A PHENOMENOLOGICAL INVESTIGATION OF TRANSACTIONAL READING EXPERIENCES OF 12th GRADE DIGITAL NATIVES IN RURAL NORTHEAST GEORGIA:
PRINT AND DIGITAL TEXTS

by
Katherine Ashley Kesterson
Liberty University

A Dissertation Presented in Partial Fulfillment
Of the Requirements for the Degree
Doctor of Education

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ABSTRACT

The purpose of this transcendental phenomenological study is to describe the print and digital transactional reading experiences of 12th grade digital natives at Mountain High School in rural, northeast Georgia. The research questions include: What are the reading experiences of 12th grade digital natives in a rural high school in northeast Georgia? How do 12th grade digital natives in a rural high school in northeast Georgia describe their transactional experiences with print texts? How do 12th grade digital natives in a rural high school in northeast Georgia describe their transactional experiences with digital texts? Participants included a purposeful sample of 10 high school seniors who were 18 years of age at the time of the study, have had experience reading print and digital texts in fiction and non-fiction genres, and who admit an affinity for reading and willingness to participate in the study. Data was collected using qualitative surveys, journaling, and interviews. Data analysis utilized the theme-based framework approach including data management (indexing), descriptive accounts (categorizing dimensions and typologies), and explanatory accounts (charting) as outlined by Ritchie and Lewis (2003). The themes identified during data analysis included external features of print and digital texts, classroom dimensions of reading, reading as a sensory experience, reading as a social activity, emotional relationship with reading, and first generation digital natives. Each theme is discussed in detail in the results section of chapter four.

Keywords: transactional reading theory, digital text, print text, digital native, digital immigrant, digital reading, radical change theory
Dedication

For my beautiful family, my sweet husband, and my unborn baby girl. . . the reasons I started and the reasons I finished.
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It is impossible to acknowledge all who were influential in helping me to this process and through this process, so I will simply settle for the best I can do. I owe a great debt of gratitude to my parents and grandparents first, for supplying the genetic material that makes up an inquisitive mind and a personality that has always loved to learn and second, for supporting and encouraging all of my academic endeavors and giving me the courage and confidence to do hard things.

I am tremendously thankful to my sisters for providing the moral support and much needed comic relief. I am grateful to Rachel for going through it with me, as she tested so many things for us all growing up so we didn’t have to. I am thankful to Rebekah for checking in but also for providing breaks from the process. I am thankful to Megan for keeping things in perspective by always asking, “When are you going to be done with your essay?”

Most importantly, I am thankful for my wonderful husband for keeping our lives together while I blocked the world out. . . for cleaning, for cooking, and for coming into my life at the best possible moment though sooner would have been great, too. I also need to thank my Heavenly Father for answering prayers, providing moments of clarity, and bringing peace and comfort in moments of panic and stress.

Finally, I am grateful to my committee members not only for their support, their honesty, and their feedback but also for the learning experience and the opportunity for professional growth they provided. And, of course, I give thanks to the digital natives who participated in this study for opening my eyes to perspectives and ideas that I would never have come to on my own.
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CHAPTER ONE: INTRODUCTION

Background

Literacy, in general terms, is understood as a person’s ability to read and write. The modern era has somewhat complicated this simple understanding of what it means to be literate. Larson (2009) redefines literacy as more than just the written word on a page and argues that literacy now includes multimedia forms of communication. Readers must be able to read and write in the traditional, print text sense, but they must also be able to navigate and utilize digital technologies and texts effectively. Not only has the definition of literacy expanded to address modern advances, but the new age also redefines today’s young readers so much so that their entire generation is often referred to using modern or technological designations, such as the millennial generation or net generation. Specifically, one new moniker, originally coined by Marc Prensky (2001), is “digital natives.” Digital natives include those who encounter and have always encountered digital information as a part of their everyday lives or, more specifically, persons born after 1980 (Houston, 2011). Today’s literate individual must be able to gather information from visual, audio, and physical sources, sometimes simultaneously. Therefore, schools and teachers face the task of educating students utilizing the tools of their environment, technology.

“The growth in e-book use is expected to be phenomenal, ranging from a 65 percent increase in schools, a 77 percent increase in academic libraries and a whopping 84 percent in the public library realm” (Moyer & Thiele, 2012, p. 266). These recent technological advances and the influx of digital readers have opened the doors to new research regarding public school student reading practices. As local school boards, school administrators, and school-teachers attempt to relate to their students and meet the needs of 21st century learners, the impact of
various reading formats on student reading practices and reading success should play a role in determining whether to use and best practices for using digital texts in the classroom setting (Moyer & Thiele, 2012). However, the question which remains to be answered is whether consumers of information will be able to skillfully adjust to new mediums. Have reading behaviors changed as reading formats have changed with the arrival of digital texts (Shabani, Naderikharaji, & Mohammad, 2011)? Dresang and Kotrla (2009) question whether these digital texts can be comprehended as well as their print counterparts. The question of comprehensability of digital texts has been measured somewhat quantitatively and focuses largely on output as discussed in the review of literature. What is lacking in the current research is a qualitative understanding of the transactional interactions and general reading experiences with digital texts (Rosenblatt, 1978).

**Situation to Self**

A key component of transcendental phenomenology is attempting to set aside any personal presuppositions and perceptions as the researcher (Creswell, 2013; Moustakas, 1994). As an educator, it is necessary for me to bracket my personal experiences in a description of the study as situational to self. I am currently working as a middle school media specialist and have been a certified teacher for eight years. I have taught middle grades language arts, science, and social studies. My particular content area of interest is social studies though I have predominantly taught language arts. My educational background includes a bachelor’s degree in political science, a master’s degree in public administration, and an education specialist degree in teaching and learning. I consider myself a strong advocate for literacy and am intrigued by 21st century learners and their approach to technology infused learning. Although I have had personal experience with digital reading and technically fall into the digital native classification
myself (as a person born after 1980), I have no significant or measurable experience with digital reading in a classroom setting as either a student or an instructor beyond occasional computer generated research. Moreover, I have a specific personal reading preference toward print materials, and if not for the comparable affordability and instant availability of digital texts, I would always choose to read printed material. I believe that though I am very comfortable with the digital format, my preference for printed materials stems from early exposure to print materials during my formative years to the complete exclusion of a preference for digital texts.

This research is guided by the ontological philosophical assumption that reality is altered depending on the constructs of the individual. With this study, I sought to determine how digital natives describe lived experiences within the phenomenon of modern literacy and how their experiences with digital and print reading inform their own realities (Creswell, 2013; Rosenblatt, 1978).

As the researcher and as a digital native, I feel it important to describe my own experiences that led to a desire to study the subject further. Two main interactions occurred with digital natives in my own family, much younger than and much more familiar with digital technologies than myself, which sparked a question. First, I have read often to my nieces and nephews as they have grown. My youngest niece loved to hear a certain series of stories that were actually taken from the lyrics of popular songs. As a family of singers, other members of my family and I elected to sing the songs to her rather than simply read them. The words and illustrations were beautiful in their own right, but we always sang them together, capitalizing on the opportunity to cuddle the youngest of the children in our laps. Even my father, who is not a singer, tried his hand in order to participate in the experience. My favorite part of “reading” one book in particular was when we arrived at an illustration of a little girl’s feet against the sky on
the upward motion of a swing. My niece always placed her feet on top of the feet in the picture.

On a family vacation, I decided to download the digital version of the book onto an iPad rather than take the printed copies along. Though she loved the story still and was intrigued by the digital features, she no longer placed her feet on the little girl’s feet in the book and has not on any other occasion when reading the digital version was more convenient. Additionally, although she never protested the digital copy, she never asked for it either. On multiple occasions, she brought the print copy to my lap. Those subtle differences stood out to me as perhaps not profound but intriguing.

Another, more significant experience, occurred when I asked an older middle school aged boy in my family about his format preference when reading a book. With one exception, he preferred digital reading in every circumstance. The exception occurred when I asked him about his favorite book. When it came to his favorite book, he preferred print. When asked why, he said, “because print is more special, like the Constitution.” It was in this moment that I began to wonder whether we truly understand the full reading and literacy experience of a digital native. Short of asking them, it is a difficult thing to measure or quantify.

**Problem Statement**

Quantitatively, recent studies suggest reading format has little to no statistically significant effect on reading engagement or comprehension, particularly among adult readers (Bayliss, Connell, & Farmer, 2012; Moyer, 2011). However, there is also evidence suggesting digital texts increase motivation, engagement, fluency, and comprehension among younger readers, particularly struggling readers (Ciampa 2012; Eshet-Alkalai & Geri, 2010; Esteves & Whitten, 2011).
Qualitatively, Read, Robertson, and McQuilken (2011) found adult readers to exhibit an emotional attachment to print texts that does not preclude their purchase or use of digital reading devices but does inform their preference for print format, a situation similar to my own preferences. Not only were the participants emotionally attached to the content of the book but to the format itself. Conversely, Dresang (1999) argues that young readers are showing a preference for digital, graphic, and visual texts. In her radical change theory, she suggests not only has literature for youth changed in that it has become more graphic, non-linear, and easily accessible, but also youth information-seeking behaviors have changed.

The research findings for differences between print and digital texts in terms of reading engagement, reading comprehension, and format preference are conflicting. The problem is current research has failed to produce a qualitative description of a digital native’s reading stance or mental and emotional transaction with digital texts as distinct from print texts. Rosenblatt’s (1978) transactional theory argues text has no meaning until an individual reader creates meaning for the text in his own mind. This meaning is largely subject to the background knowledge, beliefs, and emotional constructs the reader brings to the transaction. A qualitative description of digital natives’ experiences with modern literacy may explain why the results of earlier research are contradictory.

**Purpose Statement**

The purpose of this transcendental phenomenological study is to describe the transactional reading experiences of 12th grade digital natives in a rural high school in northeast Georgia as applied to print and digital texts. For the purposes of this study, transactional reading will be generally defined as the background knowledge, beliefs, and emotional experiences a reader brings to a text which informs a reader’s stance toward a text, motivations for reading,
interpretation of a text, and, ultimately, gives the text meaning (Rosenblatt, 1978). Digital natives include those who encounter and have always encountered digital information as a part of their everyday lives or, more specifically, those born after 1980 (Houston, 2011; Prensky, 2001).

**Significance of the Study**

Being a good reader is a key factor to success in both grade school and adulthood. In fact, low reading level “correlates with poor achievement in mathematics, spelling, and writing. And it correlates with school dropout rates, failure to attend college, and failure to find successful employment” (Archer, 2011, p. 282). Smith (2009) also found a relationship between an adult’s level of literacy and the ability to earn or gain employment. Therefore, this study is significant because reading is significant. Reading is necessary to future accomplishment. Any factors that may affect a person’s ability to read and gain literacy skills, both traditional and modern skills, are important to individual achievement.

The study is also significant because it responds to Garcia’s (2012) argument that students have literacy skills, which are not encouraged or embraced by public school classrooms and educators. Classrooms still focus on traditional literacy tools to the exclusion of the types of information and modes of delivery that students will be expected to interpret and manipulate in their futures. Additionally, students may feel like their outside literacy practices are unvalued (2012). This study seeks to investigate the transactional reading experiences of digital natives with a new type of literacy in the form of digital texts and to give a voice to young readers who may feel marginalized in the public education classroom. Do young readers perceive digital texts and experience digital texts in the same way they experience print? The reading experiences of digital natives may have tremendous implications for home and classroom
reading practices, particularly if the transactions with digital texts are less meaningful or more meaningful than transactions with print texts.

This study is also locally significant because the school system of which the study site is a part recently received a rural education technology grant, which was used to purchase digital tablets and reading devices. The effects of the devices thus far are unknown in this area, and the literature is mixed regarding the effectiveness or ineffectiveness of digital literacy devices in general. Furthermore, the study has the potential for greater societal impact, as digital reading is becoming a popular supplement and/or alternative to traditional reading practices.

**Research Questions**

Rosenblatt’s (1978) transactional theory suggests a literary work is little more than words on a page until the reader formulates the text’s meaning in his own mind. Because of this, each text will have multiple meanings depending on the reader and the background knowledge, beliefs, and experiences the reader brings to the transaction and uses to inform his interpretation and overall experience. The first research question guiding this study is a broad inquiry into the reading experiences of 12th grade digital natives in rural northeast Georgia.

1. What are the reading experiences of 12th grade digital natives in a rural high school in northeast Georgia?

Asking the second and third research sub-questions, contributes to an understanding of how the reading experiences of 12th grade digital natives in rural northeast Georgia apply to two types of text format. Dresang (1999) may argue that digital natives would exhibit a preference for digital texts. However, transactional theory implies the text, no matter the format, remains meaningless until acted upon by a reader. It is the transaction with a particular format rather than the format preference, which informs the following research questions:
2. How do 12th grade digital natives in a rural high school in northeast Georgia describe their transactional experiences with print texts?

3. How do 12th grade digital natives in a rural high school in northeast Georgia describe their transactional experiences with digital texts?

**Research Plan**

This study is qualitative and assumes a transcendental phenomenological approach in order to investigate and describe the reading experiences of 12th grade students using print texts and digital readers (Moustakas, 1994). A qualitative research approach provides anthropological and sociological insights into the personal and individual foundations readers bring to both traditional and new literacy. This is appropriate for investigating the qualitative gap in the literature and for responding to the problem statement, which questions a digital native’s ability to engage in meaningful transactions with digital texts (Rosenblatt, 1978). A transcendental phenomenological approach gives digital natives a voice regarding their unique experiences and is a necessary method for investigating the very personal nature of synergistic or aesthetic reading (Dresang & Kotrla, 2009; Rosenblatt, 1978). The study includes 10 high school senior student participants, purposefully sampled according to qualitative survey criteria results. The qualitative survey was used to determine age, gender, reading affinity, reading experience with print and digital texts, and willingness to participate in the study. Once participants were selected, they were introduced to the study, asked to participate in personal journaling activities, and interviewed for data collection purposes. The data was analyzed utilizing Ritchie and Lewis’s (2003) theme-based framework approach.
**Delimitations**

The study included only senior high school students who had reached the minimum age of 18. This delimitation is in place in order to avoid ethical issues regarding the participation of minors and to avoid potential difficulties associated with obtaining the depth of information necessary for a phenomenological study from minors. The study only interviewed those who have had experience reading both non-fictional and fictional texts in print and digital formats. This delimitation is in place in order to ensure that interviewees will be capable of describing a wider range of emotional and transactional reading experiences for both print and digital formats.

One of the potential limitations of this study is the abstract nature of the phenomenon and the difficulty of communicating the transactional reading experiences of digital natives. Another limitation involves finding participants who have all experienced the phenomenon of traditional and modern literacies in addition to the limited scope of the study, as the participants are located in a single state from a rural school district. Finally, an additional general limitation of qualitative research is the potential for researcher bias. However, through peer review of the data collection and personal bracketing, I have controlled for researcher bias to the greatest extent of my ability.

**Definitions**

The following terms are pertinent to the study. Each is described in greater detail in the context of the relevant literature and research discussion.

1. Digital native - an individual who encounters and has always encountered digital information as a part of everyday life or, more specifically, persons born after 1980 (Houston, 2011). For digital natives, the language of computers, games, and the Internet is a first language (Prensky, 2001).
2. Digital immigrant – For immigrants, technology is a second language, and they speak with an “accent” (Prensky, 2001). . . individuals born prior to 1980 (Houston, 2011).

3. Digital accent – Unlike natives, immigrants may turn to the Internet for information after first consulting another resource; they may read the manual to learn how to operate a program rather than expect the program itself to teach its use; they may print out emails and digital documents rather than read or edit them on screen indicating an accent (Prensky, 2001).

4. Transactional reading theory – The theory that a reader’s interaction with a text, informed by their own background knowledge in order to gain their own interpretations, understandings, and meanings from each “transaction” with a text (Rosenblatt, 1978).

5. Radical change theory - The theory that young readers show a preference for digital, graphic, and visual texts. The theory that not only has literature for youth changed in that it has become more graphic, non-linear, and easily accessible, but also youth information-seeking behaviors have changed (Dresang & Kotrla, 2009).

Summary

As reading and literacy continue to be a prerequisite for success in education and a mark of a developed society, reading research will continue. The changes to modern literacy have produced new teaching practices, new reading theories, and new ideas about student behaviors and student needs. As an educator, as a technical digital native, and as a reader, I believe it is important to examine both quantitatively and qualitatively the implications of new literacies both inside and outside formal education. The study and research questions will give digital natives the opportunity to voice the phenomenon of which they are a part while also contributing to the body of research regarding literacy education.
CHAPTER TWO: LITERATURE REVIEW

Overview

The argument that literacy, defined as competence for reading and writing, is a skill crucial to success in a modern society is neither new nor uncommon. Literacy skills are typically developed during formal education, and student performance in effective reading and writing across all curriculum areas is not only regularly measured within public schools but has also been heavily researched at a variety of levels of informal and formal education. Teaching students to read and write has been and remains one of the most basic functions of public schools. In fact, recent years have seen a majority of states either adopt or adapt the national Common Core State Standards to their own curriculum, which heavily emphasize content area literacy in all reading-intensive and writing-intensive subjects (National Governors Association Center for Best Practices, Council of Chief State School Officers, 2012). While a discussion of literacy skills should include and can be applied to a variety of students and content areas, this research focuses specifically on digital natives’ transactions with a text and the specific experiences within those transactions as contributing factors to textual comprehension, meaning-making, and modern literacy skills.

Adding to the body of research by studying how new technologies affect reading comprehension, meaning-making, and modern literacy is important because low reading level impacts a multitude of areas. First, reading ability influences competence in other content areas as it “correlates with poor achievement in mathematics, spelling, and writing” (Archer, 2011, p. 282). Additionally, low reading level correlates with school dropout rates, failure to attend college, and failure to find successful employment” (p. 282). Smith (2009) also argues there is a relationship between an adult’s level of literacy and his ability to earn or gain employment.
Being a good reader is a key contributor to success not only in formal education but also adulthood. Therefore, it is necessary to ascertain the best methods for improving a student’s ability to read and read well, and there is no shortage of reading programs, professional philosophies, teaching strategies, or theories that address this need. A recent consideration, and the subject of this research regarding literacy education, includes digital reading devices and digital reading behaviors. The old days of classroom reading practices, where the teacher simply reads a favored book to her class, are gone. Educators are now expected to take into account the learning styles, reading levels, and reading preferences of their students and differentiate accordingly to meet the needs of a variety of readers (Oleniacz, 2009). Applegate and Applegate (2010) further add a reader’s motivation to read is more important than what a teacher can do. This research seeks to elaborate and build upon the findings of Oleniacz and Applegate and Applegate by describing student transactional reading experiences with digital e-reading technologies, how those experiences affect their overall textual experience as compared to print texts, and, ultimately, how their experiences should inform classroom practice.

**Theoretical Framework**

The theoretical framework guiding this research moves from broad ontological assumptions in philosophy, to Piaget’s (1952) schema theory in psychology, to Dresang’s (1999) radical change theory and Rosenblatt’s (1978) transactional reading theory in education. Based in the ontological assumption reality is different depending on the constructs of the individual, Piaget (1952) discusses schema as a person or child’s existing knowledge centered on previous experiences and interactions, which include language, symbols, objects, and behaviors used to interpret the world. Learning new information depends on the developmental readiness of the learner as well as the learner’s existing schemata. If the existing schemata are able to
appropriately interpret new information, the learner can assimilate the information and is considered to be in a state of equilibrium. If the existing schemata are not useful for interpreting new information, the learner is in a state of disequilibrium and must adjust his schemata to accommodate the new information (1952). The novelty of digital texts may give occasion for a state of disequilibrium for those who lack the existing schemata to assimilate digital texts while print texts may cause a state of disequilibrium for those with the schemata to interpret digital reading.

The opportunity for disequilibrium concerning reading schemata has presented itself at least for adult readers. The modern literacy environment has shifted from traditional reading practices, wherein children’s literature and reading behaviors have experienced a departure from print texts with the ushering in of the digital age. Traditional literature, as we know it, has transformed into non-linear and radically new digital texts that are now much more interactive than traditional print books, and print books themselves have become more digital by directing the reader to online videos and interactive features within the printed text. The reading schemata of adult readers are surely not adequate for assimilation but rather require accommodation. However, the reading behaviors of young readers have changed so much so that adult writers are beginning to write literature, which they believe appeals to digital readers whose schemata utilize graphic information and seek combined, interactive, non-linear media (Dresang & Kotrla, 2009). In fact, the key constructs of Dresang and Kotrla’s (2009) aforementioned radical change theory include: interactivity, referring to a non-linear and dynamic relationship with literature, connectivity, referring to the sense of community and social connection in both the real world and literature, and access, referring to the limitation of barriers to accessing literature.
A synthesis of radical change theory and schema theory suggests digital natives’ schemata may encourage an expectation of interactivity, connectivity, and access in both print and digital texts. In other words, the digital text environment and the changing print text environment require only an assimilation of skills for digital natives rather than an accommodation of existing skills and expectations. While it may be true digital information appeals to digital natives and assimilates well into their schemata, is the transaction with digital and print texts the same? With the addition of Rosenblatt’s (1978) transactional theory, the question becomes not only whether digital natives can easily assimilate digital technologies or whether they have an expectation for digital technologies but also how the their transactions with print and digital texts compare when interpreting a text for meaning or developing a reading stance toward a text. Just because digital natives are adept, and perhaps more adept than their parents at interpreting and interacting with technology due to their existing schemata, does this mean their literacy practices and technology skills should necessarily intertwine?

Transactional reading theory argues that readers interact with a text, bringing their own background knowledge, and gaining their own interpretations, understandings, and meanings from each “transaction” with a text (Rosenblatt, 1978). Using the terminology of Piaget (1974) as applied to the transactional theory of reading, readers bring their own pre-existing schemata to each text interaction and construct their own learning from the experience. This theory transcends to the most recent trends in reading as interactivity with a digital text is heightened and transactions with digital texts can be much more involved, creating an environment ripe for very personal reading transactions. Another key construct of transactional reading theory is the distinction between efferent and aesthetic reading stances. The efferent reading stance focuses on comprehension and retention after the reading transaction. The aesthetic reading stance
focuses on the emotional experience during the reading transaction, which takes place as a result of the reader’s background knowledge and personal relevance to a text. Depending on the schemata, one reader can have an efferent transaction while another has an aesthetic transaction with the same text depending on the approach each reader takes (Rosenblatt, 1986). In agreement with this, Dresang and Kotrla (2009) argue, “the ultimate value of every book is what it means to the individual reader, experiencing his or her own synergistic aesthetic reading experience” (p. 105).

If the value of a book is dependent on its meaning, how does the value of a book change when the format changes? Does the format itself, print or digital, mean enough to the reader to have an effect on his transaction or reading stance? The question remains, how do digital natives’ transactions with digital texts compare to their transactions with print, and what are the implications of those transactions for reading comprehension, reading motivation, reading fluency, academic reading, leisure reading, and reading in general? What are the implications of those transactions for parents, teachers, and students? Answering these questions is important to future reading instruction in formal education as well as reading success among lifelong learners, and the theories of Piaget, Dresang and Kotrla, and Rosenblatt can all be used to advance an understanding of the phenomenon of digital reading.

**Related Literature**

In order to begin to answer these questions, it is necessary to describe the scene of radical change by examining in detail digital reading devices, how these devices affect modern literacy, digital natives and digital immigrants, and the educational implications of the changing literacy climate. Furthermore, it is important to review traditional reading knowledge, to examine
current research in the fields of digital reading as well as digital native reading behaviors, and to explore a deeper understanding of reader stance and response theory.

**Digital Reading Devices**

Digital reading may be most easily understood as reading from a screen, and there are a variety of screens from which to choose. Digital reading can take place via computer screen, one of the first digital consumption tools with the advent of the personal computer and then the Internet, via personal digital assistants (PDAs) and smartphone screens, and most recently, via eReader (a basic handheld digital reading device) and tablet (a handheld multi-purpose, computational device) screens. These tools are used personally and professionally. They can be found in the home, the workplace, and the classroom, but this review focuses mainly on the personal and educational use of digital devices. Though the functionality and features vary greatly across devices, most are multi-functional, and many features are common to each and particularly useful in education. The features of digital devices will be discussed in this review.

Foremost, digital devices, through Internet capability, allow access to countless materials in the form of interactive applications and programs, books, newspapers, magazines, and websites, which can be downloaded and consumed instantly (Bormann & Lowe, 2010). This instantaneous access to information allows willing teachers and parents to take advantage of teachable moments, never missing an opportunity to encourage students to chase ideas and interests for lack of readily available resources (Trotter, 2009). The access also allows students to work independently of parents, teachers, and textbooks more so than ever before.

More distinctly, there are several features for students with special needs and for struggling readers. Many digital texts and devices have in-text dictionary access for those who may be vocabulary deficient, customizable font size and screen orientation for those who are
visually impaired, and even audio and text-to-speech features for those who are hearing impaired or struggle with speech or reading fluency (Bormann & Lowe, 2010). “They are filled with a convergence of media types (for example, text, image, spoken word, music and video), which can convey multiple layers of meaning” (Houston, 2011). Additionally, students can subtly take notes within digital texts and discreetly read at a variety of reading levels without being subject to the scrutiny of other classmates as would be the case with overtly displaying the cover of a printed material. Digital devices greatly enhance an educator’s ability to individually personalize and differentiate classroom instruction to reach varying levels of learners as well as accommodate student needs in an inclusive environment. “In a differentiated classroom, the teacher proactively plans and carries out varied approaches to content, process, and product in anticipation of and response to student differences in readiness, interest, and learning needs” (Tomlinson, 2001, p. 7). In a classroom context, this means educators can assign reading materials on digital devices that are appropriate for each learner and reading level in the class without violating a student’s right to privacy.

Finally, digital devices have many of the features digital natives reportedly expect to see in their information consumption processes. Digital texts often feature non-linear hyperlinks (live links to pages outside the original source), social networking options (the ability to share quotes from text or to recommend texts to friends and strangers online), and other moving and interactive features. If classical and historical pieces of literature are to remain relevant, they may need to be offered in truly interactive digital formats (Houston, 2011).

There are greater implications for some of these digital reading features. Larson (2009) cites Rosenblatt’s transactional theory which claims reading gains are positively correlated to a reader’s ability to make personal connections with a text via interactivity and engagement with
an author and the text. In her own research, Larson (2009) observed the text and screen customization, in-line note taking, and dictionary features of digital devices as opportunities for students to personally interact with and engage in the text as they read. She also observed changes in reading behavior, attitude, motivation, and reading feedback among students who utilized these features. Some of the feedback in the form of in-line notes also provided real time insight into student thoughts, reading strategies, and comprehension, which is potentially beneficial to the teacher regarding future individualized instruction.

Seeing such devices in public schools is not unusual. In fact, not seeing them would be unusual, especially computers. Technology is part of state and national standards. School accreditation institutions look for student use of technology as an integral part of effective schools. However, the debate about the continued infusion of other tools such as eReaders and tablets persists with some schools adopting the one-to-one philosophy that every student should have daily, individual access to a digital device, a device that is even permitted to travel home with students. Still, some schools choose to prohibit such devices on campus except in designated areas or without expressed permission from the classroom teacher. There are a variety of reasons educators cite regarding the exclusion of certain digital devices in the classroom including personal philosophies against digital reading, costs associated with technology maintenance, student safety, concern about overexposing students to technology, unreliability of the devices, and teacher competence and familiarity with operating such devices. Furthermore, the multi-functionality of the devices also opens the door to distractions and off task activities among students in the classroom. However, modern literacy has changed. Though text consumption may not have radically changed for older generations, it has changed for up and coming learners, so much so, that it cannot be overlooked in a discussion about what
is best for teaching and learning practices any more than it can effectively be eliminated from student interest and consumption.

**Radical Change to Modern Literacy**

“One might call it a ‘singularity’ – an event which changes things so fundamentally that there is absolutely no going back. This so-called ‘singularity’ is the arrival and rapid dissemination of digital technology. . .” (Prensky, 2001, p. 1). Redefining modern literacy involves characterizing both literacy and text as having moved from written messages in books and newspapers to multimedia communication, which includes but is not limited to written words. Many consumers of information now have a wide variety of resources from which to gather knowledge and intelligence. For some, the definition of literacy has expanded to include other forms of communication, such as visual, auditory, and even kinesthetic mediums. These mediums, traditionally, can be experienced via television and radio, but they are now available through digital resources on the Internet, digital e-readers, and tablet devices (Larson, 2009).

The changes in how information is delivered and the digitization of information have resulted in an information explosion, which, at first, consumers handled without much skill (Shabani, Naderikharaji, & Mohammad, 2011). “Multi-literacy theory suggests that there is a plurality of literacies; different technological platforms and environments may require different constellations of literacy skills” (Bittman, Rutherford, Brown, & Unsworth, 2011, p. 162). As with any major change, there are supporters and skeptics. With the increasing presence of digital reading devices and the development of digital technology skills, some researchers see digital reading as an effective way to gather information while others see it as glorified skimming and detrimental to true understanding and comprehension of a text (Dresang & Kotrla, 2009).
The medium, however, is not the only change to modern literacy. “The emergence of reading devices, improvement in monitor technology, and increase in number of electronic documents and e-books have all changed the reading behavior of people” as well (Shabani, Naderikharaji, and Mohammad, 2011, pp. 646-647). Specifically, reading behavior has changed due to the skill set required for consuming digital texts (Roswell & Burke, 2009). Digital reading calls for multimodality. The reader must be able to understand and interpret graphic, audio, and spatial modes of communication simultaneously and equally without allowing one modality to eclipse the others (2009). In short, the reader must approach digital reading from a completely different reader stance than print reading requires.

Having more readily available information than ever before in more mediums than ever before creates a necessity for responsive educators to better understand the reading stance, reading processes, information consumption preferences, and digital information consumption skill sets of their students. These skills come to some naturally and can be easily assimilated into existing schemata while others must change their schemata to accommodate new skills. The assimilators and the accommodators can be divided into two main camps. The assimilators most likely include digital natives, and the accommodators include the digital immigrants. However, as with reading stances, these modern literacy groups should be viewed as part of a very dynamic continuum rather than as a dichotomy. Where one falls along this continuum is not only restricted to age and circumstance but also includes behavioral factors and personal experience.

**Digital Natives and Digital Immigrants**

Not only have literacy and text been redefined to suit the times, but also the way educators define their students has changed with the advent of digital technologies. In fact, current student generations have even been “digitized” in name. Unlike the “baby-boom
generation” or “generation X,” students today are identified by technological monikers. Dresang and Kotrla (2009) refer to youth of the digital age as the net generation, digital natives, and cyberkids. These young people are characterized by how they process information. Compared to previous generations, their information processing is fundamentally different from what is traditional. More specifically, digital natives can be generally defined as persons born after 1980 who experience digital resources as part of daily living (Houston, 2011). Bittman et al. (2011) describe teachers and parents as “digital immigrants,” and they stress the importance of the role of digital immigrants in providing balance. They act as Vygotsky’s more knowledgeable others while children interact with old and new media (1978).

Marc Prensky (2001), credited with coining the term “digital native” offers more detailed depictions of both digital natives and immigrants. For digital natives, the language of computers, games, and the Internet is a first language. Digital natives are accustomed to instant gratification and access to information; they are familiar with interactive texts; they thrive in situations where they can network, and they appreciate games and rewards. Natives are “experts at multi-tasking,” often watching television, listening to music, or surfing the Internet while performing other tasks (McHale, 2005, p. 33). For immigrants, the technology is a second language, and they speak with an “accent”. Unlike natives, immigrants may turn to the Internet for information after first consulting another resource; they may read the manual to learn how to operate a program rather than expect the program itself to teach its use; they may print out emails and digital documents rather than read or edit them on screen. As a result, digital natives experience much of their formal education being taught by “foreigners” and often endure the “lost in translation” moments that accompany interactions between natives and immigrants. Furthermore, these immigrants may bring with them a yearning for the “old country,” a desire to
instill in future generations the traditions and information consumption practices of the past. Because they did not grow up using digital technology as a learning tool during their formative years, immigrants (adults and teachers) are often skeptical digital natives are able to learn through digital consumption (Prensky, 2011).

As familiarity with technology is more of a spectrum, a new metaphor for describing the differences in the pre- and post-technology generations has emerged. Rather than referring to the respective groups as immigrants and natives, some refer to them as visitors and residents (Kuehn, 2012). Without regard to age or generation, the visitors use technology anonymously as a means to an end without having a permanent online or digital identity. Residents view the Internet as an extension of their personal and work lives. They have a permanent persona on the Internet where they network and create content (2012). While these descriptions are somewhat similar to the native and immigrant descriptions, they allow for more movement along a continuum.

The obvious distinction between digital natives and digital immigrants or visitors and residents, aside from age and generation, can be found in their schemata. Digital natives are exposed to and become familiar with digital texts from birth. They have no background knowledge of or emotional connection to a time without digital technologies. Digital immigrants have experienced the disequilibrium associated with accommodation of their schemata to incorporate digital texts. The differences between natives and immigrants, unfortunately, can be cause for concern in the classroom.

Classroom Context

A major element of what is really being discussed when speaking of modern literacy and the behaviors of digital natives is eLearning, “learning delivered or accessed via a computer or other technologies” (Leaver, 2012). If the wave of technology in recent years is in fact a
“singularity,” the atmosphere is such that educators cannot ignore the call to bring these tools into the classroom (Prensky, 2001). However, it is not uncommon for public schools to be slightly or wholly behind the curve when it comes to innovative practices, technology integration, and social trends. Such lags in responsiveness cause gaps in student expectations of curriculum delivery and, by extension, student learning (Bormann and Lowe, 2010). In other words, student experiences outside of school often do not match student experiences inside school. This can be concerning given that schools are supposed to prepare students for life and livelihood beyond formal education. There is potential for schools and educators to disenfranchise students and their literacy preferences and practices by using traditional methods that are no longer relevant or by using technology but only to mask what is still a traditional delivery (Garcia, 2012; Oleniacz, 2009). Some resist change in itself, but to change a practice with as rich and romantic a history as classroom novel studies and teacher story time seems outright negligent to many educators who are unwilling to change their schemata.

Is it fair for digital immigrants to simply force their own paradigms and understanding of what it is to be literate and what it is to be a reader on the digital native generation? Do they know what is best for contemporary student readers? Price (2009) contends that books and reading still exist in the absence of print materials. They are just found in a different format. Specifically, “digital media aren’t replacing the book; they’re replacing the file, the directory, the calendar, the form” (p. 484). Yet, even print texts are changing. Some new print text formats have been transformed to offer digital features and opportunities for interactivity. Some call them “digi-novels” or “video-books” (Dresang & Kotrla, 2009); Groenke & Maples, 2010; Davila & Patrick, 2010). For example, the popular Skeleton Creek series by Patrick Carman encourages readers, within the text of the novels, to watch online videos and participate in online activities as
part of the story (Davila & Patrick, 2010). The market is changing regardless of research, and Dresang and Kotrla (2009) argue in favor of catering to the desires of the reader. After all, reader preference and motivation play key roles in reading success (Applegate & Applegate, 2010). Perhaps, a “best of both worlds” approach is most appropriate wherein teachers are still able to focus on “legacy” content such as reading, writing, and arithmetic while letting go of some irrelevant curriculum to make room for the curriculum of the “future” such as hardware, robotics, nanotechnology and the ethics, politics, and sociology that accompany them (Prensky, 2001).

In opposition to the pedagogical and commercial support of eLearning and the use of digital reading technology in the classroom setting, there is worry that technology and digital devices may serve more as distractions to learners than as useful tools. The multitasking behaviors of digital natives have “been associated with concentration lapses and cognitive overload due to the effects of competing stimuli” (Bittman et al., 2011, p. 162). There are entire fields (Attention Management and Interruption Science) devoted to the possible disadvantages of multitasking behaviors during learning, which use terms such as “learned attention deficit disorder” and highlight the stress response created by task switching (Helding, 2014). However, as cited previously, natives are “experts at multi-tasking,” often watching television, listening to music, or surfing the Internet while performing other tasks (McHale, 2005, p. 33). Is this just another example of a yearning for the “old country” (Prensky, 2001)?

Ultimately, it is a fair question, even if digital immigrants are the only ones asking it. The question, again, and the foundation for this research is essentially, “Who is right?” Are digital natives genuinely able to multi-task to the extent they can consume digital reading materials with the same attention to detail and level of retention as when reading print? Are there fundamental
differences in the way young people approach and interpret digital and print texts? If there are differences, how do they affect the reading task, and will the differences affect the reading response teachers are searching for in the classroom?

**Reading Stance and Response Theory**

Reading stance and response theory, though distinct research areas within general reading theory, are heavily applicable to classroom and educational scenarios. After all, most measurable responses to reading take place in a classroom setting because a teacher or professor has specifically solicited such a response. It is not unusual to have an individual and personal inner dialogue about the content of a text, the quality of the text, or the emotional connections with a text, but it is less common that a reader would record or orally share such responses outside a formal environment designed for doing so. Therefore, reading stances and reading response, at least in education, work together. Unfortunately, “readers have historically had little (if any) say over the stance they take toward literary texts. Instead, pedagogical and assessment practices have often necessitated their adopting an efferent stance” (Soter, Wilkinson, Connors, Murphy, & Shen, 2010, p. 218). The lack of reader stance and response independence in a classroom setting is understandable but can cause issues even beyond simply prohibiting readers from exercising their own preferences. The contrived stances and responses compelled by teacher-designed assessments can lead to what Smith (2012) refers to as “inattentional blindness” (p. 59). In other words, readers take part in a skewed efferent stance; wherein, they are so focused on a particular task or assignment, such as mining a text for answers or “correctly” responding to prompts, they may miss important elements in a text. They may ignore personal thoughts and feelings inspired by a text with which they might have engaged more deeply had they not been focused on something else (Smith, 2012). What might change if student readers
were allowed to approach a text without pre-determined stance and response guidelines? One might expect reading stances and responses as varied as the students in the classroom.

Other researchers and theorists have already addressed variation in reader stance. Building on Rosenblatt’s transaction theory, Paulson and Armstrong (2010) raise new questions and considerations by expanding the concept of reading approaches or stances. They define reader stance as “a reflection of the reader’s purpose for reading. . . the reader’s expectations of a particular text and the type of interactions the reader engages in with the text” or the attitude with which the reader approaches a reading task (p. 87). Under this definition, the potential for numerous types of stances is much greater. Regarding this, Rosenblatt (1978), as previously discussed, classifies two main stances. The reader with an efferent stance is approaching the reading task in order to extract information, and the reader with an aesthetic stance is approaching the task with emotional expectations. She (1978) elaborates, however, that these stances are more like two ends of a spectrum; wherein, a reader may employ both efferent and aesthetic stances in varying measure throughout the reading of a single text. For example, a student of literature may read a fictional work with the expectation of an emotional transaction with the text as well as to analyze the text for literary elements and information.

However, if a reader can move along the efferent-aesthetic spectrum in a single text, can he move off the spectrum completely? All reading activities may not, in fact, find place along Rosenblatt’s established efferent-aesthetic reading continuum. Paulson and Armstrong (2010) introduce an additional and separate reading stance they call reading-for-the-writer as well as cite a variety of other scholars who present both an expansion of the popular understanding of efferent and aesthetic reading stances as well include their own distinct reading stances. For example, Soter et al. (2010) contend that aesthetic reading, measured by the aesthetic response, is
generally misunderstood and mistaken for what they call “expressive response,” which is far less elusive than the true aesthetic response. Even Dresang and Kotrla’s (2009) radical change theory may be interpreted as a theory, which simply puts forth a new modern reading stance.

Reading can be “as much about the reader as about the text,” and there is “an essential connection between reader stance and reading processes” (Paulson & Armstrong, 2010, p. 88). Therefore, this research answers the call by Paulson and Armstrong (2010) for further research into other unique stances. The research is focused on providing insight into the reading stances of digital natives and how they approach reading a digital text compared to their approach to a print text. Where do digital natives fall along the efferent-aesthetic reading continuum, or can they be included within this continuum at all? Is the experience of a digital native indicative of a new and distinct reading stance, and how does that stance impact their reading process and responses? “There is a need to expand the range of responses, thus enabling teachers to identify and honor all the responses that readers make... with respect to literary text” (Soter et al., 2010, p. 211). Yet, in agreement with Garcia (2012), “educators must provide texts that promote a variety of stances so that the strength in reading literature is not at the cost of little experience with an efferent stance and with informational texts” (Paulson & Armstrong, 2010, p. 94).

Research in Traditional/Conventional Reading

The research and information available regarding traditional reading and literacy practices is extensive. It includes, but is not limited to gender, age, and cultural reading studies, reading comprehension, reading fluency, reading in the home, reading in the classroom, motivational factors, reading engagement, instructional techniques, assessment, and a wide variety of other general and sub-topics that address some aspect of reading. Conventional reading of printed materials has a rich history of research and inquiry. Many questions have
been answered, and theories have been applied and tested. Much of what is known about reading is generally accepted, in education, as true and has been grafted into instruction and best practices. These answered questions and accepted theories are now being applied in a new way to digital reading, raising new questions and inspiring new theories.

**Reading print in the home and the classroom.** Reading occurs in a variety of settings to include home, work, and school and for a variety of purposes to include technical, informational, and leisure. For many readers, their first exposure to reading took place before they had literacy skills of their own, when a favorite story book was read to them at home on the lap of a parent, grandparent, or older sibling, when reading was part of a bedtime routine or a special daily activity. For others, the first significant exposure to reading, books, and literature does not occur until they reach formal education, when the classroom teacher reads aloud or introduces a classroom novel study. In any case, exposure to reading is acutely important to literacy development.

In “A Meta-Analysis of Print Exposure From Infancy to Early Adulthood,” Mol and Bus (2011) provide a compilation of evidence suggesting “that reading development starts before formal instruction, with book sharing as one of the facets of a stimulating home literacy environment” (p. 288). Print exposure is not only moderately associated with oral language and basic reading knowledge among pre-readers (pre-school aged children) but is also associated with oral language growth, word form knowledge, spelling skills, and academic success among grade school age students and college students. “Reading routines, which are part of the child’s leisure time activities, offer substantial advantages” (p. 289). Mol and Bus, however, are careful to explain the following:
The relation between print exposure and reading components is reciprocal, as the intensity of print exposure becomes more important for reading components with growing age, in particular for oral language and word recognition. Apparently, children who have developed a reading routine will acquire increasingly more word meanings and word forms from books, which further facilitates their reading development and their willingness to read for pleasure. Such a spiral also implies that readers who lag behind in comprehension or technical reading and spelling skills are especially at risk of developing serious reading problems because they are less inclined to read during leisure time. With less print exposure, low-ability readers are unlikely to improve their reading and spelling skills to the same extent as their peers who do choose to read. Thus, the reading gap widens (2011, p. 289).

In other words, print exposure provides a comfortable foundation upon which children can build further reading practice, and children who find reading an agreeable task will read more and will become better readers. Good readers will continue to find reading enjoyable and will continue to seek it out, therefore, gaining more exposure and knowledge and continuing to improve in a constant reciprocal process. The reverse of this, unfortunately, is also true. Children who do not experience a certain level of print exposure may show gaps in oral language and word recognition, which causes reading to be a cumbersome task. Negative experiences with reading can lead to avoidance, which further exacerbates the reading problems.

Arguably, print exposure is foundational to reading success. There is a gap in the research regarding how digital exposure during pre-reading years impacts conventional reading years. Given the rising popularity of digital reading devices, inquiry into digital exposure to texts is necessary and should be part of the discussion for pre-reading practices in the home and
conventional reading practices in schools. Additionally, if digital reading becomes or already is the preference among younger generations of readers, what does this mean for print exposure, struggling readers, motivational factors, and the future of literacy development? Does pre-reading exposure to and later individual reading efficiency in one format preclude exposure to and efficiency in another? Do the benefits that come from pre-reading print exposure transfer to digital reading later in life? While schools and educators must address the needs of individual students as they come, whether print proficient, digital proficient, or deficient in one or both formats, parents have a powerful formative influence and, therefore, a tremendous opportunity to insure their child’s pre-reading activities are in line with best practices. Perhaps, one format should be excluded in the home, or perhaps parents will have to open the shared reading time to include a healthy mix of print and digital formats.

**Motivational factors for conventional reading.** A question that most individuals will undoubtedly be asked at some point in their lives is whether they enjoy reading, and the answer will be some variation of yes or no. Motivational factors explain why, why a person enjoys reading, hates it, or only engages in it on occasion. The answer will vary depending on the gender, the age, and the experiences of each individual. What the literature suggests about the “why” of conventional reading is that motivation to read is multidimensional featuring both intrinsic, reading for the sake of reading, and extrinsic, reading for what it brings, factors.

The popular Motivation to Read Profile (MRP), developed by Gambrell, Palmer, Codling, and Mazzoni (1996), assesses the self-concept of the reader, the value the reader places on reading, and the reasons for reading as three dimensions of reading motivation. Similarly, Wigfield and Guthrie (1997) examined each of these dimensions as well as eight others in their revised Motivations for Reading Questionnaire (MRQ) to include: Motivations for reading as
products of efficacy, challenge, work avoidance, involvement, compliance, competition, grades, social, curiosity, importance, and recognition factors. In short, motivation to read or lack of motivation can stem from any one of these dimensions or a combination of several. Understanding motivation in the context of reading is important because it is tied to reading achievement.

In their study, Wigfield and Guthrie (1997) explain reading “can be easy or challenging, individual or social, rewarded or unrewarded, and competitive or cooperative; therefore, there can be many motives for reading” (p. 429). They found intrinsic reading motivation to predict the amount and breadth of reading wherein those with high intrinsic motivation measures read almost three times as many minutes as their low motivation counterparts. Additionally, their research found female students to demonstrate more positive attitudes toward reading overall (Wigfield & Guthrie, 1997). In agreement, boys seem to lag behind girls in both reading achievement and motivation to read not only in the United States but internationally with an erosion in reading attitude among males specifically beginning in upper elementary grades and beyond (Marinak & Gambrell, 2010). While they may exhibit similar levels of reading efficacy, or the belief that they have the skills requisite for completing a reading task, males in both elementary and middle grades demonstrated lower motivation to read and place lower value on reading in Marinak and Gambrell’s (2010) study. Furthermore, while it is well established that low reading achievement and low reading motivation have a reciprocal relationship, even average achieving males were less motivated than their average achieving female counterparts (Marinak & Gambrell, 2010). As a result of their findings, Marinak and Gambrell (2010) encourage constructing “classroom environments that foster intrinsic motivation to read and are
highly motivating for all children. . . Especially critical is the need to identify specific
instructional practices that encourage boys to value reading at every age” (p.137).

Other factors such as teacher behavior and socioeconomic status play a role in reading
motivation. In addition to finding similar differences in motivation between the genders, De
Naeghel et. al (2014), noticed a “positive relationship of autonomy-supportive, structured, and
involved teacher behavior during reading activities with students’ reading enjoyment and interest
in reading” (p. 1560). They also found socioeconomically advantaged students to show greater
levels of intrinsic reading motivation, particularly when those students were on college tracks
(De Naeghel et al., 2014).

Given that motivation to read is so multifaceted and significantly complex, there has been
a multitude of opportunities to study each facet as applied to print texts at a variety of ages and
demographic considerations and in an array of settings. Motivation has not been studied to the
same extent when applied to digital texts because the technology is relatively new; therefore, the
field is new. Dresang and Kotrla’s (2009) radical change theory attempts to highlight the
preference of young readers for digital texts or print texts with digital features, and they argue
that reading behaviors of children have changed to match the changing texts, but they fail to
venture into motivation territory and how digital texts influence reading motivation, autonomy,
and choice. As Marinak and Gambrell (2010) demonstrated, simply having the skill set for
digital reading does not necessarily indicate motivation.

Conradi, Jang, Bryant, Craft and McKenna (2013) attempt at least to address both print
and digital reading motivation or attitude toward reading in an educational setting. Rather than
argue high or low motivation for one format over another, Conradi et al. (2013) argue that
motivations are different for every reader, citing a variety of motivational factors including
personal identity, choice, home, and peers that may inform higher or lower motivations depending on the circumstance and format. They focus their discussion of motivation on a more narrow understanding of reading attitudes, “an attitude toward reading for recreation versus academic purposes and toward reading in print versus digital settings,” and they use this narrow understanding to develop their own survey measuring adolescent attitudes toward reading (Conradi et al., 2013, p. 566). In this way, Conradi et al. (2013) feel general motivations as well as format and circumstantially specific motivations can be addressed. Furthermore, classroom teachers at the start of each school year can easily implement their survey to gain a better understanding of the reading motivations of the students. A modified version of the survey designed by Conradi et al. (2013) was implemented as part of the open-ended survey conducted in this study to both purposefully select study participants as well as serve as a data collection instrument.

**Print reading fluency and comprehension.** Two factors very closely related to reading motivation are reading fluency and comprehension. They are interconnected to a degree that makes it difficult to determine whether the relationship is reciprocal or causal. Does motivation to read enhance fluency and comprehension, or does skill in fluency and comprehension enhance motivation? It is likely a combination of both as discussed in the section on motivational factors. Unlike motivation, which comes before reading takes place, fluency and comprehension take place during the reading process. They are also commonly found together as two dimensions of reading assessment. The two dimensions are heavily tracked and addressed on standardized exams and in reading programs in public schools in order to provide a picture of each student’s reading abilities and reading deficits.
Fluency might be best understood as the “arithmetic” of reading. It deals in the most basic functions of reading and is a vital and foundational stepping-stone to and part of independent reading comprehension. Just as a math student will struggle with advanced mathematical concepts and calculations if the skills of arithmetic have not been mastered, reading comprehension will likely suffer if a reader has not developed some measure of fluency. One of the first factors of fluency includes “accurate and automatic word reading” (Hosp & Suchey, 2014, p. 62). The words are seen and understood accurately at an enabling rate of speed. This skill is important to comprehension because “rather than having to expend cognitive effort or resources on the mechanics of accessing the text, the reader can focus his or her resources on constructing meaning from the text and relating it to his or her corpus of prior knowledge” (p. 62). Another factor in reading fluency is prosody, “the ‘expression’ with which a student reads text and generally includes pacing, phrasing, inflection, and intonation” (p. 63). Prosody gives a text character and adds a conversational quality that contributes to an ease of comprehension akin to comprehending one’s own spoken language. In short, fluency is the action that closes the gap between word recognition and comprehension. It is the ability to both recognize words, sentences, and mechanics at an effective rate of speed while also observing the inflections, intonations, and nuances of the language and digesting and interpreting those text for meaning (Hosp & Suchey, 2014). Fluency might even be thought of as the means, while comprehension can be thought of as the desired end of any reading experience.

Reading comprehension can be divided into and defined by its two main distinctions. Literal comprehension refers to readers’ ability to understand information explicitly stated in the text, whereas inferential comprehension refers to the reader’s ability to
understand information that is not stated explicitly in the text but requires some level of reasoning and thinking. (Hosp & Suchey, 2014, p. 64)

Tests measuring comprehension attempt to assess both variations, skill in digesting the actual text and the ability to draw conclusions beyond the text using background knowledge.

Because fluency and comprehension are two commonly accepted measures of literacy, there is great investment in techniques and strategies for improving deficits in these areas. In their review of research, Beach and O’Connor (2014) compile a list of fluency strengthening strategies that include having students participate in the following activities: Reading aloud to an adult (there for correction and assistance with difficult words) at least 3 times a week for a minimum of fifteen minutes each session, providing choice (to stimulate motivation) among books that can be read at a level of 85% accuracy; repeating modeled reading and reading continuously across a wide range, and participating in word recognition and vocabulary building interventions. While Beach and O’Connor (2014) contend increased fluency enhances comprehension, there are specific comprehension improvement strategies as well. Andrews (1971) reviews two well-established methods of improving comprehension-specific skills including providing students with guided reading questions and cognitive organizers. Guided questions are used to demonstrate a purpose for reading by alerting readers to key facts, concepts, and ideas before reading takes place (1971). Cognitive organizers provide a summary and outline of the main topic and sequence of ideas (1971). These preview-like interventions encourage retention.

How digital content and devices influence and affect reading fluency and comprehension is and will continue to be a key consideration in modern literacy discussions, but because the field of study is so new, there are no common or consistent best practices regarding digital
reading in the classroom. More research is necessary, and it is important to conduct such research among true digital natives. Perhaps, as is the case with reading motivation, comprehension and fluency cannot be easily compartmentalized. They, too, may be multi-dimensional and multi-faceted elements of reading to the extent that some readers will require print texts and some readers will require digital texts to maximize skill and proficiency.

**Research in Digital Reading Motivation, Fluency, and Comprehension**

What is to be said for each of the major reading research areas in a digital reading context? As demonstrated in the brief discussion of conventional reading, the field is broad and open to vast amounts of untapped research and inquiry. Larson (2010) attempts to address one area of digital reading in her case study of the same in primary grades. She observed two case study participants using new literacy skills such as adjusting the physical features of the digital text, and her interpretation of participants’ interview responses suggested an enhanced motivation toward reading. She also observed personal meaning making in response to the text. Her findings corroborate the constructivist model for learning and suggest that there may be authentic transactions occurring with digital texts. However, enhanced motivation or engagement with a text, because of its digital nature or otherwise, is not necessarily a prerequisite for enhanced reading comprehension.

In a study among older digital readers, Moyer (2011) was unable to find a statistically significant difference in reading comprehension when compared across multiple formats including print texts, digital e-books, and audiobooks. Furthermore, there was no significant increase in engagement across formats among the college age study participants suggesting that the format affects neither the level of engagement nor the comprehension (p. 254). In their study of reading behaviors between print and digital texts, Shabani, Naderikharaji, and Mohammad
(2011) also found that “preference of electronic and print resources in equal circumstances is identical” (p. 654). Even in circumstances where preference is toward digital texts for reasons of dependability, cost efficiency, or multi-functionality, research again fails to exhibit any statistically significant differences in reading comprehension across formats (Bayliss, Connell, & Farmer, 2012; Weisberg, 2011). Unlike Larson’s conclusions, the results of these university studies suggest college students, technically classified as digital natives at the time these studies were conducted, perform just as well with print comprehension as with digital comprehension, which is consistent with the idea that digital natives transfer seamlessly from one format to the other. However, only two of the four studies suggested a preference for digital texts among college age participants. It could be that Larson’s younger participants are more intrigued or motivated by digital texts as the technology, for elementary age children, is still new and stimulating, or it could be that younger generations are even more heavily immersed in the digital culture than older generations and more influenced by it as a result. In a more recent coalition project studying early literacy development and parent disposition toward reading through e-books and apps, Boudo et. al (2014) further corroborated the idea that younger generations of digital natives may be more responsive to digital reading than older digital natives. They found evidence in their exit interviews with parents that children showed increased motivation and interest in e-reading during shared reading activities, and parents’ opinions of digital reading also demonstrated a positive change. The pre- and posttests results further indicated that children have increased competency in their early literacy skills including letter, word, and picture recognition as well as reading and story direction. The only area that experienced a decline in competency is orientation/book layout (which might be expected given e-readers do lack the telltale covers of a print book).
The findings of other researchers also support the argument that print and digital formats may be more motivationally and/or comprehensively significant to younger readers. Ciampa (2012) found the first grade participants in her case study to exhibit higher levels of engagement when reading e-books, gains in listening comprehension, and a preference for e-books as a reading format. Similarly, Izzo, Yurick, and McArrell (2009) found increased reading comprehension scores among grade school students using text-to-speech technology (a prominent feature of digital reading devices) while reading. Esteves and Whitten (2011) found greater reading fluency gains in elementary school students with reading disabilities when utilizing digital audiobooks, and Roswell and Burke (2009) also observed struggling readers make greater gains in digital settings in their case study among middle school students. Each of these studies saw gains in reading fluency or comprehension among young readers, whether regular education or special needs students, when digital tools were part of the reading process.

There are comparable results among slightly older digital natives as well. In their study of digital and print reading among teenagers in an Israeli high school, Eshet-Alkalai and Geri (2010) found participants to exhibit greater critical reading abilities when reading digitally-designed digital texts than when reading the print-designed print texts. They specifically tested the critical reading ability of students when reading congruent (print- and digitally-designed texts read using the intended design format) and incongruent (print-designed texts read digitally or digitally-designed texts read in print) texts. Conversely, Jeong (2012) found reading comprehension to be higher with print books than with digital books in his study among sixth grade students, crediting the difference with the eye fatigue associated with reading digital texts, which is a separate phenomenon in itself. “Compared to reading from paper, reading from VDU
[Visual Display Units] is slower, less accurate, more fatiguing. . . pain around the eyes, blurred vision or headache” (Siegenthaler, Bochud, Bergamin, & Wurtz, 2012, p. 368).

According to the literature, there is some evidence to suggest reading format has little to no effect on reading engagement or comprehension, particularly among adult readers. There is also some evidence to suggest digital texts do increase motivation, engagement, and comprehension among younger readers, particularly struggling readers. Some research findings address the concern that digital reading causes a level of eye strain and physical fatigue that negatively affects reading rates and concentration, while other research results “indicate a trend that concentration and/or reading rates do not suffer from reading on electronic reading devices” (Grzeschik, Kruppa, Marti, & Donner, 2011, p. 288). Unfortunately, the results are inconsistent and focus in large part on the efferent reading transaction, but perhaps they can be better understood with a greater focus on the aesthetic transaction and background of the reader. Sladek (2011) is skeptical digital reading can produce an aesthetic experience. She blames the struggle to make reading desirable to today’s youth on mp3 players, laptops, and other “distractions.” She cites over-stimulation and impatience bred from a need for instant gratification as deterrents to reading because reading is not an instant process. Similarly, Wolf (2010) questions whether adult and young readers will “lose the ‘deep reading’ brain in a digital culture” (p. 7). She argues digital texts do not require readers to “use the full panoply of cognitive resources available” and that distractions have reduced reading to “sound bites, text bites, and mind bites” (p. 8). This research seeks to close this gap by qualitatively examining the transactional experiences of digital natives with print and digital texts.
Summary

While there is some research dedicated to digital reading and literacy, more is needed. Current research, likely because of the implications for public education, focuses mostly on the fields of comprehension and motivation/engagement. The digital reading phenomenon does not enjoy the same expanse of research that has been conducted on behalf of reading and literacy in a print-only environment. As is common with technological innovation, it may take the academic world some time to catch up.

For now, the literature provides commentary on the potential benefits or negative effects of digital tools and software but lacks qualitative, phenomenological analysis of the spoken experiences of the individual reader. There is some discussion concerning the results of utilizing digital tools in the classroom, such as in-line note taking and digital dictionaries and thesauruses, and multimodal features of digital texts and the implications for these features for students with disabilities and struggling readers. The literature also addresses theoretical and philosophical arguments for student motivation and preference for digital resources as part of the digital generation. There even seems to be a general consensus that digital resources, in the least, cannot be ignored given the prevalence of digital materials in society. Still, there is little to no definitive research seeking to qualitatively describe how print and digital texts are experienced with regard to transactional relationships with a text or the potential marginalization of digital natives’ modern literacy skills and reading preferences in the classroom. Moreover, the research that is available is contradictory and inconclusive, so there are still unanswered questions about general reading stance and the dimensions of motivation and preference as related to digital texts, and there is a lack of analysis of the digital native phenomenon from the perspective of an actual digital native.
Simply, this research seeks to give digital natives a voice; wherein, they might be allowed to act as co-researchers, providing deeper insight into the digital native experience. This research is timely and necessary to the current educational climate. Society and the workplace are becoming increasingly more reliant upon the ability to manipulate and interact with digital formats. The resistance to digital tools in the classroom will become more and more of a fruitless fight, and educators must be armed with the foundational research and best practices necessary to meet the demands of the onset of these inevitable classroom tools. Because reading is such a fundamental skill to success in all academic pursuits as well as social and occupational endeavors, the effects of digital reading on reading growth and comprehension becomes a first and principal concern.
CHAPTER THREE: METHODS

Overview

The purpose of this study is to gain an understanding of the digital and print transactional reading experiences of 12th grade students in a rural high school in northeast Georgia. The methodology section includes a discussion of the study’s overall design, research questions, participants, site, research procedures, data collection methods and analysis procedures, trustworthiness of the data, and ethical considerations.

In transcendental phenomenology, Moustakas (1994) urges the researcher to follow a disciplined and systematic procedure and methodology. The research process as outlined by Moustakas (1994) should include:

1. Discovering a topic and question rooted in autobiographical meanings and values, as well as involving social meanings and significance;
2. Conducting a comprehensive review of the professional and research literature;
3. Constructing a set of criteria to locate appropriate co-researchers;
4. Providing co-researchers with instructions on the nature and purpose of the investigation, and developing an agreement that includes obtaining informed consent, insuring confidentiality, and delineating the responsibilities of the primary researcher and research participant, consistent with ethical principles of research;
5. Developing a set of questions or topics to guide the interview process;
6. Conducting and recording a lengthy person-to-person interview that focuses on a bracketed topic and questions. A follow-up interview may also be needed.
7. Organizing and analyzing the data to facilitate development of individual textural and structural descriptions, a composite textural description, a composite structural
description, and a synthesis of textural and structural meanings and essences..

(Moustakas, 1994, pp. 103-104).

The information that follows seeks to address each of these steps.

**Design**

This qualitative study follows a transcendental phenomenological research design approach. Phenomenological study seeks to describe the essence of the lived experiences of several individuals for a commonly shared phenomenon (Creswell, 2013). This approach “involves a return to experience in order to obtain comprehensive descriptions that provide the basis for a reflective structural analysis that portrays the essence of the experience” (Moustakas, 1994, p. 13). A phenomenological approach is the best fit for this study because I have examined the transactional reading experiences of several individuals who share the phenomenon of lifelong digital technology exposure including experience with digital reading and print reading for texts in fiction and non-fiction genres. A phenomenological study is the first step in determining the essence of the shared experience of digital natives. More specifically, transcendental phenomenology:

Engages in disciplined and systematic efforts to set aside prejudgments regarding the phenomenon being investigated (known as the *Epoche* process) in order to launch the study as far as possible free of preconceptions, beliefs, and knowledge of the phenomenon from prior experience and professional studies – to be completely open, receptive, and naïve in listening to and hearing research participants describe their experience of the phenomenon being investigated. (Moustakas, 1994, p. 22)

The transcendental phenomenological method, specifically, is suitable for this study because I sought to provide a comprehensive textural and structural description of the essence of the
experience without making an interpretation of meaning based on my own personal experiences and opinions (Creswell, 2013; Moustakas, 1994). During the study, the participants were surveyed for sampling purposes and interviewed individually. Additionally, other artifacts were collected to assess participants’ perceptions regarding the phenomenon of digital texts through journaling and graphic representation.

**Research Questions**

1. What are the reading experiences of 12th grade digital natives in a rural high school in northeast Georgia?
2. How do 12th grade digital natives in a rural high school in northeast Georgia describe their transactional experiences with print texts?
3. How do 12th grade digital natives in a rural high school in northeast Georgia describe their transactional experiences with digital texts?

**Participants**

Purposeful sampling is a popular sampling strategy for phenomenological studies wherein the researcher chooses study participants based on their ability to intentionally inform an understanding of the phenomenon being studied based on their experiences (Creswell, 2013). Specifically, in this study, 10 student participants were purposefully selected based on qualitative survey criteria indicating they had experience reading print and digital texts in both fiction and non-fiction genres and indicating a willingness to participate in the study. All participants were 18 years old to include males and females. The participants were also part of a convenience sample to ensure ease of access and the ability to collect data during the study while also providing an environment, which facilitated a familiar and comfortable interview rapport, as
several participants knew me personally or new of me a member of the community and employee of the school system where the study was conducted (Creswell, 2013).

Setting

The study took place among 12th grade students at Mountain High School (pseudonym). The school is located in rural, northeast Georgia. Mountain High School has a Title I designation, indicating high poverty according to federal guidelines. Mountain School System has recently received funding under a federal rural education technology grant, which has increased the number of digital devices in all schools, including the high school. The plan is to continue to increase the presence and use of digital devices in the school, particularly for classroom novel study purposes. This makes Mountain High School ripe for research regarding the shared phenomenon of digital natives and their transactional reading experiences with print and digital texts both in their personal and academic lives.

Procedures

Before beginning the formal study, I administered a pilot survey and tested the interview questions with a small sample of colleagues and fellow doctoral candidates not part of the study sample in order to clarify wording and questions and to correct ambiguity in the survey instrument and interview process. After making necessary modifications, I secured Institutional Review Board (IRB) approval. The IRB application, approval letter, administration scripts, and other supplementary documents are included in the appendices. Once IRB approval was secured, a school administrator assisted me in calling senior students from their classes, obtaining participant consent and administering the computer-based survey instrument among 56 senior Mountain High School students during the school day in a computer lab. Using the results of the survey, I purposefully selected participants who met the following criteria: Individuals of
18 years of age or older, representative demographics, affinity for reading, experience with print and digital reading of texts, and willingness to participate in the study. I narrowed the results down to 36 participants who agreed to be interviewed. From there, I narrowed potential participants to 13 candidates who exhibited experience with digital and print reading and a positive attitude toward reading in general. Furthermore, I examined open-ended responses to determine whether potential interview candidates might be able to fully articulate the digital native experience. Once participants were selected, I contacted eleven of the participants face-to-face and two via email, reviewed with them again the nature of the study, and continued data collection by conducting in depth, audio recorded, individual interviews. Participants were also asked to take part in multiple concentrated journaling activities. Of the 13 potential participants, one declined to be interviewed, and two who originally agreed to an interview later pulled out of the study. Ten total participants were interviewed and participated in the journal activities. A professional transcriptionist transcribed the audio recordings verbatim. Each participant received a copy of their interview for member checking purposes. I examined each of the study documents, transcripts, and journals, and I developed a description based on the themes and key statements within the data.

**The Researcher's Role**

As stated in chapter one, I am currently working as a middle school media specialist and have been a certified teacher for seven years. I have taught middle grades language arts, science, and social studies. My particular content area of interest is social studies though I have predominantly taught language arts. My educational background includes a bachelor’s degree in political science, a master’s degree in public administration, and an education specialist degree in curriculum and instruction. I am a strong advocate for literacy, and 21st century learners and
their approach to technology infused learning intrigues me. Although I have had personal experience with digital reading and technically fall into the digital native classification myself (as a person born after 1980), I have no significant or measurable experience with digital reading in a classroom setting as either a student or an instructor beyond occasional computer generated research. Moreover, I have a specific personal reading preference toward print materials, and if not for the comparable affordability and instant availability of digital texts, I would always choose to read printed material. I believe that though I am very comfortable with the digital format, my preference for printed materials stems from early exposure to print materials during my formative years to the complete exclusion of a preference for digital texts. Furthermore, I am employed by the school system of which Mountain High School (study site) is a part, but I have no current working relationship with the study participants. This research is guided by the ontological philosophical assumption reality is different depending on the constructs of the individual. Through this study, I sought to determine how readers describe their own transactional experiences with both digital and print reading and how their individual constructs inform their aesthetic or efferent meaning making of a text (Creswell, 2013; Rosenblatt, 1978).

**Data Collection**

The data collection for this study utilized common phenomenological collection tools to include surveys, which establish the criteria for relevant study participants, journaling, and individual interviews. In this section, there is a discussion of the survey design and purpose, journaling procedures, and potential interview questions and the rationale behind each question as they relate to the research inquiry. Interviews are the primary data collection tool for transcendental phenomenology (Creswell, 2013). Other tools such as journals and artwork are sometimes examined in phenomenology and are included in this study as part of the personal
journaling assignments and in order to achieve methodological triangulation (Moustakas, 1994). Methodological triangulation is the practice of using multiple methods to study the same phenomenon. It has been found to be beneficial in providing confirmation of findings, more comprehensive data, increased validity and enhanced understanding of studied phenomena” (Bekhet & Zauszniewski, 2012, p. 40). Specifically in this study, data collection followed a particular sequence. I began by first administering the qualitative survey. The survey purpose was two-fold. It served as a data collection instrument through the open-ended response questions having participants describe their experiences with print and digital texts, and in this purpose, sequence was not important. However, the survey also served as a purposeful sampling instrument for the journal and interview phase of the study. Those individuals who expressed a willingness to be interviewed and participate in journaling activities were contacted, and thus, the survey was introduced first. Next, I met with each of the potential participants and implemented the journaling phase of the study. I wanted participants to be able to respond to journal prompts and to include their own thoughts and inclinations throughout the course of the study. Though the journals were distributed before individual interviews took place, participants were allowed to keep the journals after the interviews in the case that any ideas or comments occurred to them after the close of the interview. Finally, each participant was interviewed individually. Some participants chose to submit their journals at the time of interview, but most submitted them one to two weeks after their interview date. I maintained email and phone contact with participants from the time of surveys, before and after face-to-face interviews, and until all journals were submitted. The conversations mainly included clarification of logistic details or exchange of pleasantries.
Surveys

A qualitative survey, as defined by Fink (2003), is “a survey that concentrates on the meanings people attach to their experiences and on the ways they express themselves. A qualitative survey answers questions such as ‘What is X, and how do different people, communities, and cultures think and feel about X, and why?’” (p. 163). I administered a modified version of Conradi, Jang, Bryan, Craft, and McKenna’s (2013) Survey of Adolescent Reading Attitudes (see Appendix B) to be used for purposeful sampling selection of potential research participants as well as a spring board and reference point for the interview process. The survey is not the primary data collection instrument, but it is instrumental in providing an early glimpse into research participant voice and experience. Moustakas (1994) highlights general considerations for selection criteria which are included in the purposeful sampling survey: Age and gender. In addition to general considerations, there are also essential criteria to include: Affinity for reading, experience with print reading, experience with digital reading, willingness to participate in the study, and willingness to participate in recorded interviews which will be published in the dissertation (Moustakas, 1994). The survey was initially piloted with a small group before formal research began in order to clarify ambiguous or confusing wording. The survey was also helpful in fundamentally addressing each of the research questions by ensuring the participants were high school seniors who were at least 18 years of age (a component of each research question) and that each participant had a sufficient familiarity with both print and digital texts in order to credibly speak about the phenomenon of reading as a digital native.

Journaling

Journal writing is a qualitative technique often used by researchers to both capture and record their own “reflections on the research act” as well as to refine the ideas and beliefs of the
study participants as part of the research process (Janesick, 1995, p. 505). As the lead researcher, I have recorded my own reflections throughout the research process as well as obtained the reflections of the study participants as co-researchers.

The participants were asked to keep journals for a period of time prior to their first interview and shortly following the interview. Though they were encouraged to record any and all reflections throughout their participation in the research process, they were each provided with prepared composition notebooks that included journaling activities and prompts as well as associated materials necessary to complete the activities and prompts. Upon receiving the notebooks, the participants were asked to read all prompts and tasks, were given the opportunity to ask questions about the prompts and tasks to ensure clarity and understanding, and received instruction to complete tasks and respond to prompts by a designated date and time, after which the journals were turned over to the lead researcher. Participants were reminded that they have the right to decline participation in any or all parts of the process including response to journal prompts. The included activities and prompts follow:

1. Please draw or create a picture that represents reading to you. You may create the picture here or on separate sheet of paper that you attach to the journal. After completion, please describe why you depicted reading in this way in the space provided.

2. Please discuss any other thoughts or feelings you have regarding your own digital and print reading experiences in the space provided.

3. Please use the tablet (with included children’s book) and print children’s book that were provided to you, and read each story to a child unable to read independently. Read the stories on separate days, and please describe your experiences in the space
provided. Compare your digital story reading experience and your perception of the child’s experience to your print story reading experience and your perception of the child’s experience in the space provided.

4. Please describe your thoughts following the interview with the researcher. Were there things you wanted to say but did not? Were there thoughts that occurred to you after the interview, which you would like to include here? Did you have any questions or concerns?

The research questions in this study are essentially interested in the reading experiences of digital natives to include reading digital texts and print texts. Surely, a part of reading experience includes reading that takes place in the home, privately and with family or friends. The journal prompts and activities, in addition to offering an alternative method of communicating ideas for those participants who may better express themselves through imagery or the written word, were intended to trigger and recreate reading memories and moments that may only occur in the privacy of one’s own home. For example, drawing an image depicting reading or sharing a story with a child may reveal a participant’s emotional or sentimental background more fully or richly than can be determined through an interview. Furthermore, the journals allowed participants to record any thoughts preceding or following the interviews and allowed participants to take as much time as they needed to express themselves outside the time constraints of a face-to-face interview.

**Interviews**

In phenomenological research, “the long interview is the method through which data is collected on the topic in question” (Moustakas, 1994, p. 114). Moustakas (1994) characterizes the interview as informal, interactive, and open-ended. However, he adds researchers may
develop questions, guidelines, or a checklist of topics in advance, which may aid in “evoking a comprehensive account of the person’s experience of the phenomenon,” yet these questions can be altered as the interview proceeds (Moustakas, 1994, p. 114). The interview process for this study was semi-structured. “In the semi-structured interview, the researcher has a specific topic to learn about, prepares a limited number of questions in advance, and plans to ask follow-up questions” (Rubin & Rubin, 2012, p. 31). Because the topic of study was very specific, the transactional digital reading experience of 12th grade digital natives, the semi-structured interview was the most appropriate method for ensuring sufficient data was collected regarding the phenomenon. Interviews were conducted individually with each participant, audio recorded, and transcribed for later analysis. Though semi-structured, I personally conducted each interview in order to maintain general consistency in the questioning presented to each study participant and to make changes to future interviews as new questions emerged from older interviews. The interview categories, interview questions, and rationale for the questions follow:

Personal History

1. Please describe your parents’ involvement in your education both before and after entering a formal school setting.

2. Please describe your educational experiences upon entering elementary school to this point in your education. What early or fond memories do you have of facilities, teachers, friends, and curriculum?

3. Why do you think you developed a love of reading?

4. What are the first memories you have of reading? Do you have any early memories of digital reading? Did your parents read to you in print and digital formats?
5. What are your teachers’, parents’, and grandparents’ opinions of digital reading as compared to print reading?

6. Marc Prensky (2001) describes people your teachers’, parents’, and grandparents’ age as digital immigrants and people your age as digital natives? What do you think he means by these definitions? (After clarifying his meaning . . .) Do you think he is accurate?

The personal history and experience questions were asked in order to establish an understanding and description of the background knowledge and beliefs of each participant. According to Rosenblatt (1978), each reader’s background knowledge affects his transaction with a text and the meaning he gleans from the text, and each research question makes reference to transactional experiences. Therefore, it was necessary to interview participants regarding their backgrounds.

**Transactional Processes**

7. What are your motivations for reading? Do you have different reading motivations depending on the content or format?

8. Please describe the circumstances that cause a text to have meaning for you? What do you look for to gain understanding or make a connection with a work?

9. What would cause you to reject a text for aesthetic reading (i.e. reading which provides an emotional or personal experience. . . pleasure reading)?

10. What would cause you to reject a text for efferent reading (i.e. reading in which you are attempting to comprehend or retain information. . . informational reading)?

11. Would you consider yourself more competent and comfortable in digital reading or print reading? Why? Does the complexity of a text have bearing on your format preference?
The transactional process questions were asked in order to gain a deeper understanding of the actual exchange that takes place between an individual reader and a text. Questions 7 and 8 introduce the individuality of each reading transaction. Motivation to read and meaning-making are important to the transactional process because, like reading stance and purpose, they are personal and unique elements for each reader. Questions 9 and 10 differentiate between Rosenblatt’s (1978) aesthetic reading and efferent reading purposes, respectively. In order to more deeply understand the meaning-making that takes place in the mind of an individual reader, it was important to ask questions where participants had an opportunity to describe their own processes along the aesthetic-efferent continuum. Finally, question 11 was an opportunity, if it had not otherwise been revealed, for participants to make an explicit statements of confidence in their print and digital literacy skills and abilities. These questions directly and indirectly addressed the transactional and motivational experiences of digital natives in the current literacy climate.

**Print and Digital Texts**

12. Please describe your favorite book, and explain why it is your favorite.

13. If you were to have only one copy of this book, would you want it to be print or digital format? Why?

14. Would this preference apply to all books or just favorites? Why?

15. When you have children, will you read to them from print or digital formats? Why?

16. Explain a situation, if any, where you might now become emotionally connected to a print text or a digital text?

17. Explain your approaches to understanding both print and digital texts. Do you approach different formats differently?
18. Is there anything else about reading print and/or digital texts with regard to your personal preferences or experiences that you would like to mention or discuss? (Do you tire with one format quicker than another? Do you prefer one overall?)

Question 12 is further descriptive of the personal background of a reader, which informs the meaning or significance of a text (Rosenblatt, 1978). It also sets the stage for questions 13 and 14. By asking questions 13 and 14, I was able to address Dresang’s (1999) radical change theory that digital natives prefer digital formats and information. Through questions 13, 14, 15, and 16, I attempted to formulate a synthesis of both transactional theory and radical change theory by asking participants to describe how their backgrounds and emotions apply to traditional and modern literacy tools (Dresang, 1999; Rosenblatt, 1978). Finally, question 17 coincides with question 7, seeking to produce a general description of the processes of a reader associated with both print and digital texts. This series of questions addressed the print and digital text distinctions between research questions two and three.

**Data Analysis**

According to Ritchie and Lewis (2003), proper data analysis includes the following three forms of activity:

- Data management in which the raw data are reviewed, labeled, sorted, and synthesized;
- Descriptive accounts in which the analyst makes use of the ordered data to identifying key dimensions, map the range and diversity of each phenomenon and develop classifications and typologies; and
- Explanatory accounts in which the analyst builds explanations about why the data take the forms that are found and presented. (p. 217)

The data analysis method that was employed for this research is thematic framework analysis as developed by the National Centre for Social Research and explained in detail by Ritchie and
Lewis (2003). This method utilizes a matrix-based data management and analysis approach to address all three forms of activity while also allowing the researcher to move back and forth between data and themes without losing the language of the raw data (Ritchie & Lewis, 2003).

The thematic framework is used to classify and organize data according to key themes, concepts and emergent categories. As such, each study has a distinct thematic framework comprising a series of main themes, subdivided by a succession of related subtopics. These evolve and are refined through familiarization with the raw data and cross-sectional labeling. Once it is judged to be comprehensive, each main theme is displayed or 'charted' in its own matrix, where every respondent is allocated a row and each column denotes a separate subtopic. Data from each case is then synthesized within the appropriate part(s) of the thematic framework. (p. 220)

**Data Management**

The first data analysis activity undertaken was the data management phase where I organized the raw data and lightly applied preliminary meaning. During this phase, I read, reviewed, and became familiar with the transcripts of the raw data. In doing so, I allowed a subset of the data to dictate my identification of initial concepts and themes, which were then used to create a hierarchical *index* of main and subthemes. The index was then applied to all the data as I re-read transcripts using a computer-assisted qualitative data analysis software (CAQDAS) program to maintain the original language of the data. As I assigned subthemes to the data, I adjusted the index to refine and include additional categories that were overlooked in the initial indexing phase. Once the index had been applied to all data, I sorted the data into *clusters of meaning* or thematic units as parts of *matrices*. There was one matrix for each main theme to include subthemes in the columns and study participant responses in the rows. The
matrices allowed comparisons of data by case as well as within and across themes. The data placed in each cell of each matrix was synthesized and summarized carefully to maintain the integrity of the respondent’s language while also enabling me, the researcher, to quickly see evidence of the theme. I also organized data into the cells with page references to link the summarized data to the raw data (Ritchie & Lewis, 2003).

**Descriptive Accounts**

The first task of descriptive accounts is to read across cases under a particular subtheme or code to gain an understanding of the range of responses and how those responses create a picture of what is happening with regard to the phenomenon. I analyzed each of the coded responses to reveal dimensions of the experience and then assigned them to categories (Ritchie & Lewis, 2003). This process maintained a link to the original data while reducing the raw data to the essence of the experience (Moustakas, 1994). Once dimensions and categories were established and divisions among participants were noted, I used those dimensions and categories to develop themes and typologies. For example, the study participants had already been assigned a typology as *digital natives* distinct from *digital immigrants* prior to beginning the research (Ritchie & Lewis, 2003).

**Explanatory Accounts**

Finally, I organized the typologies and themes into a central chart and examined for links between sets of phenomena or subgroups of the study participants. I searched for patterns, that were replicated across the data, and investigated the patterns by returning to the individual cases and raw data when necessary to consider why they exist, noting how often they occurred across the data set and noting cases that did not fit the patterns (Ritchie & Lewis, 2003). At this point, I interrogated the data for explanations. The report includes explanatory accounts drawing from
explicit explanations given by the participants themselves and implicit explanation based on my own inferences backed by other empirical studies and the theoretical framework.

**Trustworthiness**

In qualitative research validity of data and analysis can be obtained through a variety of strategies (Creswell, 2013). One of the more prominent validation methods in qualitative research is “trustworthiness” as described by Lincoln and Guba (1985). Trustworthiness addresses credibility, dependability, confirmability, and transferability. Credibility refers to confidence in the accuracy of the findings; dependability refers to the likelihood the findings would be consistent with repeated studies; confirmability refers to the ability to attribute research findings to the study participants rather than researcher bias, and transferability refers to the ability of findings to be applied meaningfully to other contexts (Lincoln & Guba, 1985).

**Clarifying Researcher Bias**

In order to clarify my own bias, I have identified and described my own assumptions, biases, and experiences related to the study phenomenon in a personal biography and from what was gained and learned during the memoing process (Creswell, 2013). Clarifying researcher bias increases the credibility and confirmability of the study because the researcher explains personal beliefs or prejudices, which may impact interpretation of the data (Lincoln & Guba, 1985).

**Member Checking**

I also solicited the opinions of study participants regarding the accuracy of data interpretations. I order to do this, I asked participants to review the recordings and/or transcripts of their own interviews. This process increased the credibility of the study because qualitative, phenomenological research focuses on the voice of participants experiencing the phenomenon.
Soliciting participant confirmation of data interpretations validated their voice, confirmed intended meaning, corrected errors in interpretation, and contributed to the overall accuracy of the findings particularly considering the nature of the research inquiry focuses on a generational phenomenon, which is unfamiliar to me. Furthermore, this opportunity allowed study participants to offer any additional information that may have be pertinent to the phenomenal experience (Lincoln & Guba, 1985).

**Memoing and Thick Description**

I reviewed interview transcripts and participant notes in their entirety several times, and I made notes in the margins as well as in the matrices that were created. Memoing allows a researcher to see the major ideas and categories in the data while also actively bracketing out assumptions and biases with regard to transactional reading for digital and print texts (Creswell, 2013). Memoing further promoted credibility and confirmability of the findings and contributed to the effective implementation of another trustworthiness strategy, thick description. Thick description refers to the amount of detail used in the textural and structural descriptions of the research participants’ transactional experiences with digital texts and is used to promote transferability (Lincoln & Guba, 1985). The more detailed the descriptive accounts of the interviews and field notes, the more likely it is findings can realistically be applied to other contexts and situations.

**Prolonged Engagement**

I attempted to build a rapport and familiarity with study participants, the setting, and the culture through prolonged engagement with the participants (Creswell, 2013). I established this rapport and familiarity by getting to know the participants informally before formal research and interviews began. Furthermore, I structured the interviews so there was room for candid
communication and departure from established interview questions. I encouraged participants to ask me questions during the interview as well as give me constructive criticism and feedback about the interview process. This method increased study credibility because my rapport with participants enhanced their trust in me and increased the participants’ willingness to speak freely, openly, and honestly. Study participants were able to play the role of active co-researchers rather than the role of subjects who were acted upon (Lincoln & Guba, 1985).

**Triangulation of Data**

In order to triangulate the data, I collected and interpreted data from a variety of collection methods (surveys, interviews, and journaling) and used a variety of other sources (literature review, theoretical framework) to present corroborating evidence for the research findings (Creswell, 2013). Additionally, triangulation can enhance the thick description to ensure the account is comprehensive and rich with detail from a variety of data collection methods and information sources (Lincoln & Guba, 1985). Triangulation contributed to credibility, dependability, and confirmability as analysis and findings were supported by variety in internal data collection methods and external evidence.

**Peer Debriefing and External Auditing**

Peer debriefings and external audits are related methods of establishing trustworthiness. Peer debriefing involves presenting the research inquiry to disinterested peers in order to gain insight into possible, unforeseen researcher biases or assumptions. Throughout the research process, I had multiple opportunities to present the research inquiry and design to a cohort of peers. I sought review by discussing the research process with peers who would question both the methodology and interpretation of the data. Peer debriefings are effective in establishing credibility as it seeks to eliminate researcher bias. Similarly, external audits involve other
researchers, not personally involved in the research, who evaluate the methodology and findings of the research study to make a determination regarding the accuracy of the findings and conclusions. Through peer discussion, dissertation committee review, and Institutional Review Board review and oversight, the methodology and data interpretation have been thoroughly examined by impartial researchers. Accuracy in data collection and analysis contribute to both the dependability and confirmability of the study (Lincoln & Guba, 1985). These discussions have been recorded and serve as a “check” on my personal prejudices and/or misunderstandings.

**Ethical Considerations**

While I do not foresee any serious ethical repercussions, I do acknowledge that sharing personal experiences with interview participants may have interfered with participants’ communications. I attempted to avoid this by bracketing my personal experiences and beliefs. Bracketing or *Epoche* is part of the process of phenomenological reduction wherein a researcher will attempt to set aside, as far as possible, all preconceived experiences, assumptions, and judgments regarding the phenomenon of digital reading transactions in order to reduce the phenomenon to only the perspective and essence of the experience for study participants (Moustakas, 1994). Furthermore, I recognize prolonged engagement with participants may have lead to participants sharing “off the record” information, which could be harmful and is not pertinent to the study. I have eliminated “off the record” information from data analysis and have maintained the confidentiality of each participant by excluding names and information that could be used to identify specific participants. Final ethical considerations include maintaining participant anonymity and data integrity. I have maintained the anonymity of participants by using pseudonyms and by ensuring the integrity of data by keeping collected data stored and backed up in locked files on a password-protected computer. Ultimately, participants were asked
to give written, informed consent, and were made aware that their participation is completely voluntarily. They were apprised of their rights and abilities to protect their own interests and were frequently reminded they could withdraw from the study at any time for any reason.

Summary

The research design of this study was intentionally chosen and developed in order to best address the research questions, adhere to the standard practices of qualitative research, and build a cooperative rapport and relationship with the study participants. I sought to make each participant an active and comfortable co-researcher by explaining the purpose and design of the study, by communicating with them in a variety of modes of communication, and by giving them multiple opportunities to ask their own questions as well as review and confirm their individual contributions to the study. In doing so, the shared phenomenon among the participants came to life. The results have greatly enriched my own understanding of the phenomenon as well as made each participant more self-aware.
CHAPTER FOUR: FINDINGS

Overview

The purpose of this chapter is to present the results of the data analysis. The chapter includes participant biographies that address their personal lives and reading perspectives. Following participant biographies, the data analysis results are presented thematically. Following a discussion of themes, the research questions are reviewed and a summary is provided regarding the results. The results only include a descriptive account of what emerged from data collection and analysis. The explanatory account takes place in chapter five. The results of this study address the original study purpose, which is to describe the transactional reading experiences of 12th grade digital natives in a rural high school in northeast Georgia as applied to print and digital texts.

Participants

While each participant was solicited for participation based on the shared characteristic that they are all digital natives, at least 18 years of age, and have an affinity for reading in addition to the other characteristics, they are still unique and come from a variety of backgrounds. At the time of interview, each participant was preparing for finals and high school graduation. The following descriptions highlight each participant individually and provide a portrait that cannot otherwise be represented thematically or in tabular form. Included with some of the profiles are drawings that were provided in the participant journals that represent reading.

Rachel

Rachel was the first participant to be interviewed. During both recruitment and the interview phase, she seemed very eager to get started and had little reservation about answering questions honestly and openly. Her rate of speech, being somewhat rapid, demonstrated an
excitement to communicate her opinions and ideas with confidence. Rachel works retail and stays very busy earning money for college. She plans to attend college in state and hopes to major in construction project management, a field she admits is dominated by men but was inspired to pursue from working alongside her father, who works in the same field. She has a very energetic personality and offered vital feedback regarding the interview questions, suggesting that further interviews include questions about peer reading. She is the older of two children. Her parents are married and are very involved in her education, expecting acceptable grades and post-secondary education.

Rachel, like all the participants, enjoys reading. She particularly favors realistic fiction, emphasizing love stories. She also enjoys non-fiction in topics focusing on World War II or American history. She greatly prefers texts written in first person point of view. Texts that are not realistic or relatable to her life do not appeal to her, and she particularly avoids action adventure stories and texts with superfluous information. One interesting hobby of Rachel’s is that she writes and shares short stories online. She classifies herself as an average student and an above average reader; she takes pride in encouraging and inspiring non-reader friends to read. Rachel has experience reading both digital and print texts. She did not have a lot of exposure to technology in her home, and she believes this is one reason she prefers print.

Natalie

Natalie is the daughter of two educators who have always been very involved in her education. In fact, she was homeschooled until 5th grade with her three siblings and one other neighbor. Her mother was their teacher. During 5th grade, she returned to public school. She did not consider herself a skilled reader or writer upon entering grade school, but now classifies herself as a gifted student and an above average reader. Natalie was a soccer player, but she
recently made a change to tennis, which she enjoys. She prefers reading popular fiction including realistic, coming-of-age stories, and some fantasy and dystopian literature. She particularly enjoys unpredictable plots and literature in first person point of view. She does not care for science fiction or stories with static characters, and she avoids non-fiction, as she believes non-fiction authors often have a personal agenda that taints the credibility of the text. She does enjoy historical fiction, however. Her favorite books include the *Harry Potter* series because she felt she was able to “grow up” with the characters and get to know the characters very well over seven books. *Looking for Alaska* is also a favorite book because of its first person point of view. She loves *The Fault in Our Stars, It’s Kind of a Funny Story,* and *The Perks of Being a Wallflower* because of their raw honesty. Natalie has experience in both print and digital reading and reads regularly. She prefers print reading.

Natalie will be attending college out of state on a Reserve Officers’ Training Corps (ROTC) scholarship. She hopes to become an Army nurse. Though young, Natalie already exhibits control and professionalism in her communication style. She has a unique blend of seriousness and sarcasm that makes speaking with her intriguing and entertaining. That being said, her sarcastic sense of humor is at her own expense. She is very respectful and was thorough in answering each question, going back to change answers to earlier questions or rephrasing questions to suit her ability to respond.

**Kaye**

Kaye was a fascinating participant. Several factors set her apart from the others as somewhat atypical. She is an only child. She was homeschooled through 6th grade by her mother and father and attended middle school in a Spanish speaking school in Peru while her mother, a geologist, was relocated there for work. Because of this, she is fluent in Spanish. She
prefers the freedom of a home school curriculum but is grateful for the competitive outlet public school offered her. She is an artist and enjoys working in mixed media. She plans to attend college in state and study chemistry and several languages including Russian, Spanish, and Arabic. She hopes to work for the FBI in forensics.

Kaye explained that she is able to read 4,000 words per minute. She read every book in her middle school library and every book in her high school library twice. Predictably, she has no real genre preference and admittedly will even read books she considers “bad” if for no more than just the opportunity to escape. The only books she finds herself unable to read are those in the Twilight series by Stephanie Meyer. Kaye describes herself as synesthetic and tetrachromatic, meaning letters and numbers have color for her and she sees more colors than the average person, respectively. More specifically, she perceives whole words as having color. She sees the Twilight books as dull and grey and is, therefore, uninterested in them. She is more interested in books that are very colorful. Some of her favorite books include Hamlet, 1984, and Harry Potter and the Deathly Hallows. She did not originally want to read the Harry Potter series, but her mother read them first, and then they read them together, and the books have now become some of her favorites. Though experienced in reading both print and digital texts, Kaye prefers print and attributes the preference to limited exposure to digital technologies at a young age as well as reading speed. Digital reading cuts her reading speed to 3,000 words per minute. She attributes the lower reading speed to the overabundance of colors and, therefore, overstimulation within a digital text. She classifies herself as a gifted student and gifted reader. Kaye provided a graphical representation of what reading is to her in Figure 1.
Figure 1. Kaye created this piece to represent art, creativity, imagination, and the colors she sees while reading.

Vince

Vince was born in Mexico, and he travels there still to visit extended family. His parents are divorced, and he lives with his mother, who is an American citizen, stepfather, sister, and younger brother. He is active in school and extracurricular activities, and he spends time with his friends and girlfriend outside of school obligations. Vince seems disciplined and dedicated to training and exercising both his mind and body. He is devout in his faith. He reads to better his mind. He was a successful high school wrestler and was offered some wrestling scholarships but turned them down to pursue other interests. He plans to attend college in state, join the National Guard, and eventually become a doctor of dental medicine.

Vince classifies himself as an above average student and an above average reader. He enjoys reading adventures, and he looks for texts with unpredictable plots. He also is inclined to read some histories, and these genre preferences are to the exclusion of all others. He admits
avoiding branching out much further than these genres. He specifically mentioned a disdain for stories that seem feminine or “girly” to him. His favorite book is a story his mother read to him when he was young called *The Crippled Lamb*. He enjoys it because the story is reflective of his faith. He has experience reading both print and digital texts, but he prefers print. Like Kaye, his early exposure to technology was limited, and he believes this may inform his preference for print. Vince provided a graphical representation of what reading is to him in Figure 2.

*Figure 2*. Vince created this drawing to represent reading as a part of self, a safe haven from reality.
Parker

Parker lives with his mother and two younger sisters. After his parents’ divorce, his mother began to work outside the home, and some of the household responsibilities fell to him such as looking after his sisters. He works occasionally doing odd jobs for a farmer, and he is an active participant in his church. Though he is not certain of his career path or college major, he has agreed to attend college for at least the core curriculum before making any final decisions. This is partly because it is important to his mother that he gives college a try. Parker presents as very mature for his age during communication, even wise. He used a lot of analogies to illustrate his points, and he took his time answering questions. He paused to think and gave careful and precise answers.

Parker is somewhat non-discriminatory when it comes to genre preferences. He enjoys adventures most, but he is unlikely to avoid any text based solely on genre. The only texts he will not read include those that are obscene in nature or intentionally disrespectful or offensive. He was careful to clarify that he does not mind opposing opinions or texts that challenge his own beliefs but that he does not condone texts that seek to do so in an impudent manner. His favorite books are those in *The Hardy Boys* series. He remembers reading them when he was younger and sharing and discussing the books with his close friends at church, explaining that they shared the books like kids today might share Pokémon cards. In his later life, the Bible has become one of his most cherished books due to both his faith and the Bible’s influence on other parts of literature and culture. He has experience reading both print and digital texts and considers himself an above average student and gifted reader. He prefers print and attributes that preference to his early exposure to print. Parker provided a graphical representation of what reading is to him in Figure 3.
Figure 3. Parker created this drawing to demonstrate the change that occurs in the mind when reading from stagnation to wonder and curiosity.

James

James has a very colorful and dynamic family. He spent time talking about each family member individually, their personalities, their relationships with him, their personal backgrounds, and more. His parents are divorced, and James lives with his father. He sets himself apart from his family somewhat, noting they see him as the “prodigy”. James maintains a busy schedule. He is a successful student, having taken a lot of advanced content courses, more than any other graduating senior. He works retail, often into late evening hours. James plans to attend college in state with a major in mechanical engineering
When reading, James enjoys books that appeal to most teenagers, popular books and realistic fiction. He dislikes classic literature. While he respects the academic value in studying classical literature, he feels it is not relevant to and is disconnected from modern society. Furthermore, he avoids non-fiction, citing annoyance with authors who “try to sound smarter than they are.” His favorite books as a child were *The Berenstain Bears* series and several he cannot remember the title of, but he does still have each of them and says he could see himself fighting to have them all when he has his own home. James classifies himself as a gifted student and an above average reader, and he has read both print and digital texts in addition to taking traditional format and online classes. He prefers print. James provided a graphical representation of what reading is to him in Figure 4.

*Figure 4.* James created this drawing to represent the most common places where he is likely to read.
Chelsea

Chelsea was a pleasure to interview. She is mild and soft-spoken, very gentle but not particularly shy. Chelsea stays busy with school and extracurricular activities as well. She spends time with her friends and boyfriend. Her younger sister plays soccer, and she attends her games to support her. Chelsea was a cheerleader during basketball season, and she also volunteers at the county library. She originally volunteered for the children’s program and has since “aged” out of the volunteer position, but they allow her to continue because she has been such a dedicated and helpful volunteer. She plans to attend college in state and she hopes to first gain training and certification as a dental hygienist. She plans to work as a hygienist to gain experience before ultimately applying to dental school. She classifies herself as an average student and an above average reader.

Chelsea has extensive experience reading both digital texts and print texts, and she has an almost equal preference. She is especially thankful for digital texts when at her sister’s soccer games so she is able to read on her phone. Chelsea prefers historical fiction and mystery. She enjoys book that are captivating and move quickly from the beginning, avoiding those that are slow to start. She also expressed an annoyance with books that have abrupt endings. Chelsea’s favorite books as a child were *Arthur* and the *Berenstain Bears* series. Not surprisingly, *Gone with the Wind* is her favorite book now. She enjoys the genre and story, but she is also emotionally connected to the book because it was recommended to her and given to her by her great grandmother. It is something the two of them share that Chelsea both enjoys in and of itself but also cherishes as one would cherish a family heirloom. Chelsea provided a graphical representation of what reading is to her in Figure 5.
Figure 5. Chelsea created this drawing to represent the knowledge and learning she feels is gained each time she opens a book.

Samantha

Samantha is a very cheerful and happy young woman. She smiles and laughs a lot, and she was a joy to interview. She has a twin sister, and her sister and parents seem to be a very close family. Samantha is very involved in the fine arts. She sings, dances, and participates in school and community theater. She classifies herself as a gifted student and an above average reader. She takes a variety of advanced content classes. She is planning to attend university out of state and wants to major in theater studies and strategic communication. Her goal is to attend law school after her undergraduate studies and work in public relations for a theater company.
She and her mother and sister all enjoy reading, and she remembers competing a bit with her sister when it came to school reading competitions and reading level. She is mainly a fan of fiction, preferring books that are an easy read, what she calls “beach books”. She is not at all a fan of non-fiction or books she considers excessively unrealistic. Additionally, she does not enjoy books with mature content such as drugs, etc. Her favorite book as a child was one about Disney princesses that she described as a big book with all the princess stories her mother used to read to her. As she grew older and began to read on her own, her favorite books were series such as The Babysitters’ Club, Nancy Drew, and Harry Potter. She enjoyed series because of the continuity of the characters and the ability to share the books and talks about them with her peers. Currently, her favorite book is Little Women. Samantha has much experience reading both print and digital texts. She prefers print and attributes the preference in part to the limitations her parents set for technology use.

Brad

Brad was quite a departure from the other study participants, mainly because he began his relationship with reading as a struggling reader. He talked about a lot of the woes of struggling readers: Being embarrassed to read aloud, anger over not knowing certain words, avoidance of big or intimidating books. His reading frustrations caused him to avoid and dislike reading for most of his formative years. Through upper elementary and middle school, in fact, he was placed in remedial reading classes in order to improve his reading skills and comprehension level. Brad explains that the features of digital reading, which eliminated or assisted a lot of his areas of frustration, were a major part of the reason he began to enjoy reading. He enjoyed being able to read books without people knowing what the book was and, therefore, the level of the book. He liked to be able to look up a word in context as he read, and he benefited from the
ability to instantly access information. Immediately after being released from remedial classes, he took an advanced placement literature course in his first year of high school. Although he admits it was a great challenge for him, he enjoyed the opportunity to prove himself and has since taken multiple advanced content courses. He now classifies himself as an above average student and an above average reader. While experienced with both print and digital texts, Brad prefers to read digitally. He attributes this preference to the negative associations he developed with early print reading and for the vocabulary and reading support digital texts provided him. Part of his success may be due to the support and involvement of his parents in his education.

After high school, he plans to attend college and become an entrepreneur. He hopes to open a customs shop for classic cars.

Brad is the youngest of three children, but he came off as somewhat of an old soul. He is very self-evaluative and self-reflective. His genre preferences suit his personality well. Brad prefers non-fiction and histories. He reads to learn and gain knowledge (scientific studies mostly) rather than to be entertained. He finds, sometimes, that non-fiction can be repetitive. He does not enjoy fiction because he believes it to be overly dramatic. In general, he prefers stories that “really happened.” He remembers fondly a book his mother read to him by Beatrix Potter, and it has become one of his favorites, as there was a character in the book with his name. Other favorites of his include the study Bible he received when he was young, and he says it is a favorite because his mother was very religious and he attended church with her often. He also favors Darwin’s *On the Origin of Species* and a particularly difficult text on the topic of quantum field theory because of the challenge they provide him. Brad provided a graphical representation of what reading is to him in Figure 6.
Figure 6. Brad created this drawing to represent the knowledge that enters a reader’s mind while reading a book.

Jake

Jake was the study participant with whom I had final contact, at least for an extended period of time and communication. It was poetic almost as he seemed to romanticize books and reading to a greater extent than any of the others. Though he reads both digital and print texts, he prefers print largely because he idealizes print books. He classifies himself as a gifted student and a gifted reader. He will attend college in state and study English education, perhaps
followed by a master’s degree in library science. He plans to become an English teacher or librarian, but he would also like to be a writer. He already writes some of his own stories.

Jake comes from a family of readers. His parents read as well as his brother and sister. He loves fantasy and enjoys science fiction to some extent because of his ability to live vicariously through the characters’ “epic adventures” and “grand quests”. His favorite book is the *Lord of the Rings* series. He feels books offer an escapist quality from the “boring” aspects of human life. He admits that “non-fiction can be rough” but appreciates good stories from history as well as any good story. He does not enjoy stories that seem flat or shallow, stories that “tell rather than show,” or stories that are too fantastical or too complex. He gave a suggestion for future research that more than just stories in the form of books be studied. He believes all people love stories, even if they do not love reading. He thinks they fulfill their need to hear stories through movies, television, games, or just speaking to each other. Jake provided a graphical representation of what reading is to him in Figure 7.

![Figure 7. Jake provided this image of an inscription from his favorite book tattooed on his arm to demonstrate that reading experiences leave a unique and special mark.](image)
Results

The results of the study first are organized and discussed thematically. Within each section can be found themes that were identified during the data collection and analysis process, possible subthemes, and many participant quotes that address each theme authentically. Additionally, there are occasions where themes slightly overlap or connect to others, and they have been ordered in such a way to effectively address the connections between themes. Most importantly, each theme was identified through the voice of digital native participants, and each relays the digital natives’ perspectives and experiences as part of their shared phenomenon. The section will conclude with a review of the research questions and how the themes answer the research questions.

Table 1 follows and includes each of the codes applied to the surveys responses, interviews, and journals. In addition to a listing of the codes, the table provides the frequency of each code, demonstrating how often the code was applied to significant statements within the data. To clarify, many significant statements may have received more than one code. Table 1 also includes the identified themes, and the position of themes in the table is relevant to the groups of codes used to identify the particular theme. Finally, a rationale for how and/or why particular codes were applied to the identified themes is also included.
### Table 1

**Enumeration of Codes and Applicable Themes**

<table>
<thead>
<tr>
<th>Code</th>
<th>Frequency</th>
<th>Theme</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affinity for reading</td>
<td>52</td>
<td></td>
<td>These codes were not utilized to identify a theme as much as to establish a biographical portrait for each individual participant.</td>
</tr>
<tr>
<td>Atypical experience</td>
<td>32</td>
<td></td>
<td>These codes were not utilized to identify a theme as much as to establish a biographical portrait for each individual participant.</td>
</tr>
<tr>
<td>Career choice</td>
<td>11</td>
<td>Participant portraits</td>
<td>These codes were not utilized to identify a theme as much as to establish a biographical portrait for each individual participant.</td>
</tr>
<tr>
<td>Cherished book</td>
<td>40</td>
<td>(not a theme)</td>
<td>These codes were not utilized to identify a theme as much as to establish a biographical portrait for each individual participant.</td>
</tr>
<tr>
<td>Format preference</td>
<td>145</td>
<td></td>
<td>These codes were not utilized to identify a theme as much as to establish a biographical portrait for each individual participant.</td>
</tr>
<tr>
<td>Genre preference</td>
<td>32</td>
<td></td>
<td>These codes were not utilized to identify a theme as much as to establish a biographical portrait for each individual participant.</td>
</tr>
<tr>
<td>Other literacies</td>
<td>4</td>
<td></td>
<td>These codes were not utilized to identify a theme as much as to establish a biographical portrait for each individual participant.</td>
</tr>
<tr>
<td>Text aversions</td>
<td>27</td>
<td></td>
<td>These codes were not utilized to identify a theme as much as to establish a biographical portrait for each individual participant.</td>
</tr>
<tr>
<td>Benefits of digital</td>
<td>54</td>
<td>External features</td>
<td>Significant statements within these codes focused largely on the external and physical features of print and digital texts.</td>
</tr>
<tr>
<td>Benefits of print</td>
<td>52</td>
<td>Print and digital texts</td>
<td>Significant statements within these codes focused largely on the external and physical features of print and digital texts.</td>
</tr>
<tr>
<td>Digital aversions</td>
<td>73</td>
<td>Print and digital texts</td>
<td>Significant statements within these codes focused largely on the external and physical features of print and digital texts.</td>
</tr>
<tr>
<td>Print aversions</td>
<td>14</td>
<td>Print and digital texts</td>
<td>Significant statements within these codes focused largely on the external and physical features of print and digital texts.</td>
</tr>
<tr>
<td>Approach to digital</td>
<td>17</td>
<td>Classroom dimensions</td>
<td>Significant statements within these codes focused largely on the external and physical features of print and digital texts.</td>
</tr>
<tr>
<td>Approach to print</td>
<td>15</td>
<td>Classroom dimensions</td>
<td>Significant statements within these codes focused largely on the external and physical features of print and digital texts.</td>
</tr>
<tr>
<td>Comfort level</td>
<td>3</td>
<td>Classroom dimensions</td>
<td>Significant statements within these codes focused largely on the external and physical features of print and digital texts.</td>
</tr>
<tr>
<td>Comprehension</td>
<td>27</td>
<td>Classroom dimensions</td>
<td>Significant statements within these codes focused largely on the external and physical features of print and digital texts.</td>
</tr>
<tr>
<td>Format experience</td>
<td>59</td>
<td>Classroom dimensions</td>
<td>Significant statements within these codes focused largely on the external and physical features of print and digital texts.</td>
</tr>
<tr>
<td>Reading motivation</td>
<td>43</td>
<td>Classroom dimensions</td>
<td>Significant statements within these codes focused largely on the external and physical features of print and digital texts.</td>
</tr>
<tr>
<td>Sensory experience</td>
<td>58</td>
<td>Reading as a sensory</td>
<td>While codes such as format preference and digital and print aversions influenced the sensory experience theme, the significant statements within the individual code for sensory experience were able to fully inform the theme.</td>
</tr>
<tr>
<td>Family involvement</td>
<td>92</td>
<td>Reading as a social</td>
<td>The social nature of reading was a theme identified during examination of statements regarding family, peers, and other social environments.</td>
</tr>
<tr>
<td>Peer reading</td>
<td>43</td>
<td>activity</td>
<td>The social nature of reading was a theme identified during examination of statements regarding family, peers, and other social environments.</td>
</tr>
<tr>
<td>Social reading</td>
<td>87</td>
<td>Reading as a social</td>
<td>The social nature of reading was a theme identified during examination of statements regarding family, peers, and other social environments.</td>
</tr>
<tr>
<td>Emotional connection</td>
<td>77</td>
<td>Emotional relationship</td>
<td>Significant statements within these codes were characterized by emotionally charged language and memory.</td>
</tr>
<tr>
<td>Meaningful reading</td>
<td>59</td>
<td>Emotional relationship</td>
<td>Significant statements within these codes were characterized by emotionally charged language and memory.</td>
</tr>
<tr>
<td>Memories</td>
<td>70</td>
<td>Emotional relationship</td>
<td>Significant statements within these codes were characterized by emotionally charged language and memory.</td>
</tr>
<tr>
<td>Digital immigrants</td>
<td>80</td>
<td>First generation digital</td>
<td>Significant statements within these codes informed the distinction among immigrants and first and second-generation digital natives.</td>
</tr>
<tr>
<td>Digital natives</td>
<td>117</td>
<td>Digital natives</td>
<td>Significant statements within these codes informed the distinction among immigrants and first and second-generation digital natives.</td>
</tr>
<tr>
<td>Immigrant accent</td>
<td>16</td>
<td></td>
<td>Significant statements within these codes informed the distinction among immigrants and first and second-generation digital natives.</td>
</tr>
</tbody>
</table>
External Features of Print and Digital Texts

Some of the most obvious and superficial features of print and digital texts have been discussed in the literature, but the participants highlighted several of the features that play an active role in their own lives and in their choices regarding when and how they use print texts and when and how they use digital texts. Apart from their personal format preferences, each participant noted positives and negatives to both formats. Some key features exist in the digital native experience, and there were few departures from these features in the interviews, surveys, or journals although there are likely many more than those discussed. I felt that including such features as part of an independent theme was warranted as nearly 200 codes were applied to the data in this category. Surely part of the digital native reading experience has been navigating the attributes of print and digital formats. When utilizing digital texts, participants appreciate the convenience, the accessibility, and the cost effectiveness as valuable digital features, and they highlight some less desirable traits as well. Similarly, the study participants made known the conveniences and other physical characteristics of print texts they see as beneficial external features, while also providing the print features that are unwelcome.

The convenience of digital texts presents itself in a variety of ways. Rachel explains why digital texts are physically convenient stating, “I think it’s because it’s so much lighter to just pull out. . . like our textbooks are huge, and they’re back-killing. . . it’d be easier to like. . . instead of having to lug around my books from one side of the school to the other, I just pull out the tablet” (personal communication, April 24, 2015). Natalie agrees, “That’s why Kindles are really convenient because I have like seven books on my Kindle, but seven books. . . it’s kind of hard to carry” (personal communication, May 1, 2015). Kaye adds, “From a practical storage perspective it’s definitely easier to have say 10,000 books on a little thumb drive than it is to
have actually 10,000 books to carry around” (personal communication, May 2, 2015). Chelsea and Jake later discuss how they find digital books situationally convenient, when they are waiting somewhere or traveling. Chelsea appreciates the convenience of digital texts during down time “going out to dinner and waiting for food. . . me and my mom and my sister, we go on our Kindle and just read ‘til our food gets here” (personal communication, May 8, 2015). Jake says, “If I’m going to be doing a lot of traveling, it’s nice to have an electronic book on my phone just because if the train or whatever lurches sideways, you don’t fling a book across the aisle with pages going everywhere” (personal communication, May 14, 2015).

Another major feature that was noteworthy to participants regarding digital texts was accessibility. Digital texts provide a wider range of choices, more cost effective choices, and more instantaneous choices in reading materials. Each of these benefits improves accessibility. Parker comments on the wealth of information, “You pretty much have like infinite access to information. . . to potentially anything. . . if you pretty much have like the entire world in your hand, then it’s going to be hard not to look I guess” (personal communication, May 4, 2015). Considering choice and cost, Brad admits, “I read more books as digital books because I have a much wider range to choose from, and I do not waste our natural resources, not to mention how cheap E-books have actually gotten” (personal communication, March 25, 2015). Furthermore, Brad credits the instant gratification of digital texts with his reading format preference, “That’s where I kind of started my reading digitally because some things I either couldn’t find in a library, or I didn’t have the time or patience to go to a library to try to find them” (personal communication, May 12, 2015). Similarly, even though he prefers print overall, Jake admits that he does find himself using his “iPhone more and more to buy Kindle books because it's cheaper
than buying a physical book and easier than going to the library and potentially waiting” for the one he wants to come in (personal communication, May 14, 2015).

Interestingly, what digital natives fail to highlight, to a large degree, as appreciated features are those within the text themselves. Aside from in-text dictionaries for unfamiliar words, the participants were either uninterested in or wholly unaware of digital texts’ font style and size manipulation, highlighting, annotating, and note-taking features. Furthermore, participants found several other characteristics of digital reading unattractive to include general technology frustrations, digital reading screen and fatigue issues, and multi-functional distractions.

One element that is unique to technological devices in the minds of many digital readers is their reliability. Several mentioned that digital reading devices and cloud storage programs are untrustworthy. They “crash” and suffer power and data losses. Brad recalls a time when his own device was broken and “everything had to be wiped off of it” to claim the warranty (personal communication, May 12, 2015). He believes, “Technology’s good, but . . . it can just be taken away so fast” (Brad, personal communication, May 4, 2015). Jake agrees, “A lot of the arguments for digital print is that it’s immortal and it will always be there, but I don’t believe that” (personal communication, May 14, 2015). Others complained about having to charge technological devices. Parker remembers the aggravation of getting Internet in his home “because it was dial-up” and “was blocking the telephone” (personal communication, May 4, 2015). He also recounts the difficulty of finding resources using the Internet when compared to just being able to use the index of a book. Chelsea and Samantha find the available space on digital devices too limiting for storing all of the books they would like to store, and James feels that though digital books are cheaper, digital devices are much more expensive to purchase and
replace than print. When turning pages, James describes the frustrations of several participants when he describes having to “manually flip through each one” (personal communication, May 7, 2015). He can’t “just shuffle really fast” like he does when reading print (James, personal communication, May 7, 2015). Chelsea really summarizes many of the frustrations when she states, “I just feel like it’s the same thing with digital reading. They just have a lot of bugs they haven’t figured out yet” (personal communication, May 8, 2015).

Another of the major aversions the participants had to digital texts included digital screen problems. The glare of the screen and eye fatigue were some of the chief concerns regarding digital reading. Natalie and Samantha are particularly annoyed by what Samantha calls “that technology glare” of digital screens (personal communication, May 11, 2015). For Kaye, the screen is disturbing and negatively affects her ability to read as fast as she can in print because she is “partially tetrachromatic,” meaning she “can see the different pixel colors in the screen, so it’s a little much” (personal communication, May 2, 2015). Vince states, “After looking at it for so long, it will like hurt my eyes or head” (personal communication, May 3, 2015). Even Rachel, who reads digital texts often, admits, “The print screen can sometimes hurt my eyes, especially when I have to take like a test or anything like that online. It just kills me” (personal communication, April 24, 2015). Aside from the physical limitations of the screen, several participants mention the multifunctional purpose of digital devices causing distractions while reading. For example, Vince lists screen notifications as being a distraction, while Parker finds the temptation of utilizing the non-reading functions of a digital reading device to be a significant distraction. Samantha describes it this way, “You look at your phone, your laptop, and there’s lots of things you’re doing, and so sometimes... I forget that like I’m reading versus like just holding another electronic in my hand” (personal communication, May 11, 2015).
Another significant point Samantha made about digital reading devices is that “there... always is something new and better, so... you’re always like outdated. ... no one’s ever like ‘Well, I have a nicer book than you’” (personal communication, May 11, 2015).

Print texts have their own conveniences in the eyes of the study participants. For example, several participants lamented over having to charge digital reading devices and cited not having to charge a print text as one of its main conveniences. “My Kindle is always dead... like I lose the charger all the time... but you don’t have to worry about charging like print books,” Samantha argues (personal communication, May 1, 2015). Many also perceive print texts as being easier to manipulate in order to find your place, make highlights, or take notes. While acknowledging that digital texts have these features, they feel that digital books complicate what is otherwise a simple process with a print text. Chelsea argues, “I can skip to like a certain part if I wanted to... but on digital you kind of have to like scroll, and you don’t really know where that place is... it’s just harder to find” (personal communication, May 8, 2015). Furthermore, she adds, “you can make notes in the print better than you can digital... I mean you can still make notes, but it’s easier just to thumb through them and find what note you were looking for than scrolling through the page or clicking on a link to that note” (Chelsea, personal communication, May 8, 2015). Natalie cites one of the most basic features of a print text as one she desires for convenience, “You can... tab pages that you like... in a book if I want to like just fold down like a page that I really like, I can” (personal communication, May 1, 2015). Speed is another factor of convenience, and Kaye and Natalie both feel they are able to read faster with print texts.

Many of the participants also prefer some of the physical features of print books that enhance the reading experience. For example, Rachel states, “In a digital book, you can’t really
look at a picture” (personal communication, April 24, 2015). James believes that “every book’s slightly different in its formatting, and the page size, and how condensed the words are, and the way things are spaced out” and that these elements will help your mind to remember better the things you read than what you may read from something that is more uniform (personal communication, May 7, 2015). And, finally, there are some physical features about print that digital texts are just unable to recreate. Samantha puts it best when she says, “Sometimes with technology you just like can’t exactly do what you want to” (personal communication, May 11, 2015).

However, print texts are not without their disadvantages. Like digital texts, the study participants have reason to question their longevity. For example, “paper is paper, and it does tend to degrade over time,” Kaye explains (personal communication, May 2, 2015). In agreement, Jake argues, “Physical books aren’t permanent; they decay, and they wear away;” you have to worry about “pages falling out or getting ripped” if you are not careful with print texts (personal communication, May 14, 2015). Many participants mention that print takes up too much valuable space in backpacks and dorm rooms and that print books are sometimes difficult to find. Rachel adds, “Print is more expensive than digital” (personal communication, April 24, 2015). Additionally, Vince suggests print proves to be cumbersome at times such as when you pull print instructions out of a box, “and you unfold it and it’s . . . big . . . and some of it’s in German and Spanish, and you’re trying to figure out what’s what” (personal communication, May 3, 2015). As it is with most things about which an opinion can develop, there are pros and cons no matter the format or the generation.
Classroom Dimensions of Reading

The study participants discussed some of the more traditionally studied dimensions of reading including comprehension, motivation, and reading approach or stance. These have become “buzz” words in formal educational settings, and it is likely they occur thematically during this study because of their prevalence in schools and classrooms. Regarding reading comprehension as part of the digital native experience, the majority of participants make distinctions between print and digital texts depending on the circumstance. Some participants believe they comprehend print texts better outright. Vince says, “I feel like I understand print better... I guess it’s because I focus more on it whenever I’m reading a book... than when I’m reading a tablet” (personal communication, May 3, 2015). Rachel believes her comprehension is stronger because she notices her tendency to skim digital texts and “skip over until when they talk again” (personal communication, April 24, 2015). James believes the layout of print texts help him to comprehend them and retain information better. Others believe their comprehension is not affected by the format with the exception of complex texts; in which case, they prefer print. Natalie explains why she prefers to use print with complicated texts,

Even though I like reading more now, I’m still not that strong of a reader. I’m also not that fast of a reader, and I still like to kind of like if it’s like a tough sentence or like word or something, I need to like follow along with my finger and like really re-read it, and if it’s on a screen of any kind, I just can’t do that as well (personal communication, May 1, 2015).

Conversely, Brad prefers digital texts when reading advanced texts because of the support digital features provide. He discusses going online and having a complex text pulled up alongside other supplementary texts, “I could have a summary... I could, you know, fully go in and see what
other people had found out or had wrote about” (Brad, personal communication, May 12, 2015).
With things like instructions and manuals, Vince prefers the organization of digital texts, which is contrary to his perception of comprehension in general. Still, others perceive no difference in their ability to comprehend print or digital texts. Jake argues, “It’s the same words either way” (personal communication, May 14, 2015).

Another significant element of classroom reading is what motivates students to read. The study participants revealed their motivations for reading in general, but several revealed different motivations depending on the format as well. Kaye is motivated to read for entertainment and for the benefits that reading offers her. She argues, “It’s proven that reading and learning another language are the only two ways you can actually raise your IQ. . . Reading is something that can help you and make you a better writer, a more educated person” (personal communication, May 2, 2015). Similarly, Vince, Brad, and Parker are motivated by self-improvement, strengthening the mind, learning, and the challenge of reading. Rachel and Natalie are motivated to read more by the story and characters. They seek out characters they can relate to, characters with whom they can form an emotional connection. Chelsea, Samantha, and Jake are motivated by the escapism books provide. Jake explains,

Life can seem so dull and boring sometimes. I mean you go to school. You go to work. You go to school again, and it’s like, well, there’s not much to it. That’s it, but then in these fantasies there’s a lot more to it, and there’s these epic adventures and these grand quests, and it’s kind of like living through those even though you can’t really, and it’s. . . it’s just nice to not be boring for a while (personal communication, May 14, 2015).

In some circumstances, the reading motivations changed depending on the format. Given that most of the participants prefer to read print, they have particular motivations for reading digital
texts. For example, Parker is motivated by cost when reading digitally. Chelsea is mostly motivated to read digital texts only when recommended by others because they are more difficult to preview or “judge by their covers.” Brad and Jake are motivated to read digital texts over print for convenience purposes. Brad explains, “That’s where I kind of started my reading digitally because some things I either couldn’t find in a library, or I didn’t have the time or patience to go to a library to try to find them, so I started reading a lot of stuff online” (personal communication, May 12, 2015). Jake finds digital texts more convenient when traveling.

Finally, a student’s reading stance or approach to reading is often considered in a formal educational environment. The participants discussed the approach they take with each reading format. Vince procrastinates reading digital texts and must overcome distractions while reading. For longer texts, he prints them out to read them or attempts to find print versions. Rachel reads less carefully when reading digital texts. She is more likely to skim or scroll through digital texts and read print texts word for word. Chelsea’s approach changes depending on the format as well, “I know if I’m reading a print book, I’m going to be there for a while, so I get food, snacks, drinks, get comfortable. With a digital . . . it’s just like texting. I can walk around and have it in my hand and read it” (personal communication, May 8, 2015). Similarly, James prepares to be in a quiet and comfortable place when reading print, but he approaches digital texts with the idea that he will only be reading them for short periods of time. Brad, a predominately digital reader, feels his preparation for reading print is more involved than what he needs to do to read a digital text. Other participants do not detect a difference in the way they approach or prepare for digital and print reading.
Reading as a Sensory Experience

With one exception, each of the digital native participants declared a preference for print texts, and even Brad, who prefers digital reading, changes his preference to print when considering the format in which he would acquire his most cherished books. When participants discussed the benefits of print text, and when they discussed format preference and cherished books, they each cited the sensory elements of print texts that are absent in digital texts as reasoning for their responses. Thus, the sensory experience of reading overlaps with other themes, but it also stands on its own as a strongly prevalent theme within the participants’ discussion of the digital native reading experience. The most frequent comments regarded being able to “hold” a book, followed almost without exception by the desire to turn the pages. Rachel comments, “There’s just something about holding a book... especially if it’s brand new... where the pages haven’t been touched” (personal communication, April 24, 2015). Parker echoes, “With print, like I can... you can hold it, feel the individual pages” (personal communication, May 4, 2015). James adds, “It’s just also just something about holding a book and being able to flip the page as opposed to swiping... It feels almost informal,” and Jake agrees that holding a print book “makes it more real” for him (James, personal communication, May 7, 2015; Jake, personal communication, May 14, 2015).

Touch and its related sense of connectedness were also common within the sensory experience. Similar to the need to hold a book and feel or turn its pages, Chelsea and Jake felt very strongly about being able to touch the book in general. Chelsea mentions the inability of digital books to ever recreate the touch and feel books from childhood, those that encourage small children to discover different textures of characters or elements within the story by touching fabrics and textures sewn into the pages. More important to Chelsea is “the history
behind” touching a book and the ability print books have to link people together across time, “just knowing that people from way back when actually touched what you’re touching and were read what you’re reading” (personal communication, May 8, 2015). Jake agrees, 

You can take a digital book and send a link to someone else or a news article or whatever, but they don’t . . . get the sense that you’ve held that, that somebody else has touched it as much as with a physical book. I mean you can go to the library and grab a book, and hundreds of people could have held that same book, but when you get a digital one, that’s the first and only kind of copy of that, and if you delete it, then even the one that you had before is gone. When you re-download it, it’s like a completely new one (personal communication, May 14, 2015).

Another desired sensation is the ability to be able to simply see a book as itself rather than as part of a multi-functional device. Uniquely for Kaye, because she is synesthetic, “words more than letters have really vivid colors, and so like books are very colorful” when she reads them (personal communication, May 2, 2015). Chelsea appreciates the memories seeing a book on a shelf can bring, “Just going back to that time when you were really happy when you were a kid and just thinking back to it . . . I actually might take it down and read it. It’s seeing it and having those memories about it” (personal communication, May 8, 2015). Samantha agrees, “For me . . . we’ve always had like just lots of books at our house . . . It’s just like always really cool I feel like to see books on the shelf” (personal communication, May 11, 2015). Brad enjoys being able to see books for a slightly different reason. Interestingly, he explains, “I guess it could be social status in some ways. Oh, I can read all books online, and I just look like everybody else who’s, you know, texting their friends or, you know, surfing the web, but when I have a 5,000 page book that I carry around with me and actually read, I have a different aura or
appearance” (personal communication, May 12, 2015). Jake provides another perspective on the importance of being able to visually experience a book as compared to a digital device,

The bigger the story is in a book, the bigger the book is. Its size is equal to the depth of the story. . . As for having it to keep and display, I’d rather have physical because you get so much more personalization physically. You get the cover, and the cover art, and the color, and the type of font that the title’s in, and you can display it on a bookshelf, and you can have all these books, and people will just know that you like books. . . and having a lot of them throughout your house or whatever shows that those are important to you, and they are important to me, and I want people to know that that’s such a big part of my life (personal communication, May 14, 2015).

Other observations associated with the sensory desires of the participants are the feelings of presence, ownership, and permanence derived from physical interaction with print texts. The general consensus is that digital reading impedes many of the senses. Kaye believes “if you can. . . hold the book, it feels more like you actually own it than if you have it. . . preserved on some sort of digital thing” (personal communication, May 2, 2015). Vince feels “for us to. . . truly know it’s there, we have to have it in our hands” (personal communication, May 3, 2015). The same sentiment exists when examining the idea of ownership and permanence from the digital side as well. James argues,

If it’s digital, it almost makes me feel like I don’t have it. . . When you have that one book in your hand. . . you own that book, and if it’s gone, it’s gone. It makes it feel almost that much more precious, and so I think that’s kind of what it is. . . It just feels like you actually own the book more so than if you had a device. . . As humans, we like to
have physical possessions, and it plays on that lack of feeling like you have it if it’s on a
device (personal communication, May 7, 2015).

Samantha, Brad, and Jake, rather than use terms related to “having” or “owning” a book,
describe printed texts as having a feeling of “permanence” or “soundness” they don’t’ feel with
digital texts. They ultimately, trust the presence of print texts more than they trust the presence
of digital texts simply because print texts make their presence known more effectively.

Most participants assert that sensory interactions with a printed text are what set print
reading apart from digital reading not only physically but also emotionally, describing the
sensation of interacting with print as “more special” or “intimate.” Parker explains,

It makes it more personal. Like at least with the Bible... the word is God... it’s alive...

In order to know if something’s like alive, you kind of have to like feel it or look at it... You have to like observe it... Like if you see a tree from a distance... like from a long
distance, you’re not going to be able to tell if it’s alive or dead unless if you like get up
close... see if it has leaves, see if it’s like the wood’s wet or if it’s dried out and gnarled.
It’s kind of like that... or at least that’s the best way I could probably put it” (personal
communication, May 4, 2015).

**Reading as a Social Activity**

What I have elected to call social reading is another significant theme I identified during
data collection and analysis. As Jake states, “Reading is seen as a thing you do when you’re
alone. It’s an individual thing” (personal communication, May 14, 2015). While in many
circumstances this may be true, it is also very much a social activity among the study participants
that began at an early age and extends into current reading and even future reading practices.
Social reading takes place first in the home and extends to school, church, friends, peers, and younger or future generations.

The earliest reading memory, for most participants, involves being read to by an adult in their homes. With few exceptions, that adult was usually their mother. “My mom read to us all the time,” Samantha remembers (personal communication, May 11, 2015). She also remembers that she, her mom, and her sister always read together and that her parents were always willing to buy her new books. Kaye’s mother read stories to her as she grew up that started with “Little Golden Books and progressed to Shakespeare” (personal communication, May 2, 2015). Natalie, James, and Brad recall their mothers reading to them before bed in the evenings. Similarly, Vince’s mother read to him occasionally before bed when asked and encouraged his brother and him to read on rainy days. As Vince began to read on his own, he read to his younger brother. Chelsea has a family of readers. She recalls being read to by her mother, sitting in her lap with her and helping her turn the pages. Sometimes her dad would read to her, and she, her sister, and mother still often read together and recommend books to each other. Chelsea’s favorite book is the result of a recommendation her great grandmother made. She remembers fondly, “She loved Gone with the Wind. She had a copy. . . She kind of got me started on it” (personal communication, May 8, 2015). Others don’t exactly recall being read to but are certain they must have been. Many of the participants credit their early exposure to print, by way of their parents or grandparents, with their preference for print texts now. Rachel and Brad even mention choosing to read certain books, at times, in order to please or draw closer to family members.

After learning to read independently, social reading activities extended to other social groups outside the home. Chelsea frequented the library, for which she now volunteers, and took part in several library reading programs for young readers, and she now relies on friends to make
good book recommendations. Parker remembers reading *The Hardy Boys* books in conjunction with a group of friends at his church, and though they do not share books as much now, they share ideas they gain from what they read. Vince recalls, with a smile, getting “to read little books” to his class in elementary school because he was such a good reader, and he currently shares, discusses, and argues about comic books with his friends (personal communication, May 3, 2015). He prefers to share print texts comparing the choice between digital and print to talking on the phone,

> It’s like talking on the phone you know. . . It’s different when you’re talking on the phone with someone than if you’re talking in person, like the conversation is different when you’re with them because you know when you’re talking to someone you keep eye contact. . . so I guess. . . actually having a book with them it’s more emotional (personal communication, May 3, 2015).

Rachel laughs about making fun of a friend for crying during a class reading of *Where the Red Fern Grows* before she was an avid reader, but says she gets it now and now takes pride in encouraging other friends to read. Natalie remembers a box of books that were passed around among all of the homeschool families in her community, and James reminisces about competing with his classmates to read the most books in elementary school and the excitement that surrounded his friends when the latest book of a series would arrive. Though the same excitement does not surround them now, they still share books with each other, and James feels this makes reading more enjoyable and makes being social even easier. He maintains,

> If you’ve read the same book, it’s a common element between the two of you. You know, um, if you’ve read this book, and I’ve read the same book, we can talk about this
book, and that’s just one more thing we have in common, and it makes, you know, just being social in general easier (personal communication, May 7, 2015).

Incidentally, James feels it’s easier to share print books than digital books. Additionally, many of the participants discussed talking about school reading assignments with other classmates and sharing personal copies of books with friends and peers. Samantha teased at how “nerdy” she was in middle school because she shared books to the extent that she, at one time, had a personal stamp made just to mark books as her property to insure they would be returned to her. She still shares books now, and prefers to share print. As a struggling reader for much of his life, Brad avoided social reading because of feelings of frustration and embarrassment about his skill level, but he now enjoys being able to share the things he reads with those around him to “enlighten” others and support his own ideas and arguments. In his case, he prefers to share and read socially using digital texts. In any case, Jake argues for the importance of the social aspect of reading,

I think it’s important because. . . nobody wants to feel like they’re alone. So, you validate, ‘Well, I like this story do you like this story?’ because if I’m the only one that likes it, then you’re like, ‘Oh no, is something wrong with me? Why does no one else like it?’ So, you reach out just to make sure that you’re not alone, you’re not too strange. . . It goes back to how no human is good at everything. What you missed might be really important, and so you want to hear what they got out of it just to see if you missed something that was important, or maybe they missed something, and you want to share what was really important to you. . . I wouldn’t say it’s the entire reason I like reading. . . but it’s definitely a big part, um, because reading is seen as a thing you do when you’re alone. It’s an individual thing, but I don’t think it has to be. You can extend it to other
people, and I think, like a lot of things in life, I mean you can party by yourself, but it’s not going to be nearly as fun as doing it with your friends (personal communication, May 14, 2015).

Jake prefers to share in print format when in close proximity with others because print gives you “so much more depth of a memory” (due to the sensory atmosphere), and he uses digital formats to share texts with those whom are far away (personal communication, May 14, 2015).

Finally, the ultimate progression has been that some participants are beginning to come full circle. Several read to younger children who have not yet learned to read themselves, those they babysit, cousins, nieces and nephews. As one of the journal entries, some participants described experiences they had reading print and digital texts to young children. Each experience notes the introduction of a digital reading device to the social reading event as being somewhat distracting or confusing, not unlike their own experiences with personal digital reading. Natalie read to five and six-year-old children at bedtime. The children are used to hearing their father read a Bible story each night. Natalie read more traditional children’s books, one in print and one on an iPad that reads itself. Her recounting of the experience follows:

When I first went through reading the book, they both seemed to like it. They commented on the colors and seemed to be more interested in how neat looking the pictures were than in what the book said, but they’re kids, so oh well. When I first pulled out the iPad, they were confused because electronics aren’t usually allowed that close to their bedtime. Once they got over that, they were amused by the fact that the iPad screen looked so much like a book. Finally, when it actually started reading the book, they seemed to have basically the same reaction as they did with the print copy. The only
difference was how much the digital copy initially distracted/amused them (personal communication, May 1, 2015).

Jake had a similar experience when reading children’s books that were adapted from popular songs:

The print reading went well. My cousin sat on my lap and paid attention to the pictures as I read aloud, taking a particular interest in the pig. When presented with the iPad, his first reaction was wanting to play a game. After explaining that we were not there to play a game, he became a little sullen until the music started playing and sucked him right in. This time he focused not on the pictures but on trying to sync his page turning with the lyrics so as not to interrupt the song. Both experiences engaged him just in different ways. Though, when presented with a book, he immediately keyed in to reading, and with the iPad, his first instinct was to do something else (personal communication, May 14, 2015).

Chelsea had another experience, “The children responded better to an actual picture book than a tablet. They liked touching the pictures in the book, but with the tablet, they just wanted to play games” (personal communication, May 8, 2015). Brad also noticed a preference for print:

The children enjoyed the tablet about the same as the book. They were able to be entertained by both. They, however, were more interested in the book since it was illustrated and the tablet version wasn’t. I thought they would like the tablet more than the book, but without pictures, they liked the book-book (personal communication, May 12, 2015).

Even if they do not do so now, all of the participants envision themselves reading to their own children one day, and each pictures doing so with a print book. When asked whether they would
ever consider reading to their children from a digital device, the answers vary from “no” to “possibly” to “under the right circumstances” to “why not.” Samantha responded to the question with disappointment at even the thought, “Aw... that kind of ruins... the little like image of... little story time with books... I think it’s a part of... childhood to... learn to love books” (personal communication, May 11, 2015). Though some are more open to the idea of reading to their children from a digital device, none would utilize a digital device as their first choice, and with few exceptions, the reason given is some variation of... “It’s not how I was read to.”

**Emotional Relationship with Reading**

Closely related to the sensory experience of reading and social reading is the emotional attachment each elicits. Each of the digital natives have strong and emotionally significant memories and opinions about reading that inform their genre preferences, format preferences, reading motivations, and more. The language of the participants in many cases, when discussing reading, was quite emotionally charged, and rather than speaking of books and reading as simply things or hobbies, they discussed them more as part of themselves.

Many participants discussed their attachment to particular books from childhood, books they rarely read anymore but still have and plan to keep throughout their lives. They believe the attachment comes from the memories they associate with the books. Natalie explains,

> We still have some of the books... my parents would read to my sister when she was first born... that they also read to my youngest brother... I just like that... you can have just your collection of... childhood books, and it’s like... sentimental (personal communication, May 1, 2015).

Vince keeps his childhood favorites in his room, planning to read his copies to his own children one day. James could see himself “fighting” his siblings for the children’s books in his home.
Chelsea exhibits stronger emotional attachments to “heirloom” books than to children’s books. She holds a favorite book of her great-grandmother’s dear for “sentimental reasons.”

Another type of emotional attachment they spoke of was the connection with and attachment they felt to characters within the stories. Rachel believes, “You can get an emotional connection with a book and a character” and that this is what “it takes” to make a reader out of a non-reader (personal communication, April 24, 2015). For Natalie, who didn’t always enjoy reading, Rachel’s argument applies. Natalie states, “When I start a book, I want to finish it because I get like attached to the characters” (personal communication, May 1, 2015).

Emotional attachment seems to inform the format preference as well. Chelsea, who reads a great deal in print and digital formats, explains her ultimate preference for print saying, “For me, there’s always something attached to that book. . . just switching over to digital. . . they wouldn’t have the same meaning” (personal communication, May 8, 2015). Other participants agree that no matter their general preference, they must have their favorite books in print. Samantha concedes, “As long as I had my favorites in print, like I could deal with digital books for others” (personal communication, May 11, 2015). Conversely, the participants seem to have little to no emotional attachment to digital texts. Rachel states, “I’m not connected to my phone,” and James adds the possibility, for him, of becoming emotionally attached to a digital text “is certainly less likely” (Rachel, personal communication, April 24, 2015; James, personal communication, May 7, 2015). Samantha also adds, “Going back to. . . being attached to the print books. . . I don’t ever feel like I need a digital copy of a book” (personal communication, May 11, 2015). Brad is the only exception. His preference for print only applies to children’s books, but he feels a trustworthy digital source for books is just as valuable as print. This exception is likely because Brad has a long history as a struggling reader. Many of his memories
of reading print are negative ones, particularly those that take place in school. The support and relief digital texts provided him did not necessarily cause an emotional attachment to digital texts, but in his mind, the negative emotional associations he has with print reading combined with the positive emotional associations he has with digital reading have lead to a somewhat neutral or equal preference.

When responding to questions about memorable and meaningful books, almost all participants discussed being able to relate to a book as one of the principle requirements for a text to be meaningful to them. In keeping with transactional theory, participants indicated a need to connect with a text on a personal level or spiritual level in order to retain its contents and even more so to consider it a worthwhile or favorite book. Kaye thinks “that a book is good if you can relate it to your own life. . . If you find something in there that you can relate to or that you can say, ‘Oh I see myself in that character’ then I think that that makes it a good book” (personal communication, May 2, 2015). Jake agrees speaking about the stories in a book in a similar way to how someone might speak about a friend,

I think it’s when you see yourself or your life reflected in the book, and it’s like, well, this isn’t my story, but in a way it is my story. . . when you can relate yourself to that, you’re less likely to forget it because you’re not going to forget yourself. . . I think a lot of fears that people have are based on the fear of being alone and not having someone to care about you, and when you can see yourself in someone else, then you think, ‘Oh, they know what I’ve been through. They know what it’s like. I’m not alone,’ and it’s comforting (personal communication, May 14, 2015).

There are other occasions when participants spoke about reading or text formats in ways they might speak about another person. Parker mentions that he would “miss” print if it was ever
totally replaced by digital texts, and Samantha shares his sentiment. Jake contends that a print text allows you to be “closer to the story... as close as you’re going to get” (personal communication, May 14, 2015). He elaborates,

The book... it’s just the book. The only thing it can ever do is tell you its story and take you to its world... The Kindle can take you to more than one world, but it’s farther away because it can do something else, and that’s not the only thing it can do. The computer can do hundreds of thousands of things, so it’s not as close to the world. That’s not what it’s dedicated to. The book, that is all it is. It is the world in physical form. The computer is not. It’s like a window looking into it... I think it’s because it can do so much and because it’s not dedicated to any one thing, that it’s impersonal because it can do whatever you want it to. It can apply to anything. It’s not special. I mean... you may have a lot of friends, but you like each friend for something else. You don’t have one friend that can do anything because it just... It wouldn’t be the same. I mean, you don’t want to be with the same person doing everything because then you’ll get bored with that person (Jake, personal communication, May 14, 2015).

First Generation Digital Natives

The final theme that occurred in the data is a modification of Marc Prensky’s (2001) definition of a digital native. Though he may have never intended the definition to be interpreted and applied generally, the digital native participants in this study have made it clear that it should not be. What may be more accurate is to speak about digital natives and immigrants in terms of immigrants, first generation natives, second generation natives, and so on.

The participants in this study might be considered first generation natives. Immigrants raised them, and as a result, they cherish some of the things their parents cherish, not the least of
which is a preference for print texts. Parker speaks admirably about one digital immigrant in his life saying, “He knows a little bit of everything. . . . I’m not exactly as adept” (personal communication, May 4, 2015). Chelsea feels the life lessons digital immigrants have to offer are somewhat lost as digital natives depend more and more on the Internet and technology for their answers. Some of the shift away from the native generation’s reliance on digital immigrants may be due, in part, to digital immigrants’ reliance on digital native technology expertise. Without exception, study participants believed themselves to be more skilled with modern technology than the immigrants in their lives. Kaye relayed an experience,

Me and my dad both got touchscreen phones at the same time for the first time, and I learned how to navigate mine a lot faster than he did. I don’t know why that is, but they do tend to be slower on the learning curve (personal communication, May 2, 2015).

The digital native participants in this study seem to have one foot in the past and one foot in the future. This may be due to the fact that each of them, though born into the age of technology, had limited technology exposure in their homes. Rachel remembers having a computer in her home but not being allowed to use it for anything other than schoolwork. She believes the current overuse of computers and technology by those younger than her explains why reading is not as popular among the youth.

Interestingly, these first generation natives predict there will be greater differences between themselves and second generation natives. Kaye believes it will take time but that children will one day perceive digital books the same way she perceives print. Each of the participants believes second or third generation natives may develop emotional connections and reading memories with digital texts and devices because of what they will be exposed to in their homes and during their formative years, but the participants have differing opinions about
whether the change should happen. Though not planning to take part themselves, Kaye and Jake seem to embrace the potential for change and consider it a part of the natural progression of life. Just as some of their own reading and communication habits have changed from what their own parents knew, they expect future generations will develop their own standards. In fact, Natalie and James believe they already see a greater shift toward technology just among their younger siblings. Chelsea and Brad have somewhat neutral feelings on the idea. Others, like Parker, Vince, and Samantha, are saddened by the notion that technology could one day all but replace print texts.

**Research Questions**

The research questions for the study are:

1. How do 12th grade digital natives in a rural high school in northeast Georgia describe their transactional experiences with print texts?

2. How do 12th grade digital natives in a rural high school in northeast Georgia describe their transactional experiences with digital texts?

3. What are the reading experiences of 12th grade digital natives in a rural high school in northeast Georgia?

Each of these research questions has been addressed by the themes, which were identified from an examination of the data. The digital natives, who participated in this study, were able to describe and explain their reading habits, reading motivations, reading preferences, and reading backgrounds through spoken, written, and visual mediums. They each provided, openly, a wealth of information and a window into their individual lives and gave their voices to the study of the digital native phenomenon.
Summary

The themes indicate a rich and multi-faceted reading experience for the digital native study participants. They address digital and print format reading, childhood and current reading practices, physical and external format considerations, sensory and emotional dimensions of reading, formal and informal reading environments, and personal and social reading experiences all within the context of being a digital native. While this study is only a glimpse into the general and format specific reading experiences of digital natives, it does offer a detailed snapshot into the digital native reading phenomenon. The shared experiences among the individual participants are just as compelling as their differences.
CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

Overview

The purpose of this transcendental phenomenological study is to describe the transactional reading experiences of 12th grade digital natives in a rural high school in northeast Georgia both generally and as applied to print and digital texts. Transactional reading can be generally defined as the background knowledge, beliefs, and emotional experiences a reader brings to a text which informs a reader’s stance toward a text, motivations for reading, interpretation of a text, and, ultimately, gives the text meaning (Rosenblatt, 1978). Digital natives include those who encounter and have always encountered digital information as a part of their everyday lives or, more specifically, those born after 1980 (Houston, 2011; Prensky, 2001).

This chapter includes a summary of the findings reviewed in chapter four, a discussion of those findings in relationship to the theoretical framework and past research, and the implications the results of the study have for future reading practices and a variety of other stakeholders.

Summary of Findings

The themes associated with this study were able to answer the following research questions:

1. How do 12th grade digital natives in a rural high school in northeast Georgia describe their transactional experiences with print texts?

2. How do 12th grade digital natives in a rural high school in northeast Georgia describe their transactional experiences with digital texts?

3. What are the reading experiences of 12th grade digital natives in a rural high school in northeast Georgia?
Addressing the first and second research questions, digital natives from Mountain High School describe their transactions with print texts more favorably than with digital texts. They acknowledge a preference for print texts on a variety of levels. They prefer them physically and emotionally. Each native, though born into the age of technology and having the technological skills associated with active engagement with technology from a young age, was born to a digital immigrant. Because of this, the immigrant generation has passed on many of its reading preferences and practices to the digital native generation. Digital natives have vivid and emotionally charged memories attached to print. Though they use technology skillfully and in their minds more skillfully than their parents, many of them have a mistrust of technology as reliable or permanent. They do not perceive digital texts as special or lasting. The only cases where natives preferred digital texts were in situations where digital texts were more practical. . . having to store textbooks, needing to carry books along while traveling, being able to read while waiting somewhere, being able to access a text instantly, or having a lack of storage space for print texts.

Fortunately, in response to the first research question, the distinction between print and digital texts seems to have little affect on their overall reading experiences. The majority of participants reported equal abilities to enjoy and comprehend digital and print texts. Some regard digital texts as difficult to comprehend only when studying advanced and complicated texts. Though the reading choice, reading stance, and reading motivations might differ for each format, they perceive no difference in the end result of reading in each format.

One exception to the general results presented himself, and he is an important exception. Though having a comparable background to the other digital natives, i.e., parents who read to him in print and print exposure in early grades, Brad prefers digital texts in almost every
circumstance. Where he is not similar to the other participants is that he was a struggling reader all through elementary and middle school to the extent that he was placed in remedial reading classes. He has many personal and negative experiences with print texts to include the embarrassment he felt having to read out loud to his class and not feeling “normal” when he was placed in the remedial reading classes. When presented with digital reading devices, he felt he could get the support he needed. He was able to utilize digital features to look up words in context and find supplementary materials, and he was able to hide his reading level from other students and classmates. Furthermore, he believes a major reason why young readers prefer digital reading devices today is because they can take a text one page at a time. They are no longer be intimidated by witnessing the thickness of a book. The positive and emotional ties many of the other participants have with print texts are just as present in Brad; he just applies those emotions to digital texts.

**Discussion**

In some cases, the study findings readily serve to confirm and extend previous theoretical and empirical research. Rosenblatt (1978) argues that readers interact with the text, bringing their own background knowledge, and gaining their own interpretations, understandings, and meanings from each “transaction” with a text. By way of extending Rosenblatt’s transactional theory, this study demonstrates that not only do readers’ background knowledge and experience inform their transaction with a text and their interpretations of that text, but also their background may inform their format preference and reading motivation. Using the terminology of Piaget (1974), readers bring their own pre-existing schema to each text interaction and construct their own learning from the experience. Background knowledge and pre-existing schema, at least
among the participants in this study, affected much more than just the interaction with the text. Memory and emotional connections are farther-reaching than just reading comprehension.

The study findings also corroborate some empirical studies. For example, Esteves and Whitten (2011) found greater reading fluency gains in elementary school students with reading disabilities when utilizing digital audiobooks. Similarly, Roswell and Burke (2009) also observed struggling readers make greater gains in digital settings in their case study among middle school students. Brad had this same experience as a struggling reader, and he was able to shed some light on why digital texts were a boon to his reading struggles.

The study findings also diverge from previous research first in the fact that they are part of a qualitative study. Rather than being limited to an understanding of what can be quantitatively measured, the digital reading experience among digital natives can be examined holistically. Other research cites an increased motivation or engagement with digital texts (Larson, 2009; Ciampa, 2012). Moyer (2011) and the participants of this study disagree. Moyer (2011) found that there is no measurable difference, while the study participants perceive a significant difference in their reading motivations, but rather than increased motivation and engagement with digital texts, they have increased motivation and engagement with print. Shabani, Naderikharaji, and Mohammad (2011) found that “preference of electronic and print resources in equal circumstances is identical” (p. 654). Again, the digital natives in this study disagree. In equal circumstances, they tend to prefer print.

Theoretically speaking, Dresang and Kotrla (2009) present a radical change theory, arguing traditional literature has become non-linear and radically new in that many digital texts are now much more interactive than traditional print books and that print books themselves have become more digital. Furthermore, they argue reading behaviors of young readers have changed
and that young readers look for *interactivity*, referring to a non-linear and dynamic relationship with literature, *connectivity*, referring to the sense of community and social connection in both the real world and literature, and *access*, referring to the limitation of barriers to accessing literature, in their reading experience. Perhaps, radical change theory can be applied to second generation digital natives, but first generation natives do not seem to follow this pattern. In fact, these study participants, with one exception, go as far as to describe the interactivity and connectivity of digital reading devices as distracting and detrimental to what they consider real reading. The only area where they all perceive a benefit to digital reading is in the increased access to literature.

**Implications**

Perhaps, the lesson to be learned from this study and previous studies is that reading comprehension, preferences, or motivations cannot be generalized to any generation or population of readers, whether the results are qualitative or quantitative. Perhaps, in agreement with Rosenblatt’s (1978) transactional theory and in agreement with the participants involved in this study, reading is a decidedly personal experience and, therefore, must be unique for each individual. Because of that, there are implications for a variety of players.

**Parents**

Whether intentional or not, parents must know that experiences inside the home will have lasting effects on their children. Children will remember the social reading moments that take place before bedtime, in their parents’ laps, or in a variety of other circumstances and settings. What is important to the parents often becomes important to the children. For this reason, reading in whatever format, should take place whenever occasion allows. Early exposure to reading must primarily be the responsibility of parents. Though the reading format, the types of
reading, and the motivations behind reading are all dynamic topics and may forever remain ripe for disagreement and debate, the benefits and importance of reading are not. Reading exposure is not only moderately associated with oral language and basic reading knowledge among pre-readers (pre-school aged children) but is also associated with oral language growth, word form knowledge, spelling skills, and academic success among grade school age students and college students (Mol & Bus, 2011). “Reading routines, which are part of the child’s leisure time activities, offer substantial advantages” (Mol & Bus, 2011, p. 289).

**Teachers**

Elementary school and literature teachers would do well to stay current regarding reading research and best practices. As the research shows, it is an ever-changing field. However, it is my opinion that no matter what the research reveals about reading, teachers would benefit tremendously from an attempt to gain a more personalized understanding of the reading habits, preferences, and practices of each student. As a former English teacher, I wish that I had had the opportunity to talk to each student the way I was able to talk to each of the participants in this study. One can learn a great deal about people by just talking to them. Knowing that teachers could not possibly spend the time with each student that I was able to spend with each study participant, I would recommend an open-ended survey, and I would recommend that the results of that survey be used to inform instruction, assignments, and assessments to the greatest possible extent. Ultimately, what teachers do want to avoid when considering reading materials and reading format options is disenfranchising students and their literacy preferences and practices (Garcia, 2012; Oleniacz, 2009). They should attempt to avoid the “inattentional blindness” or contrived student responses to literature that are compelled by teacher-designed assessments about which Smith (2012) warns; wherein, students are so focused on mining a text
for answers or “correctly” responding to prompts, they may miss important elements in a text or ignore personal thoughts and feelings inspired by a text (p. 59).

**Students**

Students may likely be required to endure the changing literacy practices for the near and distant future. As the sub-field of digital reading research develops, schools, classrooms, and teachers will take time to catch up to and respond to what students may already know about themselves. It is for this reason I encourage teachers to make students more active participants in their own education. Because of the different backgrounds and personal experiences each student brings to the classroom, they may be asked to take more and more responsibility in their own learning and formal education experience. I would encourage students to embrace the opportunity to voice their reading and literacy preferences and not allow themselves to be typecast. As many of the participants in this study would agree, not all digital natives are “experts at multi-tasking” as McHale (2005) describes them to be (p. 33). Many, in fact, agree that their multitasking behaviors can sometimes result in “concentration lapses and cognitive overload due to the effects of competing stimuli” (Bittman et al., 2011, p. 162). Students must be honest and open about their true skills and learning styles.

Furthermore, the findings of this study and other empirical studies have implications of hope for struggling readers and non-readers. Digital reading devices, whatever they may mean to others, can offer the confidence and support that struggling readers need and can do so in a way that allows them to work independently and autonomously. Giving struggling readers the freedom to help themselves become better readers and the privacy to do so outside the scrutiny of their peers may go a long way in improving reading and literacy. Brad’s story is a success story, and he adds his story to Esteves and Whitten (2011), who found greater reading fluency
gains in elementary school students with reading disabilities when utilizing digital audiobooks, and Roswell and Burke (2009), who also observed struggling readers make greater gains in digital settings in their case study among middle school students.

Limitations

The study is limited by several factors. First, the study is potentially affected by the use of human subjects and whether self-reported data can be considered reliable and valid. The voluntary nature of participation limits the study to examining only the experiences of a small sample of volunteer participants who may be eager to please the researcher or may be overly influenced by the research questions in their interview, survey, and journal responses. Additionally, the purposeful sampling criteria limited the sampling population further; and, therefore, the study lacks a range of ethnicities. The data collection instruments regarding both the interviews and journals may have been a deterrent to a variety of potential participants. Given the time commitment required, several participants elected not to participate further than the initial survey, and the time requirements of qualitative data collection and data analysis overall limit the scope of the study. For these reasons and because of the rural location of the research, the knowledge and information gained from the study may not be replicable and may not generalize to other populations being unique to the sample participants. Finally, as qualitative data analysis is less objective than quantitative analysis, an important limitation includes the biases and opinions of the researcher and the affects of such on the research methods. I employed several tactics to weaken the effect of study limitations to the greatest extent possible to include: Piloting surveys and interview questions, participant review of interview transcripts (member checking), and researcher bracketing,
Recommendations for Future Research

The most obvious areas for future research include examining the experiences of digital natives from varied ethnic groups as well as geographic locations. Another recommendation would be extended quantitative inquiry into the reading experiences of digital natives. Some quantitative studies have already examined the ability of digital natives to comprehend print and digital texts in short, isolated circumstances, but it may be beneficial to examine the long-term effects of digital reading on comprehension in a longitudinal quantitative study. A longitudinal qualitative study may also be an area for future research, continuing to collect interview, journal, and observational data regarding the reading experiences and practices of digital natives. Following digital natives into adulthood and continuing to study their social reading practices and the passage of literacy skills on to the next generation would be a worthwhile endeavor. Additionally, collecting quantitative and qualitative data on future generations, further enveloped by digital technologies than first generation digital natives, may also render different results to include generations whose pre-reading exposure is predominantly digital rather than print. Another important area for future research, inspired by Brad’s story, could be to examine the effects of digital technologies on the reading experience, reading confidence, and negative reading stigma of struggling readers. If Brad’s story of transitioning from a non-reader to an avid reader with the help of digital devices could transfer to other non-readers, the implications for reading education are significant. Finally, other studies could extend into additional areas of the digital native experience such as the alternative story environments that may appeal to non-readers: Video gaming, online virtual experiences, movies, and television. As technological innovation continues to grow and influence human experience, the implications for homes,
schools, and workplaces are ever changing. Therefore, the opportunity for future research is as
dynamic and fluid as the technology that inspires it.

Summary

The most important finding in this study is that reading has been and remains not only a
hobby or classroom activity but also a part of the human experience. The ability to communicate
ideas, feelings, and stories across time and space is a blessing that is not lost on the current
generation. Whatever the format, motivation, or emotional context of a text, reading is much
more important and much more meaningful than just words on a page or a screen. It is worth
studying, worth examining, and worth understanding from every possible angle and dimension.

Whenever reading changes, it affects everyone, potentially for generations, but a change
does not indicate a step in the wrong direction. Many of the participants in this study have taken
one step toward a new direction in reading but hold on firmly to the past, and I enjoyed very
much gaining an understanding of what that experience has been like for them. I look forward to
speaking with the generations that take the final step into modern literacy.
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APPENDICES

Appendix A

Institutional Review Board Stamped Consent Form

The Liberty University Institutional Review Board has approved this document for use from 3/19/15 to 3/18/16 Protocol #2139.0315

Consent/Assent Form
A Phenomenological Investigation of Transactional Reading Experiences of 12th Grade Digital Natives in Rural Northeast Georgia: Print and Digital Texts
Katherine Ashley Kesterson
Liberty University
School of Education

Your student is invited to be a participant in a study of the transactional reading experiences of 12th grade digital natives for print and digital texts. Your student was selected as a possible participant because he or she meets the sample selection criteria: 17 to 18 years of age and digital native classification (a person born after 1980). I ask that you read this form and ask any questions you may have before agreeing to allow your student to be in the study.

This study is being conducted by Katherine Ashley Kesterson, doctoral candidate in the School of Education at Liberty University.

Background Information:
The purpose of this study is to obtain information in order to describe the transactional reading experiences of 12th grade digital natives in a rural high school in northeast Georgia as applied to print and digital texts. Transactional reading can be defined as the background knowledge, beliefs, and emotional experiences a reader brings to a text which informs a reader’s interpretation of a text and gives the text meaning (Rosenblatt, 1978). Digital natives include those who encounter and have always encountered digital information as a part of their everyday lives or, more specifically, children born after 1980 (Houston, 2011; Prensky, 2001).

In other words, each participant, through surveys, journaling activities, and interviews, will answer questions regarding their personal interactions with both traditional print reading and digital reading.

Procedures:
If you agree to allow your student to be in this study, I would ask your student to do the following things:

- Participate in a survey measuring reading attitudes that should not take longer than 20 minutes
- Based on survey results, continue to participate in an initial 1 to 2 hour interview on a pre-determined date after school in the high school library
  - The interview will be audio and video recorded for transcription purposes.
- Participate in a second 30 minute to 1 hour follow-up interview if necessary (audio and video recorded)
- Participate in brief journaling exercises where the student would be required to record thoughts and insights and create graphic depictions of scenes related to reading
- Read over my interpretation of your interview and other documents for clarification and correction of meaning if necessary

Risks and Benefits of being in the Study:
In this study, the risks are minimal and are no more than the participant would encounter in everyday life as the study topic is not of a sensitive nature. One potential risk to the participants
will be the exposure of personal interview proceedings to a professional transcriptionist. However, all personal identification information will be kept confidential and will not be revealed to the transcriptionist. Furthermore, the nature of the study renders the questions unlikely to reveal any controversial or sensitive information that would not otherwise be shared in normal conversation.

**Mandatory Reporting:** As an educator in the state of Georgia, I am a mandatory reporter. Although it is very unlikely, if at any time during the interview process there is reason to believe a study participant has been a victim of abuse, the interview will conclude, and I am required by law to report the abuse to designated authorities.

There are no direct benefits to the participants for their participation in the study. Some indirect or intrinsic benefits to participation may include developing an understanding of personal reading practices and contributing to the potential benefits that knowledge of a digital native’s transactions with digital texts implies for education and society. Reading affects a multitude of academic subject areas but also affects ability to gain employment and earning potential into adulthood (Archer, 2011; Smith, 2009). Therefore, the study may give insight into digital reading and its potential to affect academic and future achievement. Furthermore, the study gives a voice to digital natives who, in many cases, attend schools where the expected types of information and modes of delivery are excluded and undervalued (Garcia, 2012).

**Compensation:**
Participants will not be monetarily compensated for participation in the study though they may be allowed to keep study materials provided to them during the course of the study.

**Confidentiality:**
The records of this study will be kept private. In any sort of report I might publish, I will not include any information that will make it possible to identify a participant. Research records will be stored securely, and only I will have access to the records.

Participant names will be changed in the data to protect their anonymity. Print and digital data will be stored in my locked home and kept in a locked file safe when not in use or under digital password protection. Recordings will be used to render transcripts of the interviews, and the recordings will be kept throughout the duration of the study for reference. Human research regulations require that all data be securely stored for three years. At the end of the required three years, all data will be destroyed (print data shredded and digital data erased) and disposed of.

**Voluntary Nature of the Study:**
Participation in this study is voluntary. Your decision whether to allow your child to participate will not affect your or his/her current or future relations with Liberty University or Lumpkin County School System. If you decide to allow your child to participate, he or she is free to not answer any question or withdraw at any time without affecting those relationships.

**How to Withdraw from the Study**
Should your student wish to withdraw from the study after it has begun, you or he/she should
inform Katherine Kesterson via email or phone provided in the Contacts and Questions section of this form. You or he/she simply need to state that he or she does not wish to continue, and all data collected from your participation in the study will be destroyed. Paper documents will be shredded and audio and video recordings will be erased.

**Contacts and Questions:**
The researcher conducting this study is Katherine Ashley Kesterson. You may ask any questions you have now. If you have questions later, you are encouraged to contact her at [email or phone number]. The research advisor is Dr. Connie McDonald who may be contacted at [email or phone number].

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher or research advisor, you are encouraged to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24515 or email at [email address].

*You will be given a copy of this information to keep for your records.*

**Statement of Consent:**
I have read and understood the above information. I have asked questions and have received answers. I consent for my student to participate in the study.

☐ I give consent/assent, specifically, for participation in interviews that will be audio and video-recorded.

Signature: ______________________________________ Date: __________________
(If 18 years of age)

Signature of parent or guardian: ______________________ Date: _________________
(If minors are involved)

Signature of minor: _________________________________ Date: _________________
(If under the age of 18)

Signature of Investigator: ___________________________ Date: _________________
Appendix B

Modified Survey of Adolescent Reading Attitudes

SECTION 1

Survey Instructions
This survey is divided into three pages designed to gather your demographic information and your opinions of various types of reading. The survey is relatively short and shouldn't take you longer than 20 minutes to complete. Comment boxes follow many of the questions if you feel the need to explain your responses or if you feel like a choice you would have made is not included. You do not have to make comments in these boxes, and you may skip any questions you do not wish to answer. Please read all directions carefully before responding, and please know that your full participation is appreciated. Feel free to be completely honest as your teachers and peers will not have access to any of your responses. Thank you.

Demographic Information
The purpose of this page is to collect demographic information that will help the researcher to identify you and consider you for future participation in the study.

1. Please provide your first and last name and an email address or phone number if you have one:

   First and Last Name:________________      _________________

   Email Address:_______________________________________

   Phone Number:______________________________

2. What is your age? _______________

3. What is your gender?

   Female       Male

4. Please describe your race/ethnicity:

SECTION 2

Adolescent Reading Attitude Questions
This page asks questions measuring your opinion toward different types of reading. . . school-related reading and recreational reading, reading on digital devices and print reading. Please be sure to read each statement carefully so that you understand the type of reading and the context.

5. Please answer by choosing how you feel about each statement, 1 being very bad, 6 being very good.
SECTION 3

Student as a Reader
The last page of this survey measures how you feel about yourself as a student, a reader, and about your personal reading habits.

6. Please answer the following questions.

How would you classify yourself as a student?

Below Average  Average  Above Average  Gifted

How would you classify yourself as a reader?

Below Average  Average  Above Average  Gifted

Other ______________________

7. Briefly describe the extent of your experience reading books in both print and digital formats in the space provided: (“Print” is defined as paper bound books. “Digital” is defined as books read on electronic devices such as computers, Kindles, Nooks, iPads, smartphones, and/or other digital e-reading devices.) Have you read in each format? How often do you read in each
8. If selected to participate further in this study, would you be willing to take part in journal activities and 1 to 2 interviews about reading that will be audio recorded and published in part in a dissertation?

   Yes       No

Comments
Appendix C

Scripts

Teacher Script for Passing Out Consent Forms

*Teachers please say the following:*

Students, the seniors at Mountain High School have been asked by Mrs. Kesterson, [name], to participate in a survey that will measure student attitudes toward print and digital reading. The survey is not required, but your participation is appreciated. I am passing out to you a consent/assent form. If you have already turned 18 and are willing to participate in the survey, you may read over the form, sign it yourself, and return it. You may ignore any references to parents on the consent/assent form. If you are not yet 18, you must have a parent sign in consent in addition to your signature of assent. The form describes the entire study in which you are being asked to participate. The survey is only the first step in participation. If you return the consent/assent form signed, you may be asked to participate further after the survey by taking part in one to two interviews and by responding to brief journaling prompts. At any time during the study you may choose not to participate further, so taking the survey will not require your participation in later phases of the study.

Are there any questions?
Please answer any questions if you know the answers, or contact Mrs. Kesterson for further clarification (phone number).  

*Teachers please say the following:*

Please return consent forms or parent permission and student assent forms by _________.

Teacher/Researcher Script for Administering Surveys

*Teachers please say the following:*

You are here today to participate in an approximately 20 minute online survey about adolescent reading attitudes. You will not receive a grade for this. Your teachers will not know your responses. Please feel free to be completely honest, as this survey has no affect on your role as a student here at Mountain High School. Section one of this survey explains the purpose of the survey and gives general instructions. Section two collects demographic information. Section three measures your opinion of various types of reading, and page four measures your opinion of yourself as a reader and your personal experiences with reading. Please read all instructions carefully.

Script for Verbally Contacting Potential Participants for Interview and Journal Research

*Researcher:*

You were asked here today because you indicated on a recent survey that you had both experience with reading print and digital texts and that you enjoyed reading print and digital texts. Additionally, your library/media specialist may have identified you as an avid reader. You are also here because you are classified as digital natives. A digital native is a person born after 1980 who has always encountered digital technology as part of their everyday lives. Because of
this, I would like for you to participate in a study that examines the reading experiences of digital natives.

If you choose to continue, you will be asked to participate in one to two recorded interviews with the researcher and to complete personal journaling activities. While your participation in the study may not be confidential, as other students may see you participating, all of your responses and activities will be kept strictly confidential.

Your participation or decision not to participate will have no effect on your grades or your relationship with the school or your teachers. Your participation in all aspects of the study is completely voluntary, and you may choose not to continue at any time. Are there any questions?
Appendix D

Interview and Journal Response Questions

Interview

Personal History
1. Please describe your parents’ involvement in your education both before and after entering a formal school setting.
2. Please describe your educational experiences upon entering elementary school to this point in your education. What early or fond memories do you have of facilities, teachers, friends, and curriculum?
3. Why do you think you developed a love of reading?
4. What are the first memories you have of reading? Do you have any early memories of digital reading? Did your parents read to you in print and digital formats?
5. What are your teachers’, parents’, and grandparents’ opinions of digital reading as compared to print reading?
6. Marc Prensky (2001) describes people your teachers’, parents’, and grandparents’ age as digital immigrants and people your age as digital natives. What do you think he means by these definitions? (After clarifying his meaning . . . ) Do you think he is accurate?

Transactional Processes
7. What are your motivations for reading? Do you have different reading motivations depending on the content or format?
8. Please describe the circumstances that cause a text to have meaning for you? What do you look for to gain understanding or make a connection with a work?
9. What would cause you to reject a text for aesthetic reading (i.e. reading which provides an emotional or personal experience . . . pleasure reading)?
10. What would cause you to reject a text for efferent reading (i.e. reading in which you are attempting to comprehend or retain information . . . informational reading)?
11. Would you consider yourself more competent and comfortable in digital reading or print reading? Why? Does the complexity of a text have bearing on your format preference?

Print and Digital Texts
12. Please describe your favorite book, and explain why it is your favorite.
13. If you were to have only one copy of this book, would you want it to be print or digital format? Why?
14. Would this preference apply to all books or just favorites? Why?
15. When you have children, will you read to them from print or digital formats? Why?
16. Explain a situation, if any, where you might now become emotionally connected to a print text or a digital text?
17. Explain your approaches to understanding both print and digital texts. Do you approach different formats differently?
18. Is there anything else about reading print and/or digital texts with regard to your personal preferences or experiences that you would like to mention or discuss? (Do you tire with one format quicker than another? Do you prefer one overall?)
Journal Prompts

1. Please draw or create a picture that represents reading to you. You may create the picture here or on separate sheet of paper that you attach to the journal. After completion, please describe why you depicted reading in this way in the space provided.

2. Please discuss any other thoughts or feelings you have regarding your own digital and print reading experiences in the space provided.

3. Please use the tablet (with included children’s book) and print children’s book that were provided to you, and read each story to a child unable to read independently. Read the stories on separate days, and please describe your experiences in the space provided. Compare your digital story reading experience and your perception of the child’s experience to your print story reading experience and your perception of the child’s experience in the space provided.

4. Please describe your thoughts following the interview with the researcher. Were there things you wanted to say but did not? Were there thoughts that occurred to you after the interview, which you would like to include here? Did you have any questions or concerns?
Appendix E

Institutional Review Board Approval Letter

March 19, 2015

Katherine A. Kesterson
IRB Approval 2139.031915: A Phenomenological Investigation of Transactional Reading Experiences of 12th Grade Digital Natives in Rural Northeast Georgia: Print and Digital Texts

Dear Katherine,

We are pleased to inform you that your above study has been approved by the Liberty IRB. This approval is extended to you for one year from the date provided above with your protocol number. If data collection proceeds past one year, or if you make changes in the methodology as it pertains to human subjects, you must submit an appropriate update form to the IRB. The forms for these cases were attached to your approval email.

Thank you for your cooperation with the IRB, and we wish you well with your research project.

Sincerely,

Fernando Garzon, Psy.D.
Professor, IRB Chair
Counseling

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