

# ADOPTION OF eREADERS BY SENIOR ADULTS: A PHENOMENOLOGICAL STUDY

by

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Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Education

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## ABSTRACT

A majority of the previous research on older adults and their use of technology has focused on computers and the Internet. Most of the eReader-specific research examined younger participants in an academic setting. The purpose of this phenomenological study was to describe the perspectives of Georgia senior adults in their adoption of eReaders. The adoption of an eReader was generally defined as the acquisition of an eReader, followed by the selecting, downloading, navigating, and reading of eBooks using an eReader. This study took place in a public library and was designed to answer 3 research questions: (a) What are contributing factors in senior adults' decisions to use eBooks? (b) How do senior adults describe their eReader experiences? (c) What are the challenges and benefits of senior adults regarding the use of eReaders? Data were collected from questionnaires completed by 29 eReader owners age 50 and over. From this group, 8 individuals were interviewed and 6 participated in a focus group. The data were analyzed and 4 themes emerged: Passion for eReader and eBook Selection; Sense of Economic Value; Comfort with Technology; and Interest in Future Direction of Technology. The intended use of the eReader influenced whether a single- or multi-function device was purchased. Costs associated with ownership included an initial outlay for an eReader, the price for eBooks, which were sometimes free, and for some participants, membership in Amazon Prime. The participants were involved in technology from an early age, whether at home, school, or work and maintained a keen interest not only in the state of current technology, but also in the future direction that technology was headed. The themes represented a snapshot in time for participants from a community with above average income and education levels.

*Keywords:* senior adults, eReader, eBook, technology, phenomenological, library

## **Dedication**

I dedicate this dissertation to my family. Each member influenced me and encouraged me to do my best.

To my parents, Jack and Georgia Tysor, thank you for the example you have set in your lives and in your marriage. You championed my efforts even when I took long breaks from my schooling.

To my sons, Caleb and Joshua, thank you for being such diligent students and for motivating me to get this project done. I am praying for you as you continue your own educational endeavors.

Finally, to my wife, Kim, thank you for being my rock—the person with whom I could share my struggles, my disappointments, and best of all, my accomplishments. Thanks for being the world's best encourager and supporter.

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In his heart a man plans his course, but the LORD determines his steps.

—Prov. 16:9 (New International Version)

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### **List of Abbreviations**

Advanced Reader Copy (ARC)

American Association of Retired Persons (AARP)

Association of Mature American Citizens (AMAC)

Attention Deficit Hyperactivity Disorder (ADHD)

Disk Operating System (DOS)

Federal Aviation Administration (FAA)

Formula Translation (FORTRAN)

HyperText Markup Language (HTML)

Information Literacy (IL)

Information Technology (IT)

Institute of Electrical and Electronics Engineers (IEEE)

Institutional Review Board (IRB)

Obsessive Compulsive Disorder (OCD)

Perceived Ease of Use (PEOU)

Perceived Usefulness (PU)

Technology Acceptance Model (TAM)

United States Air Force (USAF)

## CHAPTER ONE: INTRODUCTION

Adults learn based on their need to know, their self-concept, their own experience, their readiness to learn, their orientation to learning, and their motivation (Knowles, 1980; Knowles, Holton, & Swanson, 1998). These andragogical assumptions provide details about how adults learn differently than children. This study focused on adults, and specifically older adults as they described the process of adopting and learning to use an electronic reading device or *eReader*. I used the term eReader generically while conducting this study and intended for it to include devices (e.g., Amazon Kindle Paperwhite, Barnes & Noble NOOK GlowLight, etc.) manufactured for the specific purpose of reading electronic books or *eBooks*. Also, the term was used to describe other electronic devices, including computers, laptops, iPads, tablets or cellular phones when participants used these devices in conjunction with an app downloaded for the purpose of reading eBooks. The following sections provide details about the background, purpose, significance and other important aspects of this investigation into the phenomenon of eReader adoption.

### Background

According to the Social Learning Theory, humans learn by watching (Bandura, 1977). The abundance of technology has increased the opportunity for individuals to observe technology in use. Even with these increased opportunities, Bean (2003) found aging adults failed to adopt technology because of physical problems, attentional processes, and cognitive slowing. According to the Technology Acceptance Model, individuals adopt technology based on perceived usefulness (PU) and perceived ease of use (PEOU; Davis, 1989). A vast majority of technology-related research that I uncovered during the literature review focused on computer use and the Internet. Some of the research included older adults as subjects or participants

(Wagner, Hassanein, & Head, 2010; Youn-Min, 2008). When studies included the use of eReaders, like those conducted by Larson (2010) and Shen (2011), the setting was typically an academic one and the participants tended to be younger. The relative newness of eReaders greatly limited the amount of available research. Studies like those by Smith (2014) and Zickuhr and Madden (2012) mentioned the ownership of eReaders by senior adults, but did not delve into the issue of eReader use. The rarity and lack of depth in the existing studies provided an opening for further research. This study sought to investigate the adoption of eReader technology by senior adults in an effort to close this gap in the literature.

### **Situation to Self**

As a professional librarian and teacher, my interests have included not only traditional library research subjects related to books and reading, but also the influence of technology on how libraries run and how librarians interact with patrons. My interest in the subject of eReaders ignited when the local library acquired an eBook lending library and I purchased my own eReader. As I provided eReader assistance to library patrons, I noticed most of the questions originated from older adults. I started examining the older adult use of eReaders not only from a practical point of view, but also from a theoretical one. As my practical experience in the subject grew, so did my desire to review and conduct research on this topic.

Research in the qualitative realm is based on certain philosophical assumptions or beliefs. Creswell (2013) labeled these beliefs as “ontology (the nature of reality), epistemology (what counts as knowledge and how knowledge claims are justified), axiology (the role of values in research), and methodology (the process of research)” (p. 20). The ontological assumption inherent in this research was that multiple realities were present over time and that individual participants within the study may have different experiences. The epistemological assumption

was that there existed a close relationship between librarians and patrons that facilitated the conduct of this research. As an owner and adopter of an eReader and being over 50 years old myself, I took on the additional role of being among the participants or “being one of them.” The axiological assumption was that my background as a professional librarian influenced the values that I projected onto this study. Specifically these values included the use of the library, the act of reading, the adoption of technology and the provision of quality service to patrons. The methodological assumption was that inductive procedures would be used to sort through the data to form narratives that described the phenomenon. The framework that best captured these qualitative assumptions was constructivism, and this study was developed around this paradigm.

### **Problem Statement**

Henricksen and Stephens (2010) found that older adults intentionally pursued activities that led to fulfilling or happiness-enhancing lives and that older adults engaged in entertainment and relaxation activities including reading. However, the introduction of eReaders and eBooks is changing how reading is being done. Companies are introducing electronics and are gearing their marketing toward a younger audience because these companies seek to build lifetime loyalties among younger consumers (Spero & Stone, 2004). However, older adults need to have the same access as younger adults to technological tools (O’Connell & Haven, 2013; Selwyn, Gorard, Furlong, & Madden, 2003). Simply having access may not be enough because older adults have higher levels of technophobia (Hogan, 2009). For some older adults, their social representations “can be summarized as follows: *the computer and the internet are useless and risky ‘tools and things’ that threaten one’s freedom, lifestyle, health and security as well as create differences between users and non-users*” (Hakkarainen, 2012, p. 1212). This extreme position is counterbalanced by adults that are early adopters of technology. There are also older

adults, positioned somewhere in the middle, that believe computers are relevant, but are uncertain as to how to fit this form of technology into their lives (Sourbati, 2009).

Most research regarding older adults and technology focused on computer use and the Internet. Studies on eReaders have focused more on a comparison of the different devices (Richardson & Mahmood, 2011) or on eReader use in academic libraries (Tees, 2010). To date, there have been few studies conducted on older adults and their adoption of eReader technology. This study sought to address this gap.

### **Purpose Statement**

I used convenience sampling at a public library in Georgia to collect data and turned to snowball sampling to identify other potential participants age 50 and over. The purpose of this phenomenological study was to describe the perspectives of Georgia senior adults in their adoption of eReaders. The adoption of an eReader was generally defined as the acquisition of an eReader, followed by the selecting, downloading, navigating, and reading of eBooks using an eReader.

### **Significance of the Study**

This study endeavored to add to the knowledge base on senior adults, learning, and the adoption of technology. Even with the increasing prevalence of smartphones, Smith (2014) found that older adults (age 65 or older) were more likely to own a tablet or an eReader than a smartphone. The apparent preference by older adults made the topic of eReader adoption an appropriate subject worthy of further research. Print books have not gone away but eReaders give older adults additional options for reading. Smith found that 27% of older adults owned a tablet, an eReader, or both. A focus on the phenomenon surrounding the adoption of eReaders allowed me to capitalize on this interest shown by older adults.

This study identified the factors associated with the acquisition of an eReader, and examined the perspectives of older adults as they selected, downloaded, navigated, and read eBooks using an eReader. To date, there has been very little research conducted on the topic. Most studies involving the subject of senior adults and eReaders have focused on quantifying device ownership (Smith, 2014; Zickuhr & Madden, 2012). A deeper understanding of the phenomenon required a qualitative approach to the research, something that I set out to explore in this study. Specifically, I sought to provide stakeholders in the field of senior adult eReader users with a more in-depth look at how and why eReaders were used and laid the groundwork for future qualitative and quantitative studies. This study provided librarians, educators, and caregivers with some of the intricacies associated with working with older adults and informed all parties on the experiences of adopting an eReader.

### **Research Questions**

Gall, Gall, and Borg (2007) detailed how research questions were used to frame a study. I designed this study as a qualitative one. The research questions were broader in nature, and I developed them after reading literature relevant to the topic. Specifically, Aberton's (2006) use of a holistic look at participants (with ages ranging from early-50s to mid-80s) learning new Information Technology (IT) skills in the sociocultural context of previous life experiences, provided insight into the formation of research questions. Similarly, the Broady, Chan, and Caputi (2010) study that compared older and younger adult computer learners enhanced my view on appropriate and relevant questions. For this study, I used inductive reasoning to build generalizations about senior adults and their adoption of eReaders. The research questions were:

- What are contributing factors in senior adults' decisions to use eBooks?



Senior adults may be the new recipients of a gift in the form of an eReader. Other senior adults may feel societal force or peer pressure to use eBooks. Once engaged in this new format, some older adults may prefer the convenience associated with the use of eBooks. This question sought to ascertain the essence of these decisions.

- How do senior adults describe their eReader experiences?

The intent of this question was to develop a description of how senior adults related their eReader experience with other life experiences. These life experiences included ones garnered in library-related and non-library-related practices.

- What are the challenges and benefits of senior adults regarding the use of eReaders?

This question addressed the issues associated with eReader use. The problems or challenges may be manifested at any stage of the process including the acquisition of an eReader, followed by the selecting, downloading, navigating, and reading of eBooks. Problems may also be realized in terms of physical disabilities or declining cognitive abilities. This question also addressed the benefits associated with eReader use for seniors who may or may not experience problems with their device.

### **Research Plan**

According to Creswell (2013), “Qualitative research begins with assumptions and the use of interpretive/theoretical frameworks that inform the study of research problems addressing the meaning individuals or groups ascribe to a social or human problem” (p. 44). Neuman (1994) stated that reports of a qualitative nature “often contain rich description, colorful detail, and unusual characters” (p. 317). “Phenomenology is the study of the world as it appears to individuals when they lay aside the prevailing understandings of those phenomena and revisit

their immediate experience of the phenomena” (Gall et al., 2007, p. 495). Creswell (2013) defined phenomenological research as that which “describes the common meaning for several individuals of their lived experiences of a concept or a phenomenon” (p. 76). This qualitative study employed a phenomenological research design to describe the similar experiences of senior adults adopting and learning to use eReaders. Senior adults in Georgia, age 50 and over, completed questionnaires as part of the initial sample. I set the initial sample size at 15 to 20, so that approximately eight participants remained after possible attrition. I screened the questionnaires to find the best potential candidates and used interviews as another strategy to produce rich, thick data. The interviews continued until the data appeared to reach a saturation point. I employed a focus group as my final strategy. This strategy allowed participants to feed off of comments made by other members of the group and provided an opportunity to reinforce interview findings or to delve into issues that resulted from the group discussion. After the data were collected, I used the Moustakas (1994) techniques as simplified by Creswell (2013) to analyze the “what” and the “how” of the experience.

### **Delimitations**

The purposeful decisions or delimitations I made in designing this study included the use of participants age 50 and over and the use of phenomenological research. I selected the age of 50 for several reasons. Age 50 defines the minimum age for full membership in the American Association of Retired Persons (AARP) and the Association of Mature American Citizens (AMAC). This study did not focus specifically on retired participants, but the retirement perception associated with these organizations lent credence to the notion that an older phase of life had begun at age 50. Granted, as people have both lived longer and worked longer, the age of 50 may not represent a true retirement age. However, many researchers cited the age of 50 in

their studies (e.g., Bartsch, 2012; Hogan, 2009; Pan & Jordan-Marsh, 2010). Additionally, in 2014, the youngest members of the Baby Boom generation, representing Americans born between 1946 and 1964, turned 50 (Decker, 2010). In the study of adults and technology, Heaggans (2012) chose to use the terms *seniors* and *older adults* interchangeably. This study used the same convention while also including a combination of the two terms, *senior adults*.

I selected a phenomenological study over an ethnographic study because the narrative focused on the essence of the experience of the phenomenon rather than on the culture of the elderly participants. I selected participants age 50 and over to limit the scope or boundaries of the study to a population that was more likely to have problems with technology adoption and thus more likely to yield meaningful results from a phenomenological standpoint (Juznic, Blazic, Mercun, Plestenjak, & Majcenovic, 2006; Smith, 2012).

I required all participants to own an eReader, a third delimitation placed on the study. This allowed me to focus part of this research on the aspects of why senior adults selected and adopted certain forms of technology. It also allowed me to investigate how the specific use of an eReader evolved over the course of time associated with ownership.

### **Definitions**

Definitions for pertinent terms in this study are found below:

1. *Adult Learning Theory* – Education theory, also known as andragogy, that is based on six assumptions and posits that adults learn differently than children (Knowles, 1980).
2. *Chaffin-Harlow Model of Cognitive Learning* – Learning model that outlines how life experiences with art, culture, and technology initiate cognitive learning in older adults (Chaffin and Harlow, 2005).

3. *Connectivism* – Education theory that explores how networking of the world is changing how individuals learn and acquire knowledge (Siemens, 2004).
4. *Corroborating evidence* – Data pulled from multiple sources to assist with triangulation (Creswell, 2013).
5. *E Ink* – One of the patented forms of technology for an eReader that generates the words on the screen. The technology replaces the standard liquid crystal display, reduces the negative impact of ambient light, and provides a similar reading experience to that of a print book. Another advantage of this monochromatic technology is that it allows eReaders to run at reduced power (Siegenthaler, Wurtz, & Groner, 2010). Though color E Ink technology exists, it is not marketable for a variety of reasons.
6. *eBook* – Short for electronic book, the eBook represents a relatively young medium, following behind the audio book, that uses digital publication capable of being read on an electronic device (Suarez & Woudhuysen, 2010).
7. *eReader* (also known as *electronic reader*, *e-reader*, *electronic reading device* or other forms of these words and word-letter combinations, as well as proprietary names) – The digital platform upon which an eBook is delivered in a fast, technologically flexible and inexpensive manner, brought to initial popularity by Amazon's introduction of the Kindle, but spurred on by competition from other vendors (Brady, 2012). The term eReader is used generically throughout this study and is meant to include a device (e.g., Amazon Kindle Paperwhite, Barnes & Noble NOOK GlowLight, etc.) manufactured for the specific purpose of reading an eBook. The term eReader also describes a device like a computer, laptop, iPad, tablet or cellular phone used in conjunction with an app downloaded for the purpose of reading an eBook.

8. *Performance-centered or problem-centered* – Refers to the way adults use their real-life situation to orient their learning, as contrasted with the subject-centered orientation associated with pedagogy (Knowles, 1980).
9. *Seniors or older adults* – Interchangeable terms used to describe adults age 50 and over (Heaggans, 2012). For this study, a form representing a combination of the two terms, *senior adults*, is also used.
10. *Social Learning Theory* – The theory that advances the concept that people learn by observing others (Bandura, 1977).
11. *Socioemotional Selectivity Theory* – Theory on time and the role it plays on the social motives of knowledge and emotion (Carstensen, Isaacowitz, & Charles, 1999).
12. *Technology Acceptance Model* – Model that describes how PU and PEOU drive technology use (Davis, 1989).
13. *Theoretical saturation* – The point at which no new codes or themes emerge from subsequent data (Creswell, 2013).
14. *Triangulation* – Use of different measures or techniques to examine the same variable (Neuman, 1994).

### **Summary**

Bandura's (1977) Social Learning Theory describes how individuals are influenced by other individuals. I set up this study to explore how Bandura's theory applied to technology. As a former reference librarian in a public library setting, I received many requests from patrons for eReader assistance. A majority of the questions came from patrons that appeared to be over age 50. In designing this study investigating the experiences of eReader owners age 50 and over, my own age and device ownership placed me in a similar situation to those individuals that

participated in the study. The lack of research on older adults and eReaders illuminated a gap in the literature worthy of further investigation. The purpose of this phenomenological study was to describe the perspectives of Georgia senior adults in their adoption of eReaders. The adoption of an eReader was generally defined as the acquisition of an eReader, followed by the selecting, downloading, navigating, and reading of eBooks using an eReader.

Smith (2014) found that older adults were more likely to own eReaders than smartphones. Armed with this information about the habits of older adults, I collected data and used Creswell's (2013) analysis techniques to sift through information collected from questionnaires, interviews, and a focus group. I used the results to explore the phenomenon of eReader use and to inform stakeholders about the adoption behaviors of older adults.

## **CHAPTER TWO: LITERATURE REVIEW**

An eReader may provide its owner with added convenience. However, an eReader is convenient only if the user understands how to use it: “As aspects of daily life continue to become increasingly reliant on IT, it is important that older adults be able and willing to use IT” (White & Weatherall, 2000, p. 385). I based this study around the experiences of senior adults and their use of technology. I built the literature review with a theoretical framework that supported how adults used technology to learn. The review delved into the characteristics of learning for older adults, a discussion of how technology and learning are both connected and intertwined, and a synthesis of previous research about senior adults and their use of technology. The synthesis noted how learning had evolved with the development of technology. The literature review concludes with a summary of what is known about senior adults and eReaders and illuminates a gap in the literature worthy of further research.

### **Theoretical Framework**

I based the framework for this study on the works of three theorists. First, Knowles’ (1980) Adult Learning Theory describes how adult learning differs from how children learn. Second, Bandura’s (1977) Social Learning Theory posits that individuals learn by watching other people. Finally, the Technology Acceptance Model (TAM) by Davis (1985) describes the influences of adults and their use of technology.

#### **Adult Learning Theory**

This study sought to examine the experiences of older adults as they used eReader technology. Thus, the theoretical framework includes studies involving adults. Knowles (1980) developed and Knowles et al. (1998) updated the Andragogical or Adult Learning Theory based on six assumptions that defined how adults learned differently from children. In the first

assumption, Knowles (1980) described the role of self-concept as the most critical difference between adults and children. In this assumption, adults outgrew the passive model associated with pedagogical learning and took responsibility for the direction of their own education and studies. This requirement for self-direction was so prominent that adults dropped out of training programs if they felt like they had no control over their own education. From the perspective of eReader technology, the lack of control may have begun as soon as a son or daughter presented an aging parent with the gift of an eReader. The son or daughter may have thought that he or she was doing the right thing by assisting the parent. However, if the well-intentioned family member presented the gift with no instructions or assistance, the older adult may have felt that the eReader was being forced upon him or her. In short, the gift robbed the adult of the ability to self-direct. The assumption of self-concept may be influenced by the role of time as outlined in the Socioemotional Selectivity Theory (Carstensen et al., 1999). In this theory, knowledge played a greater role when time was perceived to be unlimited.

The second assumption addressed by Knowles (1980) involved the role of learners' experiences. Learners acquire a collection of lifelong experiences that provide an "increasingly rich resource for learning—for themselves and for others" (p. 44), especially since adults have the tendency to identify themselves by what they do or what they have done. Because adults have more experiences than children from which to draw, they have more to contribute to their own education. However, the benefits of more experience may be offset by habits or biases that keep an older adult from trying something new or trying something old in a new way (Knowles, 1980). For senior adults learning about eReaders, previous work with other forms of technology or experience in a problem-solving job may prove invaluable. On the other hand, individuals



without this type of background may be at a disadvantage when learning a new skill involving technology.

In the third assumption associated with the Adult Learning Theory, Knowles (1980) described how adults display a readiness to learn (Knowles, 1980). Barnard, Bradley, Hodgson, and Lloyd (2013) based their Technology Acceptance and Rejection Model on two characteristics: intention to use technology and technology's usability. Life situations may force or encourage someone to learn. For instance, learning how to use eReaders may be dictated by an event like the onset of dwindling vision. In this case, an eReader may provide the platform for both reading and learning, allowing the reader to adjust both the font size and the screen brightness to accommodate for a loss in vision.

The fourth assumption presented by Knowles (1980) describes how adults require an orientation to learning focused on real-life situations. Adults learn based on what is applicable to their lives and “enter an educational activity in a *problem-centered* or *performance-centered* frame of mind” (p.53). Technology adds an additional dimension to this concept, and led Siemens (2004) to develop the Theory of Connectivism “because the most common educational theories of behaviorism, cognitivism and constructivism did not completely explain the relationship between learning and the use of technology” (Conclusion section, para. 1). Dunaway (2011) stated it this way: “Learning occurs when connections are made” (p. 676). These real-life connections may encourage older adults to use eReaders because eReaders assist adults with a function that they enjoy—pleasure reading.

The fifth assumption about how adults learn differently than children describes how adults are more likely to be motivated by “internal pressures (the desire for increased job

satisfaction, self-esteem, quality of life, and the like)” (Knowles et al., 1998, p. 68). These internal pressures may drive a person’s desire to learn and to be successful.

The final assumption describes how adults desire to know why they need to learn something before they will expend effort to actually learn it (Knowles et al., 1998). Adults place a certain value on learning and this value competes with other resources like time. For adults adopting and learning to use an eReader, the “why” aspect may include the appreciation of reading at some level, the accessibility to an eReader, and the value associated with learning to read on an electronic device.

The six assumptions advanced by Knowles have continued to be refined as the theory of andragogy has evolved. Holton, Swanson, and Naquin (2001) advanced their own expanded model by:

- (a) conceptually separating the goals and purposes of learning from the core andragogical principles of the learning transaction so the interactions and adaptations can be more clearly defined, and
- (b) explicitly accounting for individual, situational, and subject matter differences in the learning situation. (pp. 138, 140)

These refinements show that andragogy is not a stagnant concept, but rather a complex and changing subject worthy of additional study.

### **Social Learning Theory**

In the Social Learning Theory, Bandura (1977) described the “prominent roles played by vicarious, symbolic, and self-regulatory processes in psychological functioning” (p. vii).

According to Bandura, the vicarious process includes the influence of thoughts, affects, and behavior. Watching and learning from the actions of other people help individuals to avoid the

time-consuming trial and error alternative. In the symbolic process, individuals store and process information for future analysis and use. Bandura believed that “humans would be incapable of reflective thought” (p. 13) were it not for symbolizing powers. The self-regulatory process describes how an individual chooses whether or not to copy the observed behavior. In short, this process describes the ability individuals have to exercise control over their own actions. In addition, Bandura used the term *reciprocal determination* to describe the interaction between the cognitive (or personal) factors, environmental factors, and behavioral factors associated with the psychological functions. In a synthesis of literature prepared by Wagner et al. (2010), environmental and behavioral factors dominated the Social Cognitive Theory research involving senior adults and their computer use.

Bandura (1977) found that individuals learned by watching and that “learning would be exceedingly laborious, not to mention hazardous, if people had to rely solely on the effects of their own actions to inform them what to do” (p. 22). Bandura’s theory described modeling or learning by observing in a four-step process: attention, retention, reproduction, and motivation. Modeling and observer characteristics are important factors in the first step of the process. An individual’s attention may either be drawn in or cast aside based on how an individual reacts or responds to what is observed. When attention is drawn to a particular issue or to a particular demonstration, modeling is more likely to take place. The converse was also true; if a presentation turned a person off or if there were other outside distractions that diverted the attention away, the observer was less likely to imitate what was being demonstrated. Bandura highlighted the modeling behavior of individuals, while Siemens described the behavioral changes by pointing to the “tectonic shifts in society where learning is no longer an internal, individualistic activity” (2004, Conclusion section, para. 1).

In the second modeling step, Bandura (1977) described how retention impacted the ability to recreate an observed action. Information may be retained in one of two ways; the image may be stored as a visual image, picture, or symbol depicting the action to be modeled. Alternately, the information may be stored in the form of words. These words provided a description of the action that was witnessed, similar to those actions represented by symbols. The words or symbols essentially laid in storage in an individual's memory, awaiting retrieval, and reminding the individual of the initial action. The entire process involved symbolic doing, cognitive organization, symbolic rehearsal, and motor rehearsal (Bandura, 1977).

In the third modeling step, Bandura (1977) described how individuals practiced what they observed. In terms of learning, this step represented a reproduction of the act that was originally observed. As the individual began to complete the action, the repetition of observed behavior led to improved ability or skill. The considerations associated with this process included physical capabilities, availability of component responses, self-observation of reproductions and accuracy feedback.

Bandura (1977) characterized the fourth step as motivation. The processes occurring in this stage included external reinforcement, vicarious reinforcement, and self-reinforcement. An individual was influenced to imitate or not to imitate an observed action based on several motives. The motives may be positive in nature meaning that an individual's action may be rewarded by some form of positive reinforcement. Also, the motives may be negative in nature and associated with a punishment. Both reinforcement and punishment may be viewed through the lens of what has happened in the past, what has been promised for the future, or what may be visualized through a vicarious process.

## **Technology Acceptance Model**

A model represented the third theoretical framework upon which this study was based. Davis (1985) proposed the TAM as a way of describing how computer use depended on user perceptions. According to the model, potential computer users adopt technology based on PU and PEOU. Davis' model proposed that the characteristics of PU and PEOU (cognitive responses) reflected an attitude that welcomed technology (affective response) and this led to system use (behavioral response). Continuing his work, this time in an office environment of working adults and in a lab setting with graduate students, Davis (1989) found a positive correlation between an individual's PU of a computer and the individual's self-reported computer use; a similar correlation, though less strong, between an individual's PEOU of computers and their self-reported computer use; and that two variables, PU and PEOU, were significantly correlated with both current usage and future-predicted usage, with PU having a higher correlation. More research confirmed related findings regarding adults and computers; In an office environment, managers used computer systems primarily if the PU was high, followed by PEOU (Davis, Bagozzi, & Warshaw, 1989). For adults age 50 to 81, Pan and Jordan-Marsh (2010) found that PU and PEOU directly affected Internet adoption and that PEOU made a greater contribution toward intention to use the Internet for older seniors (above age 60) than for younger seniors (age 50 to 60). Additional research supported the TAM (Hernández-Encuentra, Pousada, & Gómez-Zúñiga, 2009; Mitzner, et al., 2010). Davis et al. (1989) found "people's computer use can be predicted reasonably well from their intentions" (p. 997). As the research around the theory developed, Wang, Rau, and Salvendy (2011) found four factors that affected older adults' acceptance of information technology: needs satisfaction (similar to PU), perceived usability (similar to PEOU), public acceptance, and support availability. The first two factors

(i.e., the ones that matched up with Davis's theory) were concerned with the effects on technology, while the other two factors were related to external influences.

Chung, Park, Wang, Fulk, and McLaughlin (2010) used the TAM as a starting point to advance the concept that PU was a factor in the behavioral intention to participate in online communities. The TAM modeled the behavior of the over-50 crowd, but it did not address the gender gap among seniors (Ramón-Jerónimo, Peral-Peral, & Arenas-Gaitán, 2013). Males had higher PEOU and more PU concerning the Internet, but many unanswered remained on the use of the TAM in describing how technology was accepted.

Researchers and theorists have continued to build upon the original version of the TAM. For instance, Venkatesh and Davis (2000) found that “using TAM as the starting point, TAM2 incorporates additional theoretical constructs spanning social influence processes (subjective norm, voluntariness, and image) and cognitive instrumental processes (job relevance, output quality, result demonstrability, and perceived ease of use)” (p. 187).

Davis et al. (1989) found that intentions to use the computer were a good predictor of computer use, that PU was a primary determinant, and that PEOU was a “significant secondary determinant of people's intentions to use computers” (p. 997). However, Davis (1989) described an important factor in another study: “Although difficulty of use can discourage adoption of an otherwise useful system, no amount of ease of use can compensate for a system that does not perform a useful function” (pp. 333-334). For the purposes of this research, the TAM provided a framework to describe why senior adults may have chosen to adopt an eReader.

### **Review of the Literature**

After grounding the study within the theoretical framework, I examined previous research on the characteristics of older adult learners. From there, I reviewed articles about the learning

aspect of technology instruction. Studies on adults and their use of computers and the Internet dominated this realm of the literature review. The computer-centric nature of most articles not only highlighted this popular choice for technology research, but also illuminated a void or lack of research about newer technological devices and their associated impact on adult learners. Finally, I researched how models had been used by researchers to describe the learning process associated with adults and computers.

### **Characteristics of Older Adult Learners**

The literature provided details on the sharp contrast between child learning theories and adult learning theories (Knowles, 1980). However, no specific theories were uncovered concerning the difference between adult learners and senior adult learners. A lack of theories on this subject has not kept researchers from studying characteristics and issues associated with older learners. Most researchers discussed senior adult learning as a subcategory of adult learning, with various and sometimes arbitrary age ranges chosen for studies. Gust (2006) described seniors as individuals age 50 and over, but the ensuing discussion often treated adult learning and senior adult learning synonymously. I selected the same age of 50 to designate senior adults, but have identified ages in cited references when researchers reported the specific ages of adults in their studies.

Technology has changed the way learning occurs and how learning is analyzed. “Learning theories are concerned with the actual process of learning, not with the value of what is being learned. In a networked world, the very manner of information that we acquire is worth exploring” (Siemens, 2004, Limitations of Behaviorism, Cognitivism, and Constructivism section, para. 2). Children are growing up in a world where technology is an integral part of their learning process. In many cases, the technology may not be separable from the learning

environment. However older adults lived in a time when the world of technology did not exist as it does today. The use of technology provided an interesting aspect to study within the field of andragogy. “That andragogy does not speak to all possible goals and purposes of learning is not a weakness but a strength because andragogy can then transcend arenas of application” (Holton et al., 2001, p. 126). When individuals with a limited background in technology attempt to learn while using technology, they may be forced to divide their time between learning the subject and learning the technology. The division of time may be educational, but it may also lead to frustration. This section reviews the literature on the characteristics of adult learners, particularly in relation to the aspects of learning involving technology.

Life follows a natural progression after birth. Growth during childhood and young adult years prepares individuals for a transition to the independent stage of adulthood. This final stage may last for decades, but a lack of mobility and a setback from other issues later in life may limit a senior’s independence. In other words, the mind and body are not constants; instead they continue to change over time. Chaffin and Harlow put it this way: “As we age, maintaining control over hard-earned autonomy is constantly challenged by age related physical, cognitive, and environmental changes” (2005, p. 301). The challenges may be found in all aspects of life, particularly when technology is involved. Charness and Holley (2004) investigated the problems that were manifested when technology was introduced and identified the following issues: psychomotor function, vision, hearing, and cognitive ability. Barnard et al. (2013) identified age-related issues involving technology including reduced vision and reduced dexterity, and issues caused by the use of touchscreen technology calibrated to younger users.

In spite of challenges, technology continues to be adopted by senior adults. Wagner et al. (2010) surveyed adults age 60 to 75 and found that the technological devices with the highest



reported use were digital cameras, telephones, desktop computers, mobile phones, and printers. When senior adults learn to use newer technologies, they may offset some of the negative aspects of growing old. “Computer skills and use of the Internet give them control over one of the primary threats to their physical and psychological well-being: social isolation” (Chaffin & Harlow, 2005, p. 302). Social isolation represented a negative consequence associated with becoming independent. Smith (2012) studied adults age 74 to 98 and found the following:

(1) Loneliness has been associated with old age because of multiple losses that may occur.

(2) Findings from this study revealed that many participants experienced loneliness as a result of disrupted meaningful engagement with others due to different age-related changes.

(3) Loneliness as an embodied experience can be expressed through the body in several ways, including fatigue, tension, withdrawal, and emptiness. (p. 61)

Smith found that caregivers like nurses served in key positions for identifying cases of loneliness. Li and Perkins (2007) found that as loneliness was treated by “taking an initiative to gain technological knowledge, the elderly became more socially interactive and less isolated. As their level of technological knowledge increases, their enjoyment and confidence with learning and using these skills will also increase” (p. 365). On the other hand, Youn-Min (2008) confirmed that older adults feared the use of the Internet would cause more social exclusion.

Salthouse (1996) recommended looking at factors earlier in life to pinpoint causes for differences in cognition speed for older adults. Tielen (1998) lamented the lack of public funding for senior adults in the post-retirement or third phase of life. This investment in the lives of senior adults may help individuals to overcome some of the complications associated with

growing old. Chaffin and Harlow (2005) found that “aging causes physiological changes that slow the learning process” (p. 302). The Chaffin-Harlow Model of Cognitive Learning outlined how art, culture, and technology initiated cognitive learning in older adults. This model of learning capitalizes on various aspects of a person’s life experiences, and allows him or her to actively participate and grow. However, the decline in the learning process or the decrease in cognitive ability may lend itself to a form of discrimination. Ageism or the discrimination of the elderly is the focus on negative aspects like the physical and cognitive decline associated with growing old instead of focusing on the learning potential and other positive attributes of the elderly (Chaffin & Harlow, 2005). Yet, older adults possessed a unique perspective on the subject of time. Russell (2011) described how seniors were closer to death (limiting the amount of time left in life) and yet had more time in their post-retirement years.

**Challenges and support.** There are many challenges associated with growing old and support networks may assist in dealing with these issues. Gatto and Tak (2008) recommended that caregivers become familiar with the characteristics of older adult computer users and for the caregivers to encourage the seniors to become proficient with technology. Ng (2008) emphasized the importance of social support, especially support from family members, when older adults were learning about technology. Erickson and Johnson (2011) summarized the importance of support in this manner: “An aging population is best served by social, personal, and health support focused on maintaining and maximizing personal independence” (p. 198). One way to provide support is through the use of email, because older adults that use email are more likely to live independent lives (Stark-Wroblewski, Edelbaum, & Ryan, 2007). But what makes a senior adult accept and use technology? Wang et al. (2011) found senior adults self-reported needs satisfaction and support availability as the most important factors for technology

acceptance; however, in terms of support availability, “older adults have more difficulties and less confidence when they use information technology” (p. 1094). White and Weatherall (2000) recommended, “If, in an increasingly technological world, we wish older adults to use up-to-date technology (e.g., in their banking, shopping, health care, or communication), then we need to identify ways of positively introducing the technology, both theoretically and practically” (p. 384).

Lee, Chen, and Hewitt (2011) studied computer users grouped as pre-seniors (age 50-64), young-olds (age 65-74), and older-olds (age 75 and older) and found that more challenges were reported in the older group. Carpenter and Buday (2007) found computer users were more likely to be younger, better educated, in better health, less physically impaired, more likely exposed to technology at an earlier age, better connected with social networks, and more likely to have had access to computer support. In a similar finding, Cresci, Yarandi, and Morrell (2010) characterized adults age 60 and over that used the Internet (identified as Pro-Nets in the study) as younger, better educated, more active, better paid and healthier than individuals who did not use the Internet (identified as No-Nets in the study). In looking at older adults, education was the most important factor in determining computer use (DeOllos & Morris, 2003-2004). Li and Perkins (2007) found that adults age 65 and over considered technology as beneficial, even if individuals were not presently using it. For senior adults age 59 to 77 with moderate or higher computer proficiency, five themes emerged:

- (1) Computer technology was connected with other interests and hobbies. In particular, genealogy appeared frequently as an important interest, and use of the computer facilitated this pursuit.

(2) Mental and social stimulation were seen as important for positive aging. Although such stimulation was discussed with reference to other aspects of older adults' lives, computer-mediated communication seemed to play an important role in this stimulation.

(3) Cost had an impact on the use and ownership of computer technology for older adults.

(4) The computer was viewed as a tool. All of the participants appeared to use the computer to assist them in a variety of ways (e.g., databases for music collections, spreadsheets for finances, e-mail). This theme is related to the first regarding computer technology and other interests.

(5) Communication with family and friends using the computer, especially grandchildren, was very important. (White & Weatherall, 2000, pp. 366-377)

However, the challenges and support associated with higher proficiency computer users in the White and Weatherall study may differ from issues identified in studies of less proficient computer users.

**Importance of communication.** As mentioned in the preceding paragraph, communication is another aspect of adult learning that has been influenced by technology. Oral communication has traditionally been thought of as face-to-face communication. But even that definition has changed as technology has advanced. Face-to-face conversations have given way to phone calls. Now cellular phones permit conversations to occur outside the confines of the home or office. Tools like Skype allow for communications to proceed, but with an additional feature—visual images of the communicators. Written communication has followed a similar path, albeit with the use of email and instant messaging replacing letter mail. Charness and Holley (2004) found that computers and the Internet allow additional communication outlets for older adults. “Findings suggest that the ways the Internet is used differ greatly according to each

user's economic, social, and cultural resources, including their roles and relationships with other people and systems in society" (Youn-Min, 2008, p. 108). Stark-Wroblewski et al. (2007) studied email users age 65 and older and found that they self-reported fewer health limitations than email non-users. Communication continues to be one of the most important aspects of technology. In fact, Carpenter and Buday (2007) found the most common use for the computer was to communicate with family. Youn-Min (2008) found that "older citizens often will not use the Internet in 'beneficial' ways, that is, ways that improve seniors' social opportunities they desire. Nor will they necessarily perceive benefits from Internet use they perceive important" (p. 111). Additionally, the study indicated that email communications were dependent upon pre-existing relationships with friends and families. Older adults used computers and the Internet less frequently, yet were prime candidates for computer use as mobility limited their ability to get out and get away. Other reasons limited the ability to communicate. Carpenter and Buday (2007) found current computer non-users cited cost as the reason why they were not using computers. Wang et al. (2011) found that "information technology's own attributes determine whether or not older adults have intention to use it" (p. 1094). Meanwhile, computer users cited their own reasons for being hampered in their ability to use technology: difficulty with computer complexity, functional impairments, ergonomic barriers and lack of computer assistance (Carpenter & Buday, 2007).

**Attitudes and influences.** In a convenience sample of those age 60 and over, "responses to the open-ended questions indicated that the positive aspects of Internet use included connectedness, satisfaction, utility, and positive learning experience. Negative aspects of Internet use were frustration, limitations, mistrust, and time issues" (Gatto & Tak, 2008, p. 805). Mitzner et al. (2010) found that older adults (age 65 to 85) had positive attitudes about

technology and its use in their home life, work life, and health-related areas. They found technology was liked because it supported activities, provided convenience, and contained useful features. A positive or negative attitude may depend on the actual type of technology used.

Barnard et al. (2013) found:

Most of the participants thought it would not be very difficult to learn how to use the tablet; they had the feeling that it was easier than a computer. One of the reasons may be that they saw it demonstrated in a calm and friendly atmosphere without any pressure on them. The size of the tablet may also be an advantage, big enough to see things well, in comparison with a phone, and small enough not to look like a complex system. Being able to hold it, pick it up and touch it in different ways may make the system less daunting. (p. 1720)

Sometimes the positive attributes of technology were offset by negative ones. Negative attributes were associated with inconvenience, features, security and reliability (Mitzner, et al., 2010).

Lee et al. (2011) identified four constraints among senior adult computer users: intrapersonal, interpersonal, structural, and functional. “Intrapersonal and functional appeared to be internal factors referring to an individual’s perception and ability in handling new technologies; while structural and interpersonal dimensions were external factors that refer to living conditions beyond their physical and mental status” (Lee et al., 2011, p. 1235). Li and Perkins (2007) found that “the attitudes of the older adult population toward new technology and their willingness to learn are greatly influenced by factors such as familiarity, enjoyment, feelings of convenience, level of technological knowledge, and a basic understanding of computer terminology” (p. 364). In a survey of adults over 60, Erickson and Johnson (2011)

found a significant correlation between Internet use and self-efficacy. Meanwhile, Lunn and Harper (2011) developed an Internet assistance tool for participants age 55 to 80 and provided a cautionary finding that seniors perceived that they were better at using the Internet than they actually were.

**Dark side of technology.** Vulnerability is an issue commonly associated with the elderly and the Internet has added another dimension for which the elderly must be cautious: “Whilst older people have considerable life skills to resolve their own difficulties the contexts in which they are seeking answers to problems or making difficult decisions, often occur at points of vulnerability” (Godfrey & Johnson, 2008, p. 636). Older adults know less about computers and are more vulnerable to Internet scams, frauds, and hazards. However, older adults with more education display characteristics closer to their younger adult counterparts (Grimes, Hough, Mazur, & Signorella, 2010).

Avoidance is another negative element associated with technology. Avoidance is a natural human reaction in certain types of situations and two particular types were mentioned in the literature. Hawthorn (2007) found that “in their own computer use older computer users typically avoid errors by restricting what they attempt” (p. 341). In a different form of avoidance, Broady et al. (2010) compared younger adults with older adults and found older adults avoided technology because they lacked knowledge about the latest technology and how to use it. These cases of avoidance were in line with what Barnard et al. (2013) reported regarding participants that had retired early just to avoid having to learn a new technology. Indirectly associated with the characteristic of avoidance was lag time. “Despite the potential good that computers, the Internet, and e-mail might bring older adults, a lag seems to exist in technology adoption by older adults” (Carpenter & Buday, 2007, p. 3013). The lag time

associated with technology adoption may keep older adults from ever catching up to their younger counterparts.

In a survey for participants age 70 and over, Purdie and Boulton-Lewis (2003) found technology was the least important need and the respondents felt uncomfortable with their knowledge on this subject. This discomfort may have led to cases of avoidance discussed in the previous paragraph. Though the seniors perceived their knowledge level to be low, they still desired to learn about computers (Purdie & Boulton-Lewis, 2003).

**Changes in information-seeking behavior.** Ryan, Anas, Beamer, and Bajorek (2003) found that reading did not decrease with later life vision loss. However, more fiction and less news material were read. Godfrey and Johnson (2008) found older adults sought information in three key contexts: life course transitions (like retirement), life events (like bereavement) and daily hassles. Russell (2011) found that older adults in their mid-70s to early-90s post-retirement phase of life had time to do things like continue with lifelong learning in their subject of choice, and preferred learning at their own pace. “Computer usage in late adulthood has considerable potential as a resource of health-related information, alternative means of shopping for homebound people, opportunities of lifelong learning, maintaining or developing social interactions, and enjoying hobbies” (Kim, 2008, p. 731). The potential for learning later in life and for having the time available to learn may provide important considerations regarding the characteristics of older adult learners.

### **Technology and Learning**

Dunaway (2011) stated, “Knowledge emerges from an individual’s learning network as she recognizes connections between concepts, opinions, and perspectives” (p. 676). Learning may occur in a variety of settings ranging from self-paced study to a formal classroom. This



study sought to draw upon lessons learned in the teaching of older adults and upon lessons learned in the design of technology courses to investigate the use of eReaders by older adults. Schwender and Köhler (2006) recommended a three-phase strategy for introducing new media technology to seniors: 1) find and identify the problems, 2) address the problems that are identified, and 3) test the results. Barnard et al. (2013) discussed three learning styles participants used to learn about technology: through step by step instructions while someone watched over a shoulder, by trial and error, and by reading the instructions. Mayhorn, Stronge, McLaughlin, and Rogers (2004) recommended a systems approach that began with a needs assessment to better design computer classes specifically targeted for older adults.

**Course considerations and design.** Health was a popular research topic for older adults. When it came to learning about health issues online, Xie (2011) found that collaborative learning improved e-health literacy. In their research on healthcare websites, McBride and Napier-Tibere (2004) discussed the importance of knowing the target audience. Lunn and Harper (2011) stated, “Designers must also ensure that they provide users with functionality that they need, in a manner that entices them, rather than creating something that users believe they want” (p. 2104).

Conditions associated with growing older affect the target audience. For instance, Salthouse (1996) emphasized the slowing of cognitive functions associated with age. However, Kooij, de Lange, Jansen, and Dijkers (2008) discussed how age may be defined in ways other than chronologically. In their research on the acceptance of information technology by older adults, Wang et al. (2011) found that “enjoyment, connecting to others, and accessing information are the most important needs for the older adults” (p. 1094). Classes filled with older adults succeed when the focus is on the issues, learning methods, and teaching strategies deemed best for seniors: “If designers are aware of the age-related changes that occur

normatively in the population, they can configure systems that will enhance the probability of successful use by older adults” (Charness and Holley, 2004, p. 429). Githens (2007) recommended that e-learning courses take older adults into account when designing the platforms. Meanwhile, Rosenthal (2008) recommended further studies on technology use by older women since they live longer (statistically) than men.

Hawthorn (2007) made several recommendations for designing an interactive computer tutorial including involving older adults in the process and making use of small groups to discuss possible solutions. Dunaway (2011) highlighted the importance of connectivism. As the name implies, connectivism derives from the connections made by learners between various information resources, especially technology-related resources. In dealing with older adults, simplicity may be a key factor. Mead, Batsakes, Fisk, and Mykityshyn (1999) found that older adults produced similar results to those of younger adults when asked to do web searches requiring two or fewer moves. However, older adults experienced problems when tasks required three or more moves. Meanwhile, searches performed by older adults in library online catalogs produced similar results to those of younger adults, most likely because online catalogs are organized hierarchically as opposed to the network file structure of the web (Mead et al., 1999). Laguna and Babcock (1997) found older adults (age 55 to 82) made more mistakes and had higher anxiety than younger adults (age 18 to 27) on computer tests. The anxiety may have resulted from directions that emphasized both accuracy and speed in making decisions.

**Social aspects of learning.** Aberton (2006) realized the significance of a different approach for older adults: “The importance of the social nature of learning and motivation in this study, demonstrates the need for a more holistic approach to older computer beginners’

instruction” (p.44). White and Weatherall (2000) described the importance of the social aspect of learning for older adults:

Associating IT with modern life, grandchildren, and the future and feeling positive about this association was necessary for them to recognize the potential of the technology and become involved with it. Once involved, positive attitudes toward the technology developed and was maintained by the use of and involvement with IT. (p. 383)

Holistic approaches and attitude are two of the social factors that may be considered for designing courses. Carpenter and Buday (2007) recommended that course developers take the following into account: addressing the issue of complexity and terminology, providing more frequent and accessible support, addressing the user’s insecurities with technology and the user’s wariness of how computers work, establishing better marketing to describe what computers and training can do, and using a self-assessment aimed at steering users toward their own computer needs. On the subject of older adults, Wang et al. (2011) made three suggestions about the use of IT: 1) make needs satisfaction the highest priority in the early design phase; 2) design IT with senior adults in mind; and 3) provide appropriate support for the technology. These suggestions may alleviate problems that senior adults associate with technology.

**Problems with Technology.** Youn-Min (2008) found that seniors used computers for browsing websites for “entertainment, downloading pictures, and repeating the class curriculums” (p. 110). However, Slegers, van Boxtel, and Jolles (2007) studied adults age 64 to 75 with no computer experience and found that they were unable to transfer their computer skills to other technological devices after the completion of a training course. Connell, Bayliss, and Farmer (2012) found “exposure to the iPad and Kindle increased participants' desire to purchase a tablet for recreational reading, while only exposure to the iPad increased participants' desire to

purchase a tablet for academic reading” (p. 137). Learning in a technological environment is not without issues. Barnard et al. (2013) found older adults learning to use new technologies have both generic problems (associated with manipulating the touchscreen, moving the cursor, or understanding the difference between backspace and back) and specific problems (associated with powering up a device, entering a password, sending an email, using a keyboard, searching the Internet, setting the alarm, activating the standby mode or powering off a device).

**Technology access and programing.** Bertera, Bertera, Morgan, Wuertz, and Attey (2007) described a health information program that was successful because the training was relevant to the audience of older adults, the trainer was familiar with the community and explained the subject in a way that the older students could understand, and peer navigators were used to provide assistance to the students as needed. Hawthorn (2007) used an informal manner while serving as a tutor in an effort to down-play his researcher role. Delahaye and Ehrich (2008) found that older adult learners preferred a traditional structured format and liked self-paced group learning. These preferences are consistent with the findings of Callahan, Kiker, and Cross (2003): “For decades, three instructional methods have dominated the training literature: lecture, modeling and active participation in the training process” (p. 665). Callahan et al. found “training that integrates multiple methods could be useful when training older learners” (p. 675). In other words, using various methods to teach senior adults capitalizes on the existence of different learning styles.

Aberton (2006) found that relationships between and among learners provided positive synergy to the learning environment. In particular, students in a computer class found it important to begin classes with introductions. Classes that did not use introductions left the students with uncertainty as to how each student compared to others in the program and made the

students afraid to ask questions. Friendships that formed during break times increased the amount of sharing that occurred in the classroom. This led to identification of individuals as part of the group (based on age, ability, belief system, and confidence level; Aberton, 2006). This same concept of belonging to a group applied to other learning conditions. Older adults learning to use eReaders wanted to know that they had something in common with other people learning to use new technology. Hernández-Encuentra et al. (2009) found computer users age 65 to 70 not only needed to know how to use a variety of technology tools, but also needed to be provided with a way to instill confidence and a basic level of support. The senior adults needed assurance that the technology would allow them to continue functioning on their own. The concept of learning was somewhat narrowed because older adults viewed the individual types of technology as single function devices (Hernández-Encuentra et al., 2009).

Access to technology is a complicated issue. Purdie & Boulton-Lewis, (2003) found physical disabilities associated with age are the greatest barriers. Sometimes, the design of technology creates the barrier that discriminates against older adults. Smaller keyboards, smaller keypads, and touch screens may hamper senior adults, creating a barrier to learning. For devices that are small to start with, the problems are even worse. Ling (2008) found a need for technology to address issues experienced by the elderly, such as the inability to read the small screens on a cellular phone. Court-Jackson (2011) studied technology as it related to music and found that adults over 55 had problems associated with dexterity and hearing loss. Finally, Broady et al. (2010) found older students in a classroom environment needed to be given ample time to complete assignments and they needed to be treated in a positive manner so that they built confidence in their own abilities.

Technology classes give students the opportunity to learn new skills or to take up alternate activities based on a changing lifestyle (Aberton, 2006). This does not mean that the technology is always adopted, with text messaging serving as a case in point. Ling (2008) investigated why seniors did not send text messages and found that the young users stereotyped the older users in this way and thus reinforced the belief. Another finding was that individuals exercised self-exclusion based on the later development of texting devices. Ling recommended training as a way of overcoming this barrier. Morris (1994) recommended a similar treatment (i.e., more training and more research on training seniors) because the adults over 60 had a favorable view of technology when offered an introductory computer course. Schwender and Köhler (2006) put together a group that worked on revamping the text messaging section of a cell phone operator's manual to improve comprehensibility, clarity, organization, manual format, print size, and use of overly-technical vocabulary. Given a task of sending a text message having little or no previous experience, seniors that used the revised manual completed the task in approximately half the time of those that used the original manual. In a separate study, Shepherd and Aagard (2011) found certain limitations with online journaling including sporadic activity due to feelings of isolation, physical barriers, and access issues. O'Hara (2004) suggested the way to address physical and access issues was to investigate how similar issues were addressed by members of the disabled community as they sought to overcome their own barriers. Seals, Clanton, Agarwal, Doswell, and Thomas (2008) found that educating seniors involved convincing senior adults of what computers may be able to do for them.

**Relationships and support.** Relationships may influence how adults learn. However, learning about technology from an expert reinforces the notion that computers are for experts (Barnard et al., 2013). Meanwhile, social interaction helps an individual determine if he or she

fits into the group and whether the group supports the learning goals. For learners in their early 50s to middle 80s, Aberton (2006) found “support is an affordance for learning and [an] enabler for developing self-confidence” (p.42). As students solve problems, not just learn content, they feel empowered by their computer training and the Internet (Bertera, et al., 2007). For instance, there were occasions in Aberton’s (2006) computer class in which a learner’s confidence was boosted when the learner was able to identify with another student. This finding was consistent with the power of observation discussed in Bandura’s (1977) Social Learning Theory. In an example with a throwback to the days of elementary school learning, Aberton (2006) found that adults evidenced a boost of confidence when their personal work was displayed on the classroom walls. However, White and Weatherall (2000) cautioned against patronizing or threatening older adults as they attempted to learn about technology. Meanwhile, Lai (2011) identified an issue in the local library and recommended a solution:

Library patrons were not effectively searching information due to lack of sufficient Internet searching skills and this problem greatly reduced their IL [Information Literacy] abilities. Public libraries, as IL providers, should pay more attention to this issue by providing IL training in the search techniques of using various search engines and databases. (p. 84)

Lunn and Harper (2011) found that their “research has helped to further solidify ongoing work in the area—which suggests that experience and knowledge are better differentiators of barriers to Web interaction than is age” (p. 2106). Experience and knowledge tie back to Knowles (1980) Adult Learning Theory.

The role of support in learning is well documented. Based on work by Schilderman (2002), Gomez, Fawcett, and Turner (2012) classified the three main functions of infomediaries

as the ability to share information, help users, and build relationships. Thus, libraries were labeled as infomediaries. Duncan (2011) stated:

The time is ripe for all libraries to analyse [sic] and implement ebook and eAudiobook solutions tailored to their communities. Indeed, if library managers delay in this area, the explosion of ereaders, and related electronic resources will overtake the community's patience for libraries to deliver such services. The possible decrease in demand for library services may threaten their continued relevance and ultimately the level of funding received. (p. 192)

According to Evjen and Audunson (2009), the library was still viewed, especially by non-users, in its more traditional sense of "promoting literature, offering services to everyone, promoting democracy, and representing a non-commercial space" (p. 168). Non-users valued the free meeting space and the library's social aspect. One potential service that libraries or the community may offer relates to learning about technology. For example, Lunn and Harper (2011) discussed the value of human intervention especially when novices were trying to develop computer skills. This intervention may be supported from certain organizations within the community defined by the following:

- Their capacity to provide information in an accessible format;
- Their willingness to share information rather than hold on to it;
- Their ability to get hold of information and adapt it to a local context;
- Their experience, education, knowledge and reliability;
- Their accessibility, proximity and helpfulness;
- Their social sensitivity and capacity to involve residents;



- Their leadership qualities, influence and moral authority. (Schilderman, 2002, p. 28)

In a practical view of support, Hallberg and Sipos-Zackrisson (2010) found that libraries could benefit from employees with retail experience because they were observed “actively talking to the customers, asking questions about customer library experience and expectations, [and] especially focusing on the unknown users” (p. 94). In other words, businesses use concepts from other businesses, so why can’t libraries?

Support is essential for older adults when they are using technology: “As a first step in becoming e-literate, older learners need support of other people who can identify with or understand as they confront initial inhibitions and technological unknowns” (Aberton, 2006, p.45). Support from experts is not the only type of support. There was also support to be garnered from family members. For instance, married couples drew support from each other in a class and once they got home, they were able to provide additional assistance to each other (Aberton, 2006). Older adults with family support have better communication, higher Internet self-efficacy and a higher perception of e-learning (Chu, 2009). In studies providing additional credence to the value of support, Cody, Dunn, Hoppin, and Wendt (1999) found adults with an average age of 80 had more positive attitudes when they learned to surf the web in computer classes and these adults had higher perceived social support levels. Lunn and Harper (2011) found “there may be a social aspect to learning to use computers, with some participants spending more time chatting after the study than it took them to complete the study; this valuable social engagement should not be ignored” (p. 2106). Smith (2012) stated, “Meaningful social contracts are an integral part of successful aging; without these older adults may experience social isolation and loneliness” (p. 46). In short, social engagement wards off isolation.

Youn-Min (2008) found that communications via email were less likely to occur unless a relationship existed prior to the commencement of computer classes for older adults.

Meanwhile, Pan and Jordan-Marsh (2010) discovered that facilitating conditions were a significant indicator of Internet use intention, but not Internet adoption. Well-designed information solutions provided older adults with multiple access points or what Godfrey and Johnson (2008) referred to as digital circles of support. These solutions fostered success when older adults were trained as mediators to provide information assistance and retrieval. However, Bertera et al. (2007) found that the digital divide kept senior adults from gathering health information (a popular subject researched by senior adults) from sources like the Internet.

These discussions of acceptance, support, and models focused primarily on adults and their use of computers. Numerous struggles, problems, and issues were identified in terms of how adults learned. The element of technology added one more dimension to the concerns associated with the education of older adults. Analyzing the use of eReaders may provide similar or contrasting issues specific to this form of technology.

### **eReader Adoption and Use**

Adoption and use of an eReader may depend on several factors. For instance: “How difficult it is to learn a new technology is not only dependent on the perceptions and experiences of the users. The characteristics of the technology itself also determine how difficult it is” (Barnard et al., 2013, p. 1723). The Barnard et al. research, like so much other research published on new technology did not specifically mention eReaders. A few exceptions to the trend are discussed below. Tees (2010) found that eReaders were “not yet suitable for university students to use as a textbook replacement” (p. 184) and that the eReaders were better suited for reading fiction, their original design function. When looking at the perceptions experienced by

graduate students, Aharony (2013) described the students as users of “textbooks that contain text with embedded links, multi-media books that might contain sound and images, reference books such as dictionaries and encyclopedias, directories, and digitized versions of ‘out of print’ books” (p. 69). This academic definition was typical because most studies on eReaders involved students in an educational setting. Connell et al. (2012) compared undergraduate students that used print materials (in a reading packet), tablets and eReaders. The format did not affect reading comprehension, but students using print materials read significantly faster. For usability, students rated the tablet as the easiest to use, followed by the eReader and then the printed material.

Dunaway (2011) described how older theories of learning were being replaced by ones that included an aspect of technology. Ratten (2011) found “a link between a person’s entrepreneurial orientation and their intention to adopt an e-book device” (p. 320), but found no such relationship with other factors like a person’s learning or ethical orientation. The Ratten study, like so many others, did not discuss older adults, but rather described university students, in this case with age ranging from 18 to 29. Duncan’s (2010) library study is one of the few articles discussing eReaders outside of the academic environment. Libraries were considered unique because they served everyone and the service they provided was information (Gomez et al., 2012).

The limited amount of research on eReaders caused Richardson and Mahmood (2011) to include a disclaimer noting that their reference citations came from popular literature instead of from traditional research journals. Ashcroft (2011) found that “users want to be able to access the same ebooks but at their convenience on a variety of devices” (p. 401), a finding consistent with the technological acuity of the younger generation, but a potential concern for an older

generation in search of a simpler and less complex solution. Additionally, Ashcroft recommended that libraries heed a lesson from industry and do a better job of marketing their library eBook collections. These recommendations would be in line with the purposes of this study.

### **Summary**

The theoretical framework upon which this research was based included the Adult Learning Theory proposed by Knowles (1980), Bandura's (1977) Social Learning Theory, and the Technology Acceptance Model proposed by Davis (1985). The Adult Learning Theory described how adults have different motivations and learn differently than children. Bandura's theory described how individuals learned by watching other individuals and Davis's theory postulated how adults were influenced by technology and their own perceptions of technology.

Research documented cases like William: "William, another participant with impaired vision, could no longer read the newspaper print. He reported feeling isolated because his impaired vision reduced his ability to remain connected to his world via the daily news" (Smith, 2012, p. 48). Added to this mix was an interesting perspective that senior adults have on the subject of time: "The paradox of time felt by the participants—that they have all the time in the world and yet very little time left—lies at the heart of the uniqueness of time in later life" (Russell, 2011, pp. 561-562).

There are many studies on the teaching of older adults and on the characteristics associated with learning experienced by these adults. In addition, there are many studies discussing the use of technology. The topic of computers dominated the technology research, but studies on other forms of technology were found in the literature. For the limited number of studies on eReaders, younger participants in an academic setting provided the common theme:

Mobile eReaders were currently being used in the K-12 environment (Larson, 2010; Pacino & Nofle, 2011) and on college campuses (Shen, 2011; Kemp, Lutz, & Nurnberger, 2012; Martinez-Estrada & Conaway, 2012). Studies about older adults and their experiences with eReaders were almost non-existent in the literature and this study sought to explore the gap. Results from the study may inform librarians, caregivers, and family members about the reading habits and electronic use of senior adults.

## **CHAPTER THREE: METHODS**

The purpose of this study was to ascertain how senior adults described their eReader experiences including the contributing factors in their decisions to use eBooks. This study was designed to build upon the base of literature associated with senior adults and technology and was constructed to focus on the specific aspects surrounding the use of eReaders. The following sections describe the design, setting, procedures, and other pertinent aspects of the methodology chosen for this study.

### **Design**

I selected a transcendental phenomenological design for this qualitative study because this form represented an inward reflection on shared experiences. Moustakas (1994) defined transcendental phenomenology as “a scientific study of the appearance of things, of phenomena just as we see them and as they appear to us in consciousness” (p. 49). Giorgi (2009) described this transcendental consciousness as “pure, flowing, essential consciousness” (p. 88). “Phenomenology aims at gaining a deeper understanding of the nature or meaning of our everyday experiences” (Van Manen, 1990, p. 9). Participants in a phenomenological study are distinguished by a common phenomenon that they experience (Creswell, 2013), and the phenomenon or everyday experience examined in this study was the acquisition of an eReader, followed by the selecting, downloading, navigating, and reading of eBooks using an eReader. Older adults from Georgia that used eReaders volunteered as participants. I designed this study with the intent of adding to the body of current knowledge with an in-depth reflection and analysis of the lived experience of eReader adoption among seniors.

### **Research Questions**

The purpose of this study was to answer the following research questions:

- What are contributing factors in senior adults' decisions to use eBooks?
- How do senior adults describe their eReader experiences?
- What are the challenges and benefits of senior adults regarding the use of eReaders?

### **Setting**

This study took place both within and near the Hometown Library (a pseudonym), with volunteers recruited from the library, the Hometown Senior Center (a pseudonym), and through snowball sampling. The Hometown Library is located in one of the 25 largest cities in Georgia (U.S. Department of Commerce, 2013). The community's number of college graduates and the community's median household income were significantly higher than the state average (U.S. Department of Commerce, 2014). Additionally, the male/female ratio was reported as 48.3%/51.7% and the ethnic makeup of the community was reported as 82.3% White, 7.4% Black, 5.3% Asian, and 2.4% with two or more races (totaling nearly 100%) and 7.1% reporting Hispanic descent across various races. Comparing the 2010 Census with the 2000 Census at the national and state level, "the 65 years and over population grew at a faster rate than the total population" (Werner, 2011, p. 3). The percentage of Hometown's residents age 65 and over was higher than that found at the state level (U.S. Department of Commerce, 2014). Hometown Library ranks in the top 25 libraries in the state for annual print book circulations (Georgia Public Library Service, 2014). The library's eBook collection was small but growing after being introduced approximately five years ago. The concentration of older residents and the popularity of the library indicated that Hometown Library would be a suitable location to conduct this study. In addition, the higher income levels and corresponding higher disposable income levels

potentially increased the probability of eReader ownership and the likelihood of being able to recruit volunteers meeting the study requirements.

### **Participants**

This study sought to describe the experiences of eReader users age 50 and over. As envisioned, advertisements were expected to inform individuals about a request to participate in this study. I picked the Hometown Library and the Hometown Senior Center to serve as initial recruiting territories for a convenience sample. Unfortunately, according to Gall et al. (2007), sampling based strictly on ease or convenience (i.e., convenience sampling) was the least desirable of sampling techniques. Walliman (2006) preferred to use the term accidental sampling instead of convenience sampling because the method focused on what was immediately available. Likening the negative aspect of convenience sampling to an accident may be enough of a reason to avoid the technique if any other sampling options are available. However, in this case, convenience sampling was used, but only to the extent necessary to identify initial participants for the study. Subsequent participants were expected to hear about this study from other individuals aware of the research. Cavanaugh and Robbins (2012) described this word-of-mouth technique for growing the number of participants as incremental or snowball sampling. I chose snowball sampling because it “identifies cases of interest from people who know people who know what cases are information-rich” (Creswell, 2013, p. 158). Noy (2008) observed that snowball sampling relied on the dynamics of social networks and argued that snowball sampling deserved to be used as a primary procedure and not as a fallback plan. I used the combination of sampling techniques (convenience and snowball) to collect data from a total of 29 volunteers. Eight of these participants volunteered for in-depth interviews and six of the individuals agreed to participate in a follow-up focus group. The eight volunteers that participated in the additional



rounds of data collection are listed in Table 1 under their pseudonyms and in the order in which they submitted their questionnaires.

Table 1

*Description of Participants*

Name	Gender	Age	Race	Education	Profession	Device Ownership
James	Male	70	White	MS	Retired USAF	iPad
Mike	Male	51	White	Grad	Retired USAF, then Pilot	Kindle Keyboard, then Kindle Paperwhite
Rob	Male	73	White	MS	Retired USAF	iPad
Rick	Male	69	White	Bach	Retired Aviation Professional	Kindle Basic, then Kindle Basic
Linda	Female	55	White	M Ed	School Counselor	Kindle Basic, then Kindle Paperwhite
Debbie	Female	63	White	MLS	Retired Archivist	iPad, then Kindle Paperwhite
Carol	Female	53	White	2 yr college	Homemaker	NOOK, then Samsung Galaxy Tab
Mary	Female	51	White	MD	Retired USAF, then Flight Surgeon	Sony Reader, then Nexus tablet

## Procedures

After receiving Institutional Review Board (IRB) approval (Appendix A), I sought out four people that were similarly situated to the group that I planned to study and requested their assistance with a pilot study. After getting individuals to sign consent forms for the pilot study (Appendix B), I presented them with a questionnaire and had them answer the questions as originally written. Following this step, I asked for oral feedback. I took notes and used these suggestions to improve the questionnaire (Appendix C) that I used for this study. With a refined questionnaire in hand, I began implementing my plan for data collection.

I contacted the directors of the Hometown Library and the Hometown Senior Center and made several specific requests regarding their support for this study. Directors were asked if I could place a recruiting poster (Appendix D) within their facility to notify the public of a request to take part in this study. An abbreviated version (Appendix E) was also provided to the directors for use when the amount of space available for posters or other publications was insufficient to adequately display the extended version of the information. The director of the Hometown Library posted the full-size version and also allowed smaller versions to be placed in clear plastic frames in several locations within the library including the circulation desk and the reference desk. An advertisement was also run on the television slideshow program viewable at the library's circulation desk. At the Hometown Senior Center, the director placed the notice requesting volunteers in the center's informational newsletter distributed by email. I had planned on using several other recruiting strategies, like requesting a posting on the library website or running an advertisement in the local newspaper, if there were problems in gathering enough questionnaires.

Potential participants were directed to the library reference desk where copies of the consent form (Appendix F) and questionnaire were available. Self-addressed stamped envelopes were made available to encourage the return of the questionnaires. Alternately, potential participants were instructed to contact me via email or via phone to obtain an electronic version of the questionnaire. All individuals were provided with information about the study and were advised of their right to withdraw from the study at any time and for any reason.

When I acknowledged the receipt of a questionnaire, I highlighted the fact that I was employing the use of snowball sampling and I sent electronic copies to individuals that requested a questionnaire after hearing about the study from other participants. Even with snowball sampling, the collection of questionnaires progressed slower than I expected or wanted. I was giving serious consideration to my backup advertising strategies when the library director invited me to participate in a library patron appreciation day, where I manned a table, handing out questionnaires to patrons that inquired about the study. This event was a key reason for the surge in returned questionnaires.

As questionnaires arrived in person, in the mail, and via email, I combed through them, looking for evidence that the theoretical saturation point had been reached and that no new relevant data were being collected (Gall et al., 2007). After the library patron appreciation day, questionnaires flowed in much faster and it became evident that the data had not only reached the saturation point, but also had exceeded this level. Taking into account what I had learned from the questionnaires, I began preparing for the interviews. I contacted several similarly-situated individuals and asked if they would participate in a pilot study. These participants answered my proposed interview questions and provided feedback on how to improve the interview questions and process. I made the recommended changes to my interview guide (Appendix G) and

incorporated the feedback into future interviews. While preparing for the interviews, I screened the questionnaires, confirming that all potential participants owned an eReader and were age 50 or older. Also, I analyzed the questionnaires in an attempt to identify participants that would make good candidates for an interview and for a focus group. Good candidates in this context meant ones that would provide rich data. I had planned to continue the snowball sampling until I had collected questionnaires from 15 to 20 potential volunteers. This number was larger than Creswell's (2013) suggestion (3 to 15 individuals for a heterogeneous group of phenomenological research participants), but was chosen to allow for attrition. I anticipated approximately eight to 10 participants being selected for the interviews and the focus group. This number of participants was consistent with values suggested by others in phenomenological research (Guest, Bunce, & Johnson, 2006; Mason, 2010).

Shortly after the library patron appreciation day, I removed all recruiting posters, signs and electronic equivalents. Questionnaires continued to come in, slowed to a trickle, and finally stopped arriving, but not before I received a total of 29. Data analysis, starting with the creation of spreadsheets and matrices, began soon after receiving the first questionnaire and continued up until I completed writing Chapter Five. After my initial analysis of the data, I invited 11 people to a one-on-one interview and eight individuals agreed to participate. I conducted all of the interviews in or near the Hometown Library and digitally recorded the interviews in an audio format. I transcribed the conversations within a few days of each scheduled interview. I analyzed the data after each transcription and realized that I was approaching the saturation point after six or seven interviews. I had already scheduled the eighth interview, so I went ahead and conducted that one as planned. Shortly after the interviews were completed, I placed the data in

several color-coded matrices to organize my thoughts for the upcoming focus group. These matrices served as the outline for the themes that surfaced in the analysis.

I scheduled the focus group to be held at a time that was convenient for a majority of the individuals that had participated in an interview. I invited several people that did not get interviewed to participate in the focus group, but none of those individuals took me up on this offer. Six of the eight participants that I interviewed attended the focus group. Discussion prompts for the focus group (Appendix H) were developed based on the literature and on what I learned after analyzing the questionnaires and interviews. Unlike the interviews, I opted to video-record the event. I chose this method to aid in transcription because of the potential for more than one person to speak at a time. Creswell's (2013) technique was used to analyze the data in search of themes.

### **The Researcher's Role**

I, as the researcher and human instrument for this study, previously worked as the reference librarian at Hometown Library. During that term of employment, I provided reference services and eReader assistance to patrons after eBooks were added to the collection approximately five years prior to the study. My experience with eBook assistance ranged from answering quick questions to spending an hour with patrons, getting them comfortable with downloading a library book on their own eReader. My interest in the subject of senior adults and eReaders was piqued during that period of service. I had more than 25 years of experience in public service (though not all of it was in a library) and had always taken pride in serving others. The ethics of working hard had been based on the philosophy of serving others because (1) as a public servant, my pay originated from taxpayers and I wanted the citizens to get their money's worth and (2) I served God by serving others.

One potential bias that I brought to the study was the possibility of interpreting the narratives of the participants instead of letting the participants' own voices be heard (Creswell, 2013). I tried my best to eliminate this bias so as not to give the study a librarian slant instead of the library patron or eReader user focus for which the study was designed. Another potential (and related) bias that I tried to guard against was reporting the results in a way that placed the library and me in a better light than what the patrons actually experienced because of my own previous investment of time in the library's eReader program. The findings reported in the next chapter are longer than what may be considered "typical," but I used the length as a way of guaranteeing that the voice of the participants was truly heard.

### **Data Collection**

One way to increase the trustworthiness of qualitative studies is to insure that there are at least three methods of data collection used. The concept of *triangulation* involves using multiple data collection measures for the same variable (Neuman, 1994). The three methods used in this study were questionnaires, interviews, and a focus group, in that order. Questionnaires were used to gather data and to identify potential participants for interviews. Interviews were conducted to generate additional information and were discontinued when a saturation point was reached. The interview participants were asked and six of them agreed to take part in a focus group. Information attained from the focus group allowed me to triangulate or confirm the data collected from the questionnaires and from the interviews.

### **Questionnaires**

Gall et al. (2007) defined questionnaires as "printed forms that ask the same questions of all individuals in the sample" (p. 228). Neuman (1994) stated that questionnaires were especially appropriate for self-reporting issues and were more effective among those participants that were

well-educated or extremely interested in the research topic. Based on the demographics in the vicinity of Hometown Library (an older population with higher income and education levels) and the potential for interest in the research topic (based on data collection in a highly used library; Georgia Public Library Service, 2014), questionnaires were deemed to be an appropriate method for gathering data. I designed the questionnaire for this study to identify preliminary information about individuals that would lead to data worthy of further inquiry as part of a phenomenological study. Answers to questions one through three of the questionnaire provided basic demographic and contact information about the participants (U.S. Department of Commerce, 2014; Werner, 2011). Questions four and five provided information on the eReaders used by the participants (Smith, 2014; Zickuhr & Madden, 2012). Questions six through 10 provided information on how eReaders were being used and on the ability levels of the participants (Cavanagh & Robbins, 2012; Connell et al., 2012; Decker, 2010; Duncan, 2010; Kemp et al., 2012; Larson, 2010; Martinez-Estrada & Conaway, 2012). Question 11 focused on the problems associated with the use of eReaders (Court-Jackson, 2011; Githens, 2007; Grimes et al., 2010). The intent of questions 12 through 14 was to gather information on the previous and present use of technology (Bean, 2003; Broady et al., 2010; Kim, 2008).

The original questions were modified based on results from a pilot study conducted ahead of the questionnaire rollout. Initially, I debated about whether a pilot study was necessary, and then sided with recommendations to use participants to levy criticisms and make suggestions for improving the questionnaire (Gall et al., 2007). I ran the pilot study by providing a consent form and a copy of the questionnaire to four similarly-situated acquaintances. I asked participants to complete the questionnaires and provide feedback regarding the wording of the questions. Finally, I gave the individuals additional details about this study to see if they had any

suggestions about questions that needed to be added to strengthen the questionnaire. After I edited the questionnaire, I left copies at the reference desk of the Hometown Library. I posted signs requesting participants for the study at the Hometown Library and had an electronic announcement sent to recipients on the email distribution list of the Hometown Senior Center. Signs and announcements directed potential participants to the library reference desk to pick up a consent form along with a questionnaire. Participants that completed questionnaires were handed a self-addressed stamped envelope for mailing. This kept the library staff from being responsible for the completed questionnaires and also provided privacy for participants. I made an electronic version of the questionnaire available by email upon request. I planned to continue data collection until a saturation point was reached in the approximate range of 15 to 20 questionnaires, but a surge of returned questionnaires left me with a total of 29 before I successfully shut down the flow of forms.

### **Interviews**

Interviews represent the typical approach for acquiring data in phenomenological research (Moustakas, 1994). Neuman (1994) described the field interview as an informal sharing of conversation between the researcher and individuals being interviewed. Creswell (2013) described the steps in the interview process including identifying interviewees, determining the interview type, recording interviews, and designing the interview protocol. I used the Creswell process as follows: First, I identified interviewees based on their responses to initial questionnaires. I looked for participants that had the potential to add the most to this field of research. Though informal interviews may have allowed the participants the least restrictive opportunity to relate their personal story, I was concerned that the interviews may have lost focus if some form of structure was not put in place. This concern was a reflection of my own ability



(or lack of ability) in conducting interviews. Therefore, for the next step in the process, I selected as an interview type, the general interview guide approach. Gall et al. (2007) described this approach as one that used outlined topics instead of using predetermined questions. I modified the interview guide to include a few sample questions to give a better understanding of what was covered under each of the topics listed. At this point, I immersed myself in the process and prepared diligently for the interviews. Turner (2010) listed interview preparation as the most important part of the interview process. After getting prepared, I began the face-to-face interviews and audio-recorded the sessions to allow an opportunity for transcription of data after the interviews were complete. I opted to personally transcribe the data as a way of becoming more familiar with the data.

For the interview guide, questions one through five were representative of questions asked to ascertain basic demographic information about the participants (Smith, 2014; U.S. Department of Commerce, 2014; Werner, 2011). Questions similar to six through 10 provided information on comfort, experience levels, and challenges of participants (Aberton, 2006; Barnard et al., 2013; Martinez-Estrada & Conaway, 2012; Smith, 2014; Zickuhr & Madden, 2012). Questions like 11 and 12 were aimed at determining the support level of participants (Carpenter & Buday, 2007; Erickson & Johnson, 2011; Ng, 2008). Questions similar to 13 through 16 focused on the motivations of adult learners (Knowles et al., 1998). Question 17 was used to discuss items of importance that may not have been previously covered. Prior to conducting interviews, I developed and refined the categories for the general interview guide based on what I learned from the questionnaires. Also, I interviewed two similarly-situated individuals and solicited their recommendations as part of a pilot study prior to the commencement of interviews. For these initial interviews, I used three different devices to

insure that I captured a digital copy of the event. I received feedback that the number of devices was intimidating. I eliminated the use of a laptop and went with a small USB microphone and a digital recorder for the remaining sessions.

The location used for most of the interviews was the Hometown Library. A few other locations close to the library were used as a convenience to individual participants. I conducted interviews in a respectful manner. I began the interviews by using a prepared script, and as the interviews progressed, I followed the lead of the interviewees. I incorporated strategies for constructing effective research questions, developing follow up questions, and avoiding embedded assumptions (Turner, 2010). Probing questions were used to exude additional detail. All interviews lasted between 50 and 60 minutes and interviews continued until a data saturation point was reached (Guest, et al., 2006). Saturation occurred around the sixth or seventh interview, but I went ahead and kept the appointment with the previously scheduled eighth interviewee.

### **Focus Group**

Neuman (1994) described a focus group as a one to two hour session where six to 12 participants discuss an issue with a moderator. Morgan (1997) provided a reason why this choice was advantageous: “The hallmark of focus groups is their explicit use of group interaction to produce data and insights that would be less accessible without the interaction found in a group” (p. 2). Following the completion of the individual interviews, I invited 11 volunteers to participate in a focus group based on their willingness to participate and on the likelihood that their individual comments would provide rich data. Of these 11, eight had participated in the interview phase and three had not. Only those individuals that interviewed voiced an interest in

focus group participation. I looked at scheduling options convenient to a majority of the group members and selected a time and date that worked for six of the individuals.

The focus group was scheduled when the interview data reached a saturation point. If new concepts were introduced during the focus group, I was prepared to schedule a second focus group to ensure data saturation. However, I was able to adequately address issues that came up during the initial focus group and did not need to schedule an additional session.

The focus group was conducted in a private meeting room at the Hometown Library. Like the interviews, the focus group session was recorded for later transcription, except that I used a digital video recording. A few times during the focus group, several people spoke at once. The digital video copy of the session was invaluable in helping me go back and figure out what was said and by whom. I conducted a 90-minute session using prompts that I had developed. Prompts one and two provided basic demographic information (U.S. Department of Commerce, 2014; Werner, 2011). Prompts three through six provided information about support given to the participants (Carpenter & Buday, 2007; Erickson & Johnson, 2011; Ng, 2008). Prompts seven through nine examined observation and modeling (Bandura, 1977). Prompts 10 and 11 looked at perceptions of adult eReader users (Davis, 1985; Davis, 1989; Davis et al., 1989). Question 12 was a catch-all to cover anything that may have been missed.

### **Data Analysis**

After collecting information, I began analyzing the data. Neuman (1994) described qualitative data as “text, written words, phrases, or symbols describing or representing people, actions, and events in social life” (p. 404). Creswell (2013) stated that data analysis “involves organizing the data, conducting a preliminary read-through of the database, coding and organizing themes, representing the data, and forming an interpretation of them” (p. 179).

Questionnaires were analyzed to identify participants that met the criteria for continued inclusion in the study. The data from the questionnaires provided a likely starting point for the interviews and for the focus group.

I treated the transcription of the interviews and the focus group as an exercise in familiarizing myself with the data. Moustakas (1994) detailed a technique for performing data analysis, but I used Creswell's (2013) simplified version to perform the analysis. This technique involved disclosing the researcher's previous experience in the subject area, developing a list of significant statements, grouping statements into meaning units, developing textural descriptions about what was experienced and structural descriptions about how the experience occurred, and finally writing about the essence of the experience (Creswell, 2013). In an abbreviated fashion, the analysis process involved bracketing, coding, and identifying themes. Bracketing is "the act of suspending one's beliefs in the reality of the natural world in order to study the essential structures of the world" (Van Manen, 1990, p. 175). Coding involves aggregating the data into 25 or 30 categories using codes to label data that contain similar information (Creswell, 2013). Next, Creswell recommended identifying five or six themes and placing the coded information within the appropriate theme. Initially, I identified six themes, but during the ensuing analysis, I merged several themes and was left with a total of four. At this stage, the narrative or two-fold description was generated: a textural description, defined as "an account of individuals' intuitive, prereflective perceptions of a phenomenon from various perspectives" (Gall et al., 2007, p. 656) and a structural description, defined as "an account of the regularities of thought, judgment, imagination, and recollection that underlie the experience of a phenomenon and give meaning to it" (p. 654). In layman's terms, the textural description was written using actual text and examples from the participants. The structural description was derived from a look at the setting

in which the phenomenon occurred. Then individual descriptions were grouped into a composite form called the essence the experience and the open codes were organized into themes.

### **Trustworthiness**

Gall et al. (2007) defined *validity* as the “appropriateness, meaningfulness, and usefulness of specific inferences made from test scores” (p. 657) and *reliability* as the repeatability or the “amount of measurement error in the scores yielded by a test” (p. 651). The concept of *trustworthiness* was developed as the qualitative counterpart to these quantitative terms. According to Lincoln and Guba (1985), trustworthiness involves establishing *credibility*, *transferability*, *dependability*, and *confirmability*.

### **Credibility**

Neuman (1994) described *internal validity* as the lack of internal design errors that may contribute to alternative explanations. The scientific term internal validity is equated with the naturalistic term credibility, as both terms speak to the aspect of truth value (Lincoln and Guba, 1985). Guba expounded, “In establishing truth value, then, naturalistic inquirers are most concerned with testing the credibility of their findings and interpretations with the various sources (audiences or groups) from which data were drawn” (1981, p. 80). Lincoln and Guba (1985) recommended the use of triangulation during the research to increase “the probability that credible findings will be produced” (p.301). Neuman (1994) defined triangulation as “using different types of measures, or data collection techniques, in order to examine the same variable” (p. 141). Creswell (2013) used the term *corroborating evidence* to describe the concept of triangulation. The corroborating evidence that I used during the data collection portion of the study included the use of three different measures in the form of questionnaires, interviews, and a focus group.

## **Transferability**

Neuman (1994) defines *external validity* as the “ability to generalize experimental findings to events and settings outside the experiment itself” (p. 185). Lincoln and Guba (1985) linked the scientific concepts of external validity and *generalizability* to the naturalistic term transferability. Generalizability and transferability occur as an aspect of applicability when the findings transcend time and are thus context-free (Guba, 1981). To increase transferability, Lincoln and Guba (1985) recommended the use of thick descriptive data. Neuman (1994) described this concept as using data that are “rich in detailed description and limited in abstraction” (p. 64). Guba (1981) broke the concept down into two components: collecting thick data and developing thick descriptions. For the former concept and to achieve transferability during this study, I collected data from three sources: questionnaires, interviews, and a focus group. In particular, the transferability of the study was aided by the length of the one-on-one interviews. For the latter concept, Creswell (2013) recommended the use of strong action verbs and quotes, a concept that I applied when I reported the findings.

## **Dependability**

According to Lincoln and Guba (1985), the aspect of *consistency* relates the scientific term reliability with the naturalistic term dependability. Guba (1981) described dependability as a “concept that embraces elements both of the stability implied by the rationalistic term *reliable* and of the trackability required by explainable changes in instrumentation” (p. 81). To assess the dependability, Lincoln and Guba (1985) proposed the use of an external inquiry audit to examine the process. I incorporated an external audit into this study and prepared for the audit by building two 3-ring binders. The first binder contained a current copy of the study. The second binder contained a table of contents, printed copies of the transcribed data collected during the

course of the research, matrices representing how the data were synthesized into themes, and an audit trail log detailing steps that I took along the way. The audit for this study was performed by a research librarian with background and experience dealing with library patrons and their use of eReaders. When I initially met with the auditor, I spent 90 minutes going over both binders, providing additional details to clarify the process that I went through in reporting my findings and arriving at my conclusions. The auditor used her expertise, including 20 years of experience in the field of librarianship, to point out meaningful additions and to highlight possible nuances to what I had found.

### **Confirmability**

The aspect of *neutrality* is known as objectivity in the rationalist paradigm: “Objectivity is presumably guaranteed by methodology; If the methods are explicated, open to public scrutiny, replicable, and at least one step removed from direct investigator-subject contact, then objectivity is assured” (Guba, 1981, p. 80). The naturalistic counterpart to objectivity is confirmability (Lincoln and Guba, 1985). Guba (1981) associated objectivity with the investigator and confirmability with the data. To improve confirmability, Lincoln and Guba (1985) recommended the use of triangulation and the use of an external audit, this time from the product aspect. Creswell and Miller (2000) defined triangulation as “a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study” (p. 126). Data collected from questionnaires, interviews, and a focus group were analyzed using matrices and other tools to determine common themes. At that point, I submitted this study to the external auditor. During an external audit, “the auditor examines whether or not the findings, interpretations, and conclusions are supported by the data” (Creswell, 2013, p. 252). To aid the external auditor in this endeavor, I provided her with copies

of raw transcribed data, data summaries, themed matrices, and a current copy of the dissertation to analyze the product aspect of the research.

### **Ethical Considerations**

There were several ethical considerations that were taken into account while conducting this study. First, negative results may impact the Hometown Library, the Hometown Public Relations Department and funding from the City Council. I took several steps to minimize this issue. I briefed the library director in advance about this study and its potential impact and kept the director up to date on the status. Pseudonyms for participants and for the library were used to conceal identities and to minimize the risk. Also, I conducted the study in a professional manner, required the signing of consent forms, and allowed participants the opportunity to quit at any time.

Second, data were protected by placing printed copies in a locked filing cabinet. Digital copies were stored in password-protected files.

Finally, all potential ethical issues were addressed in the application to the Institutional Review Board (IRB). No research was conducted prior to receiving an approval from the IRB.

### **Summary**

This research on the use of eReaders by senior adults in Georgia was designed as a phenomenological study. The important aspect of this type of qualitative study is that participants must experience the same phenomenon, which in this case was the use of an eReader. Data collection took place in and around a public library in a Georgia community with above average education and income levels. The three methods selected for data collection were questionnaires, interviews, and a focus group. I received a total of 29 questionnaires. Eight participants agreed to a 50 to 60 minute interview and six participated in a 90-minute focus



group. I analyzed the data using the steps outlined by Creswell (2013). Findings from the research follow in the next chapter.

## **CHAPTER FOUR: FINDINGS**

The purpose of this phenomenological study was to describe the perspectives of Georgia senior adults in their adoption of eReaders. This study was guided by the following questions: (a) What are contributing factors in senior adults' decisions to use eBooks? (b) How do senior adults describe their eReader experiences? (c) What are the challenges and benefits of senior adults regarding the use of eReaders? In this chapter, I provided extensive descriptions of the individual participants in this study followed by a discussion of the themes that were present, relying heavily on the actual words used (either written or spoken) by the participants. The themes that emerged were related back to the original research questions that drove the study. This chapter concludes with a summary of important findings.

### **Participants**

As part of the initial data collection phase for this study, a total of 29 people submitted questionnaires. Out of this group, 11 members were invited to participate in a 50- to 60-minute interview and/or a 90-minute focus group. The eight people that signed up to participate are shown in Table 2 under pseudonyms in the order that they turned in their consent forms and questionnaires. I used the analysis steps laid out by Creswell (2013) and developed a textural description for each participant. I followed each detailed textural description with a structural description of the individual before continuing with a similar process for the next participant. This method of both introducing a participant and creating individual textural and structural descriptions resulted in a longer, but also more thorough discussion of each participant. This option made the individual descriptions flow more gracefully and increased the understanding of the “what” and the “how” (Moustakas, 1994) of participants' perspectives of the eReader

Table 2

*Summary of Participation*

Name	Questionnaire Completed	Interview Conducted	Focus Group Participation
James	11/03/2014	01/30/2015	Did not participate
Mike	11/16/2014	02/08/2015	Did not participate
Rob	11/17/2014	02/03/2015	02/22/2015
Rick	12/03/2014	02/02/2015	02/22/2015
Linda	12/10/2014	01/30/2015	02/22/2015
Debbie	12/19/2014	02/06/2015	02/22/2015
Carol	12/19/2014	02/06/2015	02/22/2015
Mary	01/07/2015	02/01/2015	02/22/2015

phenomenon. This section on individual participants concludes with a composite description detailing the essence of the experience.

**James**

**Textural.** James is a 70-year-old white male. He is a retired USAF officer with degrees in physics and engineering. At the time of this study, he was a member of the IEEE and kept “up with what they’re doing at the Scientific American level” (Personal communication with interviewee, January 30, 2015). In relating his background, he stated, “I’ve been using computers for a long, long time and certainly I ain’t scared of them. Every once in a while, I get angry with them, but I’m not scared of them” (Personal communication with interviewee, January 30, 2015). He described himself as “Retired, OCD” (Personal communication with interviewee, January 30, 2015) and has loved to read all of his life. James was active in his community and stated, “I believe the library is the best enemy of dishonest politicians and I think

it is a critical part of the community” (Personal communication with interviewee, January 30, 2015). James declared that his “biggest hobby, outside the library, is writing” (Personal communication with interviewee, January 30, 2015), and in this endeavor, he published a book, and was working on another one. James commented that his amount of available reading time had increased since he was given an eReader four years ago.

James’s eReader of choice was an iPad and he read “at least an hour, sometimes two or three hours a day” (Personal communication with interviewee, January 30, 2015). James described his ability level with his eReader as “very high” and gave an account of his current collection of eBooks as “60 books on my Kindle app—all purchased. I purchased some books from iBooks—I’ve got 18 purchased books on iBooks and I’ve got 80 of their free old books—the classics” (Personal communication with interviewee, January 30, 2015). In contrast to James’s interest and involvement in the library, he was not a fan of the library’s eBook collection. “They don’t have much that I want because most of what I’m doing is research and the Georgia Download Destination is pretty much geared toward fiction, biography. I’m not doing that kind of research. I’m doing technical research” (Personal communication with interviewee, January 30, 2015). True to his point, James read “very little fiction” (Personal communication with interviewee, January 30, 2015), and instead listed nonfiction, history, and science as the types of books he accessed on his eReader. James’s reading choices also blended over into the area of philosophy. He was a member of two discussion groups or book clubs that focused on the Enlightenment and the history of the Enlightenment and he read “an awful lot of that on the eReader” (Personal communication with interviewee, January 30, 2015). When asked whether he had ever lent electronic copies of books to other people, he commented about Amazon:

Now they do have some deal that allows you to lend Kindle books to other people somehow, but I've never used that because nobody I know reads the same kind of stuff I do except members of the book club and they all buy their own. (Personal communication with interviewee, January 30, 2015)

James traced his technology roots back to his use of the FORTRAN computer language in 1964 and his use of DOS in 1986. He described his technology ability level as “shy of a geek, but I've got a little bit of Luddite in me. I don't adapt quickly to new technology and I am just having fits right now with Apple and their Yosemite operating system” (Personal communication with interviewee, January 30, 2015). James “moved to Apple from Microsoft Windows” and had been “very, very happy—until last month” (Personal communication with interviewee, January 30, 2015) when he experienced this recent problem. James owned multiple Apple devices in addition to his iPad, including an iMac, a MacBook Pro, and an iPhone. As a general rule, he used bigger machines for his research and writing, and then used the iPad for reading. He did not synchronize (sync) his devices because he did not switch between them to do his reading. His iPhone was too small for use as an eReader because as he explained, “If it was big enough to easily read from, I would be changing pages too fast” (Personal communication with interviewee, January 30, 2015). The iMac provided a much larger screen, but for reading, the convenience of the iPad was unbeatable. The iPad was convenient because it was “light, easy to carry, [and came] with a battery that lasts six or eight hours” (Personal communication with interviewee, January 30, 2015). James appreciated the search function that enhanced his research capabilities. The iPad had the added capability to store notes and highlights. However, James commented that his note taking was not without problems: “Right now, I'm rereading the King James Bible and the Quran and I'm highlighting and noting both of them and I managed to

slow it down quite a bit because I've got so many notes" (Personal communication with interviewee, January 30, 2015). James mentioned the current trend to share notes with other interested parties online, but then indicated, "I don't do that. I don't think anybody else needs to know what I'm annotating or the notes I'm writing" (Personal communication with interviewee, January 30, 2015).

James used his iMac at home to order most of his eBooks via Amazon. James described how he ordered eBooks on one machine, but then read and took notes on another. In describing his research steps, he expounded:

When I find something that is a table of contents that's linked, I can go straight to a particular chapter if I want to. If I see something in here that interests me and I want to save it, then I touch it and swipe it and it highlights it. And then if I want to, I can touch it and a menu comes up that will allow me to change the highlighting color or to add a note and I can type the note with the keyboard and then when I'm done, I save the note. (Personal communication with interviewee, January 30, 2015)

James's iPad received considerable use. He pointed out that his To Read list was so long "that if I get to read all those books before I die, I will be immortal" (Personal communication with interviewee, January 30, 2015). He received recommendations for other books either from his book club or from recommended sources that he discovered during his research. These books came at a price, but as an author, he was well-versed in this aspect and he had a vested interest in royalty payments. About this issue he remarked:

One thing that frustrates me is the price of the books. I think they are ripping us off, both Amazon and Apple, because electrons are really, really cheap. And yes, you've got to give the author some royalties, but I get 2 dollars and 82 cents from Amazon when

somebody buys my book on the Kindle. They get 7 dollars and that's a little much I think. (Personal communication with interviewee, January 30, 2015)

James's discussion of prices continued with more comments about eBooks purchased by libraries to circulate among their patrons and eBooks purchased by consumers for personal use and he outlined the need for resolution. He stated:

The price of books has got to come under control. It's going to shake out. The industry is going to shake out . . . if the consumers get after them or if somebody proves again there's collusion—I think they've already done that once—and I got 11 cents in a class action settlement and the lawyers made 500,000 dollars. (Personal communication with interviewee, January 30, 2015)

James believed that the physical inability of older people to hold large print copies of sizable works upright, suggested the need for an alternative: “You can put a large print copy of *War and Peace* on this [iPad] and anyone can hold it. I think the changing demographic is going to drive the market” (Personal communication with interviewee, January 30, 2015). James's own advance in age was accompanied by an increased number of doctor's appointments and additional time spent in places like waiting rooms. His eReader, in the form of an iPad, was there to keep him company.

**Structural.** As one of the older participants in the study, James may be realizing that life was passing him by; and therefore, he had no time for fiction. He gravitated to nonfiction and sought the meaning of life through his participation in philosophical book discussion clubs and through his research involving classical religious texts. His thirst for knowledge was more pronounced than anyone else's in the study, and this was what kept him away from most fiction titles. For clarification, James did read a small amount of fiction, but it was typically done in an

investigative fashion as he looked at the classics on his eReader for reference material to provide a historical context for the research that he was conducting. The same skill set that made him successful as an Air Force Missile Officer—his technical background and his methodical nature—explained how he had adapted so easily to an eReader, as evidenced by his detailed and thorough description of how eBooks were downloaded onto his iPad. His comfort around electronics was aided by his exposure to technology at work, and was complemented by his math and science educational background. James’s self-described OCD behavior, his education as an engineer, and the rigid training required of a military officer, particularly a missile officer, had combined in a way to make James appreciate the value of his iPad for the efficiencies that it provided him. His iPad had allowed him to continue his research, reading, and studies even when he left home for a multitude of medical appointments. Prior to a medical procedure, he was presented with an iPad as a gift. As an owner, he had grasped it whole-heartedly. Something that he perceived as unnecessary and that he would not have bought for himself was now something that he took everywhere and he could not live without. James’s continued use of an iPad was very much a function of “how” he used it. The iPad served not only as James’s primary eReader, but also as James’s secondary source for computer-type functions at home and his primary source when away from home. A dichotomy arose regarding James’s volunteer library service and his library use. James was active as a library volunteer, but did not take advantage of the free eBooks available for lending at the local library. Part of the reason was that the library did not have eBook titles that interested him. Even if the library had what he wanted, it was questionable whether the short two-week lending period would have served the needs of a patron who read almost exclusively for research purposes. If nothing else, James



realized the value of his local library, even if the eBooks were not the ones that he used personally.

### **Mike**

**Textural.** Mike, a married, 51-year-old male, retired from the USAF and at the time of this study worked as an airline pilot. He described himself as an avid reader and said, “I actually love to read and that takes up a good portion of my free time” (Personal communication with interviewee, February 8, 2015). Mike immersed himself in technology:

I would say that I use technology as much or more than probably my peers. As a pilot, I’m flying—well currently—the airplane I’m flying—is probably state of the art, if not, just a little off the edge. It’s the most advanced airplane I’ve flown. [My airline] has now switched us over to—we are going toward paperless cockpits, so we are using Microsoft Surface 2 tablets for all of our approach plates and our flying publications. It’s fantastic! I’m really enjoying that, you know, between that and carrying my eReader when I go on trips—because I’ll have like 50 books on there—because I don’t want to haul . . . all my books around. (Personal communication with interviewee, February 8, 2015)

Not only did Mike immerse himself in technology, but also he exuded confidence in this area:

I’ve always had the ability to pick up technology quickly. When I would help start a church, I was the soundboard guy; I had never worked sound before. But I’m not afraid of technology so I like to dive right into it and learn it and use it to its maximum advantage. I’m not really doing anything right now that requires that, but in the past, when I have, I’ve excelled in that area. (Personal communication with interviewee, February 8, 2015)

At another point, Mike related more about his technical ability:

Well, I've always embraced technology and I've just had a knack for figuring out things. Hand me some piece of equipment and I figure out how to use it rather quickly. So I guess that would be part of it. I guess that I was always that way. I don't know why.

(Personal communication with interviewee, February 8, 2015)

Mike's comments during the interview showed that he was current with the latest advances in eReader technology. He was both conversant and experienced with the Calibre library system software, having downloaded it for use on his eReader as an alternative, but not a full replacement, for Amazon's system.

When Mike filled out his questionnaire, he listed his eReader as "Kindle Keyboard—the only one I've ever had" (Personal communication with interviewee, November 16, 2014).

However, in the 3-month window between the time the questionnaire was submitted and the time the interview took place, the device that he had owned for many years experienced problems and Mike was forced to purchase a new eReader. He considered all options including his budget before making a decision. He debated about the older version of the Kindle, but opted for the upgraded Paperwhite that included the backlight feature. Mike was satisfied with the purchase, but the new device was not perfect. There was still something that Mike would like to change.

My only complaint about it is—it doesn't have the separate page-turning buttons like the old version did, so I inadvertently change the page a lot and I've got to flip back to it—that's something I would have liked to have had—the old version with the backlit feature and keep the buttons that I can't inadvertently change. (Personal communication with interviewee, February 8, 2015)

When prodded, Mike provided an even more in-depth comparison of his two Kindle devices:

You know the older one was larger, taller. It has a bigger footprint than the Paperwhite. They had the keyboard exposed on it, which I never really used, so it was interesting to see them get rid of that because a lot of people said, “I don’t need a keyboard.” I did like the buttons, the page turning differences on the old one versus the new one. I like the lighting on the new one versus the old one. With that touch screen you can inadvertently change pages—I’ve knocked it. You’ve got to be careful with that thing. I have to make sure to turn it off before I set it down or something because [if you are not careful] you grab it and [touch] it and now you’re turning pages. I find that to be a bad human factors issue for the reader. But I do like it. It’s nice and small. I think the old one didn’t feel quite as substantial. It was thinner and I think that’s why my cases—I had three different cases for my Kindle and each one caused issues. One was causing it to short out and turn pages and do all kinds of things and eventually wouldn’t stay in and got bent in my suitcase which is what I think happened. My new one is smaller. It shouldn’t bend, but I do need to get a case for it. (Personal communication with interviewee, February 8, 2015)

All in all though, Mike was happy with his newest device. He continued by describing how the new device was easier on the eyes and did not require the use of a book light when reading at night in bed.

Mike downloaded his eBooks from two primary sources. Approximately 75% of Mike’s eBooks came from a memory stick pre-loaded with titles provided to him by his son. The other 25% came from Amazon, where Mike was a Prime member. The eBooks downloaded from the memory stick worked outside the Amazon domain, so those books were not available for syncing to the Amazon cloud and thus were not visible across multiple platforms. Mike took advantage of the Amazon Prime benefits including the free book per month from the Kindle Owners’

Lending Library, but described the process as somewhat painful and used the following strategy as a way of making an inefficient process slightly more efficient:

I actually will go upstairs on my laptop, find the book I want and then go on to my Kindle and find it in there and download [it] because you have to be on the eReader to get that Prime book on your reader. (Personal communication with interviewee, February 8, 2015)

Mike took advantage of the Amazon website and the Amazon emails that he received to find the free classics or the best deals on eBooks and sometimes went with the Amazon suggestions. Other sources for Mike's downloaded content included eBooks recommended to him by his son and by his co-workers. One unique technique for choosing eBooks to read involved visiting a bookstore. Mike used his phone to snap a picture of the cover of potentially interesting print books, and then did additional research on the Internet at home before he purchased the eBook via Amazon.

About his reading preferences, Mike exclaimed, "I don't discriminate," and "I read it all" (Personal communication with interviewee, February 8, 2015), and usually had two books going at the same time, one fiction and one nonfiction. Mike set a goal in 1988 and promised himself that he "would read at least one novel a month. . . . I read generally a novel or more a week and the Kindle has just made that so much easier" (Personal communication with interviewee, February 8, 2015). Mike had not downloaded any eBooks from the local library, primarily because he had so many books that were downloadable from his pre-loaded memory stick. For the books he purchased from Amazon, he took advantage of the program that allowed him to download additional copies if he thought the eBooks would be of interest to other family

members. He was emphatic about never having a problem with his device. When asked if he had contacted Amazon about a problem, he replied:

Haven't needed to—you know sometimes the book downloads immediately and sometimes it takes an hour. I don't know why. I've never needed to call Amazon and say, "Hey, where in the world is my book?" They've always come through for me.

(Personal communication with interviewee, February 8, 2015)

Mike described a list of places he would call if he had problems with services like cable TV or cellular phones. He also had a "go to" person for IT issues, but Amazon did not fall into the problem category. He mentioned one time when his Kindle Paperwhite refused to recognize the swiping motion made by his finger. He was a bit irritated and attributed the problem to either a cold or wet hand. He reminisced about his older model and said the Kindle Keyboard would have allowed him to bypass this problem. He laughed and explained, "So I think sometimes . . . in an effort to make it cleaner and all this kind of stuff . . . , [I] think it lost some capability in that regard. But you know, it's not going to make me put it down" (Personal communication with interviewee, February 8, 2015).

Mike preferred his Kindle Paperwhite for most books, with a specific exception for the Bible. This was the one book that he routinely read more than once and he preferred old-fashioned paper books when it comes to things that I want to go back and look at—you know I like to highlight them, write notes in them or something like that. . . . And that's where I find the Kindle kind of lacking. You can certainly highlight and you can make some notes, but it's just not the same as having good old-fashioned paper in that regard. You know, otherwise, I'm thinking technology. (Personal communication with interviewee, February 8, 2015)

He did read the Bible on his eReader when he traveled though. However, when he was in the comfort of his own home, he read and studied a print version of his Bible. Then, when he went to church, he turned to the Bible on his phone, the one time that he purposely planned to read on that device. Otherwise, use of his phone as an eReader was what he called an “emergency procedure. I would do that if I am on a layover, my Kindle lost its charge, I have no ability to charge it, and I want to read my book. That would be my spare tire” (Personal communication with interviewee, February 8, 2015). After additional consideration, he realized that his phone was even further down the list and that his real backup plan would be the Kindle app on the tablet issued to him by his employer. Mike mentioned that he also preferred print copies for other types of reference books, even fiction books, if they required frequent use of a map. “So more likely, with the Paperwhite, I would have said to myself, ‘It sure would be nice to see that map right now, but I’m not going to go look for it. I’m just going to push on’” (Personal communication with interviewee, February 8, 2015).

Mike gave short details about features that he liked including the backlight, the dictionary, battery life, and the wireless capability for downloading, and then turned to an exhaustive description about the font and type:

I prefer to read with my cheater glasses rather than making giant font size—you know the more you change the page, the quicker the battery runs down and so that E Ink or whatever they call it—my understanding is that it writes the page, now it is not using any juice. It’s just that each time it writes the page, it burns juice. Since I read so much, I want my battery to last. So I’d rather wear the cheaters and have smaller font and change the page less—and I do read pretty fast—so if I made the font as big as my wife does, I would be going click, click, click, click. So okay, yeah, I’ve done the font and on the

new one you can even change—well the font is different than the type case—so you can change the font. There are like five different fonts on the new one whereas the old you didn't have—you just had one to choose from, but you could change the size. So I've looked at that and I've thought—I like the way it came—the default setting—so it's in the default setting now. (Personal communication with interviewee, February 8, 2015)

Mike liked the fact that the Kindle was compact and capable of being used anywhere: “I feel like I am reading a book. Once again it comes down to the eyestrain and it's just great” (Personal communication with interviewee, February 8, 2015). The E Ink technology and backlight feature allowed Mike to read his Kindle in the dark (e.g., in bed at night), in the bright sunlight (e.g., on the family's typical beach and cruise vacations), or in a hotel room (e.g., during business travel). However, Mike was equally forthcoming about where to draw the line for eReader functionality:

It's not a tablet, no matter how many little goofy things like that they try to put on there—it's just too clumsy. . . . Any capability that it has on it, outside of just reading, I'm not going to use. To me, it's a reader. (Personal communication with interviewee, February 8, 2015)

That being said, Mike predicted and expected big changes in the future:

I'm real interested in where [technology] is headed. What's the next generation reader going to look like? I suspect it will have color. I look forward to that. I suspect the eReader will become even more like a real book. I'm sure that is their intention, and I look forward to that. That's something that I look forward to. . . . Amazon has these books called Whispernet something or other, so I think you can even do audio books on your Kindle which I have not looked into. That might be something that I want to look at because once again driving and having an audio book is lots of fun. . . . I read an article a

week or so ago. It talked about how the Internet is going to fade into the background. It will become so pervasive that you won't even think about it, but everything you're doing will be on the Internet. We are just going to be awash. Everything, every appliance, you turn on, everything you do in your house—you're going to be tapping the Internet. So I suspect that the Kindle—one day—the eReaders are going to tap into that kind of stuff. I think it's going to be—that is going to be interesting. (Personal communication with interviewee, February 8, 2015)

Mike expected his technical background and interests would keep him abreast of and involved with those changes.

**Structural.** As the youngest male participant, Mike was as comfortable and as confident with his technical abilities as anyone else in this study. He was knowledgeable about technology, knew what he was looking for, and knew what he was not looking for in a device. In the case of an eReader, he wanted a stand-alone device. He was not interested in the multi-function capability of a tablet when it came to reading. How he used the device dictated why he had chosen that path. He read in three primary locations: in bed, on beach vacations, and in his hotel room during business trips. The Paperwhite adjusted to the different lighting conditions associated with each of these circumstances. Mike appreciated the device for its compact size and storage capacity, and praised it for its long battery life and adaptability for travel. Mike's preference for the print copy of a study Bible showed that he had drawn boundaries for what worked and what did not work for him and his eReader. That being said, though he did not prefer the electronic edition of the Bible, he accessed the Bible using a smartphone when he was at church. He disliked the small screen on the phone, but made an exception for the case in which the convenience of the situation outweighed the disadvantage of the small screen. Mike's



interview was sprinkled with aviation and military terms like “bad human factors issue” and “emergency procedure” that highlighted a mindset dominated and perhaps indoctrinated to the methodical approaches associated with his past and present careers. Mike’s mindset was seen and heard in the descriptions of how he came to own an eReader, how he went about purchasing a replacement eReader, and how he downloaded new library software and eBooks onto his device. Cost played a factor in his choice to purchase a replacement Kindle and in his decision to maintain an Amazon Prime membership. Though the Prime membership did cost something, Mike more than offset this expense by taking advantage of benefits like the Kindle Owners’ Lending Library and special offers emailed to members. He also saved money by allowing his family to share eBooks that he had downloaded, but Mike had not taken advantage of the public library’s collection of eBooks. Mike also read for free the classics and other books given to him on a memory stick. Mike was as passionate as they come regarding the use of an eReader, but did not forcibly push this viewpoint on to others. He felt as though he was truly maximizing the functionality of his eReader and appreciated the ability to hold multiple books on one device. He looked forward to the future when E Ink is mass-marketed in color and eReaders tap the Internet in new ways.

## **Rob**

**Textural.** As the oldest participant in the study, Rob was a 73-year-old male active in his church and community. After retiring from the USAF, he went back to school to “beef up on technology courses and then taught at a community college for five and a half years” (Personal communication with interviewee, February 3, 2015). He listed his eReader ability level as “expert” and attributed this to his previous experience with DOS and Microsoft Windows products, though he had switched over to an Apple iPad and an iPhone. Commenting on his

ability with the iPad, Rob said he was “about four years behind” his 13-year-old granddaughter, but that he was ahead of his peers since “I don’t see too many of them using an iPad” (Personal communication with interviewee, February 3, 2015). Outside his family, he estimated that only 10% of his peers used an eReader. His wife was amazed at what Rob did with computers, but Rob shrugged this off and explained, “Once you’ve done it, it sort of sticks with you” (Personal communication with interviewee, February 3, 2015). Rob had owned his eReader of choice, the iPad, for about three years. Though some people appreciated the iPad for its computer-like and tablet-like functions, and Rob is definitely in that category, Rob was also as quick as anyone to share the fact that he used the iPad first and foremost as an eReader. Here are the comments he offered about the subject:

I really do enjoy my eReader—actually what it is—is an iPad and I have basically four different apps that I can use for reading. There’s Overdrive where I get my library books from [the public library] and then I have NOOK and what is Amazon’s? I have the Amazon one and then I have a general one for which you can get all of the old classics which are free. So I have, oh, all of them, I have probably read several hundred books since I’ve got my iPad—almost to the point where I can’t get too many more on there—that’s okay. (Personal communication with interviewee, February 3, 2015)

Rob did not own a dedicated eReader because the iPad “just handles everything” (Personal communication with interviewee, February 3, 2015). Rob really understood the nuances of the different eReader apps and coaxed the most possible out of each app. Frequently, Rob checked Amazon for classic books and courtesy of his Prime account, he was provided with Amazon offers for “free books sometime during the month” with the added benefit that “you can download those—they’re in your library forever, if you want” (Personal communication with

interviewee, February 3, 2015). Though Rob spent a couple of hours a day using his iPad as an eReader, he used the device for other functions as well. After all, he reasoned, “If I wanted to just read, I would have bought a NOOK or a Kindle or what have you” (Personal communication with interviewee, February 3, 2015). He used the iPad for messaging, web surfing, GPS, Facebook, Skype, travel, and news. “I spend much less time on the other apps. Most of it is on the eReader” (Personal communication with interviewee, February 3, 2015). In an effort to cut down on his costs, he initially read only copies of eBooks checked out from the local library’s collection. These eBooks had the advantage of being free, being accessible 24 hours a day, and being available without having to make a visit to the physical library. When Rob first got his iPad, he came to the library: “They helped me set up the Overdrive system which has evolved quite a bit since that time—eight or nine versions and about eight or nine versions of each version” (Personal communication with interviewee, February 3, 2015). Rob went into exhaustive detail describing the problems associated with the search function that seemed to loop him back to where he started, causing a tremendous increase in time required to complete the search and subsequent download. However, Rob sang the praises of the current system. As one of the original users of the library’s eReader checkout system, he persevered through numerous software updates and was rewarded with a better product even as other patrons gave up along the way.

The library eBooks were capable of being downloaded into a variety of apps, but Rob preferred Overdrive:

I’ve just gotten used to it and [it] keeps me updated. I know exactly where I’m at page wise, and maybe it does it with the others too, but also it gives me the amount of time that

I've got left before it has to be returned. (Personal communication with interviewee, February 3, 2015)

Rob liked the versatility of the Overdrive function:

I can go to the library. I can see what books they have there. I can also see how many people are signed up ahead of me and that's good because if I see a book that I want, I can selectively put it on there and then I can get an estimate of how much time it's going to take before I'll get it. I can look for it by any type of thing. I can have fiction, nonfiction. Under fiction, I can have by type—fiction that it is. I like mysteries and suspense and then I go in and see each individual [book] there. I can see how many people are signed up for it and if I want to, I can go in and punch a certain period and it will tell me ones that are available today. So that's real good too. (Personal communication with interviewee, February 3, 2015)

After exhausting the supply of books available from the library system, Rob moved on to other options.

Rob said that he was on a budget, but that he did not have a specific limit on the price he would pay for a book. What he was willing to spend depended on the situation:

I don't really put a price limit on it. If I really want it, I'll go up to 12 dollars and 99 cents because sometimes whenever you've got 84 people waiting on two copies within the Georgia system, you ain't going to get it for a while. But I still watch what I spend. (Personal communication with interviewee, February 3, 2015)

One way he saved money was through an Amazon Prime program called Kindle First, that allowed him to download one (out of a choice of four) free book per month. Another way that he saved money was by sharing books with his wife who received an iPad mini for Christmas.

Amazon allowed Rob to download extra copies of purchased eBooks to other devices of family members listed on the same account. What Rob really liked about this feature was that he and his wife could read the same book at the same time.

Rob related how the iPad was changing how things were done in the Air Force now as compared to the days when he was in the service. Technical manuals could be updated without having to go through an extensive paper distribution system and every airman could then have instant access to the latest edition without being concerned whether an update was missed somewhere along the way. His iPad allowed him to take advantage of the same seamless process. He explained:

I log onto Amazon. I go to Kindle Books and find the one I want. See the price, and if it's [not] a decent price—I still have a lot of books here that I haven't finished reading so I don't have to hurry. And I know it's always going to be there and they do go down in price. So if I want to download it, I click on it and say I want to buy this here. And it goes in and it opens up my charge account to check and make sure they have the right credit card. They do. I go ahead and say check out and it automatically comes to my eReader right then and there. (Personal communication with interviewee, February 3, 2015)

This process worked anywhere that he had access to Wi-Fi. “If you want to go back and check into [certain books] or finish reading them, it keeps an index of where you were at and it will also sync that to my iPhone” (Personal communication with interviewee, February 3, 2015).

Rob only used his iPhone for reading about once every two weeks, but had that capability available when he needed it, especially when he was in a situation where he did not want to get his iPad out. “I can use my iPhone and it will sync to the exact page that I was furthest on and

then I start reading there” (Personal communication with interviewee, February 3, 2015).

Though many people like to order Amazon products from a bigger computer so they can either see better or so they can order in a more secure environment, Rob opted to order directly from his iPad about 95% of the time.

Rob had never used the Amazon chat room to inquire about the solution to a problem and could not remember actually having a problem with his Amazon account or the Kindle app. Rob stated that if he had a problem with a particular app, he would probably just delete the app and reinstall it. If he could not solve the problem, he admitted that his next step would be to ask his granddaughter.

Rob got his ideas for books from the Sunday paper, from Overdrive and from Amazon. He had very little time for reading prior to reaching retirement age. In a discussion of what his reading experience was like, he offered this:

I was always interested in history, geography, maps—you can only find maps in books really and I really enjoy that. And whenever you read about something, then you can sort of imagine what it’s like. You can take a map and look at it. And it doesn’t show you the mountains or the plains or the cornfields and things like that. And a lot of authors do describe that so in detail, that you just can’t do anything but exactly visualize what it’s about. So yeah, I’ve always enjoyed reading. (Personal communication with interviewee, February 3, 2015)

Rob envisioned big changes in store for the future. Here was his take on what is to come:

I think that if a person doesn’t embrace technology, they’re leaving themselves behind. There [are] only so many resources. There’s only so much time of the day, which is a resource. And why spend time taking two hours to do something when technology can

frequently allow you to do it in just a matter of minutes? So, the retired generation, whatever that happens to be today, needs to really know technology and embrace it because everything is moving in technology and you've got to keep up with it. Ten years ago, there was nothing like this [pointing to his iPad]. I doubt there was an iPhone 10 years ago. And see what it can do today—in things like Skype, things like FaceTime. Dick Tracy had a watch where he could communicate with people. That was a laughable thing when I was young. Today, it's there—it's there. So, you are going to have to live with technology. It won't be long before IP addresses will be expanded to billions and billions as opposed to millions we have today. Our coffeepot, our refrigerators, our air conditioners, our heat, they're all going to have an IP address assigned to them that will phase in over time and you set everything up with your iPhone from wherever you're at, to do certain things. It will be amazing. (Personal communication with interviewee, February 3, 2015)

**Structural.** Rob mentioned that his wife grew up poor and that his family adhered to a very strict budget. Rob's background (as influenced by his wife) was a factor that made him pursue a more economical path. In this regard, as far as this study could ascertain, Rob was the most knowledgeable and biggest user of the library's downloadable eBooks. That being said, there were times when Rob appeared to have splurged on a particular book that he bought from Amazon, but not before he checked the availability and length of the waiting list for the public library copy. In the "time is money" scenario, Rob seemed to base his decision for purchases on reasonable assumptions about how long it would take for the eBooks to become available. Rob's purchase of an Amazon Prime membership also appeared to be based on the assumption that he would get more in return than he paid in annual fees. Rob was a big proponent of eBooks and

got enjoyment out of sharing this experience with his wife. This joy was enhanced by the ability to lend eBooks and to download the same copies purchased from Amazon to multiple devices within the same family. Rob felt closer to his wife by sharing the experience of reading the same book at the same time. In many regards, Rob was a trailblazer for technology and for eReaders. As the oldest participant in the study, he was passionate about his iPad. He was bothered that such a low percentage of his peers had adopted technology and particularly eReaders. He predicted that his peers would struggle in the future if they did not learn to adapt.

### **Rick**

**Textural.** Rick, age 69, came from a divided and mixed family. He grew up on the West Coast, served in Viet Nam, and recently retired from his career as an aviation professional. As a child, he was an avid reader. He focused on *The Book of Knowledge* and other works of nonfiction to support his fondness for trivia. He “didn’t get into fiction until six or seven years ago” and stated, “[I have] been trying to catch up ever since, so I’ve just been hooked on fiction” (Personal communication with interviewee, February 2, 2015). In particular, Rick read “romance and romance fiction. I like a happy ending, and it just suits me, so that’s about where I’m at right now” (Personal communication with interviewee, February 2, 2015). Rick loved to write and publish reviews online and would love to do this professionally, perhaps in the form of a blog, “because I’ll pat myself on the back. I’m good at it. I am! I’m good at it” (Personal communication with interviewee, February 2, 2015).

Rick believed in the idiom about teaching an old dog, new tricks. “I’m 70 years old this year and I just got this [new iPhone 4] only about 5 or 6 months ago and I am devouring this thing. It’s fun. So I keep up in technology as much as I can” (Personal communication with



interviewee, February 2, 2015). Rick's passion for his new phone was similar to the passion he voiced for his eReader:

It doesn't seem like it's only been three years. It seems a lot longer than that—but I went onto Amazon. I have the first [eReader]—the basic [eReader], the Kindle that Amazon sells. This is the rock bottom bare bones [eReader] Kindle. And I got that about, I suppose, three and a half years ago and it was just a revolution to me. It was amazing. I was working you know. I was kind of a road warrior, so I did a lot. I flew into probably 200 airports in the United States over the last 6 or 7 years. I was on the road a lot flying around and this [Kindle] was a lifesaver—this one little thing—a couple of pounds of this. I keep 20 or 30 books in here at one time and anywhere I was going, this eReader went with me and when I didn't have this eReader, I had withdrawal symptoms. I didn't know what I was going to do with myself. Every opportunity I got, this thing was opened up and I was reading something. You know I was waiting in line. I would take it everywhere. You know I would go to the motor vehicle department and stand in line—wait, wait, wait—you know there was my [eReader]. I'd open it up and I was reading. And I probably overdo it. I read a lot. I mean I just read constantly. (Personal communication with interviewee, February 2, 2015)

Rick's admiration did not stop there: "I love this thing. I can't tell you how much this means to me. This is an amazing tool—I don't know what it is—fantastic" (Personal communication with interviewee, February 2, 2015). Rick read at least two hours per day and had read an average of two novels a week over the past three and one half years, giving him a grand total of 350 eBooks read in that time period. He read so much that he quipped:

Every moment I get I'm reading, I'm reading something. You know if I'm wasting time and have nothing else to think of that I can do or household chores or something, I'm reading. So I'd say at least two hours a day—maybe more sometimes—sometimes less, but quite a bit. (Personal communication with interviewee, February 2, 2015)

Later, Rick reemphasized that even household chores could not stop him from reading, as he carried the eReader around and performed chores simultaneously.

Recently, Rick's Kindle wore out and the battery would no longer hold a charge. He replaced the old unit with Amazon's "new basic, bottom of the line" model and remarked, "I am about to write a review because I don't like it as well" (Personal communication with interviewee, February 2, 2015). Amazon did not "sell this [old] model anymore—[the new model] has some features that I do not like" (Personal communication with interviewee, February 2, 2015). Specifically, he outlined the problems as follows:

This [new] one is a touch screen. And I don't like it because—I read—when I'm reading, I'm touching the screen and when I touch the screen [demonstrating], it did something and that just annoys the daylights out of me. This [old] one, you can control it from down here [pointing]. You can touch the screen and when I'm reading at night, I'm this way [as he demonstrates]—good leverage—I don't get cramped. That sounds trivial, but it works. So anyway this [old one] was perfect for my needs. This was perfect. This [new one] is not as good. (Personal communication with interviewee, February 2, 2015)

Even with features that Rick found less desirable, he was not slowing down with the number of books that he was reading.

Rick made his original purchase of an eReader because his online friends offered Advanced Reader Copies (ARCs) of their ePublished books that were only available

electronically. He noted that ePublishing was “changing the publishing industry dramatically” and that authors were distributing electronic ARCs “so they can get reviews and promotions from people” (Personal communication with interviewee, February 2, 2015). The ARC system that Rick used was organized by Amazon and required an author to submit the Kindle email addresses for individuals on the authorized distribution list. Amazon used this information to download the ARC onto the users’ Kindle or Kindle app. The price was right on these ARCs, as Rick summarized:

I made a living out of being cheap. And you have no idea how many books are in here that are free. Good books! No money! You get them instantly. [If] you don’t like them—[if] you read a few chapters and you don’t like that—get rid of it. Put it in the cloud and go on—move to the next one. So a lot of these are free and wonderful free books and a lot of authors will have series of novels that they write. They’ll pop a free one in to pique your interest in the rest of the series and I like that. You read one of those things and that’s one of the reasons [I like it]—the availability of the stuff you can’t get in a library, [but that] you can get on an eReader. (Personal communication with interviewee, February 2, 2015)

Rick reported reading print books from the library perhaps 10 to 20% of the time. Rick settled for this arrangement when eBooks were not available because the price was right. Rick never read more than one print book at a time, but occasionally had more than one eBook in progress at the same time.

Rick referred to his ability level with technology as better than his contemporaries, but below that of his granddaughter. He made fun of those that belittled eReaders: “They give you that, ‘Oh, I like the feel and smell of a nice physical book that you can tangibly touch and see

and feel.’ . . . Give me that [pointing to his Kindle]. I’m beyond that.” He claimed to be late to the iPhone party, but was making up for lost ground. He actively embraced technology:

So it takes me a while, but I get it and I’m interested in it you know and I am not one of those—I hope I am not one of those old people that [says], “Naaah, I don’t want to do this, I don’t want to do that.” I’m interested in that stuff. (Personal communication with interviewee, February 2, 2015)

Rick kept book reviews and a list of Did Not Finishes on Goodreads, a website dedicated to tracking and recommending books. Rick downloaded his books almost exclusively from Amazon “because they are so easy to work with,” and continued,

It’s their product and [if] you’ve got problems—Amazon—I love [the] chat room. You can go on chat help on Amazon and I’m a chatting fool. I can crank along at 60 words per minute. I love to chat. I can just blather away. I get a lot of information on chat from Amazon. If you have problems or questions or a book doesn’t download, or something happens, it gets lost somehow, I use chat. I love chat. I use my laptop and Amazon—again—they’re excellent. I can’t say enough about Amazon. A lot of people hate them because they are so daggone big and they’re monolithic, but they suit my needs just fine. I like them. (Personal communication with interviewee, February 2, 2015)

Rick also used BookBub to find good deals, Austenprose for information on the works of Jane Austen, and similar sites for information on historical, regency, and western romances. Rick looked at the reviews, both positive and negative, when he was decided on whether to download a book. He applied certain criteria unique to his interests:

I’m looking for: “Is this a series? In other words, is this a stand-alone read? In other words, is this book complete in its entirety? When you get done, it’s done. Can it stand

by itself? Is it resolved? Or do you have to go read another one?”—because that’s one of my main gripes. I’ve read some really good books and the authors want you to read the entire series to get resolution on the plot, on the crisis, and all that. I hate that. I hate that! It has to stand alone. I’m not going to read five or six books in a series. (Personal communication with interviewee, February 2, 2015)

Rick also looked at the cost and the author reputation before he decided to purchase, download, and read an eBook.

When Rick used his eReader, he took advantage of the library at his fingertips, the comfort level, the convenience, the suitable travel-size dimensions, the type size and font, the dictionaries in Spanish, French, German, and English, the bookmark feature, note-taking capabilities, and the search function. He had never used the Internet feature on the Kindle, but instead ordered books from a computer and designated the Kindle as the eBook download destination. Rick loved to cook, but was unreceptive to the thought of using cookbooks on an eReader.

If Rick had a computer problem right now, he “would be lost.” He stated:

I’d probably have to take it in to somebody. Thankfully I don’t have any [problems], but on [the Kindle], strictly Amazon. I go straight there and I’ve had a couple of times where I’ve had to reboot. This thing has been amazingly accurate and just efficient and bulletproof. I’ve never had a problem with these things. They’re incredible. But I go to Amazon. I go to the chat line and occasionally I’ll get one that—I’ll get a book that won’t download. It will get lost. [I] just will go in and I will type let’s say, “Can you help me find this?” They’ll say, “Do you have the title of the book?” And they’ll say, “Okay, I don’t see that.” And they are very forgiving and very liberal. Occasionally they

won't even see it at all and they'll just give it to you. They'll just say, "Okay, it's on your list. Go ahead. You can download it now." I like that. (Personal communication with interviewee, February 2, 2015)

Rick had never had any hardware problems with his device, except for the battery and the charger as both accessories grew older. He described his eReader as his "entertainment lifeline." Rick rendered some additional written praise: "My Kindle is the single most-loved and widely used electronic product I have ever had the pleasure to use. A best bang for the buck. Not 'old school' when it comes to eReaders!" (Personal communication with interviewee, December 3, 2014)

Rick always kept a sufficient number of eBooks on his device. He transferred the books to the cloud when he was finished with them. With one click, he had the ability to transfer a book from the cloud back to the Kindle. Rick used the Manage Your Content and Devices link on Amazon to observe the complete list of books that he had read. He also used the link to loan books (including ARCs) to other family members.

**Structural.** Rick used his eReader more than anyone else in the study, yet seemed to hold the title of most economical as well. He purchased his Kindle as the bottom of the line model, and made a similar purchase when the first unit died. Many of the books Rick read were ARCs. Reading these books provided him not only with free entertainment, but also with a sense of accomplishment, knowing that he was among the first to experience a particular book. Rick did not belong to Amazon Prime because of the added cost and did not use the library's eBook collection, though he might have been able to save a little money that way. He liked to find free or 99-cent copies available on Amazon. Rick did take advantage of lending books to other family members via his Amazon account, a procedure that did not save him any money, but that

saved money for the recipients of his generosity. Rick's use of a single-function eReader allowed him to concentrate on his passion for reading. His pleasure reading tastes had swayed to fiction over the last seven years or so, and Rick was left feeling like he had a lot of ground to make up and a lot of eBooks that needed to be read. Rick was subject to some ridicule, including some from his own family, based on his inkling for romantic novels, but did not feel the need to justify himself to anyone concerning his reading preferences. Rick dreamed of making a decent living by writing book reviews, hopeful of the assumption that reviews written by a man regarding romance novels might give him a niche for a healthy following. Rick preferred decent books that stood alone, or that were resolved without the need for a sequel. This preference may have had its genesis in Rick's attempt to resolve, understand, or come to terms with growing up in a mixed family in a liberal part of the country. Rick was excited about reading romances on the Kindle. However, he was equally disappointed with his attempts to access the Bible on the Kindle as the electronic format worked well for reading, but not for studying. Rick's expertise with technology ranked him ahead of his peers. If asked, Rick was able to provide an extremely long list of benefits of his eReader, including cost and convenience that proved in his mind, why this was his "single most-loved" electronic product.

### **Linda**

**Textural.** At the time this study was conducted, Linda was a 55-year-old female who served as a school guidance counselor. She recalled that "DOS was never easy but I kind of found my way around DOS" (Personal communication with interviewee, January 30, 2015). She was intrigued by computer programming in high school, but "couldn't do it past a certain point" (Personal communication with interviewee, January 30, 2015). She experienced a steep, but successful technology learning curve when she worked at a radio station and was asked to

digitize the entire music library. She remembered teaching herself how to use Microsoft Windows when that product was developed. When she began working in a school setting, she became responsible for the upkeep of the Apple machines. In terms of more recent technology, she admitted to knowing very little about the developments surrounding apps and tablets. To be more specific, the apps irritated her and she “could not understand how they function and why they were different from having a driver and having a program. To me, that was short, sweet, simple, to the point” (Personal communication with interviewee, January 30, 2015). But technology changed and Linda reported, “[I was] dragged kicking and screaming into the apps age and I still don’t understand it” (Personal communication with interviewee, January 30, 2015). She reasoned, “[I own] a two-in-one computer so that I can touch stuff when I want to and I’m comfortable with it and I can go back to the regular computer when I feel most comfortable doing that” (Personal communication with interviewee, January 30, 2015). Linda was the participant in the study that most embodied the stereotypical argument against eReaders because of a love for the smell of books. She enhanced this description:

I love walking into an old bookstore: There’s one in Atlanta where I love to go. It’s an old house. I love to go walking in there and smell the binders, the leather, and the cardboard that they use now, and all that, just something fascinating about disappearing into another world. (Personal communication with interviewee, January 30, 2015)

However, in spite of this love for print books, Linda investigated the use of an eReader:

So when eReaders came out, to me again, it was just flat and to me it was not a book—the ability to turn pages, the ability to have the pictures and things in the book, the cover of the book slick and shiny. All of that appealed to me quite a bit as an avid reader. And



then I guess, I thought, I'm going to give this a try. (Personal communication with interviewee, January 30, 2015)

Linda went on to describe how her initial misgivings about eBooks gave way to an attitude that promoted the exclusive use of eBooks. Then Linda explained how she had made the full transformation from a “print-book”-centric view of the world to that of a fully convinced eReader owner.

When Linda's original Kindle needed to be replaced, she realized that reading eBooks on an eReader was more than just a fad for her. She upgraded to a Kindle Paperwhite and reported how the features supported her lifestyle:

I got a replacement Kindle because I love the Paperwhite, because I can read it in the sun, [and] because the whole essence of my being was born to be on the beach, in the sun, reading books. So that allows me to do that. So when I would take my phone or take other computer devices, the backlighting was not good and you were fighting that all the time. If you were wearing sunglasses in the sun, you can't read any of the other stuff. But the Kindle, especially when they came out with the Paperwhite, is the stark contrast that I need to be able to read in the sun and that sold me. (Personal communication with interviewee, January 30, 2015)

Linda continued raving about how she liked the touchscreen and the long battery life, going two to three weeks on a charge. Though reluctant about the touchscreen when she bought her original Kindle, she was ready to adopt this feature when she upgraded to a new Kindle.

Linda described her reasoning for a single-function eReader instead of a multi-function tablet and related this to her former career in radio. When a part malfunctioned in a stereo system, Linda changed the wayward component without having to replace the entire system. If

her single-function eReader died, she wanted the capability to replace the problem component with another single-function component, another eReader, just like she used to do during her stereo system days. In short, she preferred a single-function eReader like her Kindle, much like the individual single-function components of a stereo system. She wanted a computer for computing, a phone for calling and texting and “a book to read. It doesn’t need to tap dance. It just needs to read” (Personal communication with interviewee, January 30, 2015). She reiterated, “I want the reader just to be a book. It’s a book in electronic form and I don’t want it to do anything else” (Personal communication with interviewee, January 30, 2015). Her habits included reading approximately 17 hours per week at bedtime and on the weekends. She anticipated that the hours would double or triple when school let out for the summer and would increase even more once she was able to retire in 4.5 years. Linda did not like feeling the pressure of having to return library eBooks. Therefore, she took advantage of the shopping function on the Paperwhite and said, “I get almost everything off of Amazon because that’s the Kindle home. There’s nothing that I’ve not been able to find that I’ve wanted” (Personal communication with interviewee, January 30, 2015). She mostly read what she referred to as cozy mysteries with an occasional comedy, particularly romantic comedy. She focused on light reading to escape the burdens of her job as a counselor. Linda did not belong to a book club, in part because she considered her selections to be ones that other people would not consider to be deep and worthy of discussion. Linda said that she might recommend a book to someone,

but other than that, I get what I get out of it. I guess I feel like I’m smart enough that when I read a book I get what I get out of it and I don’t need to chew it over with somebody else. (Personal communication with interviewee, January 30, 2015)

Linda had a group of authors that she had grown to enjoy and looked for new books being written by them. She also believed that Amazon had her figured out and made decent recommendations on her behalf. She usually read only one book at a time, but if she was reading a print book and left the copy somewhere, she would likely start another book in the meanwhile.

Linda took advantage of the settings on her Kindle to adjust the font size and the contrast but did not use the brightness control or the experimental browser available on the device. She really liked that she could

just slap that thing in [her] purse. I know I've got choices of books that I can read. If I were doing just print books, I would have to fit the book in the purse or take it with me and the eReader is just a slim volume and it never changes. You can download a 2000-page book or you can download a 500-page book and it's going to stay the same.

(Personal communication with interviewee, January 30, 2015)

She tried to find low-cost books from good authors and typically downloaded via her phone, then transferred the eBook to her eReader when she returned home. This meant that Linda could have used her phone to read, but instead used it strictly as a back-up plan. Her phone represented a potential platform for listening to audio books, but Linda did not do this because, as she stated,

books allow me to interject my own interpretations and if somebody else is reading it, their inflection, their tone of voice, the sound of their voice interferes with that. To me, that's irritating. But then, I'm ADHD. So a lot of things are irritating that wouldn't be to a "normal" brained person. (Personal communication with interviewee, January 30, 2015)

Linda's interview ended with a discussion about the future. Her training and career as a school counselor gave her some interesting insights:

I say this because the analogy fits really, really well because technology is improving almost at the speed of light. [The] human need to do things faster and more and better is driven by that speed of light and we are going to spin so fast because of our humanness versus what we've created in technology. We are going to go around and around and around. We are going to spin ourselves to butter. I don't know if you ever remember that reference, but there was a book way back in the day called *Little Black Sambo* and, whether that's politically correct or not, it was a book and it did talk about the tigers chasing each other around this tree faster and faster and faster and faster until they turn to butter. And that's what I feel like we are doing as a society because of technology. It's supposed to be helping us do what we already do. It's not supposed to force more and more and more on us because . . . the technology has not been making it easier, it's just making more choices, if that makes sense. It's not so much that it is going to alleviate—it's just going to give us the ability to put something else in its place. So if we could go back to the old way of doing things before technology existed and then use technology just for those things, our lives would be much more. We would be much slower paced, we would be probably much less stressed with ourselves and as a world in general. . . . We would still have the beauty of the technology. But people think that's okay because . . . you can put everything in the computer now. You should have more free time to do this, this, and this as well, so I'm going to give you that hat to wear and it overwhelms us and I think that's where we are. We're overwhelmed. We're an overwhelmed nation trying to do all of this in the name of technology when I think we need to take a step back and say, "Let's just stop here and let's just do this and use technology to make it better, not make it pile more on us." It was supposed to help us

with the workload that we had—not make the workload so that we could double it. That didn't accomplish anything except that now we are compressed. We're working in a compressed atmosphere. (Personal communication with interviewee, January 30, 2015)

Linda got to experience the pressure of society and got to hear about it from other people in her job as a counselor. In Linda's opinion, technology was both good and bad. Coming from this viewpoint, Linda felt personally frustrated with seniors that refused to learn and she did not understand this mentality. She hoped that she would never sour toward learning about new technologies.

**Structural.** Linda grew up in a time when females were not encouraged to go into math and science careers. She was intrigued by computer science and got some experience in the field, but not as much experience, and definitely not as much encouragement, as her male counterparts. She experienced just enough to get her feet wet, but in many regards, she was not quite ready to jump in to the deep end. It was like an out-of-body experience or an outside-looking-in experience that kept her almost up to date on technology, but leery of its excessive influence. Linda's former career at a radio station and present career as a school counselor had provided her with a unique perspective toward the use of eReaders. Even though she mentioned her love for the "smell of books," she saw her friends using eReaders and was willing to give eBooks fair shots instead of relying on any preconceived notions. Linda hedged her bets by purchasing a bottom-end Kindle, but when she sought out a replacement, she was ready to pay a little more for a Paperwhite, specifically for the features that gave her the ability to read outdoors, a place where she spent a lot of time. The replacement Kindle represented her continued preference toward a single-function device, much like the single-function components of an old stereo system. Linda downplayed her technical ability, but seemed to know more than

she let on. For instance, she claimed that she bought the eReader as a stand-alone device, but she was savvy enough to know how to sync between her devices. This allowed her to use the phone as a backup reader if necessary. Linda's choice of cozy mysteries and easy reads represented an escape from the heavy burdens carried by those who hold positions such as guidance counselors. The convenience of an eReader allowed Linda to immediately get started on a book when she faced an obstacle like a long wait at the doctor's office. Linda's goal of retirement followed by full-time beach reading was within her sights and she tried to ensure that she kept up, if only somewhat, with the current technology. Linda stated that she was "not left-brained," but that she "gets left-brained stuff," (Personal communication with interviewee, January 30, 2015), something that hinted at her ability as a counselor to relate to others. Linda's most interesting introspection related to how she envisioned the future. She felt that technology was out of control and that it had begun to control people instead of people controlling it. Though she would have liked to have seen some additions, like bringing color E Ink technology to the mass market, she was worried about two things—seniors that refused to learn and her own self if she got to that point. Her feelings were influenced while watching her own aging parents deal with technology. Meanwhile, she continued to bide her time until her beach reading days could begin in earnest.

### **Debbie**

**Textural.** When this study occurred, Debbie was a 63-year-old retired archivist and special librarian who worked under the title of independent scholar. She had a Master of Library Science degree and volunteered at the local library one day a week. She read the local paper, was active in the community, and had owned a home computer since 1983. While serving as a college librarian, Debbie also ran an online book business. Debbie was a self-proclaimed

bibliophile and grew up in a home with thousands of print books. Even with all the books, Debbie made a weekly trip to the library with her father. Debbie's family members read to her until she learned to read by herself.

Debbie's first exposure to eBooks came when a book she wanted was available only in an electronic format. She downloaded the Kindle app to her computer and purchased the eBook from Amazon. She continued using eBooks as reference resources and at one point wrote a blog post for her Georgia photographers' documentation project with details "about eBooks that were available for photo history research" (Personal communication with interviewee, February 6, 2015). Debbie described the beauty of the Kindle app as a tool for gathering "all these reference books together and . . . that's sort of [the] key to not only my research, but also my writing" (Personal communication with interviewee, February 6, 2015).

Debbie had the Kindle app on her desktop, Mac, iPad, and iTouch, and added a dedicated eReader to her collection, a Kindle Paperwhite, about 1 year ago. She planned to upgrade from a flip phone to an iPhone in the very near future.

Debbie owned a variety of electronic devices, but yet was a meticulous note taker, using "good old paper in a notebook" (Personal communication with interviewee, February 6, 2015). She elaborated:

I've kept a list of everything I've read, since 1992. And this past year, using . . . my Paperwhite, I've read 46 books as opposed to max 25 in years before. So I'm reading twice as much probably—not always good things—I'm reading a lot of things that I never would have picked up otherwise, but some things that I am pleased that I did.

(Personal communication with interviewee, February 6, 2015)

Debbie read print books in addition to eBooks and alternated between the two options. Her collection of hardbacks stored on a To Read bookshelf and acquired over the years left her with an abundance of reading to do in the more traditional format.

Debbie's bibliophile nature carried over to eBooks: "I am as bad about gathering eBooks as I am about gathering hardbacks, which is a terrible vice. It really is. I mean I've been trying to clear out things" (Personal communication with interviewee, February 6, 2015). After closing her online book business, Debbie attempted to pare down not only her print book collection, but also her eBook collection. She maintained 70 eBooks in folders with labels like Genealogy, Photo History, and Books to Review, and had another folder labeled I'll Never Read This with a current total of three or four titles. Paring down her eBook collection was a relative term: It really meant, "I send them back to the cloud. They're not deleted. I mean they are not resident on my Kindle, but they are still in the folder whether they are in the cloud, because I'm not deleting anything" (Personal communication with interviewee, February 6, 2015). If there was a book that Debbie remembered downloading, but she could not find it on her Kindle or in the cloud, she checked her iPad under iBooks. The iPad served as the storage location of choice, particularly for cookbooks. The larger screen on the iPad was handy for displaying recipes in the kitchen when preparing food for a meal. Previously, Debbie and her husband checked out certain hardcopy editions of cookbooks from the local library. They liked them so much that they purchased the same books in electronic form for use on the iPad.

The type of reading dictated what device Debbie used: "The things that I will read on my computer that are in the Kindle app are generally reference books. Otherwise if it is a novel or a biography, or even nonfiction—general nonfiction—I'll read it on the Paperwhite" (Personal communication with interviewee, February 6, 2015). For research, as an example, Debbie used



her iPad so that she could look at high resolution copies of archived newspapers of the Digital Library of Georgia. For pleasure reading, Debbie occasionally had a fiction and a nonfiction book going simultaneously, but she preferred fiction and usually read only one book at a time. Debbie was addicted to reading in bed, but was concerned about the noise caused by page-turning and the distraction of a book light. The Kindle solved these problems and kept Debbie from driving her “husband crazy” because, as she explained, “I would read far into the night and sometimes if I’m not sleepy, I’d sit up and read again” (Personal communication with interviewee, February 6, 2015). Debbie’s eBook reading in bed was initially done on an iPad, but she had switched to the Paperwhite for the advantages it offered: “I love the Paperwhite because, if you’re going to read in bed, which I generally do, it’s the best thing. You don’t have all that ambient light,” and it was “better on the eyes” (Personal communication with interviewee, February 6, 2015).

Debbie admitted to “lusting” after the eReader when she saw it in the stores and made strong hints until her husband gave her one. “And this year I bought my husband one. You see he gave me one and he kept borrowing it and he kept saying, ‘Oh, I don’t need one,’ and I said, ‘Yes you do, you keep borrowing mine’” (Personal communication with interviewee, February 6, 2015).

Debbie got her eBooks from several sources. She downloaded one eBook from Google Play for her photographer research project because that was the only source in which the book was available. She had also downloaded eBooks using an app for classic titles that she used on her iTouch.

It’s this great little app called Classic Books and it’s got all these wonderful books, Jane Austen and Mark Twain, and all the classics and it has this wonderful—you hit it and it

makes this page noise [makes page turning sound]. You can do it otherwise, but I just thought this was so neat. And plus, you see the little books. So that was probably the first thing I had outside the Kindle app on the computer that was actually the “touch” kind of thing. (Personal communication with interviewee, February 6, 2015)

Her iBook collection on the iPad stood at “10 or 15, fairly low, maybe 20 with cookbooks” (Personal communication with interviewee, February 6, 2015), and Apple was her primary source for eBooks until she was given a Kindle Paperwhite. The iPad, with the iBooks app and the Kindle app, was still her viewer of choice for research, especially when there were maps, photographs, or illustrations that needed to be enlarged to provide better detail. When Debbie was reading for pleasure, the Paperwhite was what she used. Amazon was her primary source for eBooks and her Kindle collection totaled between 150 and 200 titles. Debbie prided herself in being cheap and said that she rarely purchased eBooks, but did pick up one or two titles per week that were recommended by BookBub. She had a Twitter handle that referenced her research interests and she picked up recommendations from this account that

basically revolve[d] around my research which involves genealogy to a great degree, so I get ideas from other people. A lot of them have to do with books about family and often an author will put their book out there for free for 24 hours or something and it’s something that I wanted especially. And that’s where I find some of these books, the reference books I use. (Personal communication with interviewee, February 6, 2015)

Debbie only considered inexpensive options:

Free and you know I’d say I have been known to spend as much as 3 dollars and 99 cents [laughing]. It goes from free to 3 dollars and 99 cents, although I am possibly going to spend 5 dollars and 99 cents for something I want [laughing]. That’s something

practically unheard of—my husband just laughs at me every time because I am such a tightwad. (Personal communication with interviewee, February 6, 2015)

Another way that Debbie saved money was through her Amazon Prime membership, where she took advantage of the Amazon Lending Library and the Kindle First program. In the Lending Library, members borrow one free book per calendar month, but Debbie did not always download an eBook every month. For purchases, Debbie did most of her ordering on her iPad, and then transferred Amazon downloads to her Kindle at night. The one exception was with the Lending Library because of the Amazon requirement to download directly to the intended device. Debbie used Kindle First more because that program provided members with the ownership rights to the digital copies of eBooks. Debbie reported that Amazon allowed her to choose one of four Editors' Picks per month, but that Amazon had increased the offer to two free books for the preceding 2 months, "which is another reason my Books to Read collection continues to grow—because I cannot refuse anything that's free. But I do read the reviews. I read all the reviews before I'll download it" (Personal communication with interviewee, February 6, 2015). Debbie had checked out audiobooks from the public library online collection, but had never checked out an eBook there. Debbie downloaded sample books on occasion, and pointed out that one of her eBooks advertised as a few free chapters, actually downloaded as the entire copy of the book. She said that this saved her 2 dollars and 99 cents over the regularly listed purchase price and allowed her to discard an older edition print copy of the reference book. Debbie did not read magazines on her Kindle, but had friends that did.

Debbie described the download experience: "It couldn't be easier. I generally do 1-Click from Amazon because I've got everything set up" (Personal communication with interviewee, February 6, 2015). That was what Debbie liked—the ease of ordering and reading. What she

disliked was the location of the power button on her Paperwhite. It was located on the bottom of the device, and sometimes the button was depressed accidentally when the Paperwhite was resting in her lap. Another problem, as mentioned earlier, was the requirement to be logged in on the receiving device before downloading a book from the Lending Library. If the book could be returned via computer, Debbie questioned why the eBook could not be selected using another device like her iPad. Debbie rated her technical ability as “beginning advanced.” She was “way past beginner, but as I said, compared to younger people, who have been using it since they learned to walk, I would say I am pre-advanced” (Personal communication with interviewee, February 6, 2015). Compared to her peers, she was “more adept.” When Debbie bought her iPad at a local store, the purchase included several free computer lessons. When Debbie had a problem, she could go in for a lesson, but she was able to figure out most things on her own. As an example of her abilities, the one time that she was unable to solve a Kindle problem, she went to the Amazon chat room and found her solution because a similar question had already been posted and answered.

Features that Debbie liked included the Change the Light option on the Kindle. She also liked the long battery life. She had to charge the battery about “every other month, since I’m not reading for hours on end like a lot of people do who use it. I’m just not in that situation” (Personal communication with interviewee, February 6, 2015). Debbie used the X-Ray function, a feature in newer eBooks that helped her keep track of book characters. She discovered highlighting and note taking by accident, but used the functions only rarely, say for an occasional quote. She mentioned seeing faint highlights in eBooks representing what others had shared. Debbie contemplated what this meant while formulating an answer during her interview and

wondered aloud about how she could use this function to more of her advantage in future endeavors. Meanwhile, an obvious feature to point out was the ability to increase the font size:

I think it's incredibly important the older you get. . . . I think it's a huge advantage for older people and for people with vision problems. I think that eReaders are the answer. It makes it a big difference to people who otherwise couldn't read. . . . It's more than [a] large print book; you can even be bigger than that [as she points]. (Personal communication with interviewee, February 6, 2015)

Of interest was the fact that Debbie did not see a problem with the use of a small screen device like an iTouch: "It doesn't bother me. It never has; it still doesn't. And sometimes if I am not sleepy, I will grab my iTouch" (Personal communication with interviewee, February 6, 2015). And the device was used for longer sessions too: "I have read entire books on flights on my iTouch. It doesn't bother me because I can bump the type up and everything else; it just never bothered me" (Personal communication with interviewee, February 6, 2015).

Debbie tried to convince her friends of the benefits of an eReader: "Although I talk it up all the time . . . I also have a lot of friends that are even older than I am and are absolutely against the idea" (Personal communication with interviewee, February 6, 2015). Some of her friends were violently opposed to eReaders. Other acquaintances had adopted an approach of using eReaders only when traveling. Debbie estimated that 10% of her friends used eReaders. "They are pretty much all readers, but only a few of them are using eReaders—that I know of—I could be wrong about that—that I'm aware of" (Personal communication with interviewee, February 6, 2015). She concluded:

But, to me it's a sort of all-around thing and I can't see saving it for only travel or saving it for only this or that. But you know, to me it is part of the whole package, since I do

sync everything and use it all somehow. (Personal communication with interviewee, February 6, 2015)

**Structural.** Debbie's encounter with the world of eReaders and eBooks was approached from a different background than that of others that participated in the study. Educated in the field of librarianship, employed as a librarian, and self-employed as an online bookseller, one could argue that Debbie had the most to lose from the eBook industry. However, Debbie had owned a computer since 1983, had done some website design in HTML and had developed numerous databases. As a result of this exposure to technology, Debbie had actively embraced the world of eBooks. Her take on books had expanded beyond viewing them as physical objects in print form only. Debbie saw the reference eBooks as valuable sources of information for her research and received pleasure from reading fiction eBooks at bedtime. Debbie was able to borrow one book per month for free from the Kindle Owners' Lending Library, but her Amazon Prime membership did require an annual fee. Her preference for Kindle First suggested that she desired ownership and therefore lifetime use of the eBooks she downloaded. Debbie put her library skills to use and had a more organized scheme than others in regards to how books were filed on her Kindle. She even had a folder labeled I'll Never Read This, backing up her claim that she was a bibliophile and that she had a hard time letting go of books, even if they existed only as electronic copies. As a librarian, Debbie knew libraries have limited space and that weeding an old collection is required prior to the arrival of new books. However, Debbie was also trained as an archivist, tasked with preserving books. It was this background that slowed Debbie down from the outright purging of both books and eBooks. Debbie confessed that her hobbies fed her bibliomania and that her book use was "already way out there" (Personal communication with interviewee, February 6, 2015). Debbie claimed to purchase books rarely, but stated in the same

breath that she got one to two books per week from BookBub. From a librarian point-of-view, she was correct. However, from a relative standpoint, she was adding books to her collection faster than most of the other participants. Debbie did limit how much she spent, employed her keen librarian skills, did a thorough review before purchasing, and was always on the lookout for free books that were advertised during a short, sometimes 24-hour window. Debbie provided the best example of how she used her various eReaders. The iPad was used for research—particularly when she needed to look at photos or maps—and for a cooking reference when she was in the kitchen. The iTouch was used as a matter of convenience, when lying in bed or when on a plane flight. The Paperwhite served its purpose as a leisure reading device at bedtime. She was disappointed that more of her friends did not share the same passion for eReader use that she did. Debbie’s pending purchase of an iPhone signified that she was completely sold on the advantages of technology. She felt that eReaders were “all-the-time” devices, not just for special occasions like vacations. Even as she was interviewed, Debbie pondered aloud about how she could better incorporate the highlighting and note taking functions of her eReader. Even Debbie’s background as a librarian did not deter her from evaluating new technology for what it was and for how it could be used to her full advantage.

### **Carol**

**Textural.** At the time of this study, Carol was a 53-year-old stay-at-home mom, former seamstress, and “do-it-yourselfer.” When asked how she fit into the community, she replied, “I don’t—I don’t think I fit in terribly well here” (Personal communication with interviewee, February 6, 2015), indicating that her political leanings made her different from other community members. Technology-wise, she considered herself “above average” compared to other individuals in her age group and more knowledgeable than most of her friends, but

“compared to the kids—my children and their friends—like I’m way behind the time” (Personal communication with interviewee, February 6, 2015). Carol said approximately 50% of her friends used eReaders and she read less than some of them. She did not know how her friends found the time to read so much. Carol seemed to have always adapted well to the latest technology, as she listed electronic devices that she had owned over the years including computers, laptops, tablets, smartphones, mp3 players, PalmPilots and eReaders.

Carol’s original eReader was a Barnes & Noble NOOK. After it was damaged, she settled on a Samsung Galaxy Tab, taking advantage of the NOOK app, though her preference for this app has since been superseded by the Kindle app. She used the NOOK for 8 to 10 hours per week. When Carol switched devices, the amount of time she used electronics remained the same, but some of her reading time gave way to game-playing time. She downloaded one of Diana Gabaldon’s eBooks onto her Kindle app and bought the whole series when she realized that she liked being able to read a 3-pound book on a much lighter device. Carol’s eBooks synced between her phone and her tablet, but she did not read on her phone, though she had tested it. She had also tested the tethering of her Wi-Fi-only tablet and had gotten 4G access via her cell phone plan.

Carol took advantage of the functions that allowed her to change the font size and the line spacing in her NOOK, though she was not as certain about how to do this on her tablet. This feature was particularly important because, as Carol explained,

I have Visual Field Deficits, and it makes it easier for me to read narrow columns. So sometimes I’ll do that and I change from day to night mode [and] periodically adjust the brightness and the text size. I’ve got it a little larger than normal for most folks.

(Personal communication with interviewee, February 6, 2015)



The Reading mode was

supposed to make it easier to read text. It just says, “The screen is optimized for reading, only available in selected applications.” And so far I haven’t found an application where I see it makes a difference, but I haven’t tried very hard either. That’s something I should do. (Personal communication with interviewee, February 6, 2015)

She used the dictionary “a lot” and made use of the notes and highlight functions when reading Gabaldon’s books “because she uses Gaelic terms that I don’t understand. So I’ll stop and look them up and take a little note, so if I ever go back, I can have that translation there” (Personal communication with interviewee, February 6, 2015). She noted that the Gaelic words were

not in the built-in dictionary, so that’s something that bothers me about [the Galaxy Tab] . . . . At least on the NOOK when I would look up something in their built-in dictionary—if it didn’t have it—I had the option to go search on the web and in [the Galaxy Tab] I have to get out of the program or go to a separate browser to do it rather than just click a button within the program. (Personal communication with interviewee, February 6, 2015)

The NOOK was better in this regard because if a word was not in the internal dictionary, the NOOK would ask if the reader wanted to search the web. Carol liked the ability to have

access to tons of books without it taking up tons of space in the house. I don’t have to dust all of that stuff and store all of that stuff and lug it around and move it. And I like when you want to read something heavy, not to have to hold something that weighs, you know like 6 pounds, whereas this weighs what?—16 ounces?—12 ounces?—something like that. . . . It’s also nice that you don’t have to have a book light to read at night so I don’t disturb my husband who’s lying in bed next to me. (Personal communication with interviewee, February 6, 2015)

Carol's Visual Field Deficits led her to try the text-to-speech function called Kindle Read to You, but she had not used this function except in a test with a children's book. Her test confirmed the audio was not robotic and actually sounded "pretty good. I remember hearing a fairly decent woman's voice. And I think every once in a while you get a word that's a little off—kind of like your GPS mispronounces things from time to time" (Personal communication with interviewee, February 6, 2015). Carol was happy with the size of the device and the convenience that it afforded. Carol described the disadvantage of the tablet as being "harder for me to focus and I'm not quite sure why that is—maybe the glare. There are times I find it a little harder to focus on words" (Personal communication with interviewee, February 6, 2015). When asked if the Kindle Paperwhite might be a viable alternative to cut down on the glare, Carol agreed, but then realized that she would lose the ability to do the other things (including games) that she has grown to love.

In an effort to reduce clutter, Carol has discarded many of her crochet, knitting, and craft books. In their place, she had stored the patterns and related instructions in her tablet, so that she had constant access to what she needed:

Sometimes I feel like that's not a good thing, because I don't have to remember stuff so much. And I feel like I'm losing my memory [laughing] as I get older and as my hormones suggest. And I think I should be taxing it more and maybe you know along the lines if you don't use it, you lose it thing. (Personal communication with interviewee, February 6, 2015)

As part of her war on clutter, Carol exclaimed,

I'm just sick of having paper around. I'm inundated with it. It's time to get rid of it, so I read most everything on the eReader, on my laptop, and I don't really read that much paper stuff anymore. (Personal communication with interviewee, February 6, 2015)

However, if given the choice between an eBook and a print book, Carol leaned toward a certain preference:

I probably would pick up the book to read it unless it weighed a ton, because I just find it's easier on my eyes. But I keep [trudging] away and trying to get used to this thing, and because I don't want to have all the books around. (Personal communication with interviewee, February 6, 2015)

As a stay-at-home mom, active in her children's activities at school, Carol had found little time to read over the years. She reported the need for "quiet time to read and I didn't have that either when the kids were young" (Personal communication with interviewee, February 6, 2015).

Since her children were grown now, she had extra time to dedicate to reading. Her current interest was primarily fiction:

So I'll read. I'll try to keep up with one fiction book at a time. Fiction I like, historical fiction is probably my favorite and if I need something really easy I might go for historical romance. That doesn't tax my brain too much. It's good bedtime reading and there's some nonfiction that I pick up periodically, a self-help book or something. (Personal communication with interviewee, February 6, 2015)

Carol did not download eBooks from the public library because "I have a hard time finishing reading them in the amount of time allotted and they don't allow me to renew most of the time" (Personal communication with interviewee, February 6, 2015). The Georgia Download Destination library system, powered by Overdrive, required early NOOK users to

download software to a computer, download the eBook to the computer, connect the NOOK to a computer using a wire, and then execute the transfer. The extra steps increased the odds of a problem occurring and Carol saw more than her fair share of problems.

Carol did not belong to a book club. Ideas for books to read came from the public radio station that she listened to in the mornings. When she volunteered at the library, she observed what others were reading and kept a list of Books to Read on her phone. She also had tried to fill her tablet with a collection of free books. Other book recommendations came from vendors like Barnes & Noble and Amazon: “You know, once you get your eReader, they’ll say, ‘Well, you know we have this free on this day,’ and then various websites mention things” (Personal communication with interviewee, February 6, 2015). She listed Good Books as one such source, then stated: “Barnes & Noble has something, a free section or a free offering every Friday, that I was very religious about going and checking and downloading whether I thought I’d read it or not” (Personal communication with interviewee, February 6, 2015). And when Carol went onto the Amazon website “to look for something—something always pops up” (Personal communication with interviewee, February 6, 2015). She obtained most of her books through Amazon and Barnes & Noble.

Contrasting the problems associated with the library download website, Carol bragged about the positive downloading experience on vendor websites:

It’s just gotten so easy. Type into the search bar what you’re looking for and up pops your choices. And usually, if I find something I want to read on Amazon, I’ll go over to Barnes & Noble and check the price there too, to see if they have it or if it’s on sale and then I’ll make my decision. And just click buy and it automatically comes out of my checking account and the next thing you know it pops up on the screen. It’s just easier

than, much easier than it used to be. (Personal communication with interviewee, February 6, 2015)

Carol had spent as much as 15 dollars on an eBook. She was willing to try sample chapters from eBooks and would almost certainly elect to purchase the entire book “if it’s good, and it’s under 5 dollars. . . . If it’s under 10 [dollars], maybe I would most of the time wait for it to go on sale” (Personal communication with interviewee, February 6, 2015). Carol had the opportunity to read in places like the doctor’s office, but did not seem as convincing about the amount of time that she engaged in reading.

Carol’s husband had not adopted an eReader, so if Carol needed assistance, she would turn to her son or to her daughter’s ex-boyfriend. After a software upgrade, Carol’s son had to help her find which menu a particular function was listed under because Carol did not “always understand what’s going to get filed under what heading” (Personal communication with interviewee, February 6, 2015). She was reluctant to use chat room help sessions because of her inability to type quickly. That being said, she was aware that she really had nothing to fear because she realized “that these days, they’re so used to seeing people misspell and mess everything up because I get lots of texts that way myself” (Personal communication with interviewee, February 6, 2015).

Carol seemed to have experienced more problems than other participants in this study. She had experimented with handwriting analysis programs with mixed results as she looked for effective ways to take notes for the books she read. Pencil and paper still seemed to work better and they helped to reduce her frustration. Her vision issues caused problems and Carol was particularly affected by screen glare. Print books still worked better for her except when in dark rooms, when the print size was too small, or when the printed columns were too wide. The

touchscreen on Carol's tablet created a problem when it was tapped by accident because there was no place to rest her thumb. Carol put her do-it-yourself sewing skills to good use and designed a case for her tablet that she could slip her hand into. Carol came up with the idea when she saw model cases online for other eReaders, but not one for her own.

Carol's view of the future was shaped by her parents. She saw that her mom was unable to remember how to do things on the computer unless she practiced some form of daily repetition. Meanwhile, she felt her father could benefit from "more tactile entry keys. When you get a completely flat screen and somebody happens to have a vision problem, that's not going to work for them as well as being able to feel some buttons" (Personal communication with interviewee, February 6, 2015). She realized that "young kids would find them in the way," but wished that more electronic devices were made with seniors' needs in mind:

Bigger buttons—more tactile stuff—better speakers—like this one has a little speaker on the back that comes out the back and if you really want to hear—it's not very loud—you have to put headphones in to really hear it you know and that's okay—it actually sounds great with headphones. . . . You sort of have to dumb it down in a way and offer less options. That's a problem. My mom wants to learn how to do everything my sister does on her smart phone but she can't figure out how to use the most basic interface. So she can't do all the complicated stuff because she doesn't want to learn all the basics yet, because it just takes her so long, the poor lady. (Personal communication with interviewee, February 6, 2015)

Carol's experiences made her more cognizant of the struggles others were going through.

**Structural.** Carol started her interview by stating that she did not fit into her community, making her an outlier compared to other participants in this study. The community viewed her

differently and she viewed the community differently, both literally and figuratively. Carol was resourceful and industrious and looked for ways to solve problems. When she touched the screen by accident while reading, she realized that a form-fitted case would solve the problem. When she could not purchase a case from the Internet, she made one herself. Therefore, Carol was a problem solver, but she was unable to solve the problem she experienced with screen glare. Carol experimented with the Kindle Read to You function as a way of addressing the issue, but this had not worked and she was contemplating the purchase of a Kindle Paperwhite. The problem with the Paperwhite was Carol developed an interest in games that were available for tablets and she would miss out on the dual functionality of the device if she went with a single-purpose eReader. Even if this one problem was solved, Carol was likely to remain as an outlier because of the numerous problems she experienced, most of which were related to her vision problem. Carol used the settings on her eReader like font size, column width, and line spacing to compensate for her medical condition. Often she gave up on reading and used her tablet to play games. When she did read, she was a frequent user of a Gaelic dictionary because there were so many Gaelic terms used by her favorite author. For reading, she preferred a print book because it was easier to view. Compared to others in this study, Carol had one of the broader ranges of knowledge on various forms of technology. This broad knowledge was offset by a limited depth of knowledge on specific devices. Carol put in an extreme amount of effort and part of the problem that she experienced may have been a function of how early she adopted technology. Beta-testers are especially aware of this phenomenon. NOOK owners like Carol had a difficult time downloading library books through Georgia Download Destination, especially in the early stages of the rollout. When Carol volunteered at the library once a week, she saw what other patrons were checking out and added those book titles to a list that she kept

on her phone. Carol's own medical condition made her more sympathetic to individuals with struggles. Carol read less than other individuals in this study as a result of her Visual Field Deficits condition and as a result of the distractions caused by the games on her tablet. Carol viewed eReaders differently from most people and looked at issues from others' points of view. For her mom, she witnessed a need for repetition in learning computer technology. For her dad, she saw a need for more tactile keys. Carol was aware of her own ailments and these issues caused her to look at things with a more sympathetic heart, lessons that may apply to other similarly situated seniors.

### **Mary**

**Textural.** Mary, age 51, retired from the USAF Reserves and at the time of this study was employed as a flight surgeon for the FAA. She reported, "I'm in a bunch of different communities" (Personal communication with interviewee, February 1, 2015), and described a long and in-depth list: She worked in the aviation medicine field, volunteered as an assistant scoutmaster and a crew advisor for the Boy Scouts, served as a district health supervisor, remained active in her church, and served on a medical board certification panel. Mary reflected on the arrival of technology:

I was actually in medicine when we did everything by paper and when I went to my residencies—when I got back out of it, everything had gone electronic. So I've become very accustomed to my life being that way—so that when I don't have it, I feel naked.

(Personal communication with interviewee, February 1, 2015)

Mary's methodical approach to life and work was evident in how she described what made her successful with technology:



Well certainly education helps and the ability to tell someone exactly what happened. So being a good historian, something I learned through medical school in particular—you've got to tell people exactly what you need, exactly what you're seeing or they're trying to interpret what you mean, as opposed to being crystal clear. And I've had to use a fair amount of technology through my career. (Personal communication with interviewee, February 1, 2015)

Mary described herself as

savvy with [the] basics. Don't ask me to build a computer, but I expect it to work when I turn it on. I'm certainly not a programmer by any stretch, but I use it in my daily life, a lot. A fair amount of what I do is computer-based. (Personal communication with interviewee, February 1, 2015)

Mary's introduction to eReaders came when she saw her first one in use.

I saw somebody using one at Karate. I started chatting with them. And they were telling me, "Oh yeah, it's great." I think they were actually using one of the early versions of Kindle. So I started looking at them and I am enough of a geek of electronic stuff that I go get the Consumer Reports and I read and I research. Not being a huge fan of Apple products, I wanted to go something more—well—just not Apple. And I found the Sony Reader. (Personal communication with interviewee, February 1, 2015)

Mary purchased a first-generation Sony and liked the ability to get most of the books that she wanted. In particular, she liked the availability of free books, but she was a little discouraged with the graphics, especially when she was trying to view pictures, maps, or charts. In that case, she resorted to purchasing a hardcopy. Alternately, she viewed the images on the computer since

they were in color there as compared to the black and white images on her eReader. Mary has had the Sony for about 5 years, but the system is no longer supported by Sony.

For the books I've got on there, it works great, but I can't use that to download new books any more, easily. There is a way to [download] it. In fact, they pulled the Sony Reader library completely offline. You have to go through another one. I don't remember the name off the top of my head of that one. (Personal communication with interviewee, February 1, 2015)

Mary still used the Sony for certain older books that were already downloaded to the eReader, but she purchased a replacement device approximately two and a half years ago.

Mary's new eReader was a Nexus tablet. She liked the fact that it was a multi-function device, and besides, "It's got color images; it's a touchpad; it's a tablet; and I've more or less gone completely away from my laptop and do everything on my tablet" (Personal communication with interviewee, February 1, 2015). She continued, "There's a way I can go in and switch everything from my [Sony] to my Nexus. I just haven't done it" (Personal communication with interviewee, February 1, 2015). Mary had never downloaded a book to her phone either. She stated, "I choose not to because I'm over the age of 40 and I need bifocals, but I could" (Personal communication with interviewee, February 1, 2015). The Nexus provided Mary with the opportunity during job-related travel to carry a lot of books without the size and weight burden associated with print books. Mary estimated that she had 80 to 100 eBooks on her eReader and stated, "It's lighter. And when you're on an airplane it's also less volume, so I'm not impinging on people's space" (Personal communication with interviewee, February 1, 2015).

Mary's primary source for books was Google Play. She made use of the link to Project Gutenberg and offered these comments, "I've gone back and found some really wonderful older

texts that are free that way. I actually found a bunch of medical texts one day, books that I had studied a while ago” (Personal communication with interviewee, February 1, 2015). Mary had used the Books-A-Million website for ordering eBooks several times, but had used the Amazon Kindle app only once. She did not belong to a book club, but instead got ideas for books from the Sunday paper. Also, she received suggestions for books from friends, and wandered around bookstores looking for ideas. She did not take advantage of the library eBook lending program, though she was aware that it existed:

I know you can [borrow books] and I know how to do it. My biggest fear is I’ll forget to return it. I know most of them will do a return automatically and they will just disappear, but I would be the one that was busy and would forget to do something and then I would have a bill. I tend to buy my books. I pay up front. And then they’re mine and I like that.

(Personal communication with interviewee, February 1, 2015)

She looked for additional books from favorite authors and she liked the ability under Google Play to sample books:

That’s the nice thing about an eReader. You can, in the comfort of your own home, if you’re looking to buy another book, you can usually read the first chapter or so, and if it grabs you, you can purchase it. (Personal communication with interviewee, February 1, 2015)

Mary estimated that after reading an excerpt, she followed up with a purchase about 25% of the time. As far as what she reads, Mary commented, “I read a lot—always have—and my interests are pretty varied” (Personal communication with interviewee, February 1, 2015). But Mary did not use her tablet as a cookbook:

I don't like having the electronics in the kitchen, but I know people who do. I know people whose entire cookbook repertoire is sitting on an iPad. I'm just not that lucky. It would get splattered or dropped or whatever. (Personal communication with interviewee, February 1, 2015)

Mary read approximately 2 hours a day. She described her reading preferences: “science fiction, fantasy, [a] little bit of romance, history, Bill Bryson’s travel books are a lot of fun, the recent books written by past presidents—I haven’t read 41 yet—I’ve got it, but I haven’t read it yet” (Personal communication with interviewee, February 1, 2015), plus a Tesla biography and one on the beginning of Pixar Films. Every once in a while, Mary tried out a new genre, and specifically pointed out that she was not a fan of horror books.

Once Mary was ready to purchase an eBook, she experienced the download process as follows:

I have to be in a Wi-Fi-enabled area that my computer is talking to, or my Nexus is talking to. And actually the same thing is true with my Sony Reader. [It] has to be hooked up through my laptop through a Wi-Fi connection and then I have to go to—in the Nexus to Google Play. I hit the Books link and then there’s a search function and I type in what I’m looking for—hit enter—and it spits out “Is this the one you wanted?” And look at it and go—yeah—buy—and then it asks me, “Do you really want to buy this?”—buy—enter your password—enter—and then I’ve got it. It is really straightforward. (Personal communication with interviewee, February 1, 2015)

Mary’s description of her download experience made the process sound easy.

Once the eBook was downloaded, Mary enjoyed reading with some added capabilities. Her Nexus was backlit, meaning that she no longer had to use the swing arm book light when she

was reading in bed. She turned up the variable brightness and switched the color to white on black to make reading outdoors easier. Her children synced their smartphones with Mary's Nexus so that they had instant updates to their mom's calendar. Mary understood the mechanics of the process as it applied to not only calendars, but also eBooks, but did not own a smartphone capable of syncing with her Nexus tablet. When Mary needed a break from reading she used her Nexus as a gaming console: "My kids have me hooked on Candy Crush. It's very sad"

(Personal communication with interviewee, February 1, 2015). Mary liked the Sony for "the capability of marking and highlighting stuff. It was really easy. And I could write actually on the margin and it would capture it. I haven't figured out how to do that yet on the Nexus"

(Personal communication with interviewee, February 1, 2015). Mary claimed to drive her

husband nuts because I'll read the first third of a book and then I'll read the last 10 pages and then I go back and finish the book. He thinks that is just the height of cheating I guess, but I don't tend to anymore with an eReader. I figured out how on both of them. It was easy on the Sony Reader. It's not as easy on the Nexus . . . [so] I'll go through the story page by page versus skipping around. Now that's also a downside, because every once in a while when you're reading a book—you want to—now wait a minute—did I remember that right? And if you're in a printed copy, it's usually pretty easy go back to where that spot was. [It's] not as easy on an eReader. (Personal communication with interviewee, February 1, 2015)

Both her old and new eReaders had dictionaries in multiple languages, but Mary liked how the Nexus offered the ability to search the Internet for additional detail. This entailed leaving the book, but Mary did not see this as a problem. Mary did speak of the problems associated with

magnifying a page on the Sony, but felt that the touchscreen capabilities of the Nexus adequately addressed her concerns.

At one point, Mary had a problem when she tried to share electronic copies of the *Harry Potter* series with boys from her Scouting Troop. The licensing agreement allowed her to share the book with up to eight youths to encourage them to read and the lender was trusted to have integrity in terms of with whom the books were shared. When Mary inquired about the problem with the transfer to other devices, she was walked through the process while she had both the sharing device and the receiving devices present. On another occasion, she received a book that was missing the last 30 pages. She was advised to delete the book and then download it again, using a code that was provided. Mary said that she was “pretty comfortable” with the process of following support instructions over the phone, in email, or in a chat room. When she had an advanced technology question, she consulted her teenage son. Mary had experienced problems with “hiccups in the [eBook] websites, particularly in high volume times” (Personal communication with interviewee, February 1, 2015), problems with touching the screen and magnifying the page by accident, problems early on with the inability to get copies of texts that were more than five years old, problems with Sony’s default for page turning set up in the Japanese style, problems with poorly scanned copies of books from Project Gutenberg, bandwidth issues with her own equipment resulting in an eBook not completely downloading (this problem self-corrected the next time she connected to the network), and problems with taps and double-taps on the touchscreen. Mary had never gotten the wrong book during a download, but admitted to accidentally getting one that she ordered, because it had the same title. She did not ask for a refund: “I just bought the other one. Then I read the first one and said, ‘Wow, that’s not a bad story’” (Personal communication with interviewee, February 1, 2015). Mary had

learned the hard way that books she had not accessed in a while ended up on the cloud. Though it downloaded the next time she connected to Wi-Fi, this was a quandary if she was not in a Wi-Fi enabled area when the problem was discovered. One final problem that Mary experienced was the difficulty with proof-reading books for friends of hers that were looking to publish. She said it was easier to find discrepancies between two parts of the book in a print format, and found that a similar task on an eReader was much more difficult. On the subject of print books, Mary added, “I don’t see myself ever getting rid of print books in my house. It is funny though. I have repurchased some of my printed books in electronic form, so I could have them with me” (Personal communication with interviewee, February 1, 2015).

Mary mentioned the need for text-to-speech options and speculated about the capability: “I bet you it’s out there—I just haven’t found it yet” (Personal communication with interviewee, February 1, 2015), accurately foretelling and yet unaware that this feature was already present for some books. She thought this would come in handy when she drove to work. She would have liked to have seen a link between the text-to-speech version and any associated maps or illustrations. But as she also stated, “I’d like to learn the capabilities that are in my Nexus with the eReader function. I just have not gotten to the point where I have had the time to really play with it” (Personal communication with interviewee, February 1, 2015). Mary stated that she would like to take better advantage of the library’s lending program and of other free sources for eBooks. She already loved the freedom associated with shopping and downloading eBooks.

It makes me feel pretty good actually, because I can get an awful lot and not have to get in the car and drive in the rain to the local bookstore or library. I am amazed at the breadth of the books that are out there, and as time has gone on, more and more books that were purely print are becoming electronic via one of the library projects or the

Gutenberg project or the Library of Congress. So, if I want to go back and read Chaucer, I can go back and read Chaucer, download it to my eReader—Now who would want to do that? But I could. (Personal communication with interviewee, February 1, 2015)

Mary described a program that involved computerizing some of the functions associated with her job. She saw an older worker quit because he was not willing to learn a new computer program. She continued, “I do not want to be that person when I get to be 10 or 15 years older” (Personal communication with interviewee, February 1, 2015). She contrasted the employee that quit with a few of the older workers at her jobsite that were “just as computer savvy as the 13-year-old kid” (Personal communication with interviewee, February 1, 2015). According to Mary, “Life is headed that way” (Personal communication with interviewee, February 1, 2015). Even classrooms are going to change.

My kids are boggled that I didn’t have computers or eReaders or anything like that when I went to high school in the late 70s. And I don’t think you can go to school anymore as a young person without a computer, even in high school. So it’s something that we are going to have to get used to. Sometimes I think we go a bit far. (Personal communication with interviewee, February 1, 2015)

Mary continued with her discussion:

I’m getting more and more into technology you know in the classrooms, particularly with my kids, as I’ve got one who’s looking at colleges. And I think for senior adults that go back to school, they’re going to have to become comfortable with electronic media because that’s the way the classrooms in colleges are going. And if you are not comfortable with that, it’s gonna be a real challenge. (Personal communication with interviewee, February 1, 2015)



Mary was already planning ahead as she discussed medical studies that had proven the benefits of keeping the brain active:

I'm actively considering when my kids are out of the house, going back and getting another degree—why I need one is beyond me, but I'm thinking about it because I think you have to keep your mind active or you lose it. (Personal communication with interviewee, February 1, 2015)

If Mary returned to school this time around, even her textbooks may be downloadable from an online source, and her eReader would be there to store the books.

**Structural.** As a medical doctor, Mary had a unique perspective on this study. She spoke of the importance of being a historian and a good communicator. She exemplified both traits as she was able to recount many more examples of the process of using an eReader than her counterparts in this study. In particular, she laid out quite a lengthy list of issues that she had encountered along the way. The historian and communicator skills that she possessed allowed her to be so methodical that in many instances, when a problem arose, she was able to walk herself through a solution. She speculated about the need for eReader features like text-to-speech, and would probably know a lot about this option already if she was not so occupied with her job and other activities. Mary mentioned her concern about library fines on eBooks, but was unaware that fines were not assessed on eBooks. Given more time to investigate, she may have laid this matter to rest, but her dedication to various clubs, committees, jobs, and leadership roles limited her time. As a doctor and as a scholar, Mary saw the importance of keeping her brain active and had specific plans for the present and tentative long range goals for the future. She even had specific eReader goals like learning to use the public library eBook collection and figuring out how to use the text-to-speech option. Her vocabulary was extensive and she rarely

used the English dictionary. As a challenge, she was more inclined to change the default language for an eBook and read it in another language, though she claimed her language skills were not as sharp as they once were. That being said, her commitments kept her so busy that she used her eReader for books that were less taxing and for ones that would allow her to unwind. In short, Mary's process for using eBooks was easy and made her more efficient. All she needed was more time.

### **Essence of the Experience**

Rick was considered crazy by members of his own family because he read romance novels. But like Shakespeare's Hamlet, Rick had a *method* to his madness: Rick liked happy endings. The other participants in this study were equally methodical, a common attribute among this group composed of seniors, some still working and others retired, with titles like doctor, pilot, librarian, engineer, and military officer. The same methodology, the same attention to detail, that made this group successful in the treatment of patients, operation of sophisticated aircraft, cataloging of special collection materials, design of products, or leadership in time of war, was evident even from each individual's earliest exposure to technology. This group spoke of things like computer programming in high school, working with "FORTRAN in 1964," having a "personal computer at home since 1983," digitizing a radio station's "entire music library into the computer system," and using "DOS in 1986." These participants may not have understood every aspect of technology, but they were not scared to give it a try. With self-descriptions like "geek of electronic stuff," "expert," "better than most," "advanced," and "very accomplished," these avid readers were prepared for the day that eReaders entered their lives. Their methodical approach was apparent in their reasoning for choosing a specific eReader, their process for selecting eBooks, and their discipline in tracking what they read. They had chosen

eReaders based on their individual needs and were passionate about their choices. Some participants, especially those engaged in research like James and Debbie enjoyed the multi-function aspect of iPads and tablets that allowed them to do more than read. Meanwhile, Rob described the capabilities of his iPad: “I got my travel, I got my news, I got my Bibles” (Personal communication with interviewee, February 3, 2015), all while having access to four different reading apps. Other participants were equally passionate about single-function devices like the Kindle Basic and the Kindle Paperwhite, designed specifically for reading. They had comments like Mike’s: “[My eReader] is one of the best technological advances that I am using to its maximum. I really, really like it. It just satisfies all the desire” (Personal communication with interviewee, February 8, 2015). Thus, passion may have been an understatement. Cost was an important factor in the initial purchase, and in evaluating the actual life-cycle cost of the device. The seniors, some retired, and others soon to be, approached economic decisions with the caution associated with living on a fixed income. Though economics were important, most participants had not downloaded a free book from the public library. However, a bad interface and limited selection may have had a lot to do with that situation. On the other hand, all participants had purchased something from Amazon and appreciated the ease with which eBooks could be searched for, reviewed, ordered, downloaded and read. Deciding whether to become an Amazon Prime member hinged on a cost-benefit analysis. For a participant like Rick that did not join Amazon Prime, the annual membership fee represented an unnecessary cost, especially in light of the number of free eBooks that were available on the market. Other participants like Debbie saw the cost as small compared to the benefits that came with membership, including opportunities to download free eBooks or to borrow from the Amazon Lending Library. The participants appreciated the ability to search for titles and to search for certain words within a

text (James), the capability to change various settings dealing with readability (Carol), and the convenience that their devices offered (Rick). This convenience allowed participants like Debbie and Mike to read at home (in bed being the most frequently mentioned location) and individuals like James, Rick, and Mary to read when away from home (as in day trips to the doctor and overnight work trips or longer vacations). Adopters of eReaders looked for future improvements in their products. They wanted to see things like the mass-marketing of color E Ink, while not abandoning features like tactile keys that aided seniors in their use of eReaders. They had a difficult time relating to seniors that refused to adopt technology and kept their minds active to counteract this tendency. In short, they loved to read and they embraced technology and used it for the efficiencies that it brought to their reading endeavors.

## **Results**

I collected the questionnaires, entered the data in a spreadsheet, and selected individuals for the interviews. After the interviews, I placed snippets of transcribed information in a matrix and began using different colored markers to highlight related comments. I identified patterns and created a second matrix that organized the data by open codes and by themes. I went back and added data from the questionnaires and the focus group to both of the matrices. When the matrices were completed, I ended up with 33 open codes and six themes. I continued to mull things over in my head as I wrote the Findings section. After writing the Essence of the Experience, I made another matrix, found some overlap, and narrowed the list from six themes down to four: Passion for eReader and eBook Selection, Sense of Economic Value, Comfort with Technology, and Interest in Future Direction of Technology. An enumeration table of the themes can be found in Table 3, followed by a discussion of the themes and the answers to research questions.

Table 3

*Enumeration of Open Codes*

Open codes	Enumeration of open code appearance across data sets	Themes
Functions/Features	53	Passion for eReader and eBook Selection
Sources for eBook Recommendations	26	
Location (Beach, Bed, Travel)	25	
Other eBook Selections	22	
Love/Addiction for eReader	21	
Replacement/Upgrade	21	
Choice of eReader	19	
Purpose (Leisure, Research, Writing)	14	
Cookbooks and Bibles	12	
Book Club Membership	1	
Cost of eBooks	25	Sense of Economic Value
Public Library eBook Use	12	
Reference to Being a Cheapskate	12	
Cost of eReader	8	
Lending of eBooks	8	
Amazon Prime Use	6	
Problems and Perception of Problems	25	Comfort with Technology
Work-related Experience	19	
Confidence in Technical Ability	17	
Previous Education and Training	16	
Comparison to Peers	13	
Movement Between Technologies	12	
Frustration with eReader Non-adopters	7	
Comparison to Younger Generation	5	
Observation of Others using eReaders	5	
Development of E Ink and Other Technologies	9	Interest in Future
Engagement in Community	9	
Improved Efficiencies	9	
Technical Needs of Parents and Elders	9	
Addressing Issues Associated with Visibility	6	
Preference for Fewer Upgrades	5	
Keeping an Active Mind	4	
Reflections on Past Technology Predictions	2	

### **Theme One: Passion for eReader and eBook Selection**

Participants in this study displayed a passion for their eReaders and for the eBooks that they read. One of the indicators of this passion was the reasoning behind why owners chose specific types of eReaders. Some participants opted for single-function devices that provided the eReading capability as the only option. Rick loved his Kindle Basic model and used it to read so many eBooks that he wore out the battery on his eReader. Three of the participants, Mike, Linda, and Debbie owned Amazon Paperwhites. Even though Debbie used her Paperwhite occasionally for research, she stated, “I primarily use my Paperwhite for leisure reading, so I use it every night” (Personal communication with interviewee, February 22, 2015). The owners of Amazon Paperwhite models enjoyed the enhanced readability features on the screen that allowed them to read in the dark of night as well as in the brightest light of day. On the other hand, tablets and iPads provided added possibilities. The capability to handle multiple functions drove the owners’ decisions to purchase these devices. Owners’ decisions were influenced by the devices’ abilities to assist with research, surf the web and play games. Rob stated, “I can use [the iPad] for just about anything and everything” (Personal communication with interviewee, February 22, 2015). Six out of eight participants changed their eReaders of choice over the last few years. Mary stated, “I did get to experience the obsolescence of my first one” (Personal communication with interviewee, February 22, 2015), as she recalled how the Sony Reader was no longer supported by the company and how this forced her to consider other options. The multi-function capability of a tablet influenced Mary’s decision to upgrade when the time came. On the other hand, a dead battery forced Rick to change devices. He preferred a simpler device and chose Amazon’s current version of the basic model to substitute for his Kindle Keyboard. Meanwhile, two other Kindle Basic users, Mike and Linda were ready for an upgrade to a

Paperwhite when they replaced their old devices. The fact that new devices were purchased when old ones died and in some cases before this point highlighted the fact that the devices had arguably become a necessary part of everyday life: “I do feel ‘not quite naked’ when I travel and I forget it and leave it on the side table. So yeah, it’s part of me. My kids get a chuckle out of it” (Personal communication with interviewee, February 22, 2015).

Ideas and suggestions for books came from sources like family members, reading clubs, BookBub, Wordpress, Goodreads, Barnes & Noble, and Amazon. A limited number of eBooks were kept on devices at any one time. After books were read, they were “returned to the cloud.” The cloud was used as both storage and a keeper of lists of Books Read or Books to Read. Debbie kept a list of Books Read in a paper notebook. For Books to Read, two people mentioned the use of their phones: Carol added titles to a phone list when she came across books that interested her and Mike used his phone to take pictures of potential Books to Read. The individual preferences of what participants read ran the gamut between the fiction and nonfiction genres: biographies, history, philosophy, geography, self-help, science fiction, romance, Christian novels, and the classics. James preferred to read nonfiction because of his heavy emphasis on research that he was conducting and Rick discovered fiction later in life and read fiction almost exclusively. However, a majority of the participants read both fiction and nonfiction, though fiction was the most favored. In particular, romance novels and cozy mysteries were cited as popular reading choices with reasons like “I don’t want anything that taxes my brain” (Personal communication with interviewee, February 1, 2015), or “I’d rather read romance because I don’t want to think that hard” (Personal communication with interviewee, February 22, 2015). Debbie enjoyed the ability to access newspapers on her device. Individuals mentioned cookbooks frequently, but a definite divide existed between participants

like Debbie that supported the use of cookbooks on an electronic device in the kitchen and other participants like Rick and Mary that preferred printed versions. The Bible was responsible for a similar division. James was doing research involving a comparison of the King James Bible and the Quran, and used electronic copies of the texts, aided by the search functions of his eReader. However, Bible-reading participants like Mike, Rob and Rick preferred a print version of the Bible, especially at home, though electronic versions were tolerated when the individuals were away from home.

During the enumeration of open codes, Functions/Features emerged with the highest frequency. The elevated count was reflective of a variety of function and features mentioned during data collection, not the result of one or two specific functions or features that dominated the discussion. The functions and features discussed were as varied as the choices of eReaders used by the participants. The eReaders were valued for their ability to sync, their portability, their long battery life, their light weight, and their convenience. Convenience, as a function of place, included the ability to read while at home (primarily in bed), while away from home running errands or waiting for appointments, or while on longer overnight trips and vacations. Cost was a significant factor and a separate theme was devoted to this point in the next section. Rick stated, “I love the accessibility—the instant access to it. I think that’s wonderful” (Personal communication with interviewee, February 22, 2015). The access also included the ability to avoid the bookstores or to order books “at 2 o’clock in the morning.” Carol described how the elimination of print books in her home meant her eReader was in essence, a space-saver. Note taking, searching, bookmarking, and backlighting were frequently mentioned during discussions regarding features that were used on the devices. Dictionaries were also mentioned as a popular feature. Carol stated that she read faster on an eReader because the on-board dictionary allowed



quick reference and speedy return to the eBook. Rick praised the German, French, and Spanish dictionaries because of how they helped when encountering vocabulary words from other cultures, while Mary appreciated the ability to switch to another language for a reading challenge. Carol made use of a Gaelic dictionary because that was the language of choice for one of her favorite authors and appreciated the functions that changed the text size, line spacing, and column width. These features allowed Carol to read in spite of her medical condition, Visual Field Deficits. However, other non-reading functions on her tablet tended to get her side-tracked. Meanwhile, Debbie described her use of Amazon's X-Ray function to track characters in a story.

I have used it and it has been helpful because suddenly they will be talking about somebody and I'm thinking—okay—I know this person turned up somewhere several chapters ago and I'm not sure and you usually put your finger on it and it will come out.

(Personal communication with interviewee, February 22, 2015)

Debbie had also used the Popular Highlights function to see what other people noted as important while reading, but none of the participants in this study had actually shared their own highlights with Amazon even though they were more than happy to describe some of their most recent reading selections with me during the interviews. James went so far as to say others would not be interested in what he was reading, and even if they were, his highlights were none of their business.

## **Theme Two: Sense of Economic Value**

As mentioned previously, the cost of the eReader was one of the factors in determining which device to purchase. Rick's comments illustrated how important this factor was: "My first eReader was a Kindle. Because I make a living out of being cheap, I bought the cheapy"

(Personal communication with interviewee, February 22, 2015). Rick was adamant about keeping his costs low after the battery on his first unit died. He voiced disappointment that the battery compartment on his Kindle Keyboard basic model was designed without the ability to access and change the battery, meaning that he was forced to purchase an entire unit instead of just a battery. He replaced his low-end unit with the least expensive model available at the time. James and Debbie were so concerned with cost that they refused to purchase eReaders for themselves, but rather waited for them to be given as gifts. When the other participants bought their devices, the biggest cost factor revolved around whether the eReaders were being purchased for a single function (less expensive option) or whether it was being purchased to carry out multiple functions (more expensive option) like web surfing and gaming in addition to reading.

Besides the initial outlay of funds associated with the purchase of eReaders, the cumulative cost associated with the purchase of multiple eBooks was important to participants. Rick had already considered this factor before making his purchase of an eReader. In fact, he purchased his Kindle knowing that he would use his eReader primarily for access to free of charge ARCs:

You can't get a lot of stuff in hardcopy. You can only get it as an eReader book—it comes as an attachment. So I get stuff here that you cannot read in the library because they are not going to come to the library. (Personal communication with interviewee, February 22, 2015)

Rick had made connections with multiple authors and had begun receiving invitations to read books in the pre-publication stage. The only catch was that the books were available solely in an electronic format and readers like Rick would need an eReader for downloading the eBooks. The price of a low-end eReader was quickly offset by the number of free books that came to

Rick via his ARC contacts. The dramatic changes in the publishing industry caused Rick to state, “You can’t beat free” (Personal communication with interviewee, February 22, 2015).

Rob stated that his wife grew up poor, “[did] not waste any resources” (Personal communication with interviewee, February 22, 2015), and expected the same out of Rob. Rob’s decision to purchase an iPad was based on the cost of the device and the overall value for the money. He purchased the iPad because it allowed him to do more than just read. To keep his costs low, he vowed to stick to free eBooks and became a frequent visitor to the local library, where he asked lots of questions about tapping into the library’s eBook collection. He described the difficulty of searching for and downloading books, especially when the library eBook management system was brand new. Rob was one of the few library patrons that weathered the storm and made it through the myriad of library software upgrades that the product went through before it approached the user-friendly stage. Eventually, he read all of the free library eBooks that interested him. Meanwhile, Carol described the frustrations that she experienced in the early days with her NOOK and the library’s eBook system. She also described the pressure she felt to finish an eBook within the checkout time window. For different reasons, Carol and Rob had begun looking for eBooks in places other than from the local public library.

One cost-saving option that James, Mike, Rob, and Debbie turned to was an annual membership in Amazon Prime. Of course “saving” was a relevant term since paying for a membership was not an actual savings. The savings came from taking advantage of the perks and using these benefits enough to recover the costs of the annual membership fee of 99 dollars. Non-eReader perks included free movies, free music, and free shipping. The perks for Amazon Prime eReader owners included the ability to download one free book per month (usually out of a choice of four) and access to borrow one book per month from the 500,000-book collection

housed in Amazon's Lending Library. These benefits were in addition to the ability of all Kindle and Kindle app owners to share books with members in their own family or to loan a copy of a purchased book to someone else for a two-week period.

Even though Mary had to pay for the entire eBook collection of the *Harry Potter* series through the Pottermore website, she was able to transfer additional copies to her teenage sons and their friends free of charge. Participants mentioned other sources of free books including the classics available from multiple sites, eBooks from Project Gutenberg, and recommendations provided by sites like BookBub. When eBooks were purchased, the 1-Click option made buying from Amazon very easy and perhaps too easy: Carol, self-describing herself as a "bibliophile," bought more books than she needed and most likely more than she may have had the time to read, but justified this action by describing how the short-term deal was often too good to pass up. She also justified her actions by detailing how thorough her reviews were before she downloaded an eBook so as to minimize the chances of getting a less than desirable book, even if the price was right. Meanwhile, Linda commented about her spending habits: "I finish what I'm reading first and then I'll go buy one or two more, [then] read them" (Personal communication with interviewee, February 22, 2015). Most participants liked to brag about how inexpensively they were able to purchase copies of eBooks. As a author, James was still appalled at the price of books. He was privy to how much he received in royalties compared to what Amazon charged the customer and thought there was still plenty of room on Amazon's side for the price to drop even further. James was looking forward to a better long-term solution. In the interim, Carol, as an example, waited to purchase eBooks until after the price dropped: "I don't get to read them at the same time as everyone else" (Personal communication with interviewee, February 22, 2015), but that was a tradeoff that Carol was willing to accept.

### **Theme Three: Comfort with Technology**

Most of the participants in this study rated themselves lower than their children and grandchildren in terms of ability level with technology. However, when they compared themselves to their peers, they rated themselves much higher and described their ability level using terms like “very high” and “expert.” All participants had some college education and most had graduate degrees. For individuals like James, Rob, Linda, and Debbie, their experiences with FORTRAN or DOS in their younger years prepared them for the technology challenges they would face throughout their lifetime. Participants in this study were likely early adopters of home computers and their work situations provided them with an educational environment ripe for learning technology. Most of the participants had spent some time in the military or had grown up in a military family. This led to comments like “military people are much more adaptable than the norm . . . than people who have no connection to the military” (Personal communication with interviewee, February 22, 2015). Whether this was true or not, many individuals in the group believed it. Rick, a former military member and self-described “Facebook junkie” used his computer ability to connect with people to discuss a common passion for reading. This connection resulted in invitations for free downloads of ARCs. Rick and Debbie participated in writing book reviews for websites and blogs. Meanwhile, James used his multi-function device to conduct research to write books. Debbie had been “publishing articles since the late 70s” (Personal communication with interviewee, February 22, 2015), in a time when hardcopies were passed back and forth for editing purposes. Shortly before this study took place, Debbie participated in an online editing process: “I did not ever get a hardcopy to edit and it was a very different experience. It worked surprisingly well. But I never thought I would see that” (Personal communication with interviewee, February 22, 2015). True to their problem-

solving nature, participants in this study like Mike and Debbie experienced very few problems and most of those problems could be solved either alone or through minimal assistance from Amazon. Participants reported problems like scrolling issues (Mary), battery concerns (Rick), and library eBook download difficulties (Rob and Carol), though all of the individuals when first asked were likely to state that they had experienced no problems at all.

Mike adapted quickly to new technology. This kind of background and experience made participants like him candidates for the use of eReaders. Mike remembered seeing an eReader as far back as the 1990s. Similarly, Linda and Mary saw other people using eBooks and began to investigate. Debbie reported lusting after eReaders when she was out shopping. All participants eventually bought or were given an eReader and most participants had followed up with purchases of replacement units. Their eReaders had merged to become an important part of the participants' lives and the individuals felt like the devices should accompany them everywhere. Rob relayed an interesting outcome to a recent episode from his volunteer job at the local hospital:

They came in and told me that I could no longer keep my iPad with me at my position because they thought it looked bad for them. So I have put it back. They don't realize I can use my iPhone the same [laughing]. They won't catch me again on that. (Personal communication with interviewee, February 22, 2015)

A similar confidence for moving between technologies was evident among the entire group.

Participants in the study described themselves as self-motivated when it came to the use of technology. None of the group members indicated that they were being pushed by anyone to adopt technology and when asked about why their peers were not following their lead in eReader adoption, they had replies like, "I just don't get it," or "They are not there yet." Instead, the

participants were more likely to be the ones doing the pushing. Rick made light of the lackluster responses that he got when he tried to convince others of the advantages of an eReader and conceded, “I’m probably a bad salesman because they see me and they think I’m probably about half-crazy anyway” (Personal communication with interviewee, February 22, 2015). From the perspective of some people, reading 100 romance novels a year on an eReader could qualify. But Rick was comfortable with his reading choices and used his eReader to gain the efficiencies necessary to make these high-volume results possible.

#### **Theme Four: Interest in Future Direction of Technology**

Participants in this study not only kept up with the present technology, but also showed interest in the direction technology was headed. As the oldest participant in the study, Rob stated, “I think all the electronics we have, allows us to use additional things including the eBook to maximize the time that we have available on this earth. We shouldn’t waste our time [or] our resources” (Personal communication with interviewee, February 22, 2015). Rob’s age allowed him to see things differently than younger participants in the study. He reflected on how the science fiction concepts portrayed in Dick Tracy episodes had transformed into realities. Mary revealed how studies had shown that keeping the brain active was a way of “avoiding the dementia-type syndromes” (Personal communication with interviewee, February 22, 2015), then related how eReaders helped by allowing users to make the font larger so that older readers could stay engaged as their eyesight began to fail. The same technology that helped society solve problems was also responsible for a downside. Programs like Facebook “made people almost insular and very too self-aware as if they are the center of everything” (Personal communication with interviewee, February 22, 2015). Though Linda noted this problem with society in general, participants in this study did not fit this mold. These individuals were more likely to be

volunteers in the community, especially as the definition of community was growing to include an online component.

In the interview, Linda commented, “Technology was made to make our life easier. It has not made our lives easier—it has made our lives more stressful because there is more to be done,” and that “relaxation is leaving society” (Personal communication with interviewee, February 22, 2015). Participants with living parents, like Linda and Carol discussed how much more difficult it was for their parents to adopt technology and voiced concern about experiencing similar issues as they grew older. Members of the group longed for fewer major software and hardware overhauls and for a return to simpler designs with more tactile keys. However, participants also looked forward to the mass-marketing of color E Ink, the ability to tap into more Internet capabilities, and the time when the interface between eReaders and eBooks would become seamless.

**Research Question (a): What are Contributing Factors in Senior Adults’ Decisions to Use eBooks?**

Six of eight participants in this study purchased replacement eReaders for reasons including failure or obsolescence of their first devices. The participants were resolute in their desire to purchase another one. Evidently, any frustration associated with having to purchase a replacement was offset by what eReaders delivered and reinforced the validity of the initial eReader purchase. Two participants, Debbie and Rick discussed how they were introduced to eBooks when the book they wanted was only available in an electronic format. There were no other options. Debbie needed a specific eBook for research purposes, so she downloaded the Kindle app and the eBook to her iPad. As more and more eBooks became available, Debbie eventually opted to purchase a stand-alone eReader. Meanwhile, Rick was made aware of the



pre-publication existence of ARCs and purchased an eReader to take advantage of a multitude of electronic resources. He stated, “The availability of ePublishing where you can’t get it anywhere else but an eReader—you read stuff that nobody else is reading. I like that. It’s cool” (Personal communication with interviewee, February 22, 2015).

The ARCs represented not only cases in which books were available exclusively in an electronic format, but also cases in which the eBooks were free. Cost was a very important factor in the decision to use eBooks. All participants were aware of the classics that were available to download for free. Also, all participants were aware that the local library had eBooks available to borrow for free. Several reasons were listed as to why the use of this service did not meet the needs of the participants, but Rob took advantage of this library service to the full extent possible as a way of mitigating the costs associated with his hobby of reading. Participants listed other sources of free eBooks including Amazon website searches, email notifications on accounts set up at BookBub, and one-day-only download specials from various authors and publishers. The cost factor was not limited to the discussion of eBooks. The cost of the device was important too, but the decision to purchase really depended upon whether the device would be used for multiple purposes. For participants that purchased devices like iPads and tablets, the higher cost was offset by the ability to do more extensive research, to surf the web, or to play games. Rob was one of the participants who bought his iPad so that he could do more than just read. Linda held the opposite viewpoint: “I guess there are some eReaders that will do other things as well but I don’t get into those. To me, a book is a book. I want it to be just a book” (Personal communication with interviewee, January 30, 2015). For her, and others that purchased single-function devices like the Amazon Kindle Basic or Paperwhite, the device was able to serve the purpose for reading while keeping the overall cost low. A similar argument

was used regarding the purchase of an Amazon Prime membership. The annual membership was deemed worthwhile if the benefits, like the access to the Lending Library and the distribution of free books each month, outweighed the fee. Therefore, some participants (Rob, Debbie, Mike, and James) partook of the service, while other individuals (Rick, Linda, Cary, and Mary) did not, each according to their own analysis of the cost and the convenience.

The convenience of eBooks included the ability for eReader owners to store a large number of books in a minimal amount of space and for owners to read in various locations. At home, several participants including Mike and Debbie mentioned reading in bed and taking advantage of features like backlighting or E ink technology. The convenience extended to places outside the home like the doctor's office. Mike, Rick, and Mary mentioned the convenience of taking the eReader on short business trips where space in the travel luggage came at a premium. For longer vacations, and particularly beach vacations, study participants like Mike and Linda mentioned how the Kindle Paperwhite was advantageous for reading outdoors in the sunlight.

A few of the participants like James, Rick, and Debbie enjoyed conducting research or writing book reviews. The ability to cut and paste snippets for either purpose and to make notes about what was being read made the electronic format of eBooks highly desirable. The ability to search the text, even to search terms that were not indexed, provided yet another reason for using eBooks. This factor greatly increased the efficiency of the eReader owners in this study. For aging seniors, efficiency was paramount.

Participants in this study were drawn to eReaders for several reasons. Their background, training, education, and careers were sprinkled with various amounts of technology use along the way. They saw others using eReaders and also saw eReaders for sale in retail stores. It was only

a matter of time before their aspirations in technology and their desire to read brought this combination of interests together.

**Research Question (b): How do Senior Adults Describe Their eReader Experiences?**

To better understand how senior adults described their eReader experiences, one must first look at how the devices were acquired. The acquisition phase was described by Linda as follows:

There are so many people who are my friends who have the eReaders. . . . So they had their Kindles and they liked their Kindles. And so I bought one. . . . And I discovered the ease of it outweighed the actual feeling I had of carrying a book, a nice hard book. And now I don't use anything else. It just morphed into—I grew comfortable with it. It's so portable. I can pull it out anywhere. It syncs with my phone through Kindle and if I don't have my reader with me, I can pull up my phone and read my book. And then when I pick up my Kindle again, it says, "You read this book up to page so and so. Would you like to jump there now?" (Personal communication with interviewee, January 30, 2015)

With professions like doctor, pilot, engineer, or librarian, the technical background and education of the participants in this study meant that decisions surrounding purchases of the chosen devices would be well-researched and thoughtfully laid out. Mike described his purchase of a replacement device as follows:

The next day I went on Amazon to look at my options and I saw that newest reader was—gosh—it was like 200 dollars. I was like I'm not spending that kind of money. Actually it might have been more than that. So I went with the Paperwhite—got it for I think 120 dollars—I almost went with the old version for 79 dollars, but I thought I'd like

that backlight feature. And the resolution was a little bit better, although when you read, it doesn't really matter, although they say that pictures will come out better on it. But I haven't come across any pictures in anything I'm reading yet—and so—Paperwhite—I love it. (Personal communication with interviewee, February 8, 2015)

Even when receiving eReaders as gifts, recipients like James and Debbie appeared to have considerable input into what was purchased.

After acquiring an eReader, owners had the opportunity to select eBooks for downloading to their devices. Ideas for eBooks came from friends, family members, coworkers, book clubs, and the Sunday paper. However, the most mentioned places for ideas were from eBook vendor websites and from websites like BookBub that made recommendations and provided links to the vendor sites. For participants like Rick that participated in a forum for pre-published books, ARCs provided another source of reading material. Still, Amazon appeared to be the most widely used source for books, and as Linda put it:

They are so up on—once you have kind of let them know through your choices what you like, they have a whole stable of Recommended for You and they don't go far wrong with the things that they know that I usually like to read. (Personal communication with interviewee, January 30, 2015)

Amazon was where most participants eventually ended up, but they had a definite process for arriving there and for making decisions about what to purchase. Rick described the process this way:

Go onto BookBub—and you can dial in your interests at BookBub. And every day they will give you an offer of books that range anywhere from 2 [dollars and] ninety nine [cents] to free. And so I'll go on there and that looks interesting—so below they've got

Barnes & Noble and Amazon and a couple of other things. I click Amazon and boom, I go into Amazon and then I look at the introduction, the cover . . . the book summary and then I go to the reviews . . . , the ones that come with the most likes and I look at the negative and positive reviews—both. (Personal communication with interviewee, February 2, 2015)

The final determining factor before purchasing an eBook was cost. The typical process included checking multiple vendor websites before deciding whether to purchase immediately or to wait for the price to go down. Though few participants took advantage of the free eBooks available at the library, Rob did and saw not only whether a book was owned by the library, but also how long the waiting list was.

Once a book was selected and purchased from a vendor website, the download step commenced. Debbie preferred the simple 1-Click process provided by Amazon. On rare occasions, participants placed an order on a smartphone, but the process for most participants involved selecting and purchasing an eBook on a larger computer or laptop before transferring the eBook to the device that would serve as the eReader. This is how James described the process:

Of course on Kindle you have to go to Amazon first. You buy the book and then you open the iPad and open the Kindle app and then it downloads itself. It's not all that convenient, but it's not too inconvenient. . . . It's so much easier to use the Internet and shop Amazon on the big machine than it is on the little one and then—so it's one step there and then you go to the second machine and open it up, turn it on, open it up, and it downloads—that's the slightly inconvenient [part]. . . . On Amazon you don't download it onto the machine, you just tell it and it knows. Amazon has stored in my account the

ID and so forth of this iPad, so just the next time I turn on the iPad and open Kindle, it downloads automatically. I tap the icon for the Kindle app for example. I type the icon for device so that I know what's on here. If it's a book I know I have but it's not here, I will tap the button for cloud and then download it—push the button—push the book and it will automatically download in about 30 to 45 seconds. And then I go back to [the] device and I choose what I'm going to read. (Personal communication with interviewee, January 30, 2015)

Some participants like Mike added an extra step in the download process: “If I think my wife and daughter might like it, I'll download it to [their Kindles] also” (Personal communication with interviewee, February 8, 2015).

Purchasing eBooks from other vendor sites or borrowing library eBooks worked in a similar fashion. However, the process was very convoluted, especially for NOOK owners in the early versions of the library software:

That was really hard to do at first. You know you have to read through all of the instructions and getting it set up and synced up. This, and on my tablet and on my laptop—just downloading the software, installing it properly, figuring out the right access codes that everybody wanted because everybody wanted something you know. You had to use this password for this one and this password for that one. It got really complicated and it's a lot easier lately since they updated. (Personal communication with interviewee, February 6, 2015)

The Overdrive program for borrowing library eBooks was favored by Rob “because it's a total utility” (Personal communication with interviewee, February 3, 2015), capable of tracking the number of remaining pages left to read in a book or detailing a library patron's place on the

waitlist. In a slightly more complicated version of downloading, Mike used his technical expertise to download the Calibre library system to his Kindle, and then downloaded eBooks that had been saved on a memory stick.

Once eBooks were downloaded to a device, readers had the ability to use search functions to navigate: “You know there’s a little magnifying glass. You press that, and that’s really convenient. . . . Put in the search term and the list comes up—but this works on everything indexed or not and that’s a big convenience” (Personal communication with interviewee, January 30, 2015). Another opportunity to navigate on the device arose when a certain eBook could not be found. Mary described the process:

On my Nexus, if I haven’t read a book in a while, apparently it sits out there in the cloud and I have to have a Wi-Fi connection to get to that book again. That can be a bit of a challenge. Or if it’s a book I bought a while ago and I haven’t read it at all, it drops out of the active memory—again I’ve got to find the Wi-Fi. It’s out there and it knows I own it. I just have to go back out there with a connection to get it back in the memory with my tablet. (Personal communication with interviewee, February 1, 2015)

In the ultimate statement about the power of navigating and organizing, Rick said, “You’ve got a list—you can go into your cloud—you can look at every book you’ve ever read on Amazon” (Personal communication with interviewee, February 2, 2015).

Linda reflected on her previous encounter and stated, “I miss that experience, but not enough to not use my reader” (Personal communication with interviewee, February 22, 2015). Participants in this study not only had excellent technical skills, but also had good communication skills, allowing them to give a professional accounting of their reading experience. The most mentioned place for reading was in bed and as Debbie put it, “I’m

addicted to reading before bed. It's like I cannot—I could be wiped out and I'll still read until I fall flat on my face” (Personal communication with interviewee, February 6, 2015). The Kindle Paperwhite came equipped with features to enhance the experience of reading in bed. Mike commented:

The nice thing is I don't have to turn on my bedside light or I can sit in a dim room and read just fine. The thing I've always really liked about the Kindle is how nice it is on the eyes. It's not like looking at a computer screen—and I wondered if that backlit [feature] would make a difference—maybe cause a little eye strain, but it doesn't—you know I don't see this shadowing or anything on it. (Personal communication with interviewee, February 8, 2015)

Debbie provided additional comments about reading in bed:

Well I've always read right before bed. It stems from when I had a very stressful job. That was the only way that I could sort of come down and not think about that—keeping me awake all night—is that I would read. That's when I started reading mysteries in fact. There's just nothing more convenient for bed reading than an eReader. (Personal communication with interviewee, February 22, 2015)

Participants spoke of reading when they first went to bed, when they awoke in the middle of the night, and when they woke up in the morning.

The eReader was deemed a “lifesaver” and proved to be convenient for travel too. Mary described what it is like when she travels: “I read all the time—there's a TV in the hotel room—I never turn the sucker on because I'm usually on my eReader” (Personal communication with interviewee, February 22, 2015). As a traveler, Rick expanded on the reasons why he liked his Kindle:



The portability of it—the ease of operation—the physical—the ergonomics of it. Just being able to pick it up and go—I love that. And being able to look on Amazon and see things I would probably have never even read before. It opens up a whole new world.

(Personal communication with interviewee, February 22, 2015)

The ability to sync allowed for another possibility: “I can [read] on my smartphone” (Personal communication with interviewee, February 1, 2015). Reading was not confined to a specific location. Rick elaborated: “I carry mine around the house occasionally. I will open it up for five, six, or seven pages and then click. So I am constantly looking in—going in and out—to read” (Personal communication with interviewee, February 22, 2015). Then Rick commented about what his eReader situation is like when he leaves home:

It’s chained to me. It goes everywhere. When we go shopping, it goes in my car. [My wife] goes and shops. I sit in the car and eRead. Then she generally says, “I’d like you to see something.” “Okay, if you insist.” So I’ll do it. But yeah, it goes with me when I travel, anywhere I go, it’s there. It is that indispensable. I have withdrawal symptoms if I don’t have that thing with me. It’s that bad. (Personal communication with interviewee, February 22, 2015)

Trips to the doctor resulted in comments from the participants like this one from James:

The good thing is that I can read just about anywhere I am easily and I spend a lot of time waiting for doctors and what have you and it’s incredibly convenient to have this thing with me. That is the one thing I enjoy. The only thing that frustrates me is occasionally I forget which way I’m supposed to turn the page and that’s not a big deal. (Personal communication with interviewee, January 30, 2015)

This previous example highlighted a problem that James could solve by himself. Carol suffered from Visual Field Deficits and her condition limited how much she read. However, she did reason out how the Paperwhite might be the answer to her issue with screen glare. Rick was representative of the group in terms of dealing with problems. When he was unable to solve an eReader issue, he was comfortable turning to Amazon for support or to his granddaughter for assistance.

**Research Question (c): What are the Challenges and Benefits of Senior Adults Regarding the Use of eReaders?**

For the participants in this study, one universal challenge was the library's eBook borrowing program, though there were different reasons given for the cause of the challenge. James saw the catalog as extremely limited. Carol did not like the short borrowing timeframe and Mary avoided the system out of fear that she would be charged for an unreturned eBook. However the biggest concern was the difficulty in searching the catalog and in downloading eBooks. Early versions of the software and early NOOK models required the eBook to be downloaded to a computer, and then transferred to the eReader using a USB connection. The extra steps meant extra possibilities for something to go wrong. Only Rob sang the praises of this system, though the praise was in how the system was now, not in how it was in the beginning. On a similar note, Linda and Carol mentioned previous negative experiences with software updates to computers and other forms of technology and secretly retained concerns regarding eReaders if similar updates were required.

Most participants mentioned cost as an obstacle and did thorough research before purchasing an eReader. However, when a unit died or when it was replaced, each participant somehow came up with the money for a replacement. For the purchase of eBooks, most

participants spoke of reading reviews and performing price comparisons as a way of mitigating costs.

Carol described the challenge of Visual Field Deficits and how this condition affected her ability to use her eReader; the glare caused her to lose her concentration and limited how much she could read at one time. The procedure used by most participants, of searching and purchasing eBooks on a big machine and transferring them to the eReader, presented a challenge for those participants that borrowed from Amazon's Lending Library. This program did not allow transfers, but instead required owners to log in using the actual eReader. Other issues mentioned included improper scrolling, swipe recognition problems, limited battery life, a defective battery charger cord, a complaint about an unreasonable time for the device to kick into Wi-Fi mode, poor design placement of the power button, and difficulties with the use of the device for Bible study. Participants got used to features like a keyboard (Mike), page-turning buttons (Rick), or a place to grip their device without touching the screen (Carol) and missed these features when a replacement eReader was purchased. Though a long list of challenges was gathered during the course of the study, participants were more likely to issue comments about eReader problems as follows: "I've never had one. They have just worked flawlessly. They are a great piece of work" (Personal communication with interviewee, February 2, 2015).

Benefits far outweighed the challenges and helped to explain why owners were so passionate about their devices. All participants eagerly shared the names of websites used to gather eBook suggestions. The ultimate in saving money was in getting free books and participants including Rick and Debbie bragged about how frugal they were. Amazon provided a platform for authors to release pre-published copies of their works as ARCs, so that people like Rick could read an electronic version before a print version ever hit the shelf. The eReaders

were valued for benefits like the ones mentioned by Mike: “ease of use, lightweight, just the ability to manipulate the page, the font, the type size, [and] the lighting” (Personal communication with interviewee, February 8, 2015). Rick praised the “convenience, fantastic convenience,” that allowed for additional reading opportunities:

I read a lot more now. As an [almost] 70-year-old guy right now, it’s so much more convenient because you don’t have to haul a box of books around. You take that [pointing at Kindle] and that’s everything—right in there. It’s a library because you can just pick up and drag away. I can read anywhere—anywhere. I can take it. I can read because you don’t have to be up on the Internet. It does not require a router or wireless anything. It’s on there. It’s downloaded. You got it. You open it up—click—it’s on—go. (Personal communication with interviewee, February 2, 2015)

The convenience was particularly important for participants like Carol and Debbie that read in bed and for those individuals that traveled like Mike and Mary. The participants that chose multi-function devices liked the added convenience of being able to take a break from reading to surf the web or to play games. There were advantages associated with dictionaries, including copies written in other languages. Reading books through an Amazon Kindle account allowed readers to easily keep a log of what they read. Other benefits included taking up less volume and the ability to order books without having to drive to the library or wait for a bookstore to open. Amazon has continued to make the overall process easier through innovations like the 1-Click order and payment process, backlighting for reading in bed, and the use of E Ink technology. And for Paperwhite owners like Mike, Linda, and Debbie, their devices reduced the sun glare when reading outdoors. Other participants looked for more improvements in the future. Mary was a big proponent of keeping an active mind and her future plans included returning to school,

an endeavor that she predicted would be more electronic and more online. Meanwhile, her eReader allowed her to keep up with the latest trends.

### **Summary**

This study sought to describe senior adults in their acquisition and use of eReaders. Six individuals participated in both an interview and a focus group and two participated in an interview only. Using data from the original questionnaires, the interviews, and the focus group, I built a textural and a structural description for each of the eight participants. These individual descriptions were compiled into a composite description of the entire group, creating an essence of the experience for the phenomenon under investigation (Moustakas, 1994). Four themes emerged: Passion for eReader and eBook Selection, Sense of Economic Value, Comfort with Technology, and Interest in Future Direction of Technology. The intended use of the eReader influenced whether a single- or multi-function device was purchased. The owners took advantage of many features offered on their devices. Participants concerned themselves with the cost in terms of the original device, in terms of eBooks, and in terms of other benefits like those provided by membership in Amazon Prime. The participants were involved in technology from an early age, whether at home, school, or work and maintained a keen interest not only in the state of current technology, but also in the future direction that technology was headed.

## **CHAPTER FIVE: DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS**

This phenomenological study was conducted for the purpose of describing the perspectives of senior adults in Georgia regarding their acquisition and use of eReaders. After collecting 29 questionnaires, a group of eight individuals agreed to be interviewed and six participated in a focus group. The sessions were recorded, transcribed, and then analyzed using the Moustakas (1994) technique as simplified by Creswell (2013). This chapter begins with a summary of the findings produced from the data analysis and continues with a discussion of the findings as they relate to the empirical and theoretical literature. Implications derived from the study are described, followed by a discussion of the limitations associated with the study. Based on what was learned, recommendations for future research are presented.

### **Summary of Findings**

The following four themes arose from the analysis of data: Passion for eReader and eBook Selection; Sense of Economic Value; Comfort with Technology; and Interest in Future Direction of Technology. Participants usually chose an eReader based on whether its purpose was for serving strictly as a reading device or whether it needed to have additional functionality. Six of eight participants had purchased a replacement unit at some point, allowing for an opportunity to reevaluate whether the single-function or multi-function device could serve them better. Ideas for Books to Read came from family and friends. Participants also used a collection of websites including ones (like Amazon) operated by vendors and ones (like Goodreads) that provided reader support in the form of book reviews and recommendations. Most participants kept track of Books Read or Books to Read and utilized the cloud not only to provide storage, but also to list books from these aforementioned categories. Fiction and nonfiction were both mentioned as reading choices, but fiction was the most prominent. Strong

opinions were voiced as to the viability of eReaders for use with certain types of books. Cookbooks and the Bible represented books in this category of debate over advantages and disadvantages of print versus electronic versions. The various models of eReaders were valued for their ability to sync with other devices, for their readability, and for their portability, but most importantly for their convenience.

Aside from functionality, cost was the most important aspect considered when purchasing an eReader. Some participants were so concerned with cost that they waited for someone to provide them with an eReader as a gift rather than spend money on themselves. The cost of eBook purchases was also an important factor to consider. One participant took advantage of ARCs and another participant had read all of the books of interest in the local library's eBook collection, both free options. All participants had downloaded an eBook from Amazon, but only half of the participants belonged to Amazon Prime. Prime members felt that they got more than their money's worth while nonmembers saw the annual membership fee as an additional unnecessary expense. Most participants took advantage of the opportunity to lend eBooks to friends or to share downloaded eBooks with family members. Participants were ready when one-day sales were announced or were prepared to wait for the price to go down, if necessary. Most participants mentioned reading book reviews as a way of keeping costs down, purchasing only books that had received decent reviews.

The participants in this study self-reported technology skill levels ranging from above average to expert as compared to their peers. Most participants followed up any discussion that required a peer comparison with a comment about how far behind they were when compared to younger generations. This group had early exposure to computer languages like FORTRAN and DOS, were long-time owners of home computers, or were beneficiaries of educational and career

training in technology, most notably provided by the military. Activities ranging from the use of Facebook to the downloading of ARCs provided evidence of the group's comfort level. Several participants used technology to write reviews, blogs, or books and one participant recently wrote an article for publication without having to shuffle the printed copies back and forth to the editor as was the practice for years. These early adopters of technology remembered the first time that they saw eReaders, one participant as far back as the 1990s. Early exposure to technology made these individuals comfortable moving between various electronic devices and their use of these technologies helped them to garner efficiencies as they increased the volume of their reading.

The past experience with electronics and the current use of eReaders by participants not only reflected the state of comfort with which these individuals operated, but also foreshadowed the interest with which the participants held in the future direction of technology. These individuals had a hard time, because of technology's prevalence in today's society, relating to people who did not adopt technology. This group viewed continued use of an eReader as a way of keeping their minds active and avoiding dementia-type ailments. Features like the ability to enlarge the font helped to aid in this endeavor. The participants viewed technology of the future in a positive light and the group looked forward to enhanced features like the mass-marketing of color E Ink and longer battery life. However, there was a negative side to the advancements: Participants predicted social isolation brought about by sites like Facebook and increased stress due to overdependence and excessive expectations from technology. The individuals that took part in this study wondered how the Internet would continue to evolve and what impact these changes would have on newer versions of eReaders.

Many factors contributed to the decisions of senior adults to adopt the use of eBooks. Sometimes it was because the book was available only in an electronic format. That situation



represented how two of the participants got started. One participant went out and specifically bought an Amazon Kindle. The other participant downloaded the Kindle app to prepare her computer for the eBook, but eventually ended up buying a stand-alone Kindle. Cost was an important factor in the purchase of eReaders because participants did not want to be wasteful. Several participants described the process that they went through, including research, to ensure that they made a smart financial decision. Some individuals waited until they were given an eReader as a gift. The anticipated use of a device for more than just eReading usually led to the decision to buy a multi-function device. Once eReaders were purchased or received, owners in this study were exposed to multiple ways to download books. The number of free eBooks available (through Amazon, the library, and elsewhere) was a driving factor in the use of an eReader and in its continued use. Six of eight participants in the study had determined that eReaders were a necessity and had already substituted original units with replacements or upgrades. Amazon Prime offered yet one more opportunity to maximize the cost of the investment. Another huge factor was the convenience of an eReader and the number of eBooks that the eReader could hold. Participants had the ability to read in bed, to carry an entire library in a small package, and to occupy their time in the waiting room of a doctor's office. Participants used the note taking and highlighting capabilities of eReaders to research and write book reviews and gained efficiencies in the process. Another positive factor was the ability to search the entire eBook, not just the index and table of contents as with a print book. All of the eReader use began after witnessing others using the devices.

Seeing others use eReaders, plus seeing the units in stores and in advertisements is how these technology-savvy participants described their introduction to eReaders. The participants usually conducted thorough research regarding which devices to purchase and used their

experience with their first devices to direct their decisions if they needed to purchase replacements. Even when given an eReader as a gift, each recipient apparently gave thorough input to the donor. Participants obtained ideas for eBooks from acquaintances and from websites, with Amazon being the most popular choice. After finding out about a book, participants conducted reviews and examined costs before making a purchase. A problem with the original version of the public library circulation software was one of the reasons cited for keeping people from downloading library eBooks. Though the software is much better now, most participants had already abandoned attempts to use the program. Participants described the ease of Amazon's 1-Click ordering and payment system. Though Amazon could be used on a smartphone out in public, most participants opted to do their shopping on a larger computer at home; the eBooks were downloaded to their reading device later. Some participants described how they downloaded additional electronic copies of eBooks from Amazon to other registered devices within their same family. One participant had a collection of eBooks loaded on a memory stick. He described how he had downloaded the Calibre eBook Management system onto his Kindle and then downloaded a few books at a time when he needed something to read. The search function came in handy for finding eBooks on the device. The Nexus owner described how missing books may have been sent back to the cloud if they had not been used recently and looked there if the initial search came up empty. The cloud served as both a list of Books Read and Books to Read. Descriptions of reading almost always included the convenience of reading in bed. Other places described in detail were the home, the doctor's office, business trips and vacations. Suffice it to say that the devices went everywhere. On the rare occasion in which problems occurred, most participants were good problem solvers and took

care of the issues themselves. If they could not solve the problem, most participants were comfortable with options like online chat assistance.

Some examples of the challenges experienced by participants included difficulties navigating, maneuvering, and downloading within the library's eBook lending program, short borrowing timeframes and limited selection within the lending program, fear of future software upgrades that rivaled past headaches, the glare of the screen, and difficulty of using the devices with medical conditions like Visual Field Deficits. Other problems included the inability to transfer Amazon Lending Library books between devices, difficulty with scrolling and issues with batteries. Instead of reporting challenges, participants were more likely to say they had no problems. They liked to brag about the free eBooks that they downloaded or that they purchased at a very low price. Other benefits were the convenience of reading in multiple locations, the ability to use the dictionary, and the existence of the booklist that was kept in the cloud. Owners of Paperwhites were particularly pleased with the technology that reduced the glare to the point of being able to read in the sunlight outdoors. All participants were passionate about their devices and looked forward to future improvements.

### **Discussion**

Bandura's (1977) Social Learning Theory postulated that individuals learned by watching others. Connell et al. (2012) found that exposure to eReaders increased the desire to purchase a device. Participants in this study saw others using eReaders in restaurants, stores, Karate practice, and in television advertisements and sought to replicate this behavior for the benefits that the devices provided. The first assumption of Knowles's (1980) Adult Learning Theory was that adults want to be responsible for their own education and studies. One participant described his hope that his study of romance novels and the writing of online reviews would launch a

second career, this time as a professional book reviewer. Reviews written by a man would provide a unique twist for readers of this genre. Society is drifting away from learning as a result of strict individual activities (Siemens, 2004) and is shifting toward a model focused on the combined efforts of participants like the ones in this study that produced blogs, reviews, or ePublished books in an online environment. Participants in this study were motivated by internal pressures (Knowles et al., 1998), and one participant conducted his research on classical religious texts using his eReader, while simultaneously writing a book. This participant discovered that knowledge emerged as connections were made (Dunaway, 2011), knowledge that was enhanced by what he learned from eBooks he read in preparation for his book club discussion groups. Adult learners want to know why they are learning something (Knowles et al., 1998), and participants in this study came up with several reasons about why they had learned about eReaders: the need to be prepared for a future with more prominent use of technology, a finding consistent with White and Weatherall (2000), and the need to keep their mind active as they grew older. For adults in their 70s, 80s and 90s, Russell (2011) found that older adults liked the ability to learn at their own speed. Since cognitive functions decrease with age (Salthouse, 1996), one might be inclined to make the assumption that the pace of reading may slow down as well, but that was not the case in this study for one participant in particular who was making up for the lost time of not reading fiction when he was growing up and had read 350 eBooks in the past 3.5 years.

Hawthorn (2007) and Broady et al. (2010) reported the existence of several types of technology avoidance behaviors, but these behaviors did not appear to be present in the participants of this study. The eReader needs of the participants of this study were consistent with the IT needs of older adults found in the Wang et al. (2011) study. The pursuit of a

happiness-enhancing life involving reading (Henricksen & Stephens, 2010) was evident in the descriptions provided by the study participants as they detailed with passion not only what they liked to read but also how the eReader had enhanced their ability to read in places like the bed and the beach. This passion or attitude toward new technology was consistent with the factors like enjoyment, technical ability, and convenience found in the previous study by Li and Perkins (2007).

Convenience represented a factor found consistently throughout the literature. Most notably, the factors of PU and PEOU as found in the TAM (Davis, 1985) were present. PU was evidenced by mentions of the convenience associated with the number of places that one may read (like the doctor's office or the beach), the size of the library that may be stored on an eReader, and the ability to use features like the light to read in bed. PEOU factors associated with the eReader included a pre-loaded dictionary, an opportunity to open the eBook automatically to the last page read, eBook suggestions made by Amazon, and ordering shortcuts like Amazon's 1-Click. The convenience factor was also cited in the older adult study by Mitzner et al. (2010). However, the threat of technology (Hakkarainen, 2012) and the fear of technology (Hogan, 2009) were not found in this study. The closest element to technophobia was a concern about major software upgrades that appeared to roll out on a semi-regular basis.

The absence of technophobia may have to do with the prior background, training, education, and careers of the participants. Knowles (1980) postulated that adults learned based on their experiences collected over a lifetime. For this group, the military had as big an impact as any other factor. The training from the Air Force in particular provided a majority of the participants in this study with a solid base in technological skills. Findings from this study about the use of eReaders were consistent with the findings of Lunn and Harper (2011) about use of the

web and the advantage of experience and knowledge being more important than age. Slegers et al. (2007) found that senior adults with no computer skills had a difficult time transferring newly learned skills to other devices. That was not the case in this study as individuals frequently completed tasks like navigating, searching and purchasing books using a larger computer, then downloading and syncing to a smaller device for reading. On occasion, some participants even ordered eBooks on a smaller device, like a smartphone, and then downloaded the eBooks to their eReader. As a whole, computer users tended to be better educated and younger than those that did not use computers (Carpenter & Buday, 2007; Cresci et al., 2010; DeOllos & Morris, 2003-2004). These findings were similar to what was found in this study regarding eReaders, at least in terms of the volunteers that participated. Participants all had some college and most had Master's Degrees, a fact consistent with the overall community's above average number of college graduates (U.S. Department of Commerce, 2014). Grimes et al. (2010) found that higher educated adults had computer skills that mirrored those of younger adults. Kooij et al. (2008) described how age could be discussed in ways other than chronologically, an aspect that fit the eReader ability of the participants in this study.

Age did play a role in some of the problems experienced by the participants, particularly age-related vision problems. For instance, though several individuals in the study occasionally read using their smartphones, a few others made comments about the size of the screen being too small. This may hint as to why Smith (2014) found that older adults were more likely to own an eReader over a smartphone. Touchscreen problems, one of the computer issues found by Barnard et al. (2013), were reported as occasional problems by the eReader participants in this study. Problems included improper scrolling and failure of the device to recognize when a touch occurred. Chaffin and Harlow (2005) reported that adults were concerned with the loss of

autonomy as a result of aging. One possibility of tackling these problems involved having designers address these issues during the design phase of technology (Charness & Holley, 2004; Githens, 2007; Ling 2008; Purdie & Boulton-Lewis, 2003). One study participant suffered from Visual Field Deficits and needed narrower columns, something that her device was able to address. However the tablet glare still presented a problem. Mobility issues increased with the age of seniors, but seniors may be able to use technology for assistance (Charness & Holley, 2004). Participants in this study made mention that their eReader provided them with a way to make a trip to a “virtual library” without ever having to leave home.

According to Connell et al. (2012) print material can be read faster. One of the participants in this study had the opposite opinion, stating that the eReader onboard dictionary saved her enough time by not having to look up words in a separate dictionary that her overall reading speed had increased. Georgia Download Destination, the state library eBook software, presented a challenge. One other peculiar problem is worth mentioning. Lunn and Harper (2011) found that seniors perceive themselves to be better than they actually are when they use the Internet. The same could be said for the participants in this study regarding the use of eReaders. Several of the participants brought their eReaders with them to the interview. In all cases, there was at least one time when I observed each person having a minor issue with their eReader. They were so quick to figure out what was wrong that they may not have even noticed this brief struggle themselves. The participants were equally quick to point out their lack of problems experienced with the devices. The list of issues surfaced only when I continued to probe. When participants finally began to list problems, most issues were very minor. This may explain why the memory of the events had been suppressed or why the issues were downplayed after comparing the issue with the overall usability and convenience of the devices.

Support is important for technology acceptance (Wang et al., 2011). Support for participants in this study was more likely to come from a chat room or from a child or grandchild. Barnard et al. (2013) described how getting help from an expert reinforced the notion that technology, and specifically computers, were only for experts. Participants in this study did not experience this feeling of inadequacy, at least when comparing themselves with their peers. They considered themselves to be experts, albeit with a skillset slightly lower than that of younger generations.

White and Weatherall (2000) studied moderate to higher proficiency computer users age 59 to 77 and identified five themes: connection of technology with other interests; role of computer-mediated communication toward social stimulation and positive aging; impact of cost; role of computer as a tool; and importance of communication with family. This study of above average to expert level eReader users age 51 to 73 came the closest to mirroring the findings of the White and Weatherall study. The connection of technology with other interests in this study was represented by the link between the eReaders and reading that these devices supported. Computer-mediated communication was present in blogs, book reviews, and online chat assistance and the passion for eReaders was a reflection of the positive aging among these participants. Cost was important in the decision to purchase an eReader, to purchase eBooks, and to purchase an Amazon Prime membership. Whereas White and Weatherall addressed the computer as a tool, this study addressed the role of the eReader as a tool. The eReader served as a storage facility, research aid, and pleasure reading device in a multitude of locations. Finally, the sharing of eBooks indicated that family communication was taking place among the participants in this study. Communication with family using an eReader was more likely to be in



the form of support questions answered from grandchildren or through the transfer of a book using one of Amazon's lending programs.

After growing up in the infant stages of computer development, and receiving education, training, and military experience in technology, these participants were poised to begin eReader use after watching others adopt the devices (Bandura, 1977). Their passion for reading on an eReader was influenced by the convenience that the device offered. Use of the devices did present an occasional problem, but seldom one big enough to discourage a participant from using the device. Support was only a chat room or a family member away.

### **Implications**

The use of an eReader among the participants in this study was preceded by a passion for reading and an exposure to technology via education, training, careers, or military experience. The background from the group members, including computer programming with DOS and FORTRAN, ownership of home computers dating to the early 1980s, operation of sophisticated aircraft and medical equipment, and service in a nuclear warhead missile silo, provided participants with the prerequisite skills necessary to be successful in their use of eReaders. This kind of background, common to the participants in this study, was the key to fostering the use of an eReader. If this was the case, which trigger had the biggest impact on the use of eReaders and on their continued use? Similarly, which features, designs, and costs of eReaders drove these decisions? Barnard et al. (2013) found that older adults struggled with issues concerning the touchscreen. Several participants in this study had similar concerns. Also, several participants made mention of the need for more tactile keys on an eReader and for places away from the touchscreen in which to rest one's hand. These findings highlight important aspects of design

considerations for future eReaders. Other design considerations mentioned included the need to address vision issues, a common problem for aging adults.

Focusing on the eReader was not meant to imply that the physical device was the only issue that needed design consideration. Instead, use of an eReader should be considered from a higher level or process standpoint. For instance, Mead et al. (1999) found that older adults performed similarly to younger adults in Internet searches when the tasking required fewer steps. This implied, as does this study, that a simpler process is beneficial to older adults. Participants in this study commented on how simple the process for purchasing and downloading books from Amazon was (a process consideration that needs to be emulated), and contrasted this with the sophisticated process for borrowing from Amazon's Lending Library and from the public library's eBook collection (process considerations that need to be avoided).

The implications regarding prior experience and process design considerations lead to some specific recommendations for certain stakeholders. These recommendations relate to the following categories: vendors; the community; and the traditional brick-and-mortar library.

### **Vendors**

Alter (2012) described Amazon, Apple, B&N, and Google as major eBook publishers. All of these eBook vendors also sell their own versions of eReaders, giving them considerable influence in both markets. These vendors only stay in business if they continue to make a profit derived from knowing and serving their customers. Alter reported that the data collected from eReaders gives vendors valuable information about whom they serve. This study identified the need for more tactile keys, the desire for the mass-marketing of color E Ink, and the need for a larger area outside of the touchable screen in which to grasp the eReader. None of these findings would be identified through the metadata collected during the normal use of eReaders, so

vendors would need another way to collect data on issues such as these. Therefore, one recommendation is that vendors commence studies aimed at determining the needs of older adults as addressed above so that they can incorporate senior-specific design elements into their eReaders. In terms of the downloading process, this study identified the need for a better interface with library software and for a simplified process for downloading and using loaned eBooks. As mentioned earlier, the design of the eReader needs to incorporate more than just the physical attributes of the device; the whole process should be considered. As an example, Amazon's Lending Library site must be accessed on the device in which the eBook is to be downloaded. Since many participants in this study—and presumably other Amazon customers as well—preferred to shop and complete the transaction on a larger computer before having the eBook sent and downloaded to their eReader, Amazon may want to consider simplifying the process. In particular, participants who represent owners of single-function eReaders like to use their devices for reading and not for shopping. Fixing this problem may go a long way toward helping Prime members that pay an annual fee for services such as these. An example of what Amazon is doing right is the 1-Click order and payment process lauded by participants in this study. Of course purchasers do have to enter all of their information the first time, but subsequent orders can be processed rapidly according to the Amazon.com website. A second example of what Amazon is doing right is in making recommendations for what a customer might enjoy reading and providing the reviews to help customers make an educated decision about eBook purchases. Every participant mentioned reading reviews and at least half mentioned that they wrote book reviews. A final recommendation is in order regarding the issue of cost. Authors may desire compensation for their intellectual property, but one participant in this study with a book for sale on Amazon highlighted the steep overhead that Amazon tacked

onto the price of a book. Publishers of eBooks, no longer having to include the cost of paper and printing that was required for print editions, need to help bring the costs under control. Lowering prices for eBooks would be welcome among this group of participants, all of which mentioned cost as a relevant factor in their decision making.

### **Community**

Participants in this study had prior backgrounds and training in technology-related fields. More than half of the participants mentioned how they served as volunteers and a majority of them had served their country in the military. In short, the participants supported their community. Schilderman (2002) recommended community support for technology in areas including the provision, availability, and accessibility of information, and the need for making experience and education available, the need for social sensitivity, and the need for leadership. The stakeholders of technology and reading in a community typically include the government, local businesses and charitable organizations. One participant involved himself in a community book discussion group. Meanwhile, another participant extended his definition of community to include online friendships built with authors that offered to give him copies of ARCs.

### **Library**

One particular place that could serve as the hub for community eBook initiatives is the local library, a place where three of the participants in this study volunteered. Ashcroft (2011) stated that libraries should advertise their eBook collections and do a better job of marketing in an effort to mirror the success in the private industry. Several participants in this study described their frustrations regarding the Georgia Download Destination eBook management system, particularly in its early stages. These problems may have been what kept other participants in this study from using the system in the first place. Recommendations for the library included

educating the public not only about checking out and downloading eBooks, but also about the absence of eBook fines. The local library would also need to increase the size of its eBook collection to offset the increase in usage caused by additional marketing; Some eBooks already have long waitlists associated with them. An increase in patronage would necessitate a movement to provide training for those that might be struggling with eReaders. Lai's (2011) call for more training in Internet searching skills may provide a valuable skill for those seeking to do a better job of discovering, reviewing, and purchasing more relevant eBooks at the best price, including ones available for free at the public library. Gomez et al. (2012) described the public library as a place that served everyone and that information was its chief product. However, Duncan (2011) warned that libraries would lose funding and would become irrelevant if they did not implement eBook solutions specific to their community. Finally, Ashcroft (2011) found that users liked to access eBooks from multiple platforms. Though this was true for several participants in this study, most had a preferred reading device. One recommendation for the public library where the study took place, and others like it, would be to continue upgrading the Georgia Download Destination eBook delivery system so that the problems described by study participants, particularly ones associated with NOOK eBooks, could be eliminated.

### **Limitations**

Limitations address the factors that were beyond my control. The first and perhaps most influential limitation to this study was researcher bias. Because the phenomenon being studied is the adoption of eReaders, part of the bias inherent from this study is derived from my own experience as a professional librarian. This bias was additionally influenced by my prior employment at the public library where this research was conducted and by my previous efforts in assisting eReader adopters. Though I tried to lay aside these experiences and prejudgments

(Moustakas, 1994), human nature dictates that a certain amount of bias still remained in how I reported the data and in any conclusions that I drew from the research. Even the design of the questionnaire may have unintentionally introduced ideas or concepts into this study that were my own and not that of the participants. Next, the homogeneity of the study participants particularly in terms of race, ethnicity, and geography, limited any conclusions that may have been drawn. This study was further weakened by the homogeneity of the study participants in regard to their connection with military service: Four of eight participants had retired from the military, one participant had served in the military, and another participant had grown up as part of a military family. This study may have been overly influenced by the high concentration of participants with a military affiliation and this similarity between the participants necessarily placed limitations on the results that may have been drawn. The study was also limited by the use of a convenience sample and by the timeframe associated with the research project. A longer timeframe may have allowed for the discovery of additional relevant data. Another limitation was the use of all volunteers and their ability or inability to adequately and accurately describe their eReader experiences. This study may have been limited if a participant fostered a preconceived notion about emphasizing the use of his or her reading app on a tablet because the study was about eReaders. These descriptions by participant may have resulted in an overemphasis on how much the tablets were used for reading. The study was limited further by those participants that could have benefited from having their eReader present during the interview as a way of jogging their memory about certain issues, functions, or features. On the other hand, individuals that brought devices may have been distracted to the point that they left out important points about their use of eReaders. The research is weakened by studying only a limited number of participants. Though the number studied was appropriate for a qualitative

study aimed at identifying factors and experiences, limiting the number of participants when the data appeared to be saturated may have inadvertently eliminated a potential discovery. All of these limitations, plus the inherent design condition of a qualitative study, contributed to the lack of generalizability of the conclusions drawn by this study.

### **Recommendations for Future Research**

This study set out to describe the use of eReaders by senior adults in their own words. Based on the findings from this study and the aforementioned limitations and delimitations, several recommendations are in order for future research. First, the original questionnaires need to be analyzed with a focus on participants that were not selected for an interview. The initial candidates for interviews were selected based on their potential to add significant contributions to this research effort. Other candidates may have been able to provide equally significant data given the opportunity to interview, but the candidates were overlooked because their questionnaires did not stand out in the initial analysis.

Second, future researchers may want to consider additional related studies within this community or similar communities. The time constraints of this study limited the ability to collect data. A longer time window may have opened up the opportunity for inclusion of data from individuals within the community that did not match the homogeneous makeup of those included in the present study. In addition, a study of eReader non-users within the community may add a different dimension to the findings of this study.

Third, future research needs to be conducted with populations that differ from the one used in this study. Future research may include studies in communities that differ in terms of educational levels, income levels, racial mix, and ethnicity mix.

Fourth, certain influences and affects are worthy of future consideration. These include the impact of the military experience on the use of eReaders, the influence of different models of eReaders on the perceptions of convenience, cost, and usage, a comparison of the eReader experiences with the other functions used on a multi-function device, a comparison of eReader use with other electronic devices, and a study of the relative importance of features used on an eReader.

Finally, future research may need to focus on the perceptions of others regarding the use of an eReader by a senior adult. These perceptions may come from groups including family members, librarians, or other individuals interested in the research outcomes of senior adults and eReaders.

### **Summary**

I proposed a phenomenological design to study the eReader use of senior adults in Georgia. Based on the theoretical framework of Bandura (1977), Knowles (1980), and Davis (1985), I set out to ascertain how these older adults described their eReader experiences, what made them decide to use eBooks in the first place, and what challenges and benefits they experienced. Four themes emerged from analysis of the data: a Passion for eReader and eBook Selection, a Sense of Economic Value, Comfort with Technology, and Interest in Future Direction of Technology. Implications were that experience and knowledge among the participants in this study were important factors in determining the use of technology, particularly eReaders. The participants represented a highly educated collection of individuals with job titles including doctor, pilot, librarian, and engineer. People from other backgrounds may have an equally important story to tell, but the results from this study represented a snapshot in time for a community in Georgia with above average income, age, and education levels.



A second take-away from this study was the importance of designing electronics with seniors in mind. This concept involved not only the design of the actual eReader including and excluding certain features and attributes, but also the entire process of eReader usage defined as the acquisition of the device, followed by the selecting, downloading, navigating, and reading of eBooks. Vendors of eReaders and eBooks, the community, and the public library have parts to play in the analysis and tweaking of the processes that result in the delivery and use of eBooks.

This study represented only a beginning to the research involving the topic of eReader adoption by senior adults. The qualitative design of the study limited the ability to generalize the results. Future research needs to focus on the perspectives provided by eReader owners from a more diverse population and from differing backgrounds or from others witnessing the use of eReaders among this growing segment of the population.

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**APPENDICES****Appendix A: IRB Approval****LIBERTY UNIVERSITY.**  
INSTITUTIONAL REVIEW BOARD

October 23, 2014

Dale Hamilton Tysor  
IRB Approval 1986.102314: Adoption of eReaders by Senior Adults: A  
Phenomenological Study

Dear Dale,

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,

  
IRB Chair

**LIBERTY**  
UNIVERSITY.

*Liberty University | Training Champions for Christ since 1971*

## Appendix B: Pilot Study Consent Form

The Liberty University Institutional  
Review Board has approved this  
document for use from  
10/23/11 to 10/22/13  
Protocol # 14-74-104311

### CONSENT FORM – PILOT STUDY

Adoption of eReaders by Senior Adults: A Phenomenological Study

Dale Tysor

Liberty University

School of Education

You are invited to participate in a research study of senior adults and their perspectives on the adoption and use of eReaders. You were selected as a possible participant because you have self-identified yourself as an adult age 50 or over and as an owner/user of an eReader. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

Dale Tysor, a doctoral candidate in the School of Education at Liberty University is conducting this study.

#### Background Information:

The purpose of this study is to answer the following research questions:

RQ1: What are contributing factors in senior adults' decisions to use eBooks?

RQ2: How do senior adults describe their eReader experiences?

RQ3: What are the challenges and benefits of senior adults regarding the use of eReaders?

The process being investigated includes addressing issues associated with selecting, downloading, navigating, and reading eBooks using an eReader.

#### Procedures:

If you agree to be in this pilot study, I would ask you to do the following things:

- Read and sign this consent form.
- Take 10 to 15 minutes to fill out the associated questionnaire and provide feedback for improving the questionnaire.

#### Risks and Benefits of being in the Study:

The study has minimal risks. The risks are no more than you would encounter in everyday life. However, because the study involves senior adults, there is a remote possibility that I will become privy to information that triggers mandatory reporting requirements for elder abuse.

There are no direct benefits to participation by individuals, but the benefit to society is a greater understanding of senior adults and their adoption and use of technology.

#### Compensation:

The Liberty University Institutional  
Review Board has approved this  
document for use from  
10/25/14 to 10/25/15  
Protocol # 14R4.102314

You will not receive payment for participation in this study. Volunteer participation is requested.

**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 subject. Research records will be stored securely and only the researcher will have access to the records. The following procedures will be put in place to protect the privacy and confidentiality of the participants: consent files will be stored in a locked drawer; all interviews will be conducted in private; all video and data files will be stored in password protected files on the researcher's computer; only the researcher, the dissertation committee, and a transcriptionist will have access to the data; and all video and data files will be erased three years after the dissertation process is complete. The interviews and focus group discussions will be recorded and a third party transcriptionist will be used after a non-disclosure agreement is signed. For those participating in the focus group, the confidentiality is limited because I cannot assure that participants will maintain the confidentiality and privacy of other participants.

**Voluntary Nature of the Study:**

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

**How to Withdraw From the Study:**

If you elect to withdraw from the study, please contact Dale Tysor using the contact information in the next section. If you withdraw, any paper copies of the questionnaire or transcribed copies of the interview will be shredded. Electronic copies will be erased. For the focus group, the electronic copy will be destroyed three years after the project is complete. However, references in transcribed copies of the focus group discussion will be deleted/erased immediately after being notified.

**Contacts and Questions:**

The researcher conducting this study is Dale Tysor (doctoral candidate). You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at [REDACTED] or [REDACTED]. His advisor, [REDACTED], can be contacted at [REDACTED] or [REDACTED].

If you have any questions or concerns regarding this study and would like to talk to someone other than the researchers, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24515 or email at [irb@liberty.edu](mailto:irb@liberty.edu)

The Liberty University Institutional  
Review Board has approved this  
document for use from  
10/23/13 to 10/22/15  
Protocol # 1986.102314

*Please notify the researcher if you would like 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 to participate in the study.

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS IRB APPROVAL  
INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS  
DOCUMENT.)

The researcher has my permission to audio-record and/or video-record me as part of my participation in this study.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Investigator: \_\_\_\_\_ Date: \_\_\_\_\_

**Appendix C: Questionnaire**

Name of Study: Adoption of eReaders by Senior Adults: A Phenomenological Study

Liberty University Doctoral Student: Dale Tysor

Directions: **Please fill out the questionnaire in its entirety. All answers are confidential.**

1. What is your name and contact information?

a. Name: \_\_\_\_\_ b. Email: \_\_\_\_\_

c. Phone: \_\_\_\_\_ d: Best time to call: \_\_\_\_\_

e. Preferred method of contact (circle one): email / phone

2. For categorical purposes, please provide answers to the following:

a. Sex: M / F b. Marital Status: \_\_\_\_\_

c. Age: \_\_\_\_\_ d. Highest Education Level: \_\_\_\_\_

e. Ethnicity/Race: \_\_\_\_\_ f. Other descriptors of yourself: \_\_\_\_\_

3. What is your current occupation? \_\_\_\_\_ If retired, what was your previous occupation? \_\_\_\_\_

4. What kind of eReader(s) do you own now and what kind/kinds have you owned in the past? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. How long have you owned/used an eReader? \_\_\_\_\_  
\_\_\_\_\_

6. How would you describe your current ability level with an eReader? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. What do you read on your eReader? \_\_\_\_\_

---

8. Have your reading habits changed because of an eReader and if so, how? \_\_\_\_\_

---

9. Where do you get your eBooks? From the public library? Other free source? Other purchase source? Other rental source? (Please elaborate) \_\_\_\_\_

---

10. Why do you use your eReader over print resources? \_\_\_\_\_

---

11. Does your eReader give you any problems? If so, please elaborate. \_\_\_\_\_

---

12. What other kinds of technology do you use/own in your everyday life? Computer? GPS? Smartphone? Other? (Please be specific including types/models and actual apps/programs used)

---

13. What other forms of technology (like computers/iPads/smart phones) do you use to read eBooks? \_\_\_\_\_

---

14. What kind of **non-eReader** experience and how much **non-eReader** experience do you have with other forms of technology? (This can include any form of technology at home or work).

---

**Thank you** for filling out this questionnaire. You may be contacted for an interview and/or for participation in a focus group. Further participation is strictly voluntary.

## Appendix D: Recruiting Poster

### Attention – Volunteers Needed

- Are you age 50 or older?
- Do you read books using an eReader, a Computer, or a Smartphone?

If you answered **YES to both** questions, your participation is requested for a research project.

### What will volunteering entail?

- 1) Filling out a short questionnaire about your use of an eReader
- 2) Willingness to be one of approximately eight participants in a one-hour interview
- 3) Willingness to be one of approximately six participants in a one-hour focus group discussion

### If you are willing:

Pick up a consent form and questionnaire at the [Hometown Library, pseudonym] Reference Desk, fill it out and mail it in using the envelope provided or request an email copy of the consent form and questionnaire from [email address withheld]

For any questions, please contact:

Dale Tysor  
Doctoral Candidate  
Liberty University  
[Phone number withheld]  
[email address withheld]

**Appendix E: Abbreviated Recruiting Poster**

**Attention – Volunteers Needed**

**Are you age 50 or older?**

**Do you own an eReader or a Smartphone?**

**Are you willing to participate in a study  
about senior adults and their eReader  
habits?**

**If so, please stop by the  
[Hometown Library] Reference Desk  
or contact Dale Tysor at  
[email and phone number withheld]**



## Appendix F: Consent Form

The Liberty University Institutional  
Review Board has approved this  
document for use from  
10/23/14 to 10/22/15  
Protocol # 1486-7023/4

### CONSENT FORM

Adoption of eReaders by Senior Adults: A Phenomenological Study

Dale Tysor  
Liberty University  
School of Education

You are invited to participate in a research study of senior adults and their perspectives on the adoption and use of eReaders. You were selected as a possible participant because you have self-identified yourself as an adult age 50 or over and as an owner/user of an eReader. I ask that you read this form and ask any questions you may have before agreeing to be in the study.

Dale Tysor, a doctoral candidate in the School of Education at Liberty University is conducting this study.

#### Background Information:

The purpose of this study is to answer the following research questions:

RQ1: What are contributing factors in senior adults' decisions to use eBooks?

RQ2: How do senior adults describe their eReader experiences?

RQ3: What are the challenges and benefits of senior adults regarding the use of eReaders?

The process being investigated includes addressing issues associated with selecting, downloading, navigating, and reading eBooks using an eReader.

#### Procedures:

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

- Read and sign this consent form.
- Take 10 to 15 minutes to fill out the associated questionnaire.
- Participate in a 60 to 90 minute audio and/or video-taped interview, if asked.
- Participate in a 60 to 90 minute audio and/or video-taped focus group discussion, if asked.

#### Risks and Benefits of being in the Study:

The study has minimal risks. The risks are no more than you would encounter in everyday life. However, because the study involves senior adults, there is a remote possibility that I will become privy to information that triggers mandatory reporting requirements for elder abuse.

There are no direct benefits to participation by individuals, but the benefit to society is a greater understanding of senior adults and their adoption and use of technology.

Liberty University Institutional  
 Review Board has approved this  
 document for use from  
 10/23/14 to 10/22/15  
 Protocol # 1984.102314

### Compensation:

You will not receive payment for participation in this study. Volunteer participation is requested.

### 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 subject. Research records will be stored securely and only the researcher will have access to the records. The following procedures will be put in place to protect the privacy and confidentiality of the participants: consent files will be stored in a locked drawer; all interviews will be conducted in private; all video and data files will be stored in password protected files on the researcher's computer; only the researcher, the dissertation committee, and a transcriptionist will have access to the data; and all video and data files will be erased three years after the dissertation process is complete. The interviews and focus group discussions will be recorded, and a third party transcriptionist will be used after a non-disclosure agreement is signed. For those participating in the focus group, the confidentiality is limited because I cannot assure that participants will maintain the confidentiality and privacy of other participants.

### Voluntary Nature of the Study:

Participation in this study is voluntary. Your decision whether or not to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

### How to Withdraw From the Study:

If you elect to withdraw from the study, please contact Dale Tysor using the contact information in the next section. If you withdraw, any paper copies of the questionnaire or transcribed copies of the interview will be shredded. Electronic copies will be erased. For the focus group, the electronic copy will be destroyed three years after the project is complete. However, references in transcribed copies of the focus group discussion will be deleted/erased immediately after being notified.

### Contacts and Questions:

The researcher conducting this study is Dale Tysor (doctoral candidate). You may ask any questions you have now. If you have questions later, **you are encouraged** to contact him at [REDACTED] or [REDACTED]. His advisor, [REDACTED] can be contacted at [REDACTED] or [REDACTED].

The Liberty University Institutional  
 Review Board has approved this  
 document for use from  
 10/23/14 to 10/23/15  
 Protocol # 1984-102314

If you have any questions or concerns regarding this study and would like to talk to someone other than the researchers, **you are encouraged** to contact the Institutional Review Board, 1971 University Blvd, Suite 1837, Lynchburg, VA 24515 or email at [irb@liberty.edu](mailto:irb@liberty.edu)

*Please notify the researcher if you would like 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 to participate in the study.

(NOTE: DO NOT AGREE TO PARTICIPATE UNLESS IRB APPROVAL INFORMATION WITH CURRENT DATES HAS BEEN ADDED TO THIS DOCUMENT.)

The researcher has my permission to audio-record and/or video-record me as part of my participation in this study.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Signature of Investigator: \_\_\_\_\_ Date: \_\_\_\_\_

## **Appendix G: Interview Guide (with Sample Questions)**

### Basic Demographic Information

1. How would you describe yourself in terms of demographics?
2. What kind of eReader(s) do you own?
3. How long have you owned/used an eReader?
4. How did you initially become an eReader owner?
5. How often do you use your eReader?

### Comfort, experience level, and challenges

6. What is your current experience/comfort level with technology?
7. What previous experience do you have with technology?
8. What special features do you use on your eReader? Dictionary? Highlighter? Notes?
9. What do you know how to do with your eReader?
10. What is it that you cannot do with your eReader?

### Support Level

11. Identify anyone who assists you with technology and describe their relationship  
(neighbor, relative, friend, etc.).
12. What kind of assistance does this person provide you with?

### Motivation of Learners

13. Why do you use an eReader?
14. What previous life experience helps you with your eReader?
15. Are there any ways the eReader helps you overcome problems associated with print  
books?
16. What are your present goals for eReaders and eBooks?

Other information

17. Is there anything else you might like to share with me about eReaders?

### **Appendix H: Focus Group Discussion Prompts**

1. Give a short introduction to the group giving your name and the type of eReader you use.
2. What forms of technology do you use in addition to your eReader?
3. Describe any new techniques you have learned since the one-on-one interview.
4. Where do you go for assistance with your eReader?
5. How have you used the Internet to find answers to questions about your eReader?
6. Describe your support structure for using an eReader.
7. What have you learned about the eReader by watching others?
8. How do you remember the steps associated with downloading eBooks?
9. How do you remember the steps associated with navigating through eBooks?
10. How useful do you perceive your eReader to be?
11. Describe the level of simplicity/difficulty that you have experienced in using an eReader.
12. Is there anything else you might like to share with me about eReaders?