunted by the skepticism of others (Kist, 2002). Supportive environments, such as professional learning communities (PLCs), may be one approach to address the challenges teachers face when implementing new technologies and the teaching practices associated with them. Curwood (2014) recommended PLCs as optimal to foster the professional learning needed to implement new literacies. She contended:

Working together, teachers examine their beliefs and practices to understand how they impact student learning. In addition, learning communities are situated in school contexts where the sociocultural environment and available resources directly inform teachers’ professional development. (Curwood, 2014, p. 13)

By working with a university researcher, Mrs. Bennet found support outside of her immediate PLC through her collaboration with me throughout the planning and execution of the unit. During a debriefing conversation, Mrs. Bennet recounted an exchange she had with a colleague who had questioned why she was having students create multimodal presentations rather than write a paper about *Frankenstein*. I asked Mrs. Bennet why she did not give in to this colleague and also have her students write an essay. She answered that she felt having my support helped her link her practice to
theory and gave her confidence in what she was attempting to do. She said that I was her “safety net” (Personal communication, July 15, 2014). Therefore, another implication of this study is that teachers need varying types of support and mentorship to implement new literacies pedagogies into classrooms.

Implications for Future Research

Results of this study revealed the ways in which features of digital readers affected the students’ meaning making as they read a canonical text in their English classroom. While this inquiry identified ways the features were used to foster construction of meaning, similar research on digital readers is lacking and further studies are needed to advance this line of inquiry. One approach involves research that explores how the feature of highlighting affects meaning making through the new forms of reading associated with this act of curation. Additionally, future research is necessary to understand the role of curation within the digital reader interface upon reading path and as an aspect of meaning making.

This study described one class of high school seniors and their teacher in a suburban school using digital readers to study Frankenstein; a limitation of this study, therefore, is the replication of these findings in other settings. Further research of other teachers and their students using digital readers may yield different results. Research is needed to include populations of students who are culturally and linguistically diverse. Likewise, studies should include diverse settings, that is, public and private schools, urban and suburban schools. Different types of teachers should also be studied, including those who have already been using digital readers in their classrooms. Furthermore,
future research should study different types of writings including both canonical and non-canon-
canical texts, narratives, and non-fiction.

**Summary of Chapter**

Throughout this chapter, three main conclusions and one ancillary conclusion were explained. The first related to the act of meaning making students experienced while reading *Frankenstein* on a digital reader. The findings of the study were interpreted in light of Rosenblatt’s theory of stance and transactional theory. Second, I interpreted the meaning behind students’ acts of agency and associated my understanding of these acts to the work of Moje and Lewis (2007) and their exploration of how agency, identity, and power inform a sociocultural perspective on literacy. The third conclusion drawn pertained to students’ resistance, a specific agentic act understood through the lens of Peter McLaren’s (1999) work as a critical theorist and Michel de Certeau’s (1984/1988) sociological perspective. A final conclusion, which examined systemic factors affecting instruction, explained the tensions experienced within the classroom and the ritualized acts (McLaren, 1999) which caused some of the stalled instruction. Implications related to these conclusions offer insight to literacy educators within secondary schools and in higher education settings. Similarly, based on the conclusions drawn, recommendations into further inquiries were offered.
REFERENCES


Gainer, J., & Lapp, D. (2010). Promoting literacy learning through a remix of our old and new understandings about literacy instruction. In J. Gainer & D. Lapp (Eds.), Literacy remix: Bridging adolescents’ in and out of school literacies (pp. 1-16). Neward, DE: The International Reading Association.


APPENDIX A

IRB APPROVAL DOCUMENTATION

NOTICE OF APPROVAL

February 3, 2014

Elizabeth A. Testa
478 Amberwood Drive
 Akron, Ohio 44312

From: Sharon McWhorter, IRB Administrator

Re: IRB Number 20140124 “A Case Study Exploring the Integration of Digital Readers into a 12th Grade English Classroom”

Thank you for submitting an IRB Application for Review of Research Involving Human Subjects for the referenced project. Your protocol represents minimal risk to subjects and has been approved under Expedited Category #7.

Approval Date: February 3, 2014
Expiration Date: February 3, 2015
Continuation Application Due: January 20, 2015

In addition, the following is/are approved:

☐ Waiver of documentation of consent
☐ Waiver or alteration of consent
☐ Research involving children
☐ Research involving prisoners

Please adhere to the following IRB policies:

• IRB approval is given for not more than 12 months. If your project will be active for longer than one year, it is your responsibility to submit a continuation application prior to the expiration date. We request submission two weeks prior to expiration to ensure sufficient time for review.
• A copy of the approved consent form must be submitted with any continuation application.
• If you plan to make any changes to the approved protocol you must submit a continuation application for change and it must be approved by the IRB before being implemented.
• Any adverse reactions/incidents must be reported immediately to the IRB.
• If this research is being conducted for a master’s thesis or doctoral dissertation, you must file a copy of this letter with the thesis or dissertation.
• When your project terminates you must submit a Final Report Form in order to close your IRB file.

Additional information and all IRB forms can be accessed on the IRB website at:
http://www.uakron.edu/research/orssp/compliance/IRBHome.php

Cc: E. Newton – Advisor
Cc: Valerie Callanan – IRB Chair

☐ Approved consent form/s enclosed
APPENDIX B

PARENT INFORMED CONSENT FORM

A Case Study Exploring the Integration of Digital Readers
Into a 12th-Grade English Classroom
(for students under 18 years old)

Dear Parent or Guardian,

I am Elizabeth Testa, and I am a doctoral candidate in the College of Education at the University of Akron. I am inviting your student to participate in a research study as part of my dissertation research. This study will be conducted in Mrs._______ ____’s 2nd period classroom during her class instruction from March 3-March 21. The purpose of this study is to better understand students’ reading processes when they read a complex book using a digital reading application such as Google Play or Kindle.

**Procedures:** Your student will be asked to complete two surveys about their perceptions of reading an e-book. Students will be asked about their use of the digital reading app, what features they used and how they felt about using the app for reading. I may interview your student to further explore their ideas about reading using a digital reading app. Interview times will be arranged with students and their parents or guardians, preferably during their study hall or prior to or immediately following school. All interviews will take place in the English department office with the door ajar; Mrs. ________ will not be present during the interviews. I will audiotape all interviews to document interactions as accurately as possible. I will also be observing and audiotaping some class instruction and discussion; likewise, I will videotape some small-group discussions. After the study is complete, all tapes will be completely erased. I would also like to collect work samples produced during this instructional unit. Items may include written responses to readings, presentations, and reading reflections.

Participation in this study is completely voluntary. Student participation will have no effect on class grades.

**Risks or Discomforts:** There are no specific risks or discomforts associated with participating in this research. All questions relate to student learning and are not sensitive in nature.
**Benefits:** Your student will receive no direct benefit from participation in this study, but his/her participation may help me better understand how adolescents understand what they are reading when they use a digital reading app.

**Right to Refuse or Withdraw:** Following your consent, your student’s participation in this study remains voluntary. Your student will be asked to provide assent to participate and may refuse even if you do consent. Your student can also refuse to answer specific questions and may withdraw from the study at any time without penalty.

**Confidential Data Collection and Records:** All data collected for this project will remain confidential. Your student’s name will not be used in the research, either for questionnaires, interviews, or your student’s work samples. Furthermore, the name of the school and the teachers will be changed in the final research report.

**Confidentiality of Records:**
I will assign pseudonyms to each of the participants that will be used throughout the data collection process. Any identifying information will be kept in a secure location and I will be the only person to have access to the data. Participants will not be individually identified in any publication or presentation of the results.

**Who to contact with questions:**
If you have any questions about this study, you may call me at 330-687-1213, or you may call my advisor Dr. Evangeline Newton at 330-972-6916. This project has been reviewed and approved by The University of Akron Institutional Review Board. If you have any questions about your rights or your student’s rights as a research participant, you may call the IRB at 330-972-7666.

**Acceptance and Signature**
I have read the information provided above and all of my questions have been answered.
- I voluntarily agree for my student to participate in the study.
- I voluntarily agree for my student to participate in an interview about their experience reading on a digital reader.
- I voluntarily agree for my student to be audiotaped during the interview in the study.
- I voluntarily agree for my student to be videotaped during the small-group discussion in the study.
I will receive a copy of this consent form for my information.

________________________
Parent/Legal Guardian Signature  
________________________
Relationship to student
Name of Student (Please Print)______________________________________________

Date: ___________________________________
APPENDIX C

STUDENT INFORMED CONSENT FORM

A Case Study Exploring the Integration of Digital Readers

Into a 12th-Grade English Classroom

(for students over 18 years old)

My name is Mrs. Testa. I am a student at The University of Akron. I am asking you to take part in a research study because I am trying to learn more about how high school students use digital readers, or e-readers, in their English classroom. This study will take place in Mrs. _____ class from March 3 to March 21, 2014. I will be in your 2nd period classroom during this time to observe how students are using the e-readers and how Mrs. _____ uses them for teaching students the novel, Frankenstein.

If you agree to be in this study, I will ask you to complete two surveys about using e-readers. You may be selected to participate in an interview conducted in the English office without Mrs. _____ being present. You will be observed in class using the digital reader and participating in classroom instruction. Also, some small-group discussions will be videotaped. I would also like to collect written assignments from the unit that you will complete during the study.

There are no specific risks if you participate in this research. Students’ actual names will be not used in the research, interviews, or to reference your work.

If you don’t want to be in this study, you don’t have to participate and there will be no effect on your class grade. If you choose not to participate, you will not be directly observed reading with the digital reader or be video-taped during small group discussions, nor will you have to complete the surveys or participate in any interviews, and none of your written assignments would be included in the study.

You may benefit from this study by learning how to use digital readers to help you when reading and writing. Your participation will help me to better understand how high school students can use this technology for their learning.
I encourage you to talk this over with your parents or guardians before you decide whether or not to participate. Remember, being in this study is up to you and no one will be upset if you don’t want to participate or even if you change your mind later and want to stop.

You can ask any questions that you have about the study. If you have a question later that you didn’t think of now, you can call or email me at: (330) 687-1213, eat13@uakron.edu.

Acceptance and Signature
I have read the information provided above and all of my questions have been answered. You will receive a copy of this consent form for your records.
☐ I voluntarily agree to participate in the study.
☐ I voluntarily agree to participate in an interview about their experience reading on a digital reader.
☐ I voluntarily agree to be audiotaped during the interview in the study.
☐ I voluntarily agree to be videotaped during the small-group discussion in the study.

_____________________________________________  _________________________
Name of Participant (please print)                Age

_____________________________________________  _________________________
Signature                                          Date
APPENDIX D

CHILD ASSENT FORM

**Title of Study:** A Case Study Exploring the Integration of Digital Readers Into a 12th-Grade English Classroom

My name is Mrs. Testa. I am a student at The University of Akron. I am asking you to take part in a research study because I am trying to learn more about how high school students use digital reading apps in their English classroom. This study will take place in Mrs. ____ class from March 3 to March 21, 2014.

If you agree to be in this study you will be asked to complete a pre-reading questionnaire and after-reading reflection about using the digital reading app. You may be selected to participate in an interview to be scheduled at your convenience and to be held in the English office without Mrs. ____ presence. You will be observed in class using the digital reading app and participating in classroom instruction. Also, some small-group discussions will be videotaped. I would also like to collect work samples of reading responses you will complete during the study.

There are no specific risks if you participate in this research. No real names will be used in the research, interviews, or to reference your work.

You may benefit from this study by learning how to use digital reading apps to help you when reading and writing. Your participation will help me to better understand how high school students can use this technology for their learning.

I encourage you to talk this over with your parents before you decide whether or not to participate. I will also ask your parents to give their permission for you to take part in this study. But even if your parents say “yes” you can decide not to do this.

If you don’t want to be in this study, you don’t have to participate. Remember, being in this study is up to you and no one will be upset if you don’t want to participate or even if you change your mind later and want to stop.
You can ask any questions that you have about the study. If you have a question later that you didn’t think of now, you can call or email me at: (330) 687-1213, eat13@uakron.edu.

Acceptance and Signature
I have read the information provided above and all of my questions have been answered. You will receive a copy of this consent form for your records.
☐ I voluntarily agree to participate in the study.
☐ I voluntarily agree to participate in an interview about their experience reading on a digital reader.
☐ I voluntarily agree to be audiotaped during the interview in the study.
☐ I voluntarily agree to be videotaped during the small-group discussion in the study.

Name of Participant (please print) ______________________________ Age ________

Signature ______________________________ Date ____________
One of the niftiest features of an ereader is the note-taking feature! Using this feature not only allows you to take notes while you read, but it also saves these notes so that you can view them all together as a whole collection. What a great way to build the textual evidence you need to support a thesis of an essay!

_Here’s how you do it:_

1. As you read an e-book, **highlight** text that is an example of the theme or central idea you are interested in exploring in your essay.
2. Once you highlight the text, a menu pops up with the option to add a note.
3. Add a note by either clicking on that option on the tool bar (See the Kindle interface, Figure E.1) or by typing directly into the note box (see the Google Play interface, Figure E.2).
4. Once you click away for the note or save it, you have added to your collection of textual evidence that supports your thesis!
Once you have collected your notes, you can change the view to show your notes and highlights. Here’s when the strategy gets fun! All of your collected snippets of textual evidence are in one place, tagged with the theme you are investigating. When it comes
time to write your essay about your theme, you will have no trouble providing textual support!

Here’s your list of tagged quotations, ready to cite in your essay!

Figure E.3. Kindle app web reader
APPENDIX F

INTERVIEW PROTOCOL AND QUESTIONS FOR A SEMI-STRUCTURED INTERVIEW WITH A STUDENT

Protocol:
The student and I will meet in the office adjacent to Mrs. Bennet’s room. Two chairs will be drawn to the counter running across the back of the office wall. The handheld recording device will be queued and ready for the interview. The door to the office will be left open. I will have asked the student to bring with them the device(s) on which they have downloaded *Frankenstein*; I will explain that we will refer to the digital reader during the interview.

Script: Thank you for agreeing to allow me to ask you a few questions about your reading of *Frankenstein* on a digital reader. I will ask you some open-ended questions that have no right or wrong answer; your thinking and experiences are important and will be helpful to this study. If at any time you are not sure what I am asking, please tell me and I will rephrase the question until what I am asking is clear to you. Likewise, if at any time you feel you do not have an answer to a question, please let me know. I will move on to the next question. If you are ready, let’s begin!

1. Have you ever read an e-book on an e-reader like a Kindle?
2. Do you ever read for pleasure?
   a. (If “yes”): What kinds of books, genres, do you like to read?
3. How did you read *Frankenstein* for this unit? (i.e., phone, Kindle, Chromebook)
4. Would you describe how you typically begin to read the e-book?
   a. What do you do when you first begin reading?
   b. Do you change the settings for font size, backgrounds, or line spacing?

5. What features of the digital reader (or digital reading app) do you use?
   a. Possible choices include: bookmarking, dictionary, highlighting, note-taking, searching for keywords, or using the text-to-speech feature
   b. Which feature do you use the most? Why?
   c. Which feature do you use the least? Why?
d. Are there any features you would like to use but don’t? Why do you suppose you don’t use them?

6. Would you explain any ways that reading *Frankenstein* on the digital reader has helped you understand the novel better?

7. Would you explain any ways that reading *Frankenstein* on the digital reader hurt your understanding of the novel?

8. Can you describe your thoughts about reading Frankenstein in class using the Chromebooks?

   a. What did you like? Dislike?

9. What did you think of the expansion activities?

10. How do you learn about a topic that interests you?

11. How do you use your phone in your daily life?

12. How do you use other technology in your daily life to learn?

13. Would you explain why or why you would not read another book on a digital reader?

   a. What kinds of other e-books would you read?

   b. Would you buy textbooks to read on a digital reader?

14. Did anything about this unit change your mind about reading?

15. What two words can you think of to best summarize your thoughts about reading e-books?
APPENDIX G

INTERVIEW PROTOCOL AND QUESTIONS: FOR A SEMI-STRUCTURED FIRST INTERVIEW WITH MRS. BENNET

Protocol:
Mrs. Bennet and I will meet in her room during her planning period. She will sit at her desk while I sit across from her. The handheld recording device will be queued and ready for the interview.

Script:
Thank you for agreeing to allow me to ask you some questions about your perceptions of the effectiveness of having your students read of Frankenstein on a digital reader. I will also ask questions about your perceptions of how this technology relates to your understanding of best practices for teaching literature, language, and literacy. I will ask you some open-ended questions that have no right or wrong answer; your thinking and experiences are important and will be helpful to this study. If at any time you are not sure what I am asking, please tell me and I will rephrase the question until what I am asking is clear to you. Likewise, if at any time you feel you do not have an answer to a question, please let me know. I will move on to the next question. If you are ready, let’s begin!

1. Would you describe why you have allowed me to come into your classroom to conduct this study?

2. What are your thoughts about the potential strengths of having students read a complex text like Frankenstein on a digital reader or by reading using a digital reading app?

3. What are you thoughts about the potential weaknesses of having students read a complex text like Frankenstein on a digital reader or by reading using a digital reading app?

4. How would you describe your beliefs about teaching English?
   a. What are the most important aspects of teaching high school English today?
   b. What do you believe you do well in meeting these important aspects through your teaching?
5. Do you have any questions or any worries about the study and my being in your room for these weeks?

**Interview Protocol and Questions: For a semi-structured second interview with Mrs. Bennet**

**Protocol:**
Mrs. Bennet and I will meet in her room during her planning period. She will sit at her desk while I sit across from her. The handheld recording device will be queued and ready for the interview.

**Script:**
Thank you for agreeing to allow me to ask you a second round of questions about your perceptions of the effectiveness of having your students read of Frankenstein on a digital reader. I will also ask questions about your perceptions of how this technology relates to your understanding of best practices for teaching literature, language, and literacy. I will ask you some open-ended questions that have no right or wrong answer; your thinking and experiences are important and will be helpful to this study. If at any time you are not sure what I am asking, please tell me and I will rephrase the question until what I am asking is clear to you. Likewise, if at any time you feel you do not have an answer to a question, please let me know. I will move on to the next question. If you are ready, let’s begin!

1. During our first interview, you described _________ as being potential strengths of having students read a complex text like Frankenstein on a digital reader or by reading using a digital reading app. Now that the study is complete, please explain if you still the same about these potential strengths of reading on a digital reading.

2. During our first interview, you described _________ as being potential weaknesses of having students read a complex text like Frankenstein on a digital reader or by reading using a digital reading app? Now that the study is complete, please explain if you still the same about these potential weaknesses of reading on a digital reading.

3. How would you describe your perceptions of how students made meaning with the digital reader or digital reading app? What processes to you think students employed to foster their comprehension while reading?
   a. What features of the digital reader (or digital reading app) did you observe most often used by students?
      i. Possible choices include: bookmarking, dictionary, highlighting, note-taking, searching for keywords, or using the text-to-speech feature
ii. Which feature did you observe used the most? Why do you think this was?
iii. Which feature did you observe used the least? Why do you think this was?

4. Would you explain any ways that perceived reading *Frankenstein* on the digital reader has helped your students to understand the novel better?

5. Would you explain any ways that reading *Frankenstein* on the digital reader disrupted your students’ understanding of the novel?

6. Would you explain why you would or would not teach a unit by having students read another book on a digital reader?
a. What kinds of other e-books would you have them read?
b. How could you use e-books to teach certain reading skills or strategies?
APPENDIX H

READING FRANKENSTEIN AS AN E-BOOK:

PRE-READING QUESTIONNAIRE

Please take a few minutes to complete this questionnaire regarding your thoughts about reading Frankenstein as an e-book. Your responses matter and will be much appreciated!

Your name: ____________________________________________________________________________

1. On what type of device(s) will you read Frankenstein? (such as: Kindle, laptop, cell phone, iPod).

2. Please describe your previous experience with e-books. Have you ever read an e-book before? If so, what did you think about it and on what type of device(s) have you read them?

3. What do you expect will be your challenges in reading Frankenstein as an e-book?

4. What do you expect will be the benefits of reading Frankenstein as an e-book?

5. How do you feel about this assignment? Anything you may question or be worried about?
APPENDIX I

READING FRANKENSTEIN AS AN E-BOOK:

AFTER-READING REFLECTION

Please take a few minutes to complete this questionnaire regarding your thoughts about reading Frankenstein as an e-book. Your responses matter and will be much appreciated!

Your name: ____________________________________________

1. On what type of device(s) did you read Frankenstein? What did you like about reading on this device? What did you dislike? (If you read the e-book on more than one type of device, explain which one you preferred and why).

2. If you were giving advice to next year’s seniors, would you advise them to read Frankenstein as a print book or an e-book? Please explain why.

3. What did you notice about your reading habits and behaviors while reading Frankenstein as an e-book?

4. How did reading Frankenstein as an e-book affect your understanding of the novel?

5. Were there certain features of the e-book format and device that helped your understanding? Any that you found distracting or difficult to use?

6. What else would you like to share about your thought about reading an e-book? We welcome your comments!
APPENDIX J

MRS. BENNET’S BROCHURE FOR FRANKENSTEIN UNIT

LEARNING TARGETS:

1. I can utilize digital media (e-reader) to enhance my reading through text tagging or note-taking features.
2. I can utilize digital media (e-reader) to enhance my contribution to discussion.
3. I can come to a discussion prepared by reading and researching.
4. I can formulate meaning from my preparation.
5. I can construct civil and democratic discussions.
6. I can construct clear goals, deadlines, and roles within a group.
7. I can challenge ideas and conclusions.
8. I can respond thoughtfully and appropriately to others in discussion.
9. I can analyze the text for themes.

Themes:

- Monstrosity—society unfairly associates physical deformity with monstrosity
- Isolation—abandonment and lack of proper nurture shapes the Monster's nature
- Tempering in a Godlike Domain—limitations of science
- Frankenstein’s self-centeredness leads irrevocably to self-destruction
- Pursuit of forbidden knowledge
- Revenge
- Healing powers of nature
- Technology vs. humanity—the effects of technology on quality of life

Do we allow technology to dehumanize us?

you never knew what is enough unless you know what is more than enough. —William Blake

will not reason and compare: my business is to create. —William Blake

as man chooses evil because it is evil; he only mistakes it for happiness, the good he seeks.”—Mary Shelley

Frankenstein

Mrs. _________

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APPENDIX K

STUDENT WORK SAMPLE: LOUIS

A link to Louis’ Minecraft representation