"Teens Today Don't Read Books Anymore:" A Study of Differences in Comprehension and Interest Across Formats

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Dedication

This dissertation is dedicated to my family: my husband Christopher, my cats who kept me company as I wrote (past and present) Mitt, Tiggy, Smokey, and Charlie, my dogs who made me take breaks, Callie and Stewart, and my parents Larry and Sharon Jones, who always believed I would be able to do this.

Abstract

In this study each of the female college student participants read 4 to 6 pages of the print text, read an equivalent amount of an ebook, and listened to approximately 10 minutes of an audiobook. For each modality participants experienced one of three different texts. The order in which the texts and modalities were received was randomly assigned. Engagement and motivation were used as frameworks for this study. In the experiment, interest and engagement in each text were measured through an interest inventory. Participants filled out the same measure after experiencing each text, providing a consistent, comparable measure across formats. Comprehension was the other framework, and the outcome measure used to assess it was the Content Reading Inventory (CRI), a tool commonly used by classroom teachers. This research found no statistically significant differences in comprehension across print, ebook, and audiobook modalities. Participants' levels of comprehension for each text were the same regardless of the format in which it was received. There was also no difference in engagement across modalities; the amount of interest participants expressed in a text was the same regardless of the format in which it was received. In other words, the text that was the least popular, was equally unengaging in all three formats.

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Chapter 1 Introduction and Literature Review

Over the last few years the popular and scholarly presses have been rife with articles about how youth, teens, and adults under 40 are not reading. As a librarian and literacy researcher, I read these articles with great concern. Is it really true that kids and young adults are not reading? But as I began to look deeper and review the research as a literacy scholar, I realized that researchers conducting these studies were only counting traditional book and print based reading, and sometimes were only counting narrative texts to the exclusion of informational texts. The widely publicized 2004 National Endowment for the Arts (NEA) study is written up on the NEA website as: "literary reading in dramatic decline," with one of the highlighted results, strong drops in reading among adults ages 18 to 24, as compared to other age groups.[i]

A more recent AP story from 2007 is headlined in *USA Today* as, "One in four read no books last year."[ii] This story notes that those age 50 and older reported higher rates of book reading, as did college-educated people and women. Readers who responded to this poll most often reported reading fiction and religious works. Also in 2007, the NEA conducted a follow-up study--a compendium and analysis of reading focused on youth and teen readers.[iii] "To Read or Not to Read" found that this age group read significantly less than in previous years, in terms of self-reported daily readers, the percentages of nonreaders, and the amount of daily time dedicated to reading. If nearly all internet surfing and social networking is text-based how can this be true? Is this true for today's teens or is this data more reflective of teens from previous decades with less (or no) internet access?

Reading on the Rise is the NEA's latest report on reading, released in January of 2009.[iv] It was rolled out with great fanfare about the increase in reading, especially among adults ages 18-24. What the media hype failed to report was that this survey (once again) asked only about print-based reading and asked only if the participants had read a work of literature: a novel, book of poetry, or a play in the past year. From the NEA perspective, nonfiction reading does not count, nor does non-print based reading. When the NEA repeated the question from the 2002 study asking if participants had read any book that was not for work or school in the last year, the results were unchanged. Because they continue to disregard nonfiction, digital reading, and audiobook listening, the NEA reports represent a small slice of the actual reading habits of today's teen readers.

In contrast to the NEA, The Pew Internet and American Life Project is one of the only national organizations to address the digital literacy activities of 21st century teens. The 2004 report, "The Internet and Daily Life," addressed leisure readers who read online, but like most of the Pew studies, it was a self-reported survey result.[v] Only 5% of respondents reported doing the majority of their leisure reading online. Has this changed in the last few years? Is it significantly different among teens versus the adult readers of the Pew study? One recent study on teens' digital literacy activities, "Writing, Technology, and Teens," reported that even teens who claimed high levels of these literacy activities do not consider them to be "real" reading or writing.[vi] This attitude is another key reason for underreporting of teen leisure reading levels, and it is probable that teens' dismissive attitude toward digital literacy activities stem from the attitudes and beliefs of their teachers and parents; another

indication of the divide between today's teens and older adults. More support for the important role digital media play in the lives of teens can be found in the Pew report, "Teens and Social Media" (Lenhart et al. 2007), which reported that 59% of all teens surveyed regularly participated in online creation activities, from reading, writing, and sharing fanfiction, to reading and posting to blogs, to remixing online music, images, and videos.

The Kaiser Family Foundation (KFF) has conducted research similar to that reported in the Pew studies. A key report of the KFF was the report, *Generation M: Media in the lives of 8 to 18 year olds*.[vii] This report is a comprehensive overview of the many different kinds of media that are part of the daily lives of youth, from iPods to home computers with internet access (74% in 2005) to cell phones and TVs, the many and rapid changes of the last few years, and the effects that it has on the lives of young people. The data in this study was drawn from a nationally representative sample of 3rd to 12th grade students, and again, like most of their studies, relied on self-reports and the questions that the researchers thought to ask; because of this some types of online literacy activities may be missed because they are not known to the researchers.[viii] A small subsection of the participants filled out media use diaries, which did allow for additional activities to be described, but not soon enough to be part of the larger survey. Some key results are that computer use has greatly increased over the years, but the amount of time dedicated to print stayed the same, 43 minutes per day. This stability in daily reading time is in direct contradiction to the results reported in the various NEA studies, indicating that somewhere there are significant differences in ways in which these results were collected and analyzed.

Finally, in comparing heavy use of one type of reading with use of other types, researchers find that those respondents who are heavy readers are also likely to be heavy TV watchers or computer users. This matches exactly with the results of the Audio Publishers Association annual surveys on audio use, which found that print readers are more likely to be listeners than non-readers.[ix]

Purpose and Guiding Questions

Are teens really not reading as much as they did in the past? Are teens reading, but in nontraditional formats that cause underreporting? If the research conducted by the NEA focuses exclusively on print literature reading, what about all the teens who do all their reading online or in digital formats?[x] What about the teens who listen to audiobooks? If the questions are only concerned with literature, then how are we counting the many people who read nonfiction, newspapers, magazines, and websites?

Teens today may be reading just as much as teens in the past, but their ways and types of reading are so different from the older generations who create these polls and studies, that they are not accurately capturing the true levels of adolescent literacy leisure activities. One way to address these questions and start to gain deeper understanding of the new ways of reading is to study readers' preferred formats for reading. Do teens prefer print books, e-books, or do they prefer to listen to audiobooks? Can they comprehend at the same level across all formats? Do they comprehend best when reading in their preferred format, or is there a format in which most teens comprehend best? Do teens report being more engaged and/or interested in leisure reading texts in one format over another? By knowing more about reading

format choices and comprehension, self-reports of reading habits will have increased validity and the questions can be tailored to reflect these new developments in reading.

Literature Review

This chapter reviews the current state of the research literature for audiobooks and e-books, and discusses the implications for library services and collections. As audiobooks increasingly come digitally and e-books provide text-to-speech functions, the lines between these two once distinct formats is blurring. Additionally, several of the key studies in these areas use both audiobooks and e-books separately or together.

The research included in this review is drawn from a variety of disciplines: library science, education, psychology, and even medicine, in the form of journal articles, dissertations, reports, surveys, and blog posts, up through November 10, 2010. Library and Information Science Full Text Abstracts (LISTA), Library Lit, ERIC, Science Direct, Education Full Text, Digital Dissertations, and Google Scholar were all searched using audiobook* as keyword, and the search string “kindle OR nook OR e-book” OR "e-book." No date limitations were used in the search, but the newness of these formats heavily weighted the results to the last few years. There was a longer history of audiobook research, but it is more limited in nature. E-book research has been considered for several years in education and psychology, but only recently has made its way into LIS. Most of the published materials on e-books is found in the professional literature and is not research-based. Additional materials were located by tracking down citations in news stories and in the reference lists of key articles. All located pieces (books, chapters, reports, articles, papers, news

pieces) that reported on research, or are research-based and thus useful for librarians working with readers or listeners, are included in this review.

Audiobooks

Over the last 10 years audiobooks have moved from a small part of most public library collections that had a few dedicated listeners (often with long commutes) and an almost non-existent commercial market to being a favorite for library patrons. The advent of affordable and easy-to-use personal digital music players which supported audiobook files, the creation of online downloadable audio collections aimed at the consumer market like Audible.com, gradual growth in digital audiobooks that can be checked out by library patrons, and widespread popular interest in audiobooks, have all led to audiobooks being one of the fastest growing and successful formats for both libraries and consumers. Audiobooks have also become increasingly accepted in classrooms and school library media centers and are even showing up in academic library collections. Clearly, the format has become an integral part of library collections and services and with that comes the need for understanding the research about audiobooks and listeners.

This section of the chapter is divided into 3 sections, LIS research prior to 2006, Education and other research pre-2006, and Research published from 2006 to 2010.

Research Based Readers' Advisory: Library and Information Science and Industry Research and Practice pre-2006

Research Based Readers' Advisory by Jessica E. Moyer is the only LIS publication that reviews research on audiobooks and audiobook advisory.[xi] Below is a condensed overview of the Research Review section of Chapter 4, which reviews LIS research, some educational research, and industry research, all prior to 2006, but after 2001, an indication of the new and growing nature of this area.[xii]

Chronologically, the first audiovisual advisory publication appears in *The Readers' Advisor's Companion*, "Viewers' Advisory."[xiii] The title of Randy Pitman's chapter, "Viewers' advisory: handling audiovisual advisory questions," leads readers to believe that this chapter will either be a how-to for audiovisual readers' advisory or some research on audiovisual readers' advisory. Instead, the chapter turns out to be a conglomerate of suggested places to look for AV information any reference librarian should know, with irrelevant personal opinion, a nearly complete lack of analysis, and a disappointing reference list. The last section, 'Nontheatrical video,' provides librarians working with AV a list of sources for reading about and finding videos. For librarians looking to become better readers' advisors for AV materials, or AV librarians wanting to learn more about doing advisory for their patrons, look elsewhere.

Fortunately for eager AV advisors there are some other useful publications. *Nonfiction Readers' Advisory* includes an excellent practice-focused chapter by Michael Vollmar-Grone, "Hearing and seeing: the case for audiovisual materials."[xiv]

Vollmar-Grone starts his chapter with a review of audiovisual materials over time, from the first time a presidential election was broadcast over radio (1920) to the increasingly prominent role of the mass media in today's popular culture. Vollmar-Grone's use of terms and definitions is commendable; 'audiovisual materials' instead of the utterly generic 'nonprint materials' and 'information materials' instead of 'nonfiction.' Vollmar-Grone also includes a brief section on the historical role of AV in public libraries, which is important for understanding the role of AV in today's public libraries, which leads into a discussion of reasons why AV is under-utilized by librarians.

Vollmar-Grone's next section is one of the longer ones, but also very important and relevant – media literacy in today's media-saturated world. This chapter may be a few years old but media literacy is not only still a big issue, it is more important today than it was in 2001 due to the proliferation of digital and "new" media. Vollmar-Grone does an excellent job addressing the tension between media as entertainer versus media as an informer. Librarians working with teachers (and administrators in some libraries) may need to work hard to overcome this tension and Vollmar-Grone's clear discussion of these issues will certainly help.

In the last section Vollmar-Grone moves into the practical challenges affecting readers' advisors. First, he points out that all readers' advisors should also be viewers' advisors and listeners' advisors – the goals are the same: helping people find what interests them. This is such an important point and it is heartening to see Vollmar-Grone make it right at the beginning of this section. Two pages of

guidelines follow for readers' advisors working with listeners and viewers, and the chapter concludes with an excellent annotated list of suggested resources.

In "Special Needs/Special Places," in *Reading and Reader Development*, Judith Elkin brings an international research oriented perspective to this discussion.[xv] Elkin's focus is readers' advisory for patrons with special needs, which she defines broadly: "The range in disabilities is wide and includes motor, visual, aural, intellectual and emotional. Many of us probably have disabilities which are not even acknowledged as such."[xvi] Many of the readers included in this category are best served with audiovisual materials and in particular, audiobooks.

As in other chapters of *Reading and Reader Development*, Elkin does an excellent job reviewing the research in this area. She starts with a particularly important section, "Value of reading for people with special needs," which supports the premise that reading can be particularly important for people with special needs, as "people find what they need in what they read."[xvii] By providing this review of research related to the value of reading for patrons with special needs, Elkin gives libraries the knowledge that there is such research and a place to go when they need to find it. In this section, Elkin includes two important quotes, powerful enough to bear repeating here in their entirety. Mathias, quoted in Elkin:

"Books are not just print, they are sound and vision, large print, large format, CD-ROM. Books can be read using eyes, ears, hands and fingers.... Reading should be a pleasure not a punishment, and there is joy, satisfaction, and achievement in encouraging any child to read independently, but even more so when the child has special needs."

"In the context of reading for adults with special needs, reading might be defined as being about the right book in the right format for the right adult at the right and in the right place. Almost inevitably, libraries and librarians play a significant role in ensuring this is a reality."[xviii]

For librarians who do readers advisory, Elkin's next section, "Reading and people who are visually impaired," will be useful as many visually impaired readers who listen to audiobooks often have the same preferences and needs as sighted patrons who enjoy audiobooks. Elkin urges all library programs to be welcoming to listeners as well as readers. In order for listeners to make an informed choice, they will likely need a variety of information about an audiobook, information that is not always provided in traditional online library catalogs. Lastly Elkin describes a new partnership in the UK. As part of the *Branching Out Projec*t, the National Library for the Blind has shown how popular audiobooks can be when marketed in the library to all patrons. National Library for the Blind has also partnered with *Branching Out* on other projects to make libraries generally more inclusive and welcoming to visually impaired patrons of all ages.

The next article moves away from the research and book-based publications to a more practical, but very important, article on readers' advisory and audiobooks. From the Readers' Advisory column of *Reference and User Services Quarterly* comes one of the keystone articles in audiovisual readers' advisory. In "Reading with your ears," guest columnist Kaite Mediatore presents a well-researched and accessible article on readers' advisory for audiobook patrons.[xix] As commutes become longer and readers' lives busier, more and more library patrons are turning towards

audiobooks. Patrons have a perfectly justified desire to have readers' advisors help them find good listens just as they expect help finding good reads. Mediatore reveals that like leisure readers, audiobooks listeners are everywhere and everyone. There is no one age group or demographic that doesn't listen to audiobooks. And most audiobook readers are also avid readers (and already likely patrons of readers' advisory services).

Using many of the aspects of a traditional print readers' advisory interview, Mediatore gives plenty of practical, yet research-based suggestions on readers' advisory for listening patrons. In her section on appeal, Mediatore targets one of the most important and unique aspects of listeners' advisory, the narrator. Regardless of the plot, the narrator can make or break a listening experience. Additionally Mediatore points out, for some listeners, the narrator trumps genre or other preferences. Some listeners will give anything Barbara Rosenblat or George Guidall narrates a try, regardless of the type of story. Mediatore also talks about books that don't translate well to audio, because of the style of the writing or the special effects of the print. One recent example is Mark Haddon's popular the *Curious Incident of the Dog in the Nighttime*. The text includes many puzzles and other visual effects, which cannot be conveyed in an audio version. Consequently, readers' advisors need to remember that not all print makes a good audio.

Mediatore cites some important research conducted by Harriet Stow and the Collection Development Committee of the Arlington, Texas PL which indicates that more than 80% of readers prefer unabridged audiobooks, regardless of whether they want to read nonfiction or fiction. Even nonfiction readers, traditionally thought to

prefer abridged, are found to prefer the unabridged so they can control the reading experiences and listen to the sections they want, not the sections someone else has deemed the best.[xx]

Mediatore also adapts the ever-popular readers' advisory tactic of how to read a book in ten minutes, to "Listen to a Book in Fifteen Minutes."[xxi] Using this clearly outlined strategy readers' advisory librarians can quickly and painlessly make themselves familiar with a variety of audiobooks.

Greg Morgan provides an international view of audiobooks and services for print disabled readers in "A word in your ear."[xxii] Morgan describes the Royal New Zealand Foundation for the Blind (RNZFB) and its upcoming initiative to transition from cassette tapes to the DAISY digital talking books for print-disabled readers in New Zealand. This article is valuable mostly for librarians who are interested in how other countries serve print-disabled readers. It describes and discusses the DAISY format for digital audio, which has been internationally adopted and is designed for print-disabled readers to be able to navigate the text with the same facility as a sighted person with a printed book.

In *Public Libraries*, Hampton Auld has written one of the few articles published in an American library and information science journal that addresses the same topics as Elkin and Morgan.[xxiii] As the first part of the *Perspectives* column in *Public Libraries*, Auld discusses the Talking Books Program, established by Congress in 1931 and administered by the National Library Service for the Blind and Physically Handicapped (NLS) at the Library of Congress. The essay by Jim Scheppke is worth reading for its view of how libraries in other countries are

providing digital audio to library patrons, such as the Netherlands, where in 2005, patrons had access to 30,000 digital audiobooks.[xxiv] Scheppke also provides valuable research on the Talking Book Program in Oregon and five other states.

The last article in the library literature about audiobooks comes from the May 15, 2006 issue of *Library Journal*.[xxv] Ann Kim provides a positive view of audio downloading programs, particularly the Recorded Books/NetLibrary program from OCLC. What this article fails to mention is (at that time), none of these programs supported iPods, the dominant device in the digital audio market. It misses the most critical question: should libraries spend money and staff time on a program that will miss 80% of potential listeners?

Additional research and related publications for audiovisual readers' advisory comes from the bookselling and AV industries. Aimed at booksellers, Eileen Hutton's short (and opinionated piece) in *Publisher's Weekly* has both good advice for librarians and some great facts: "More than 97 million people drive to work solo each day and the average delay due to traffic congestion has tripled in the last 20 years."[xxvi] Hutton thinks bookstores are prejudiced against audio, frequently hiding it in the back of the store and giving it little advertising space. There are probably a few libraries that also make this mistake. Hutton makes some excellent suggestions for increasing awareness of audio among staff and patrons. For example, "when a customer asks for a new book by Nora Roberts the best response is: "Do you want the hardcover, cassettes or CD?"[xxvii] Or now we should add "would you like to download it to your digital audio player?" That will get both staff and patrons thinking about the different formats available and hopefully decrease some of the discrimination

against audio. Hutton also suggests the tried and true readers' advisory training strategy of getting staff to start a listening program. "When sales people become audiobook addicts, they pass on the addiction to customers."[xxviii] Lastly, Hutton provides some suggestions for increasing visibility of audiobooks, including the suggestions of including the audio version at every book signing and always shelving the audio alongside the print in any displays.

Robin Whitten provides the one source of data on the audiobook publishing industry in, "The Growth of the Audiobook Industry".[xxix] Additional and more recent information can be found in the 2006 press releases from the Audio Publishers Association.[xxx] In terms of formats, downloadable audio continues to grow, increasing from 6% to 9% of the market. A significant portion of users of MP3 player have downloaded digital audio, making digital audio the fastest growing area. Compact disc usage also continues to grow, up from 63% to 74%, while sales of cassettes are on the decline, from 30% to 16%. Fiction persists in dominating the market at 58%, but nonfiction makes up a healthy 32%, marking the trend of popular nonfiction, noticed in recent years by many readers' advisors. In general, publishers report publishing more unabridged titles and fewer cassettes, in some areas eliminating cassettes entirely from production.[xxxi]

The data on audiobook readers tells librarians a lot about the listening patrons they are most likely to serve in the library. Nearly 84% of respondents had attended college, making audiobook listeners a well-educated group. Listeners have higher incomes and many have children. They also read printed books, with more than 94%

indicating that they have read a print book within the last twelve months. Listeners are readers, too.[xxxii]

Listeners still greatly prefer unabridged listening and most listeners who purchase their audio do so at physical stores (as of 2006). The percentage of titles borrowed from libraries has also increased, from 38% in 2001 to nearly 52% for 2005. "The most important factors for consumers when selecting audiobooks are price, availability on CD, author, description and narrator." How do consumers actually select audiobooks? More than 40% use websites and recommendations from friends and more than 30% use information provided at the bookstore and/or on bestseller lists. Libraries barely break 30% even though more than half of audiobooks are borrowed from libraries. One good note is that the more titles a listener listens to in a year, the more likely the listener is to ask a librarian for a suggestion.[xxxiii]

Audiobooks: Additional Education Research prior to 2006

The educational literature is rife with examples of ways audiobooks have successfully been used in the classroom.[xxxiv] One example is in a lunchtime book discussion group for English language learners, in which students improve their language skills while enjoying the same popular books as their classmates.[xxxv] Others like Gillie Byrom's early study on using audiobooks with struggling readers suggest great potential for use of these alternate formats.[xxxvi]

R. M. Casbergue & K. Harris's literature review is an excellent summation of pre-1996 research on listening and literacy.[xxxvii] Their review notes the importance of

hearing stories for both younger and older children, and segues neatly into an argument for including audiobooks in the curriculum. This was the first article to note a now commonly accepted trend in the increasing quantity and high quality of audiobooks for children and teen readers. The remainder of the article gives many examples of ways that incorporating audiobooks into reading classes could benefit students (with ESL students, struggling readers, etc.,) all of which are also discussed in the articles on practical applications. They conclude with a section on selection of audiobooks, which is technically out of date, but does make the important and still valid point that abridged texts are to be avoided as it denies students the joy of being involved with the complete, authentic text and reading experience.

One of the only studies of library users of audiobooks, John Yingling's 1998 thesis gathered data on the audiobook listeners of a public library and many of the conclusions are still valid for library collection development.[xxxviii] Unabridged productions are greatly preferred over abridged, listeners place little significance upon an actor or actress as narrator, and subject is one of the most important factors in selection of titles for checkout. Interestingly, Yingling found that a significant number of the listeners did not visit the print books section of the library, showing that there is a dedicated listening audience.

Teachers, and to a lesser extent, librarians, may be suspicious of audiobooks and not willing to allow them as a substitute for "real reading." Pam Varley's essay in *Horn Book* should go a long way toward changing minds and helping teachers feel more comfortable allowing children to "read" audiobooks just as often as they read print books.[xxxix] Varley's essay is unique in that she discusses the historical use and

attitudes towards audiobooks and education, and addresses the traditional differences between adult and children's use of audiobooks. By combining quotations and research from both education and LIS, with excellent examples from recent audiobook productions, Varley makes her case relevant to teachers and all types of librarians.

Irene-Anne Diakidoy et al. studied children's listening and reading comprehension in both narrative and informational texts, one of a few recent studies to compare the different types of comprehension across texts and formats.[xl] This ambitious study not only compared children's comprehension in two formats and two types of reading materials, but repeated the research with 612 children at different grade levels, grades 2, 4, 6, and 8, enabling them to note any changes in comprehension abilities across age groups, from early readers to accomplished teen readers.

Diakidoy et al. found that the relationship between listening and reading comprehension becomes stronger after children have mastered decoding, meaning that readers who have mastered basic reading skills have strong positive relationships between reading and listening comprehension, and that listening comprehension does not exist independently from reading comprehension. The researchers also found that the differences between listening and reading comprehension decrease with grade levels, and older students were more likely to have equally good or higher reading than listening comprehension, while younger students often had better listening comprehension. Finally Diakidoy et al. found that over all age groups reading and listening comprehension were weaker with informational texts than with narrative

texts. This last find has limited relevance for this paper, but great relevance for children's and adolescent literacy as it shows definitely that regardless of the format, children and teens are weaker at comprehending informational texts, the same texts that are required for all their subject area learning in secondary schools.

In regards to audiobooks, this research shows the importance of fostering children's listening comprehension, both for younger listeners who are better at it than reading comprehension, and for older readers who still need to practice listening comprehension. The weaker comprehension of informational texts could also be remedied with additional listening time as there are an increasing number of nonfiction audiobooks for younger listeners.

Audiobooks: Education, Library and Information Science and Psychology Research since 2006

Many of the recent publications about audiobooks continue to revolve around awards and new technologies, and while important developments, these items contribute little to the understanding of audiobooks and reading. However, they are of critical importance to librarians as they decide which formats to purchase – should libraries still buy cassettes? Regular CD's or MP-3's? If libraries go with digital audio, then which system is best for their users? What about the new self-contained audio devices, Playaways?

Articles such as Susan Hoy's overview of spoken word materials and downloadable audio services for libraries, including formats and devices, are essential reading for busy librarians.[xli] She also considers collection development issues and

emerging audio and playback technologies. S. Maughan authored one of many articles to note the trend in digital downloadable audiobooks, an increasingly popular option with patrons, consumers, and libraries.[xlii] And J. Milliot wrote the first of several articles announcing publishers and retailers are dropping the cumbersome and frequently problematic Digital Rights Management (DRM) encryptions.[xliii] This culminated in the announcement in early 2009 that Apple is dropping DRM for all the songs in its iTunes store. Since Apple and iTunes have been a leader in digital audio and the use of DRM, this is likely an indicator that DRM is (fortunately) becoming a thing of the past.

For all things digital there is one single paper that addresses digital audiobooks, specifically for the library market, the 2007 Library Technology Report.[xliv] Although in some aspects it has already become outdated, it is still the best resource for understanding the complex world of digital audiobooks. In addition to a complete listing of web based sources for digital audiobooks, Tom Peters makes clear the rather murky and confusing issues surrounding DRM and Apple's iPod mp3 player. Written by and for librarians, this report is also full of references and research, making it more than just a practical contribution.

Jan Engelen compares and contrasts the long established audiobook market for visually impaired readers, with the booming commercial audiobook market, from a European perspective, a useful update and alternative to Auld's "Perspectives" column from 2005.[xlv] With a practical emphasis and covering a wide range of materials, this would be especially useful to librarians working with visually impaired listeners or those considering new or revised programs or technologies.

Other recent practice-oriented publications include case studies such as "Audiobooks on iPods: Building a program for a research library" which details a case study of an academic research library that created an iPod-based audiobook collection for patrons with focus on leadership and management skills.[xlvi] iPods were also loaded with podcasts and eventually video seminars. In addition to describing how the program was created and how it worked, Nancy Allmang also covers the difficulties in dealing with DRM.

Teachers and librarians new to audiobooks may be unfamiliar with the qualities of a good audio production, and in need of a quick guide to evaluation. In "Sounds Good To Me," school librarian and chair of the inaugural Odyssey Award, Mary Burkey has written just such an article, a brief overview of the important qualities and elements present in a good audiobook production.[xlvii] A. Cardillo and other industry experts contribute a useful article that covers three distinct types of audiobook recordings, along with some rationales for using audio with children and teens. The industry viewpoint makes this unique.[xlviii]

Recent educational articles emphasize the practical aspects of using audiobooks in the library, school library media center, or classroom, or case studies such as "Getting teens to read with their ears," which showed how one school librarian successfully used Playaways to reach out to busy high school students.[xlix] Teachers and librarians interested in using audiobooks, but in need of convincing research or publications, will benefit from the well researched article by R.C. Clark, in which she succinctly notes, and then rebuffs, the arguments against audiobooks.[l] Clark also mentions the challenges of introducing audiobooks and most importantly,

using research, shows the importance of listening comprehension and its use as an indicator of later success.

Written entirely from the education point of view and with a more comprehensive literature review, G. Wolfson covers much the same ground as Clark, focusing on the value of using audiobooks.[li] Wolfson deals exclusively with adolescents, whereas Clark's article is more generally focused on all youth. In addition to the Guidelines and Suggestions for use of Audiobooks, Wolfson has an extensive research-based section on why adolescents should be using audiobooks as part of their language arts curriculum, focusing on such important topics as allowing struggling readers to focus on the words and the story instead of struggling to decode, allowing all students to enjoy and experience the same texts, regardless of reading ability, and developing or honing listening comprehension skills. Up to date, clear, and to the point, this is the perfect article to give to an administrator or teacher reluctant to use audiobooks and any librarian not yet convinced of the value of spending precious collection dollars on audio collections.

Joel R. Montgomery's paper includes an extensive literature review similar to Clark and Wolfson that also includes some more recent works.[lii] Sections on the consequences of below grade level reading, and fluency and comprehension for native English speakers and Second Language Learners are especially helpful for school library media specialists. Examples of tested techniques using audiobooks in practice at libraries and classrooms will be useful for all librarians interested in working more with youth and audiobooks.

Brett Cooper contributes an action research article based on a year long

project conducted in his classroom.[liii] Inspired by a student who had difficulty with silent reading, he used audiobooks with small groups during silent reading time. At the end of the school year, ten students were reading significantly above grade level and one was significantly below grade level. Fifteen students increased more than one and a half grade levels. Nine students increased about one grade level and two students showed limited growth. Six students showed growth of more than two grade levels. Cooper concludes that books on tape do have a positive impact on students' test score results and comprehension. At-risk students were able to improve up to the basic level and a few up to the proficient level. The basic and proficient students were able to increase their levels, with many improving to the advanced level. Students also showed improved attitudes toward reading, especially those reading below grade level and reluctant boy readers.

There is a small, but significant collection of purely research-based articles on audiobooks, and most have been published in the last few years, another indication of the growing popularity of the audiobook among all age groups. These works come from education, library and information science, medicine and psychology, showing the multi-disciplinary nature of studying reading and audiobooks.

In B. Winn et al., the scholars rely on the research about teaching children and adolescents reading skills,when developing new ways of teaching adult learners.[liv] The same argument can be made in reverse, that strategies and research that apply to adult learners, can also be applied to adolescent students. Winn et al., focus on fluency and the cognitive limitations of slow and struggling readers that limit both fluency and frequency of leisure reading. "The importance of developing fluent

reading in order to enhance reading skills and appreciation of literacy."[lv] The researchers use two strategies, repeated reading and listening while reading, which can be applied to audiobooks. Here it is used as a more able reader reads the text aloud while the struggling reader follows silently along with a copy of the text.

The same method can be reproduced using audiobooks as readers can listen and follow along on the printed texts at the same time. One advantage of using audio is that the student has some privacy and another person is not required in order for the student to practice reading. Winn et al. found that there were no significant differences between the students who were in the repeated reading condition or the students in the listening while reading condition, but both conditions had significantly higher scores than students who were in the control group and didn't use either strategy. While this research did not use audiobooks, it does provide strong and convincing evidence for the use of audiobooks with struggling readers of all ages and the need for more research that studies links between listening and reading comprehension.

Using students in grades 2 and 5, Syed Stone Harris studied the effect of audiobooks on reading comprehension, but unlike previous studies found no significant differences in comprehension between students who read books and students who listened to audiobooks. Some of the results do point to higher gains made by the younger students, which does match up with the results found by S. Grimshaw et al and others.[lvi]

Studying students in upper level elementary grades who had been diagnosed with a reading disability, Kelli Esteves looked at the efficacy of using digital audiobooks paired with print texts, versus traditional print books, during silent

reading times. She found that the students in the audio-assisted group made much more significant gains in reading fluency, more evidence for the impacts of audiobooks on struggling readers.[lvii]

From psychology, Christopher A. Kurby et al. write about Auditory Imagery Experiences (AIEs), which occur when readers simulate character voices while reading.[lviii] This project assessed how familiarity with voice and narrative context influences activation of AIEs. Participants listen to dialogs between two characters. Faster responses to matching than mismatching voices were consistently obtained for familiar scripts, providing evidence for AIEs. Transfer to unfamiliar scripts only occurred after extended experience with character voices. These findings define factors that influence activation of speaker voice during reading, with implications for understanding the nature of linguistic representations across presentation modalities. A similar claim might be made about the perceptual features of textual speech – readers should experience AIEs during comprehension if perceptual representations of the character's voice are present in memory to support such imagery. In a related work, Teppo Sarkamo et al. studied stroke patients and the effects of music and audiobooks on long term gains in verbal memory and early sensory processing, concluding that listening can have significant positive effects that may lead to recovery of higher cognitive functions.[lix]

Ann Milani et al. studied children and adolescents with dyslexia in an experimental design using school and leisure reading texts.[lx] Students in the control group continued to use printed texts, while those in the experimental group used audiobooks. Milani et al, found that the students using audiobooks experienced

significant improvements in reading accuracy, gains in general school performance and motivation and engagement for involvement in school activities, strong evidence for the importance of using audiobooks with struggling or learning disabled readers.

Patrick Lo, in a paper presented at 2009 IFLA World Congress, conducted a similar study, looking at Naxos Spoken Word Library (a digital audiobooks collection) and children's motivations to read with 5th and 6th grade students in Hong Kong.[lxi] Lo found that the availability of the digital audiobooks collection in the school libraries did not increase student's motivations to do leisure reading or listening, and that girls were more likely to use the library for leisure reading or listening and use the Naxos collections. He attributed these results partially to a lack of materials that interested many of the student readers, especially the boy readers, and concluded that if the library is to succeed in attracting and motivating readers, but especially boy readers, then the collection needs to better reflect their interests, a result that is relevant to all types of libraries serving listeners.

Matthew Rubery, a humanities scholar, overviews recent development in digital and audiobook technologies, in a manner designed to be understood by non-specialists, a useful summary for librarians without a technical background.[lxii] He also makes connection between today's audiobooks and the popular pastime of the Victorian era of reading aloud and reflects on attitudes towards reading aloud and listening to audiobooks.

Duncan Ross' survey has implications for audiobooks as he finds that over 40% of current library users own an iPod and 30% another mp3 player and almost 70% of library patrons already listen to some form of audiobooks.[lxiii] Unlike the APA

data which shows heavy use among younger listeners, the majority of patrons who borrowed library audiobooks were over 50, and the library was their primary source for audiobooks, with the far distant second choice the Internet, followed by iTunes.

There a few detractors who are opposed to audiobooks, but these are found primarily in the visually impaired community and their arguments revolve around those who learn Braille and "read" texts, versus those who get all their "reading" through listening. Some researchers are concerned that those who only listen may fail to develop certain areas of the brain and that members of oral societies think differently than those of literate societies, and their concerns are being validated by brain imaging studies, but these results cannot be generalized to the larger population.[lxiv]

E-books and Online Reading

This section of the literature review is also in three parts, the first on online reading, a complementary research tradition that greatly informs what we know about e-book reading, the second on e-books used in the classroom that are not on dedicated e-book readers, and a section devoted to research and publications that used dedicated e-book readers, such as the Kindle, Nook or Sony Reader.

Online Reading

There is very little research, specifically on e-books and e-book readers. There are plenty of articles that discuss the e-book readers and their technical features, but very few that talk about the e-book reading experience or use e-books or e-book readers as part of the research design. Because of this, I have chosen to

include the research on online leisure reading and extend the findings to e-book reading as appropriate. Even then research on online reading is much smaller than that on audiobooks because it is so much newer. Online reading has only existed since the early days of the personal computer and has only been widely popular since the mid 1990's explosion of home computers and worldwide web access. Research often trails practice and thus there are only a few years of research with which to contend. While the research on audiobooks was limited before 2001, because books on tape and even books on LP have been collected by libraries for many years, there is a more substantial body of practice articles and librarians, as a general rule, seem to have some basic knowledge of audiobooks. None of this is true for e-books and online reading – these formats are too new to have really permeated the library world. As a result, nearly all the research comes from education, or, more recently, publisher and marketing reports.

There are hundreds of articles and book chapters on online reading, but nearly all focus on online reading in terms of information seeking (e.g., Coiro & Dobler), particularly in the library science literature. In this section I am looking only at those articles that touch on leisure reading online. This includes reading and writing instant messages, reading and writing fanfiction, and searching for online reading for leisure. Studies that focus exclusively on classroom practices or uses of online reading solely for instructional purposes are also excluded, but any classroom based study that involved silent reading time or choice in reading materials is included.[lxv]

Grimshaw et al. is the first article to be addressed in this section because it included both e-book and audiobook components, overlapping with the previous

section.[lxvi] It also included a more recent and comprehensive overview of e-book research. In terms of previous research, the literature review section includes key information on both audiobooks and e-books. Grimshaw et al. discuss the research on the value of audio for struggling readers as it helped reduce the amount of working memory devoted to decoding, allowing the readers to focus on meaning and general comprehension, both key features of leisure reading. The dynamic cues provided by narration, sound effects, and emphasis of audiobooks go beyond printed texts in terms of assisting readers in integrating the meaning of the text.[lxvii] Previous e-book research has found that when reading challenging texts readers using the e-version with integrated dictionaries and pronunciation guides had higher comprehension scores than children who would have had to ask an adult in order to gain the same information.[lxviii] Some studies also show that children were more eager to engage with the e-books and more motivated to do the reading task than those assigned to print conditions. Even if this is somewhat related to getting to use a new toy, anything that increases children's engagement and motivation needs to be considered.

The RAND Reading Study Group was one of the first to publicly acknowledge the changing nature of texts and reading, noting "electronic texts that incorporate hyperlinks and hypermedia introduce some complications in defining comprehension because they require skills and abilities beyond those required for the comprehension of conventional, linear print."[lxix] Julie Coiro built on this in her work on online reading comprehension focusing on understanding the complex nature of online reading comprehension.[lxx] Coiro is an excellent overview of online reading and comprehension and the research surrounding it, as of 2003.

In a follow-up study Coiro and Dobler used a selective sample of 11 highly skilled and able sixth graders in a qualitative study using verbal protocols and interviews. They concluded that online reading in terms of computer-based, web-based reading (not necessarily leisure reading) was more complex as it required all the elements of print reading plus more complex applications of prior knowledge, interferential reasoning, and self-regulated reading processes. One reason for these additional levels of complexity may be that online reading prompts self-directed text construction in ways that are significantly different from print reading.

Another overview of online reading comes from D. J. Leu & L. Zawilinski, with an emphasis on the implications of new literacies and online reading for the classroom.[lxxi] As school media specialists need to work closely with teachers, this article is an excellent choice for them. Leu & Zawilinski argue that today's students' reading and writing lives are based around computers and the internet, and thus instructional strategies that teach and recognize the more complex comprehension required in this medium are essential in today's classrooms if educators are going to successfully teach today's children. Their article includes several steps for integrating the internet and computers into classrooms in thoughtful ways that help students at all socio-economic levels prepare for the literacy skills needed in the not too distant future.

In an early study of college students and online reading E. Ramirez found that most students (78%) preferred print, and only 18% preferred digital.[lxxii] However, that data is now more than six years old, which is a long time in rapidly evolving technology, and likely did not include students who had grown up reading online.

Today's 18-year-old college students are likely have been reading online their entire lives, since they were born around the time of the advent of graphical web browsers and the explosion of the worldwide web.

Published shortly after, Z. Liu's first study of online reading consisted of older readers (born between 1960 and 1975) and finds a strong preference for print (over 90%), with only 3% preferring digital formats for reading.[lxxiii] With only a ten year gap between the subjects in Liu and Ramirez, already there has been a significant increase in preference for digital reading, with more than six times as many respondents preferring digital reading. Clearly this is a rapidly changing area of reading, especially among younger readers.

Online reading with college students has also been recently studied in terms of gender differences.[lxxiv] Researchers found that when asked about their preferences, female students had a significant preference for print while male students were more willing and more satisfied to read online. While not addressed in this study, one likely result for this explanation is that female students read more fiction and fiction reading is more commonly done in print, whereas the male students are reading more nonfiction which can just as easily be read online, and in fact may be more readily available online. While this study was conducted with Chinese college students, there is no reason to believe that these results would not be generalized to college students in other countries. In comparison with research on American readers, Liu & Huang reported that Chinese students were more likely to prefer online reading and less likely to print out materials that could be read online. There are many possible explanations for this result, not the least of which is less readily available access to

paper and printers for the Chinese students. Liu & Huang concluded that the main drawback and reason for less online reading is because of readability. While the issue of readability is valid for computer and screen-based reading that relies on backlighting technology, the new e-book readers that use e-ink technology and no backlighting do not have this major obstacle. While Liu & Huang's results are interesting, the major drawback is that the entire study is based on self-reported data. It does, however, provide some interesting points for further research.

Fanfiction, a creative form of writing in which the writers based their stories and characters on existing stories and characters, is an increasingly popular literacy activity among teens as it has become a wholly online activity, moving from its original underground or zine-based roots to the worldwide web. Two recent studies explore teens and fandom in general in terms of multiple literacies and critical media literacies.[lxxv] As fanfiction is rarely (if ever) part of regular school assignments, by its very nature, it is a leisure time or out of school literacy activity. As fanfiction involves reading just as much as it does writing, it is also an important source of leisure reading, and one that I think is likely to be overlooked when counting teen leisure reading activities.

Kelly Chandler-Olcott and D. Maher work from the hope that understanding teens' out of school literacy practices will better help in making school literacy activities more meaningful and engaging for students.[lxxvi] In this study, the fanfiction in question is based on Japanese manga, illustrated comics that resemble (but are not identical to) American graphic novels as they are more of a cross between the narrative stories of graphic novels and the format of older style comic books. This

case study of two teen girls' uses, interactions, and creations of fanfiction is an excellent example of the ways in which online reading is an important part of leisure reading. It is also an excellent example for understanding fanfiction in the context of multiliteracies, an important theoretical framework for many working with online reading.

Working from the same background as Chandler-Olcott & Maher, Cynthia Lewis & Bettina Fabos' 2005 article is a case study of seven teenagers who regularly engage in instant messaging.[lxxvii] This qualitative study finds that language, social networks, and surveillance are the three most important aspects of instant messaging for these teens. Teens were easily able to manipulate all of these to create the social worlds of their choice, one that is not necessarily transparent or even comprehensible to older adults. While language is still an important part of instant messaging, I would argue that much of this article is already dated as teens rarely engage in extended chat sessions that are outside of one of the big social networks (MySpace or Facebook) today in the ways that they did even a few years before. However, the manipulation of social networks and surveillance are still activities in which teens involve themselves even though the medium has changed from instant messaging to social networks.

William Douglas Woody, David B. Daniel, and Crystal A. Baker worked with college-age students and focused on the use of digital textbooks, an increasingly available option for college students.[lxxviii] They studied college students enrolled in an introductory course and who had indicated that they had previously used a digital textbook. The researchers found that the students reported greater satisfaction when

using print books, that they were more likely to read captions in print and that they were not likely to utilize embedded links in the digital texts. Woody, Daniel, and Baker found no gender effects and no difference in students who had previously used digital textbooks. As all of the students in this study were reading their books on computer screens instead of dedicated e-book readers, this may well account for the students' lack of interest in using the digital texts as it required more computer time. Similar results were found in "Usability Evaluations of E-books," which concluded that students who grew up reading print books may be less likely to adapt to digital texts and the resolution of the images on the screen can impact eye fatigue.[lxxix]

E-books in the Classroom

While not using leisure reading texts, J. M. Cole and V. R. Hilliard found similar results to Grimshaw et al. when assigning struggling readers to either a traditional print-based reading curriculum or a computer-based reading program that included music and video.[lxxx] This study used the culturally and ethnically focused computer-based program *Reading Upgrade* with third grade students still struggling to acquire basic reading skills. Because the audio component was not assessed in such a way as to be able to conclude that the narration had the significant impact on comprehension scores, it is not possible to draw as firm conclusions from this work. Instead, this article demonstrates the importance of motivation and engagement as the struggling readers were more highly engaged and motivated to work in the computer-based reading program. It also indicates that computer based or e-book reading may be much more appealing and comfortable for young and/or struggling readers than

traditional print reading. Lastly, it shows that formats must be studied in such a way as to remove the confounding variables that in this study make it impossible to fully explain the reason for the results.

Grimshaw et al investigated the differences between children's comprehension of popular storybooks based on medium of presentation.[lxxxi] The researchers used print versions and e-book versions, some of which included professional audio narration in addition to the electronic text. Their study used two texts, *The Little Prince* and *Magicians of Caprona*, with the second text being the only one that included narration. They found that the children (ages 8 to 15) enjoyed reading the books equally in all three types of formats, and that comprehension scores were the same across all three formats, except for the audio plus text condition which resulted in significantly higher comprehension scores. When being tested on the texts without audio, the comprehension measures took longer to complete, even though the children always had the texts to refer back to during testing.[lxxxii] In terms of interest and engagement with the texts, the type of medium did not significantly influence children's desire to finish reading the text.[lxxxiii]

This study also used a dictionary condition with two of the groups. The students reading *The Little Prince* were provided with either a print dictionary in addition to the book, or an electronic dictionary integrated into the text using hyperlinks. While there were no significant differences in comprehension in the dictionary condition, students with the e-book used the dictionary at a rate of 69% (18 of 26) versus 4% (1 of 25) in the print condition.[lxxxiv] One conclusion that could be drawn is that the children were reading texts that were at their independent reading

level, which is appropriate for leisure reading texts, and thus did not need the dictionary. The heavy use may have been due to the effect of a new feature, or possibly related to online reading habits. Wikipedia articles, for example, are full of hyperlinks for short definitions or in-depth articles. The children, who were described as very comfortable with computers, might be carrying over this habit into the e-book environment. If so, this is a good one, especially as they encounter more challenging texts.

The authors speculate that the increased comprehension scores with the audio version of the e-book could be attributed to the narration reducing "the load on working memory and that the use of correct intonation and emphasis served to integrate the text and to provide a richer context to the storyline… and assisted the integration of ideas within the storyline, making it more likely that children would make the correct inferences."[lxxxv] The use of sound effects in the audio could also have led to increased textual and contextual clues. One important finding here relates to reading ability, "Very few children found the narration to be a hindrance to them in their reading and those who did tended to be more able readers who found the narration to be too slow. Many children commented that the narration had been useful when words were difficult to read."[lxxxvi] Here the audio and text were provided together. Would this same effect with more able readers have been observable or significant if just the audio had been provided?

In a recent educational study Ofra Korat found that children who used e-books instead of the traditional print books made significantly more gains in comprehension and general reading skills than the students who interacted with the print book,

indicating that the adoption of e-books in classrooms may greatly benefit student readers.[lxxxvii] In a similar study, Adina Shamir et al. found that children who were assigned to any of the three treatment conditions that used e-books made significantly more gains in emergent literacy than children assigned to the printed book control group.[lxxxviii] Interestingly, the researchers found that when children were paired with peers and e-books, the largest gains were made.

Tricia Zucker, Amelia K. Moody and Michael C. McKenna's research synthesis is a definitive overview of the effects of e-books on literacy for elementary students, drawing primarily on educational research.[lxxxix] Reviewing and analyzing studies that used randomized trials they found that use of e-books had small effects for comprehension. Most of the studies included in this review used e-books accessed on computers or specially designed devices (not necessarily using e-ink). Zucker et al. also made the decision to have both a meta-analysis of the experimental studies and a narrative review of the studies that cannot be compared quantitatively as this made it possible to include a much larger number of relevant studies, including those most highly valued by practitioners. Their definition of an e-book is worth considering:

"Our minimum definition of an e-book requires a text presented on a computer with an oral reading option (also known as text-to-speech) and some form of hypermedia (i.e., embedded images, sounds, video, animation, and so on). E-books typically contain a combination of enhancements, such as animations or video that dramatizes the text, music, and cinematic effects that create mood, organizing

elements such as overview screens or a table of contents, interactive activities or games, and "hotspots" (i.e., animations that are activated with a mouse click)."[xc]

They found that e-books in educational settings were most likely to be used (and studied) with two groups of students: "1. young, fledgling readers in the emergent and beginning stages of reading acquisition; and 2. struggling readers or students with diagnosed reading disabilities." As this review was being conducted on research published before February of 2007 when dedicated e-book readers like the Kindle were just beginning to be used in the classrooms, it is impossible to say if this distinction will apply to newer studies. It is also unclear if e-book readers like the Kindle can be used successfully in the same way as assistive technologies with struggling readers or if they are more likely to be used as a replacement for printed texts and with non-struggling readers. One negative effect found by Zucker et al. was that children who used e-books made fewer gains than students who were able to read one-on-one (usually with a parent), indicating that e-books do not take the place of critical parent-child interactions with texts that have long been deemed essential for gaining early literacy skills.

One interesting conclusion that can be drawn from the e-book studies in educational settings, particularly those with younger readers is that eyestrain does not seem to be an issue. Most of the e-books in use in education settings are still computer based (and often interactive) or use dedicated devices that use LCD screens, yet eye fatigue or other issues related to backlight screens are never mentioned as a problem. This may very well be a result of the age of the participants. Younger

children may spend less time overall using computers, or they may be so used to interacting with technology that used an LCD screen that it never becomes an issue. This is another indication that there may be significant generational differences with readers of e-books.

E-books and E-book Readers

Most common in the LIS literature are articles such as the one by Stephen Abrams that provides technical overviews of the various e-book readers and formats.[xci] While useful, these outdate almost as soon as they are published although Abrams' is a particularly thorough overview that is worth perusing, particularly for information on some of the lesser known devices. The American Library Association has tracked library lending of e-books in a handy map available online.[xcii] Outside of LIS, in the publishing world articles debating the merits of e-books and e-book reading abound , such as an editorial which gathers a disparate group of researchers and writers to offer four different views of e-books and online reading or the Heather McCormack article in *Digital Book World,* which is a persuasive argument for library purchasing and lending of e-books.[xciii] Reports from large research groups, like the Kaiser report, are not only readily available online, but are widely reported on.

There have been a few studies of the technical aspects of e-book readers and e-ink which found that larger characters may increase reading accuracy, which is not a problem for most e-book readers as they include multiple text sizes.[xciv]

Another recent study of the Kindle as an e-book reader used it in a study with an iPad and a personal computer. Participants read a complete short story on one of

the devices and then in a regular printed book.[xcv] While this study claimed to find that reading on the Kindle and iPad were slower, little information about the methodology was revealed and it is likely that the small sample sizes used in the study were too small to have statistically significant results. Nor did the study account for the learning curve that may occur the first time using a new device like the iPad or Kindle, another reason to question the conclusions. While the Kindle and iPad received positive results for enjoyment of the reading experience, the study did not take into account nor ask any questions about eye fatigue a common issue with backlit devices and LCD screens.

Reports and White Papers

The Kaiser report finds high levels of ownership of cell phones and mp3 players, which are used more often for media consumption than phone calls and all of these devices support e-book reading.[xcvi] The recent Pew report finds that 84% of teens have home internet access and there have been great increases in media consumption and multitasking media consumption. The average teen consumes over ten hours a day of media in seven hours of time.[xcvii] Daily print consumption has dropped five minutes from 43 to 38. However, the print count "does not include time spent reading on computers or mobile devices. Time spent reading newspapers and magazines online is captured and counted in computer usage," which skews the results. [xcviii]

Scholastic recently reported that children had significantly more positive attitudes to digital reading than adults, as most were interested in it and one-third

indicated that they would read more if they could access digital texts.[xcix] Parents were concerned that digital activities would not provide the same experiences as print reading and that it would keep children from other activities like exercise or interaction with family and/or peers. One of the more interesting results from this survey is a question about how parents versus children define reading – children are much more likely to consider non-traditional activities reading while searching for information online, reading social networking sites, and texting, to be reading.[c]

One of the most recent articles is from Australia, but with results very relevant to American libraries.[ci] Duncan Ross surveyed Australian public libraries and their users and found that there is a high level of interest in e-book readers and related technologies (iPads or iPhones), something that will not surprise most librarians. He contends that libraries must rapidly and dramatically increase their digital offerings or lose current and future library users. Ross' brief overview of e-books and e-books readers, along with recent consumer data will be useful to librarians interested in learning more. While only 25% of the population currently reads e-books, more than 60% are interested in reading one or learning more about them, numbers that libraries need to seriously consider when allocating collection budgets, and most library patrons would be willing to check out e-books and many would even buy a device just to access library collections.

The Australian Romance Readers Survey from 2009 also provides some valuable data on e-book and e-book reader use and adoption.[cii] While more than half of respondents do not use e-books, of those that do the most popular reading devices were desktop and laptop computers, followed by e-book readers, phones and PDAs.

One interesting result here is that the iPod was not listed as an option but was the most commonly written in response.[ciii] In terms of book purchases independent bookstores second at 23%. This may have implications for e-book purchases as well as those almost always need to be purchased online. 5% of respondents already purchase directly from publishers, which for publishers interested in selling their e-books directly to customers, they already have an established customer base.[civ] In terms of e-book purchasing, in 2006 40% of Australian romance readers already purchase e-books, and an additional 15% say they plan to purchase e-books sometime soon.[cv] This is also a quite law abiding group, of those that have downloaded or free e-books, the vast majority do so from official publisher or author sites only.[cvi]

Overdrive, the leading vendor in providing downloadable e-book content to public libraries recently published a white paper, "How eBook Catalogs at Public Libraries Drive Publishers' Books Sales and Profits," something that should prove particularly useful for librarians attempting to work with publishers who refuse to sell e-books for library loans.[cvii] This paper argues "public libraries hold sizeable marketing potential for publishers and authors. This prospective reader audience can be captured through discovery on shelves and in catalogs, in addition to author tours, bookmobiles, and book clubs."[cviii] Overdrive notes that only one other e-book distributor has realized this potential,

"Sony Electronics has realized the market power presented by public libraries. At Sony's retail eBookstore, the Reader™ Store, Sony has a Library Finder application promoting the available of eBooks at libraries and Sony Reader's compatibility with eBooks checked out from libraries. Sony has used this

compatibility as a distinguishing feature to drive both device and retail eBook sales."[cix]

In a point that should really resonate with publishers, the report concludes, "Libraries are not simply meeting the demand for eBooks, but they are whetting the consumer appetite."[cx] With plenty of data to support these points, this report is one that librarians need to be using to convince publishers to sell e-books for library loans, just as they sell print books.

College Students and E-book Reading

Colleges were among the first to test the use of Kindle e-book readers in the classroom, as a replacement for printed textbooks. Early studies which used the first generation of the larger sized Kindle DX found a minority of students quickly adopted and enjoyed the Kindle, but most were frustrated by difficulties in note taking and highlighting; other colleges had to drop their pilot programs when it was determined that the Kindle DX was not easily used by visually impaired students.[cxi] As all of these issues have been addressed by updates and new generations of the Kindle readers, additional studies will likely find quite different results. Faculty who insisted in page numbers in citations, or failed to use the Kindle's more precise line identifying numbers when discussing texts in class, also contributed to poor results. What these college pilots did find was that students were quite interested in using the Kindle for recreational reading and were very likely to recommend it to friends and family for recreational reading. Others argue that the Kindle won't be the device to

replace textbooks, instead promoting the iPad and similar tablet computing devices, due to their interactive nature, color displays, and ability to play video clips.[cxii]

Another corporate study of college students and e-books finds that e-book and e-book readers have yet to really catch on with college students, with most digital texts being purchased for class and a low level of e-book reader ownership.[cxiii] This doesn't necessarily mean that college students don't like e-books, just that they currently don't have a lot of access to them which may very well be a function of the limited disposable income of college students and the still substantial prices of dedicated e-book readers.

Consumer and Publisher Data

What do we know about the readers and users of e-books and e-book reading devices? Publications on market and consumer data are often locked up and hard to access, available only to members or for purchase, making them generally inaccessible to librarians. Luckily second hand reports provide handy summaries.

"Places where ebooks are downloaded: Amazon still holds the top spot at 61% – B&N has 20%, Libraries 7% …. Right now Kindle holds the top spot for devices at 40% – just passing the PC/laptop in the last survey at 39%. Among ebook buyers, print is definitely losing ground – nearly 50% of ebook readers now say they are buying exclusively or almost exclusively ebooks and 49% indicate they either MOSTLY or exclusively purchase ebooks. Of those who own devices today 44% indicated they received their device (purchase or gift) in the past 6 months." [cxiv]

The Price Waterhouse Coopers report, "Turning the Page, the Future of eBooks," provides some of the most recent information on the e-book market, although it is very heavily weighted to the publishing perspective, making it only mildly useful for librarians.[cxv] This report also focuses on the differences between the North American and European markets, notably, the low interest levels on the part of European publishers to adopt and sell e-books. However, as this report argues, the successful and rapidly growing e-book market in the US will soon be found in Europe as the most popular e-book reading devices (Kindle e-book readers and iPads) are now available in Europe as well as in the US, as well as the European consumers' increased awareness and interest in e-books.[cxvi]

Libraries and E-books

A few library associations have conducted similar projects and their information is much more readily available like the COSLA study based on interviews with library leaders and state librarians.[cxvii] The two most relevant areas for this report are the section on devices and the section on access. In terms of devices, "For devices meant for library lending and use, respondents added some remarkably consistent needs. They would need to be simpler than any other device, more durable, much cheaper ($100 or less seems to be the magic number), rechargeable, with no cords required for use, larger controls, and accessibility options that work for the largest range of people possible." Most respondents expressed discomfort over lending somewhat fragile devices that cost over $300. Some stated they couldn't include devices in their public services until the price drops

significantly. Many see the role of the library as a place for patrons to try out new technology. Currently the biggest access issue facing users is that public computers cannot be used for downloading library e-books and the generally convoluted procedures used for finding and checking out e-books.

For the most part only preliminary case study-based information is available on the use of Kindles in libraries.[cxviii] Lotta Larson studied two second grade readers over several weeks of using a Kindle for 30 to 45 minutes a day and her results suggested that using the Kindles promoted new literacies practices and extended connections between reader and text made possible by the interactive tools integrated into the Kindle. She found that the two readers used all the features of the Kindle, adjusting the font size, accessing the dictionary and using the text to speech. The two students felt that the reading experience, for them, was the same as with a book, or even better and Larson found that over the course of the study both girls had increased positive attitudes towards reading and made regular comments about their preference for the Kindle over traditional books.

Similar results are reported in a new book, *No Shelf Required*, in chapter 4, "E-books in the Public Library."[cxix] Like Grimshaw et al. Amy Pawlowski combines e-books and digital audiobooks as in most public libraries these are provided by the same vendor and from the same interface. She notes "in 2009, well over eight thousand public libraries offered e-books and downloadable audiobooks."[cxx] Pawlowski also offers an excellent list of the advantages of digital collections, noting a not often mentioned point that digital collections can save a great deal of staff time as they do not require processing, or checking in and out.[cxxi] Digital collections are also very popular with users and have very high rates of adoption, particularly when

they are discoverable through the OPAC.[cxxii] As vendors are a key partner in digital collections, most of the rest of this chapter is devoted to an overview of vendor, products, and licensing, with a section on formats that makes interesting reading for those interested in technical aspects and history of the various e-book formats. The tables with device and format compatibility is a valuable and easy to understand tool for working librarians, but staff using this resource need to be aware of the rapid changes in this area that may make these resources quickly outdated. This chapter concludes with a case study of Kindle use and loaning at a public library, which is a nice guide for libraries considering the loan of e-book readers.[cxxiii]

The most recent reports in this area are the results of a survey conducted by *Library Journal* and *School Library Journal* as part of their 2010 Virtual Summit.[cxxiv] The Public libraries report begins with an overview of the rapidly growing e-book market, noting that the "annual growth rate of 71% is the highest of any book category," ten times higher than adult hardcovers at 1.3%.[cxxv] In terms of library e-book collections, 72% of libraries currently offer collections and "as for the 28% of public libraries that currently don't offer e-books, 32% plan to offer e-books in the next 12 months, while a further 28% plan to offer e-books in the next couple of years."[cxxvi] Clearly e-books are a format that are no longer a fad but an established format in public library collections. Libraries are adding these collections based mostly on consumer demand.[cxxvii] Libraries are also circulating devices. While only 5% of libraries surveyed currently circulate reading devices, as many as 24% of respondents are considering it.[cxxviii] Libraries are mostly likely to circulate the Sony Reader, which may be because of its compatibility with Overdrive collections, or

Sony library marketing and outreach campaigns.[cxxix]

The *LJ/SLJ* report finds that public library e-book collections tend to circulate many of the same types of materials as print collections, the most popular in fiction are bestsellers, mystery/suspense, current events, and self help/psychology.[cxxx]

The school libraries report's most interesting result is that "middle schools appear to be most receptive to e-books. Middle school students are most likely to have dedicated e-book readers, and they are most likely to make e-book requests. Middle school libraries also report that they expect a higher increase in e-book circulation."[cxxxi] Many of the other areas are similar to public libraries, while currently offerings are lower, most that do not currently offer e-books are considering it in the near future.[cxxxii]

E-books and E-book Readers Internationally

Studies of e-books and e-book readers outside of the United States and Europe are gradually increasing. In Ghana a large study is currently being undertaken on the feasibility of using Kindles for classroom and leisure reading. Results from the pilot study indicated that the Kindle was useful for assigned long form fiction reading in the classroom and that students appreciated its similarities to the familiar technology of the cell phone.[cxxxiii] E-book adoption in China is so high that predictions about the demise of print culture may not be too far off.[cxxxiv] As many as 91% of participants said they would not bother buying a print version if they could get it digitally.

Notes

[i] National Endowment for the Arts, *Reading at Risk: A Survey of Literary Reading in America*. Research Division Report no. 46 (Washington, D.C.: National Endowment for the Arts, 2006).
[ii] Associated Press, "One in Four Read No Books Last Year." *USA Today*. August 21, 2007, accessed, December 8, 2008, http://www.usatoday.com/news/nation/2007-08-21-reading_N.htm.
[iii] "National Endowment for the Arts, *To Read or Not to Read: A Question of National Consequence*. Research Division Report no. 47, (Washington, D.C.: National Endowment for the Arts, 2007).
[iv] National Endowment for the Arts, *Reading on the Rise*. Research Division Report no. 47 (Washington, D.C.: National Endowment for the Arts, 2009).
[v] D. Fallows, *The Internet and Daily Life*. (Washington, D.C.: Pew Internet and American Life Project, 2004).
[vi] A. Lenhart, et al., *Writing, Technology and Teens*. (Washington, D.C.: Pew Internet and American Life Project, 2008).
[vii] D. F. Roberts, U. G. Foehr, & V. Rideout, *Generation M: Media in the Lives of 8 to 18 year olds.* (The Henry J. Kaiser Family Foundation: Menlo Park, CA., 2005).
[viii] Ibid., 3-4.
[ix] Audio Publishers Association. "Audio Publishers Association Press Release September 12, 2006: Audio publishing industry continues to grow; shows 4.7% increase in sales: Audiobook sales reach an estimated $871 million," http://www.audiopub.org/files/public/APASalesSurveyResultsFactSheet2006COMPLETE.pdf; (Audio Publishers Association: New York, 2006); Audio Publishers Association, "Audio Publishers Association Releases Major Consumer Survey and Announces Increase in Audiobook Usage: Nearly 25% of US Population is Listening to Audiobooks," 2006, online at: http://www.audiopub.org/files/public/2006ConsumerSurvey COMPLETEFINAL.pdf, (Audio Publishers Association: New York, 2006); Audio Publishers Association, "Americans are tuning in to audio: audiobooks sales on the rise nationally," online at: http://www.audiopub.org/PDFs/2007SalesSurveyrelease.pdf (Audio Publishers Association: New York, 2007); Audio Publishers Association, "More Americans are all ears to audiobooks: 28% of American has listened to audiobooks in the past year, sales surpass one billion dollars," http://www.audiopub.org/pdfs/2008%20sales%20consumer%20final.pdf, (Audio Publishers Association: New York, 2008).
[x] NEA 2004; NEA 2007; NEA 2009.
[xi] Jessica E. Moyer, *Research Based Readers' Advisory* (Chicago: ALA Editions, 2008).
[xii] Jessica E. Moyer and Kaite Mediatore Stover, "Chapter 4: Audiovisual Advisory," in *Research Based Readers' Advisory* (Chicago: ALA Editions, 2008): 56-76.

[xiii] Randy Pitman, "Viewers' Advisory: Handling Audiovisual Advisory Questions," in *The Readers' Advisor's Companion*, ed. Kenneth Shearer and Robert Burgin, (Englewood, CO: Libraries Unlimited, 2001): 229-237.
[xiv] Michael Vollmar-Grone, "Hearing and Seeing: The Case for Audiovisual Materials, " in *Nonfiction Readers' Advisory*, Robert Burgin, ed. (Englewood, CO: Libraries Unlimited, 2004): 85-99.
[xv] Judith Elkin, "Special Needs/Special Places," in *Reading and Reader Development: The Pleasure of Reading* (London: Facet, 2003): 143-170.
[xvi] Ibid., 143.
[xvii] Ibid., 144.
[xviii] Mathias quoted in: Elkin, "Special Needs/Special Places, 146.
[xix] Kaite Mediatore, "Reading With Your Ears: Readers' Advisory and Audio Books," *Reference and User Services Quarterly* 42, no. 4 (2003): 318-323.
[xx] Ibid., 321.
[xxi] An updated and expanded explanation of this valuable technique can be found in Chapter 3, "How to Listen to a Book in 30 Minutes" by Kaite Mediatore Stover, in *The Readers' Advisory Handbook*, Jessica E. Moyer, and Kaite Mediatore Stover, eds. (ALA Editions, 2010).
[xxii] Greg Morgan, "A Word in Your Ear: Library Services for Print Disabled Readers in the Digital Age," *The Electronic Library* 21, no. 3 (2003): 234-239.
[xxiii] Hampton (Skip) Auld, ed. "Perspectives 'That All May Read…': Talking Books for the Blind and Physically Handicapped" *Public Libraries* 44, no. 2 (2004): 68-70.
[xxiv] Ibid., 69.
[xxv] Ann Kim, "AudioVideo 2006: The Future is Now." *Library Journal* (May 15, 2006): 60-63.
[xxvi] Eileen Hutton, "Audiobooks Deserve Marketing, Too: It's Time for Store Promotions to Catch Up with the Growth in Audio Sales." *Publishers Weekly* (October 24, 2005): 66.
[xxvii] Ibid., 66.
[xxviii] Ibid., 66.
[xxix] Robin Whitten, "The Growth of the Audiobook Industry," *Publishing Research Quarterly* 18, no. 3 (2005): 3-11.
[xxx] Audio Publishers Association Press Release September 12, 2006, "Audio Publishing Industry Continues to Grow; Shows 4.7% Increase in Sales: Audiobook Sales Reach an Estimated $871 million," 2006, http://www.audiopub.org/files/public/APASalesSurveyResultsFactSheet2006COMPLETE.pdf; Audio Publishers Association, "Audio Publishers Association Releases Major Consumer Survey and Announces Increase in Audiobook Usage: Nearly 25% of US Population is Listening to Audiobooks," 2006, online at: http://www.audiopub.org/files/public/2006ConsumerSurveyCOMPLETEFINAL.pdf.
[xxxi] "Audio Industry Continues to Grow," 2. (All figures from 2004 to 2005).
[xxxii] "Audio Publishers Association Releases Major Consumer Survey"
[xxxiii] Ibid.

[xxxiv] P. Ferreri, "Listening for Literacy: A Guide for Using Children's Audiobooks," *Teaching K-8* 31, no. 2 (2000): 61; Lisa Von Drasek, "Teaching with Children's Books: Heard Any Good Books Lately?" *Teaching K-8* 34, no. 8 (2004): 90-91; L. Robinson, "For the Love of Books: Expanding E-books and Audio Books in School Libraries," *Media Methods* 40, no. 2 (2003): 6-12; R. M. Casbergue & K. Harris, "Listening and Literacy: Audiobooks in the Reading Program," *Reading Horizons* 37, (1996): 48-59.
[xxxv] F. Goldsmith, "Earphone English," *School Library Journal* 48, no. 5 (2002): 50-53.
[xxxvi] Gillie Byrom, "If You Can't Read it then Audio it." *Reading* (1998): 3-7.
[xxxvii] Casbergue, R. M. & Harris, K. "Listening and Literacy: Audiobooks in the Reading Program." *Reading Horizons*, 37 (1996): 48-59.
[xxxviii] John Yingling, "A Study of Audiobook Users at the Salem, Ohio Public Library" Masters Paper, Kent State University (Arlington, VA : ERIC Document Reproduction Service, ED 424 859, 1998).
[xxxix] Pam Varley, "As Good As Reading: Kids and the Audiobook Revolution," *Horn Book* 78, no. 3 (2002): 251-262.
[xl] Irene-Anne Diakidoy, N. P. Stylainou, C. Karefillidou, and P. Papageorgiou, "The Relationship Between Listening and Reading Comprehension of Different Types of Text at Increasing Grade Levels," *Reading Psychology* 26 (2005): 55-80.
[xli] Susan Hoy, "What Talking Books Have to Say: Issues and Options for Libraries," *Australasian Public Libraries and Information Services* 22, no. 4 (2009): 164-180.
[xlii] S. Maughan, "Downloads have Publishers Singing a New Tune," *Publishers' Weekly,* 253 (May 19, 2006): 8, 13-15.
[xliii] J. Milliot, "Simply Audiobooks to Abandon DRM," *Publishers' Weekly* 254, no. 39 (2007): 6.
[xliv] Tom Peters, "Digital Audiobooks," *Library Technology Reports*, (January/February 2007) American Library Association.
[xlv] Jan Engelen, "Modern Digital Libraries: The Case of the Audio-Book Boom," in ICCHP 2008, LNCS 5105; K. Miesenberger, et al., eds. 2008: 284–290; Jan Engelen, "A Rapidly Growing Electronic Publishing Trend: Audiobooks for Leisure and Education," *Proceedings ELPUB 2008 Conference on Electronic Publishing,* Toronto, Canada (June 2008).
[xlvi] Nancy Allmang, "Audiobooks on iPods: Building a Program for a Research Library," *C&RL News* 70, no. 3 (2009): 173-176.
[xlvii] Mary Burkey, "Sounds Good to Me: Listening to Audiobooks with a Critical Ear." *Booklist* (June 1 & 15, 2007): 104.
[xlviii] A. Cardillo, et al., "Tuning in to Audiobooks: Why Should Kids Listen?" *Children and Libraries* 5 (2007): 42-46.
[xlix] S. Grover and L. Hannegan, "Hear and Now: Connecting Outstanding Audiobooks to Library and Classroom Instruction," *Teacher Librarian* 35, no. 3 (2008): 17-21; R. C. Clark, "Audiobooks for Children: Is This Really Reading?" *Children and Libraries* 5, no. 1 (2007): 49-50; Marianne Cole Fues, "Getting Teens to Read With Their Ears." *Library Media Connection* 27, no. 6 (2009): 54.

[l] Clark, R. C. "Audiobooks for Children: Is this really reading?" *Children and Libraries,* 5(2007: 1): 49-50;

[li] G. Wolfson, "Using Audiobooks to Meet the Needs of Adolescent Readers," *American Secondary Education* 36, no. 2 (2008): 105-114.
[lii] Joel R. Montgomery, *Using Audio Books to Improve Reading and Academic Performance*, (Arlington, VA : ERIC Document Reproduction Service, ED Working Paper, 2009).
[liii] Brett Cooper, "Listen Up – Using Audio Books to Help Improve Reading," *Literacy Lens* 4*,* no. 1, http://msit.gsu.edu/Readingconsortium/Literacylens/Listen_Up.pdf.
[liv] B. Winn, C. H. Skinner, R. Oliver, A. D. Hale, & M. Ziegler, "The Effects of Listening While Reading and Repeated Reading on the Reading Fluency of Adult Learners," *Journal of Adolescent and Adult Literature* 50, no. 3 (2006): 196-205.
[lv] Ibid., 196-205.
[lvi] Syed Stone-Harris, *The Benefit of Utilizing Audiobooks With Students Who Are Struggling Readers*. Dissertation, Walden University (2008); S. Grimshaw, Naomi Dungworth, Cliff McKnight, & Anne Morris. "Electronic Books: Children's Reading and Comprehension," *British Journal of Educational Technology* 38, no. 4 (2007): 583-599.
[lvii] Kelli J. Esteves, "Audio-Assisted Reading With Digital Audiobooks for Upper Elementary Students With Reading Disabilities," Dissertation, Western Michigan University (2007).
[lviii]Christopher A. Kurby, Joseph P. Magliano, David N. Rapp, "Those Voices in Your Head: Activation of Auditory Images During Reading," *Cognition* 112 (2009): 457-461.
[lix] Teppo Sarkamo, et al. "Music and Speech Listening Enhance the Recovery of Early Sensory Processing after Stroke," *Journal of Cognitive Neuroscience* 22, no. 12 (2010): 2716–2727.
[lx] Ann Milani, Maria Luisa Lorusso, and Massimo Molteni, "The Effects of Audiobooks on the Psychosocial Adjustment of Pre-adolescents and Adolescents with Dyslexia," *DYSLEXIA* 16 (2010): 87-97.
[lxi] Patrick Lo*, Effects of Online Audiobook Resources on Library Usage and Reading Preferences and Practices of Young Learners in an Elementary School Library Setting in Hong Kong*, World Library and Information Congress, 75th IFLA General Conference and Council (Milan, Italy: August 23-27, 2009) http://www.ifla.org/annual-conference/ifla75/index.htm.
[lxii] Matthew Rubery, "Play It Again, Sam Weller: New Digital Audiobooks and Old Ways of Reading," *Journal of Victorian Culture* 13 (2008): 58-79.
[lxiii] Duncan Ross, "Ebooks and Beyond: The Challenge for Public Libraries," *Australasian Public Libraries and Information Services* 23, no. 2 (2010): 44-55.
[lxiv] Rachel Aviv, "Listening to Braille," *New York Times*, (Dec 30, 2009) http://www.nytimes.com/2010/01/03/magazine/03Braille-t.html?pagewanted=1&_r=1.

[lxv] J. M. Culpepper, "The Internet's Influence on Literacy Instruction and Literacy Development in a Middle-School Language Arts Classroom." Dissertation, University of Georgia: (Athens, GA, 2002); D. J. Leu, Jr. & D. D, Leu, *Teaching with the Internet: Lessons from the Classroom*. (Norwood, MA: Christopher-Gordon: 1998); D. J., Leu, Jr. & C. K. Kinzer, "The Convergence of Literacy Instruction with Networked Technologies for Information and Communication," *Reading Research Quarterly* 35, no. 1 (2000): 108-127.
[lxvi] Grimshaw et al. 583-599
[lxvii] Ibid., 583-585.
[lxviii] Ibid,. 585.
[lxix] RAND Reading Study Group *Reading for Understanding: Towards an R&D Program in Reading Comprehension.* (2002) Available online at: http://www.rand.org/multi/achievementforall/reading/readreport.html14.
[lxx] Julie Coiro, "Exploring Literacy on the Internet: Reading Comprehension on the Internet: Exploring Our Understanding of Reading Comprehension to Encompass New Literacies," *The Reading Teacher* 56, no. 5 (2003): 548-464; Julie Coiro, & E. Dobler, "Exploring the Online Reading Comprehension Strategies Used by Sixth-Grade Skilled Readers to Search for and Locate Information on the Internet," *Reading Research Quarterly* 42, no. 2 (2007): 214–257.
[lxxi] D. J. Leu, & L. Zawilinski, "The New Literacies of Online Reading Comprehension." *The New England Reading Association Journal* 43, no. 1 (2007): 1-7.
[lxxii] E. Ramirez, "The Impact of the Internet on the Reading Practices of a University Community: The Case of UNAM," *Proceedings of the 69th IFLA General Conference and Council*, (2003) Available at http://www.ifla.org/IV/ifla69/papers/019e-Ramirez.PDF.
[lxxiii] Z. Liu, "Reading Behavior in the Digital Environment: Changes in Reading Behavior Over the Last 10 years," *Journal of Documentation* 61, no. 6 (2005): 700-712.
[lxxiv] Z. Liu, and X. Huang, "Gender Differences in the Online Reading Environment." *Journal of Documentation* 46, no. 4 (2008): 616-626.
[lxxv] Donna E. Alvermann and M. C. Hagood, "Fandom and Critical Media Literacy," *Journal of Adolescent and Adult Literacy* 43, no. 5 (2000): 436-446; Kelly Chandler-Olcott, and D. Mahar, "Adolescents' Anime-inspired 'Fanfictions': An Exploration of Multiliteracies," *Journal of Adolescent and Adult Literacy* 46, no. 7 (2003): 556-566.
[lxxvi] Chandler-Olcott and Mahar, 557.
[lxxvii] Cynthia Lewis & Bettina Fabos. "Instant messaging, literacies, and social identities" *Reading Research Quarterly* 40 (2005:4): 470-501

[lxxviii] William Douglas Woody, David B. Daniel and Crystal A. Baker "E-books or Textbooks: Students Prefer Textbooks," *Computers in Education* 55 (2010): 945-948.
[lxxix]Yen-Yu Kang, Mao-Jiun J, Wang, and Rungtai Lin, "Usability Evaluations of E-books," *Displays* 30 (2009): 49-52.

[lxxx] J. M. Cole, and V. R. Hilliard, "The Effects of Web-Based Reading Curriculum on Children's Reading Performance and Motivation," *Journal of Educational Computing Research* 34, no. 4 (2006): 353-80.
[lxxxi] Grimshaw, et al 583-599
[lxxxii] Ibid., 593.
[lxxxiii] Ibid., 595.
[lxxxiv] Ibid., 595-597.
[lxxxv] Ibid., 597.
[lxxxvi] Ibid.,
[lxxxvii] Ofra Korat, "Reading Electronic Books as a Support for Vocabulary, Story Comprehension and Word Reading in Kindergarten and First Grade," *Computers and Education* 55 (2010): 24-31.
[lxxxviii] Adina Shamir, Ofra Korat, and Nili Barbi, "The Effects of CD-ROM Storybook Reading on Low SES Kindergartners Emergent Literacy as a Function of Learning Context," *Computers and Education* 51 (2008): 354-67.
[lxxxix] Tricia Zucker, Amelia K. Moody, Michael C. McKenna "The Effects of Electronic Books on Pre-Kindergarten to Grade 5 Students' Literacy and Literacy Language Outcomes: A Research Synthesis," *Journal of Educational Computing Research* 40 (2009): 47-87.
[xc] Ibid., 49-50.
[xci]Stephen Abrams, "Ebooks Part 2: Trends and Standards," *Multimedia and Internet @ Schools* (July/Aug 2010): 24-27.
[xcii] American Library Association, "E-Books in U.S. Public Libraries," http://www.ala.org/ala/research/initiatives/plftas/2009_2010/ebooksmap0910.cfm.
[xciii] "Does the Brain Like Ebooks?" *New York Times* (October 14, 2009), http://roomfordebate.blogs.nytimes.com/2009/10/14/does-the-brain-like-e-books/#gloria; Heather McCormack, "An Optimist-Pessimist's Guide to Avoiding Ebook Armageddon," *Digital Book World* (Aug 10, 2010) http://www.digitalbookworld.com/2010/an-optimist-pessimists-guide-to-avoiding-ebook-armageddon/.
[xciv] Der-Song Lee, Kong-King Shieh, Shie-Chang Jeng, and I-Hsuan Shen, "Effect of Character Size and Lighting on Legibility of Electronic Papers," *Displays* 29 (2008): 10-17.
[xcv] Ed Oswald, "E-Books Take Longer To Read Than Print, Study Says," *Beta News*, (July 5, 2010), http://www.betanews.com/article/Ebooks-take-longer-to-read-than-print-study-says/1278345706.
[xcvi] D. F. Roberts, U. G. Foehr, and V. Rideout, *Generation M: Media in the Lives of 8 to 18 Year Olds* (Menlo Park, CA: The Henry J. Kaiser Family Foundation, 2005).
[xcvii] Amanda Lenhart, et al., *Teens and Social Media, Pew Internet and American Life Project* (Washington, DC: 2007) http://pewresearch.org/pubs/1484/social-media-mobile-internet-use-teens-millennials-fewer-blog.
[xcviii] Ibid., 7.
[xcix] Harrison Group and Scholastic, *Kids and Family Reading Report* (2010): 16, http://mediaroom.scholastic.com/kfrr.

[c] Ibid., 13.
[ci] Duncan, Ross. "Ebooks and beyond: the challenge for public libraries," *Australasian Public Libraries and Information Services* 23 (June 2010:2):44-55
[cii] Australian Romance Readers Association," Australian Romance Readers Survey 2009" http://www.box.net/shared/rm94qyvx6v.
[ciii] Ibid., 15.
[civ]Ibid., 21.
[cv]Ibid., 28.
[cvi]Ibid., 29.
[cvii]Overdrive, "How ebook Catalogs at Public Libraries Drive Publishers' Books Sales and Profits: Thought and Leadership White Paper." (Cleveland, OH), May 2010, http://www.overdrive.com/files/PubWhitePaper.pdf.
[cviii] Ibid., 3.
[cix] Ibid., 5.
[cx] Ibid., 9.
[cxi] Steve Kolowich, "Colleges Test Amazon's Kindle E-book Reader as Study Tool," *USA Today* (February 23, 2010) http://www.usatoday.com/news/education/2010-02-23-IHE-Amazon-kindle-for-college23_ST_N.htm; Jennifer Demski, "The Device Versus the Book," *Campus Technology* (May 1, 2010) http://campustechnology.com/Articles/2010/05/01/The-Device-Versus-the-Book.aspx.
[cxii] Lynn Neary, "The E-Textbook Experiment Turns A Page," National Public Radio, *All Things Considered*, (Sept 17, 2010) http://www.npr.org/templates/story/story.php?storyId=129934270.
[cxiii] "E-Books, E-Readers Slow to Catch on with College Students: Study Finds Preference for Print Continues: Laptop Love Prevails," National Association of College Stores Press Release, (Oct 27, 2010), http://www.nacs.org/advocacynewsmedia/pressreleases/ebooksereadersslowtocatchonwithstudents.aspx.
[cxiv] Sue Polanka, "BISG Study – 7% of eBook Downloads are from a Library*," No Shelf Required* (August 5, 2010) http://www.libraries.wright.edu/noshelfrequired/?p=1305.
[cxv] Price Waterhouse Coopers, "Turning the Page, The Future of e-books," Price Waterhouse Coopers: Technology, Medial and Telecommunications, 2010 http://www.pwc.com/gx/en/entertainment-media/publications/future-of-ebooks.jhtml.
[cxvi] Ibid., 2.
[cxvii] Pinpoint Logic and COSLA, "COSLA: eBook Feasibility Study for Public Libraries: Final Report," (June 30, 2010) http://www.cosla.org/documents/COSLA2270_Report_Final1.pdf.
[cxviii] Hamilton Montrese, "Using Kindles in Library Settings – A Survey, Law and Technology Resources for Legal Professionals," *LLRX* (October 17, 2010) http://www.llrx.com/features/kindlesurvey.htm; Lotta Larson, "Digital Readers: Advancing Ebook Reading and Response," 2009 National Reading Conference, Summary of full paper" (www.nrc.org).

[cxix] Amy Pawlowski, "E-books in the Public Library," in *No Shelf Required: E-books in Libraries*, Sue Polanka, ed. (American Library Association: Chicago, 2010): 55-74.
[cxx] Ibid., 56.
[cxxi] Ibid., 56.
[cxxii] Ibid., 67; Most libraries reported growth in circulation between 31% and 300%; Ibid., 72.
[cxxiii] Blaise Derks, "The River Forest Public Library Experience With the Kindle." In Pawlowski: 68-69.
[cxxiv] "Survey of Ebook Penetration and Use in U.S. Public Libraries," *Library Journal* and *School Library Journal*, November 2010, http://www.libraryjournal.com/csp/cms/sites/LJ/info/Reportpurchase.csp; "Survey of Ebook Penetration and Use in U.S. School (K-12) Libraries." *Library Journal* and *School Library Journal*, November 2010.
[cxxv] "Survey of Ebook Penetration and Use in U.S. Public Libraries." 6.
[cxxvi] Ibid., 7.
[cxxvii] Ibid., 7.
[cxxviii] Ibid., 9.
[cxxix] Sony Reader Library Program, http://ebookstore.sony.com/library-program/.
[cxxx] "Survey of Ebook Penetration and Use in U.S. Public Libraries." 10.
[cxxxi] Ibid., 6.
[cxxxii] Ibid., 7.
[cxxxiii] Geoffrey A. Fowler, "Nonprofit Tries One Kindle Per Child in Ghana," *Wall Street Journal* (Aug 5, 2010), http://blogs.wsj.com/digits/2010/08/05/nonprofit-tries-one-kindle-per-child-in-ghana/; Mike Sundermeyer, David Risher, Colin McElwee, "Worldreader.org: E-reader Trial Report" (2010) http://www.worldreader.org/trials.php.
[cxxxiv] "Hard Times for Traditional Books as China's Digital Publishing Industry Grows," *The Independent* (August 4, 2010) http://www.independent.co.uk/arts-entertainment/books/hard-times-for-traditional-books-as-chinarsquos-digital-publishing-industry-grows-2042649.html.

Chapter 2: Theoretical Frameworks

What is leisure reading? In order to discuss Reader Response Theory and engagement motivation theory in terms of leisure reading the term must be concretely defined. Over the years a variety of definitions of leisure reading research have been offered, each with one common component: that this reading is part of non-work, non-school recreational activity. W. Knulst and G. Kraaykamp, using data that was initially collected in the 1950's, articulate one of the older definitions of leisure reading.[cxxxv] In their retroactive review of forty years of leisure reading data, leisure reading is a proportion of the amount of time that is spent reading, as a part of the amount of time daily devoted to leisure activities outside of work or school.[cxxxvi] Knulst and Kraaykamp were focused on teens over the age of 12 and all ages of adults, so their definition applies to both adult and teen readers and is the only one to be so comprehensive in terms of age. In terms of reading materials, they considered only books, magazines and newspapers as part of the total reading count.

V. Greaney, who investigated factors related to amount and type of leisure reading for children, defines leisure reading as an out of school activity, and notes that leisure reading requires a certain level of reading proficiency.[cxxxvii] Greaney is concerned with leisure reading as a proportion of total reading, considering this measurement a better indicator than hours per week spent reading. Like Knulst and Kraaykamp, Greaney's data on reading was gathered through self-reported diaries of leisure time activities. When counting the time spent engaged in leisure reading from the diaries, Greaney defined leisure reading as "reading of any kind, excluding school texts and other materials assigned at school." What is left out of Greaney's definition

are books that students read outside of school as part of a leisure reading promoting program, such as Accelerated Reader or any other program that links school-based grades or rewards with students reading self selected texts out of school.[cxxxviii] Greaney's definition is exclusive to school-age children and teens, but could be extended to apply to college-age students and working adults. Greaney includes books, magazines, newspapers and comic books in his reading counts.

More recently, Sandra Hughes-Hassell and P. Rodge, in their study of urban adolescents, define leisure reading this way:

"The reading students choose to do on their own, as opposed to reading that is assigned to them. Also referred to as voluntary reading, spare time reading, recreational reading, independent reading, reading outside of school, and self-selected reading, leisure reading involves personal choice, choosing what one wants to read, and reading widely from a variety of sources—not just books."[cxxxix]

Hughes-Hassell and Rodge, who count text as anything students are reading, whether printed page or on a screen, have the most comprehensive definition of leisure reading because they include all the leisure time literacy activities in which 21st century teenagers regularly engage. Again, their definition is limited to in-school teen readers, but could easily be expanded to college-age students and/or working adults.

In my previous work I used the term leisure reading as inclusive of fiction reading, pleasure reading, and recreational reading.[cxl] As this work was done with adults and all the research used in the literature review was exclusive to adult readers, issues related to school promoted leisure reading were never addressed. Leisure

reading was assumed to be any reading (usually fiction) done outside of work or any reading activities pursued as a hobby.

A New Definition of Leisure Reading

After the previous overview of some of the more representative definitions of leisure reading, I will be exploring and proposing a new definition. Here is the definition, with two key components, that guide my work: ***First, leisure reading involves texts that involve some level of selection by the reader; second, the chosen texts are read as part of as an enjoyable leisure time activity***. Leisure reading includes silent reading and reading aloud. This definition would include texts that are read for a school leisure reading program because it implies some level of student choice. It would also include books read for book groups or literature circles (for any age) because either the participants choose to be in the group, or they have some level of responsibility in choosing the text. In out-of-school book clubs, participants always have the choice of whether or not to read the text and whether or not to attend the meeting. This proposed new definition includes fiction, nonfiction, graphic novels, comic books, newspapers, magazines, and self-selected online reading completed as a leisure time activity. It also includes audiobooks, just as it includes any sort of reading aloud, whether done by parents to children, or one adult to another, or a professional narrator reading an audiobook to a listener. Leisure reading is done for fun but that does not mean that leisure reading does not include learning. For many readers the information they learn while leisure reading is an important secondary outcome of leisure reading.[cxli] Other leisure readers enjoy reading

informational materials such as hobby magazines or newspapers. Leisure reading always includes the option to learn from the reading materials.

What is Reader Response Theory?

Reader Response Theory (RRT) was first proposed by Louise M. Rosenblatt in her 1938 volume, *Literature as Exploration*.[cxlii] The main tenet of RRT as proposed by Rosenblatt is the relationship and transaction between reader and text. "The meaning – the poem – 'happens' during the transaction between the reader and the signs on the page."[cxliii] According to Rosenblatt, this poem, the result of the transaction, is dependent upon the reader performing certain actions, because the reader is active in creating the reading experience. Rosenblatt maintains this must be referred to as a transaction because the experience occurs in multiple directions, it is not one way, from the reader to the text or the text to the reader, but is the result of an active interplay between the two, which results in the creation of the poem.[cxliv] A key idea in Rosenblatt's work is her creation and use of the terms 'efferent reading' and 'aesthetic reading.' Before the ideas of transaction can be fully explored, efferent reading and aesthetic reading need to be explored and defined.

Rosenblatt's Efferent and Aesthetic Reading

What exactly is efferent reading? Efferent reading is reading that is done for informational purposes, to gather information, to get what the reader needs to know to carry away. Rosenblatt says: "the reader must focus attention primarily on the impersonal, publicly verifiable aspects of what the words evoke and must subordinate or push into the fringes of consciousness the affective aspects."[cxlv] In her later work,

The Reader, the Text, the Poem, she further elaborates on efferent reading, defining it in terms of a readers' attention, "In nonaesthetic [efferent] reading, the readers' attention is focused primarily on what will remain as the residue *after* the reading – the information to be acquired, the logical solution to a problem, the actions to be carried out."[cxlvi] She goes on further to say that the primary concern of the reader in this type of reading is "what he will carry away from the reading."[cxlvii] The focus for readers having an efferent experience is outward, toward what can be taken away, not inward to their feelings and responses.

Efferent reading is reading done primarily for information gathering, it is reading with a distinct purpose and an end goal in mind of obtaining specific information or materials to be used after the reading experience. Most school-based reading is efferent, particularly reading in the content areas where students must be able to learn and gather detailed information from textbooks and other assigned readings in order to complete assignments and be successful on exams. Even reading in English or language arts classrooms can be efferent if the focus is outward, on dissecting and understanding texts, instead of inward and focused on lived through experiences. While efferent reading can be discussed alone as it is here, because it is on the opposite end of the spectrum from aesthetic reading, it can also be defined in opposition to aesthetic reading. Occasionally leisure reading is efferent as some readers undertake leisure time reading to gain new information, such as information about a hobby.

What differentiates aesthetic from efferent reading is "the difference in the readers' focus of attention during the reading event."[cxlviii] This is what Rosenblatt

later refers to as the readers' stance, and what I think of as the reader's purpose for beginning a reading experience.[cxlix] In both cases, the concern is with the state of mind of the reader as he or she approaches the text, and the reasons for which they are approaching the text, as well as their state of mind during the reading process. In differentiating aesthetic from efferent, Rosenblatt calls it a shift in the attention of the reader, "aesthetic concentration differs from non-aesthetic contemplation by virtue of the shift of the direction of attention toward the qualitative lived-through experience."[cl]

In order for aesthetic reading to occur, "the reader must broaden the scope of attention to include the personal, affective aura and associations surrounding the words evoked and must focus on - experience, live through – the moods, scenes, situations being created during the transaction."[cli] Again, more explanation can be found in *The Reader, the Text, the Poem*. In aesthetic reading, the focus of the reader is inward, on what happens during the actual reading event. Here Rosenblatt is describing what many others have referred to "as lost in a book," where the reader becomes fully caught up in the reading experience as it occurs. Rosenblatt defines aesthetic reading in terms of the readers' experience as "the readers' attention is centered directly on what he is living through during his relationship with that particular text."[clii] However, aesthetic reading is not free rein fantasy or lazy reading that does not engage the brain, it requires transaction, which involves effort and engagement on the part of the reader.[cliii]

While defining efferent reading and aesthetic reading in opposition to one another, she notes that they are not mutually exclusive but can be found on either end

of a continuum, "a series of gradations between the nonaesthetic and the aesthetic extremes."[cliv] She furthers this idea in her explanation of the readers' stance towards the text, noting that it "may vary in a multiplicity of ways between the two poles."[clv] Rarely would any reading experience be exclusively aesthetic or exclusively efferent, but would oscillate across a spectrum during any single reading experience. Most reading experiences are mainly one or the other, but because efferent reading can intrude into aesthetic experiences and aesthetic reading into efferent experiences, most reading experiences tended to be clustered closer to center than to either extreme.[clvi]

Rosenblatt uses the example of a medical report for efferent reading, yet for some readers, it may be impossible to push away emotions, remembered experiences, and thoughts of others, even as they read for the purposes of information gathering. One example of a text that can be read at either end and is entirely dependent on the state of mind and purpose of the reader, is a cookbook. Many cooking fans talk about reading cookbooks for the joy of experiencing the text and the pleasure of transaction with the text. Others use cookbooks purely as a guide and read the recipe solely to gain the information needed to create the final product. Two readers may be reading the exact same texts, but find themselves on different ends of the continuum based on their stances as they approach the text, their purposes for reading the text, and their prior experiences. An example of a reading experience that should contain equal elements of both is when a librarian is reading a book for review or for working with a book group. During the reading, the librarian must balance aesthetic reading and efferent reading. Efferent reading is important because the librarian needs to evaluate

the book, either to write the review or to come up with discussion points. She needs to come away with certain information, such as an overall view of the text, or a list of several areas that are problematic or could prompt discussion. At the same time, it is important that the librarian have an aesthetic reading experience so that they are experiencing the text in the same ways they are hoping the reader would experience the text. If the aesthetic experience is lost, the reading can become drudgery and dull and the review or book group discussion will not reflect the joy and pleasure found in aesthetic reading and response.

Because of the importance of the reader, and all the experiences and knowledge that the reader brings to each reading experience, no two reading experiences can be the same, from reader to reader with the same text, or even the same reader re-reading a text. Rosenblatt notes, " 'the reader' is a fiction, that there is no generic reader, that each reader is unique, bringing to the transaction an individual ethnic, social, and psychological history."[clvii] At the same time, different readers (or even the same reader at a different point in time) can approach the same text and have completely different reading experiences, as "the same texts may be read efferently or aesthetically."[clviii] Again it all depends on the stance of that particular reader, in that particular point in time, as they approach that particular text.

Langer's Contemporary Perspective on Reader Response Theory

A more recent reading response theorist is Judith Langer, whose work is overviewed in *Envisioning Literature: Literary Understanding and Literature*

Instruction.[clix] While much of this book is about the practical applications of RRT based teaching, the first three chapters explain Langer's theoretical framework. Langer's major contribution to RRT is her development and definition of the term, 'envisionment,' "the world of understanding a person has at any given point in time. Envisionments are text worlds in the mind, and they differ from individual to individual"[clx] In this initial definition, already many similarities to Rosenblatt can be seen, as Langer focuses on individual readers' experiences created by interacting with the text and, like Rosenblatt, does not believe in a generic reader. Where she differs from Rosenblatt is in the time space of her envisionment. Rosenblatt's transaction is focused on the reading experience before it starts and as it occurs. Conversely, Langer defines envisionment to include: "the understanding a student (or teacher) has about a text, whether it is being read, written, discussed, or tested. Such envisionments are subject to change at any time as ideas unfold and new ideas come to mind."[clxi] Langer is much more explicit about the envisionment extending beyond, and even far beyond, the reading of the last page of the text. This idea that the envisionment changes through classroom discussion and educational activities matches with Langer's desire to see this type of literacy teaching and reading taking place in classrooms.

Unlike Rosenblatt who refutes the idea of interaction, Langer embraces either transaction or interaction as the term for her theoretical understanding.[clxii] She further defines envisionment as: "not merely visual, nor is it always a language experience. Rather, the envisionment encompasses what an individual thinks, feels, and senses – sometimes knowingly, often tacitly, as she or he builds an understanding."[clxiii] Most

importantly for this research, Langer clearly states that her envisionments and the interactions and interpretations that they involve apply to all types of reading materials, "even when we are curled up with a good mystery or reading a romance."[clxiv] Here she cites Janice Radway's work on romance readers, one of the first and most important studies on adult genre readers and the many roles that leisure reading, and reading of socially denigrated materials, plays in the lives of readers.[clxv] For me, this is a clear statement that her theoretical framework can and should be applied to adult leisure reading experiences.

Langer's second contribution is her further development of the idea of reader stances. Langer defines stances as the options available to readers as they develop their interactions and they "result from varying interactions between a particular reader and a particular text."[clxvi] In agreement with Rosenblatt, she emphasizes the importance of the individual reader and text at a unique point in time. Both Rosenblatt and Langer use the term 'stance,' but not in the same way. For Rosenblatt, as I explained above, 'stance' reflects the state of mind and purpose of the reader when approaching the text and influences whether the reading experience is likely to be more aesthetic or efferent oriented. Langer's use of 'stance' is quite different in that she uses it to describe four stages or types of reading experience and response, which are: Stance 1: Being out of and stepping into an envisionment, Stance 2: Being in and moving through an envisionment, Stance 3: Stepping out and rethinking what one knows, and Stance 4: Stepping out and objectifying the experience.[clxvii] These are not just about the reader as she/he approaches the text, but describe the full extent of the reading process. It is better to compare Rosenblatt's

aesthetic/efferent spectrum with Langer's stances than to compare them on stance as the two researchers use the words so differently.

Stance 1 is the state of the reading process as the reader begins to build and step into the envisionment. Stance 1 is not limited to the beginning reading process, it can occur at any time when the reader suddenly acquires new information that must be assimilated. Stance 1 is closely related to comprehension as it is about the search for a general understanding and events that can cause a return to Stance 1 are those related to comprehension, such as stumbling over unknown words or encountering a confusing development in the plot.

In Stance 2, the reader more fully develops the envisionments, making personal connections, "we use personal knowledge, the text, and the context, to furnish ideas and spark our thinking. In this stance we are immersed in our text-worlds."[clxviii] This is close to Rosenblatt's aesthetic reader, with its focus on the readers' experience as they are reading and are immersed in the text. This is the place for speculation, about what things might happen next, such as a reader enjoying a murder mystery contemplating the identity of the murderer.

Stance 3 is unlike the others and is unique to Langer's work. "[H]ere we use our developing understandings, our text-worlds, in order to add to our own knowledge and experiences."[clxix] This is closer to what Catherine S. Ross and I were theorizing with the concepts of incidental information acquisition and learning from leisure reading, as Langer uses this stance to talk about the reader's assimilation and understanding of new knowledge from reading, "from the text-world we are creating to what those ideas mean for our own lives."[clxx] This stance is also one taking place

over time and often occurs long after the initial reading experience as the reader continues to process and contextualize their text-world to their daily lives. Langer acknowledges the often overlooked importance of this stance, "its potential impact is a primary reason that we read and study literature – to help us sort out our own lives."[clxxi]

Stance 4 is closely related to Stance 3 as it involves distancing "ourselves from the envisionment we have developed and reflect[ing] back on it… We reflect on, analyze, and judge them and relate them to other works and experiences."[clxxii] This stance is most closely related to Rosenblatt's efferent reading because it focuses on literary analysis and critical thinking about the text. This is the type of reading and thinking that is often promoted in more traditional language arts classrooms. Above all, this final stance of Langer's is the one for looking at text from a distance, and while that can occur during the reading process, it would be only while the reader was doing efferent, not aesthetic reading. However, for readers who read a text aesthetically, this stance can still occur, after the completion of the reading, as it does not have to occur during the reading experience itself.

Just as readers can move from efferent reading to aesthetic reading, and back in the same reading experience, readers in Langer's theoretical stances can move from one stance to another in a nonlinear fashion: "they can occur and recur at any time during the reading, during later discussion or writing, and during laterreflection on the work."[clxxiii]

Langer also writes about two possible ways of approaching reading that are very much like Rosenblatt's efferent and aesthetic reading stances, Langer uses

'discursive' and 'literary,' as her complementary terms. Like efferent reading, Langer defines 'discursive reading' as an orientation that maintains a point of reference. When approaching a text in a discursive orientation readers immediately start looking for the ideas or information that they can take away, and the rest of the reading experience is focused around finding these items and answering the questions. All of the text is understood in this context or point of reference. Langer's literary reading is a close match to Rosenblatt's aesthetic reading, as neither requires an outward focus or an emphasis on gathering specific information to take away from the reading, but focuses on responding and transacting with the text during the reading process. In a 'literary reading' approach there is no steady horizon, it is always shifting as the reader develops their envisionment over time and explores the horizon of possibilities. Just as Rosenblatt argues that both efferent and aesthetic reading can occur in the same reading experience, Langer says,

"both approaches to understanding … are essential to effective and intelligent thinking. Sometimes we call primarily on one, at other times, primarily on the other. In most instances, the interplay in subtle but important ways, is adding to and enriching our envisionments – affecting what we think, understand, tolerate and believe."[clxxiv]

I think that Langer is arguing here for a more centered approach, with most reading experiences more closely clustered to the center, incorporating both types of reading, whereas Rosenblatt argues that both can occur, but many reading experiences tend to be either mostly aesthetic or mostly efferent, with only some overlap.

Langer does a better job of embracing and describing the entire reading process while still sticking to the essential elements of readers interacting (or transacting) with individual texts as unique points in time. However, because aesthetic reading is better defined by Rosenblatt and is such an important element of leisure reading, the works of both Rosenblatt and Langer will be used in the upcoming discussions of engagement and motivation, audiobooks, and online reading.

Engaged Reading

Engaged reading and the role of motivation in reading has been primarily studied by John T. Guthrie and Allen Wigfield, and their work provides the best definitions of engaged reading and the role of motivation in reading.

As explained in John T. Guthrie et al. the construction of reading engagement is the

"Joint functioning of motivations and strategies during reading…. Engaged readers choose to read for a variety of purposes and comprehend the materials within the context of the situation. Engaged readers are self determining in the sense that they elect a wide range of literacy activities for aesthetic enjoyment, gaining knowledge, and interacting with friends. They are motivated to read for its own sake and these motivations activate the self regulation of higher order strategies for learning through literacy."[clxxv]

Guthrie et al go on to define motivations as reasons for reading and classify their viewpoint as one that is goal oriented.[clxxvi]

In summary, motivation is part of engagement. Motivations are reasons for reading, and readers have multiple goals for reading, which can be both intrinsic and extrinsic in terms of motivational goals. Intrinsic motivation is based on internal and personal desires to complete an activity. Intrinsic reading goals can be "curiosity, aesthetic involvement, importance of reading, challenge, social interaction, and self efficacy.[clxxvii] Extrinsic motivation is based on external desires and rewards, such as monetary rewards. Extrinsic reading goals (which can be held simultaneously with intrinsic goals) include "recognition, grades, competition, compliance, and work avoidance." [clxxviii] Extrinsic goals for reading (to complete an assignment, for grades, or other rewards and recognition) are not part of engaged reading and do not make for lifelong readers. To reach engaged reading, readers have to be more than just motivated (in some way) to read, they must also have the volitional strategies, such as include academic self regulation, to be able to reach their motivational goals, such as deep processing, self monitoring and evaluation.

Guthrie offers another view of engaged reading that focuses much more explicitly on what it means to be an engaged reader. [clxxix] Using a case study, Guthrie illustrates the many components of engaged reading, from reading avidly for personal enjoyment, to using reading to seek explanations and further information. Guthrie's engaged reader reads both for leisure and for informational purposes. Guthrie dissects each of the elements of engaged reading, starting with motivation.

"Engaged literacy learners are motivated. They want to read."[clxxx] Once again using motivations as reasons for reading, Guthrie explains that engaged reading includes involvement (getting lost in a book), curiosity, social (such as sharing in a

literature circle or with like-minded peers), and that all of these lead to readers who are making connections "between their inner experience and the outer world of books."[clxxxi]

Other elements of engaged reading include conceptual understanding in which "children read to discover important aspects of their world."[clxxxii] Children can learn from informational books and from fictional books and can learn while reading for leisure or while reading for a purpose. When students are intrinsically motivated, they are more likely to read widely and deeply in search of conceptual understanding (whether of people or situations or the natural world), and with higher levels of comprehension.

Engaged readers use a variety of cognitive strategies, often using them so well they have become an ingrained part of the reading process and no longer realize that they are being used. In fact, this is the essence of strategic reading—automatic and efficient. Strategies are never absent in engaged reading, but must be learned, and this is where intrinsic motivation again plays a large role. New readers must be motivated enough to do the hard work of learning and practicing these strategies. As M. Wolff pointed out in *Proust and the Squid*, reading is a relatively late addition to the human brain and not an activity that comes naturally.[clxxxiii] Motivated and engaged readers learn these strategies, and then integrate them into their reading so that they become self-regulating strategy users—that is they become strategic readers. This does not mean that they learn these in the classroom, instead many engaged readers will learn these skills on their own in order to read more advanced texts and to become more deeply engaged with texts in areas in which they are interested.

Last, engaged readers do not read and live alone, they become involved in literate social activities whether conversing with peers, teachers or others (such as school or public librarians), or at the very least have an interaction with the author, the creator of the text with which they are engaging. As nearly all authors have websites, blogs, or other ways of facilitating online interactions with readers, readers are increasingly able to become involved in social interactions around reading, and are no longer limited to the in-person interpersonal interactions in their daily lives. Social motivations for reading and being involved in literate social activities are not limited to younger readers; the incredible popularity of community wide reading events (One City, One book, or the National Endowment for the Arts' Big Read), and nationwide book groups (Oprah's Book Club) are testaments to this key aspect to engaged reading.

Engaged readers do not read solely for leisure. In fact, the reason for reading matters little in terms of engaged reading. Any reading activity that displays the elements described above can be engaged reading, from private at home leisure reading, to participating in a book group, to reading for information, such as reading articles for a preliminary doctoral exam question. This is the key difference between engaged reading and the aesthetic and efferent reading of reading response theorists, for them the purpose to reading is key, while for engaged reading, it is about what elements are involved in the reading process that truly matters. The 20% of readers in Ross' study who say they read just to pass time, are leisure reading, but are not doing engaged reading, because they retain little of what they read and are not engaged with the texts past a shallow and passive reading experience.[clxxxiv]

Engaged Reading: The Socio-Cultural View

Another view of engaged reading is a socio-cultural view, in which readers describe being absorbed by text, deeply engaged with texts, or "lost in a book." This differs from the socio-cognitive view that emphasizes strategies and motivation, and should continue past the initial experience with the text. This type of engaged reading is almost always equated with leisure reading. It is closely related to transactional theories of reading, as this type of engaged reading almost always includes a transaction between the text and the reader, and the reader and the text, during the reading process. One element that distinguishes this type of reading from socio-cognitive engaged reading is that it does not have to last beyond the reading experience, lead to further reading, or to discussions with others. Readers who are deeply absorbed in a book while reading, but two days later can't remember the title or author are involved in this type of engaged reading.

Transactional theory as described by Rosenblatt and Langer, and overviewed in Lee Galda and Richard Beach's study, is an important part of socio-cultural engaged reading because as readers transact with the text or create and step into an envisionment readers are doing this kind of engaged reading.[clxxxv] Galda and Beach argue that it is time to move forward and beyond definitions limited to text, reader, and context, to more socio-culturally situated definitions. They suggest organizing literature instruction around student's issues, concerns, and dilemmas with the text and characters, as these enhance their engagement and explore larger social, cultural, and political issues.[clxxxvi] Another way to do this to contextualize characters' actions as social practices within larger cultural worlds, such as examining the social worlds

and systems within texts.[clxxxvii] Finally, they suggest having students select an issue from their current world that is inspired by the earlier discussions of social practices and contexts, for further research and classroom activities. All of this allows for students to bring their own socially constructed experiences into the classroom as they interact with teacher-selected texts, and to increase their engagement.

Victor Nell, in *Lost in a Book*, has one of the best and most referenced descriptions of this type of engaged reading and his model for ludic reading, based on several years of psychological research with heavy readers, is one of the closest matches to fully describing socio-cultural engaged reading.[clxxxviii] Nell's main concern is with the shift in attention of the reader upon entering the world of the book and engaging with the text. Nell's model is based on ludic readers who read more than one book a week and have high reading abilities, positive expectations of the reading experience,e and their ability to read (same as socio-cognitive requirement of self-efficacy), and have made the correct choice in a book. Nell's model is also explicitly limited to fiction or narrative nonfiction book readers, because he is concerned with the physical object of the book and the power of story in the reading experience.

This type of engaged reading has a long history in LIS research and publications, such as Smith, who found that a "deep and complex relationship exists between readers and their stories."[clxxxix] And "all readers rewrite every story they read … in other words, the reading of a novel is as much a creative act as the writing of it."[cxc] B. Usherwood and J. Toyne have conducted similar studies in which they interviewed readers and conducted focus groups in order to determine the value of

fiction reading in people's lives.[cxci] One of their categories is closely related to engaged reading, which is a desire to escape into another world, either becoming fully immersed into the other world or time in the text or becoming actively involved with the text as readers reported "becoming characters."[cxcii]

Catherine Sheldricke Ross, a Canadian LIS professor and long-term researcher of adult leisure readers, sums up her work in *Reading Matters: What the Research Reveals About Reading, Libraries and Community*.[cxciii] She discusses this type of engaged reading in terms of Nell's ideas on ludic reading and in terms of her own research and interviews with adult readers. One outcome of her literature review, which included the works of Nell, Pennac, and Schwartz, is the creation of seven themes about the reading experience, one of which is "surrendering to the book" which is another way of describing engaged reading.[cxciv] Ross continues to explore engaged reading, concluding that reading is very personal, the connection between the book and the reader can be difficult to predict and can change over time. Yet that connection is how many readers create an identity from reading. "Readers use the text to create a story about themselves… [and] they read themselves into the story and then read the story into their lives, which then becomes a part of them."[cxcv]

How do the theoretical reading experiences of Rosenblatt and Langer compare to engaged reading?

Above, the reading experience boils down to the reason the reader came to the text. If they came to the text to "get lost in a book" or spend an enjoyable afternoon with a narrative, then they are ready and able to have an aesthetic or literary reading experience regardless of the type of texts they are choosing to read. If they came to

the text looking for information, or to read it for a specific purpose (such as for a class or work assignment) the reader is much more likely to have an efferent or discursive reading experience, as the stance they bring to the reading experience is not one conducive to aesthetic reading. Reading for leisure is most likely to lead to aesthetic reading experiences, as reading for a non-leisure purpose is most likely to lead to efferent reading experiences. However leisure reading is not exclusively or always aesthetic reading, as some readers may read in an efferent way during leisure reading, or even enjoy efferent reading for leisure. One example would be a dedicated news reader who reads for leisure, but also to take away information about national and world events.

Engaged reading can occur in both aesthetic and efferent contexts. Engaged reading is not limited to aesthetic reading, or leisure reading; engaged reading is a state of mind, not a purpose for reading. Indeed, engaged readers can engage with assigned texts, leisure texts, or informational texts. The readers' state of mind, not the purpose for reading, is what matters; because what matters is the way in which the reading is occurring. As long as it has many of the elements of engaged reading as described above, it is engaged reading, regardless of whether it is an aesthetic or efferent reading experience. The key here is the transaction: in order for readers to transact with the text in the ways that Rosenblatt describes, then they must also be at least somewhat engaged with the text, though not all the elements of engaged reading may be present.

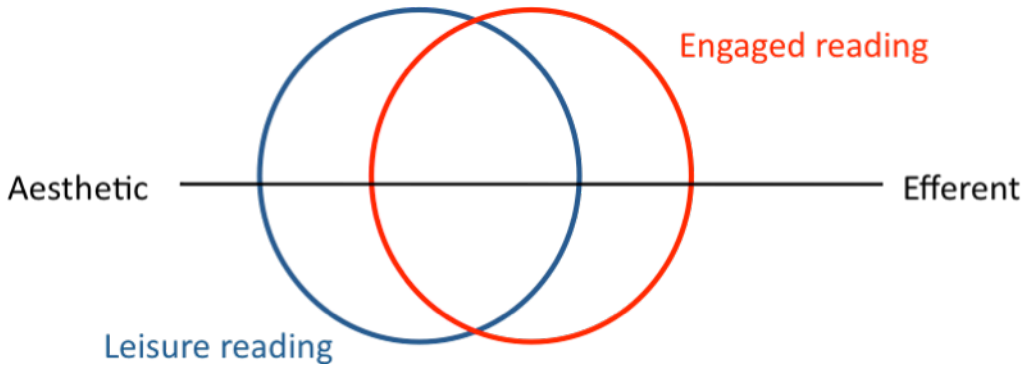
During Langer's four stances nearly all the elements of engaged reading occur. This is a much closer one-to-one match, as when readers' engage in her four

stances of responsive reading, they are also very likely to be doing engaged reading. As Langer's work is much more focused on the entire reading experience, including post reading discussion and understanding, this type of reading is very much like the engaged reading of Guthrie and Wigfield. It involves the key elements of social motivations and activities, involvement, curiosity, making connections with the world, and using cognitive strategies while reading, such as returning to stage 1 when encountering new vocabulary words or an unexpected plot twist. Langer's version of Reading Response Theory and her four stances are the best match for describing engaged reading.

Relationship Between Leisure Reading, Engaged Reading, Aesthetic Reading, And Efferent Reading

The relationship between these four different ways of reading is complex, because all describe and contextualize reading differently. However, they are all related and overlap. One way to think of this relationship is with a figure:

Figure 1



While centered on the aesthetic end of the spectrum, leisure reading is not exclusive to aesthetic reading, nor does it have to be primarily an aesthetic reading experience, although it usually is. Leisure readers who enjoy nonfiction are more likely to be found closer to the efferent end of the spectrum than the aesthetic end, which is why the leisure reading circle edges into the center.

Engaged reading has a lot of overlap with leisure reading, but not all engaged reading is leisure reading, and not all leisure reading is engaged reading. The works of Radway, Ross, and Moyer all talk about important learning experiences that readers gained while leisure reading.[cxcvi] In all cases the readers in their studies were talking about texts in which they became deeply involved as part of leisure reading, which resulted in learning experiences that shaped their lives and personalities. For these readers one outcome of the experience of leisure reading was learning new information or gaining important insights, and while the term engaged reading is never used in these studies, what all the authors are describing is engaged leisure reading. At the same time all three authors talked to readers who rarely or never deeply connected with a text or did not feel like they learned regularly from their leisure reading. Many readers mentioned being deeply engaged with only some texts. A likely interpretation of this engagement, is that for many readers, only some leisure reading experiences provide them with the opportunity for engaged reading.

Engaged reading is just as likely to occur with school or assignment-based reading as it is with texts selected for leisure. Because of this, engaged reading falls closer to the efferent side of Rosenblatt's reader response spectrum. As engaged reading may involve searching for additional information, critically reading and

evaluating texts, and discussing the text with others, it tends to be more on the efferent side. However as engaged reading also involves deep connections with the text and authors, as well as transacting with the text, it is also influenced by aesthetic reading. In many ways engaged reading is in the center between efferent and aesthetic reading because it involves elements of both.

Relationship between Aesthetic Reading and Efferent Reading and Fiction and Nonfiction Text Reading

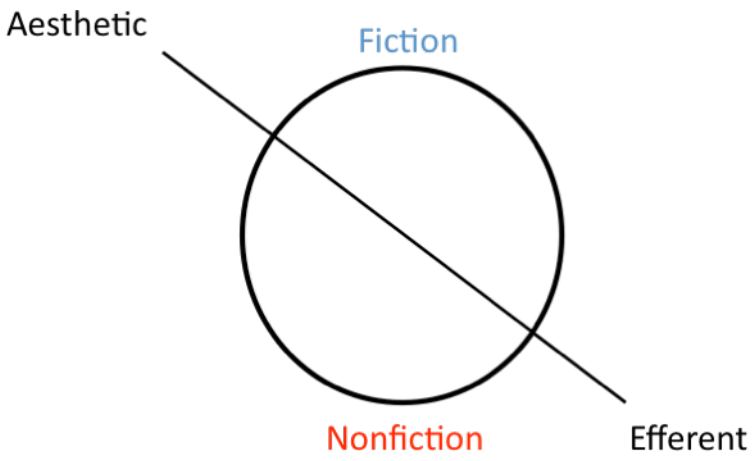
Before, or even as they read, according to Rosenblatt, readers must choose the stance in which they are approaching the texts. This may not be a conscious process, but it also may need to be made conscious in order for readers to understand what stance they have as they approach texts. Here is where I argue that the readers' purposes for reading are particularly important. Readers who start out with the stated goal of conducting leisure reading are more likely to adopt an aesthetic oriented stance as they are choosing to do the reading for the experience that it provides, not for information gathering. They are there to enjoy the story. This does not mean that their reading experience cannot turn into an efferent reading experience. If the text is poorly written and spelling and grammar errors abound, it may distract the reader to the point of losing the aesthetic experience. Readers approaching the text solely for the purpose of gathering information to take away are most likely to have an efferent reading experience because this is the way in they are oriented as they begin the reading experience. Fiction is just as likely to elicit this state as nonfiction—the reader's stance is not limited to a certain type of text.

Here is also where I would argue that aesthetic or efferent reading can occur with any kind of text. All that matters is the reader's stance as they approach the text and the experience they have as they transact with the text. Because each reader is unique and individual, it can never be said that any particular text is not worthy of efferent or aesthetic reading, although some texts may be more likely to create efferent or aesthetic reading experiences. Since so much is dependent on the individual reader, I argue that any text a reader approaches for the purpose of leisure reading can be read aesthetically, as long as the reader transacts with the text. Leisure reading that neither involves transaction nor is for information gathering is neither aesthetic nor efferent and this type of reading sometimes occur. Readers who merely want to pass the time are those likely to have this experience. Rosenblatt says, "Even the literary work that seems most remote, an imagist poem or a fantasy, reveals new notes in the gamut of human experience, or derives its quality of escape from its implicit contrast to real life."[cxcvii]

The relationship between fiction and nonfiction and efferent and aesthetic reading is a complex one because fiction and nonfiction texts cannot be matched directly to efferent and aesthetic reading, despite the fact that they are both opposites; fiction is the opposite of nonfiction, and efferent the opposite of aesthetic. Fiction and nonfiction operate along a spectrum; some fiction is completely fantastical (Harry Potter) and other fiction is full of real places and information (good historical fiction), and nonfiction contains plenty of titles that have elements of fiction, such as memoirs (James Frey) or essay collections (anything by David Sedaris). Kenneth Shearer proposed one way to view the world of leisure reading, place pure fiction readers on

the North Pole and pure nonfiction readers on the South Pole.[cxcviii] A descriptive and illustrative metaphor, Shearer's world of leisure reading is helpful in understanding the differences between the two types of texts, and it also shows that most readers live around the Equator, while few live solely at either pole. In the figure below I have laid the aesthetic/efferent spectrum over Shearer's world of leisure reading as one way of conceptualizing the relationship between fiction and nonfiction, and efferent and aesthetic reading.

Figure 2



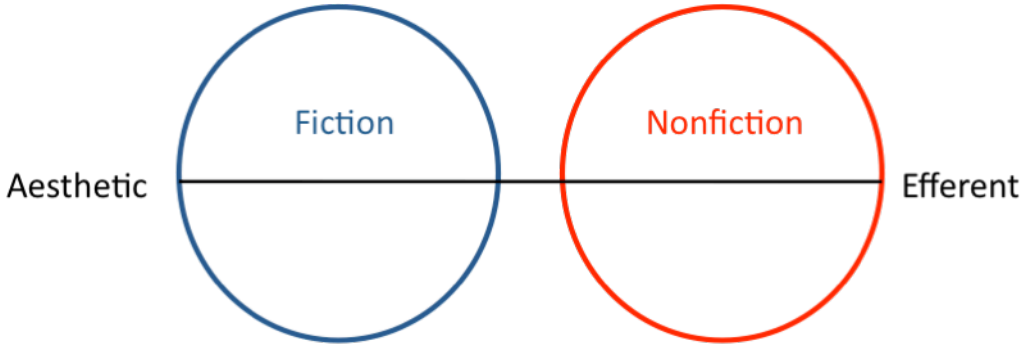
Shearer's World of Leisure Reading as a Function of the Aesthetic/Efferent Spectrum

The efferent/aesthetic spectrum lies neither across the equator, nor the meridian, but falls somewhere in between, showing the relationship between the two types of reading and the two types of texts. While fiction is more likely to be part of aesthetic reading (thus the northward slant), nonfiction is never left out of aesthetic reading. Efferent reading is slanted towards nonfiction, as many readers approach

nonfiction texts as a way of gathering information, however, there are still plenty of readers who are able to have an aesthetic experience with nonfiction. Here the entire world of leisure reading is being described, including all the types of texts that can be part of leisure reading. However, this does not mean that aesthetic reading is synonymous with leisure reading. As mentioned previously, while leisure reading tends to be more aesthetically oriented it is never exclusively aesthetic, there are plenty of readers who can have an efferent reading experience during leisure reading if they enjoy and choose to read for information. The next few paragraphs explore further the relationship between types of reading and texts for reading in leisure reading contexts, and school based contexts.

Figure 3 shows the commonly assumed relationship between texts and reading, all fiction is clustered at the aesthetic end and all nonfiction is clustered at the efferent end. This is incorrect and a far too simplistic way to think of these texts and types of reading.

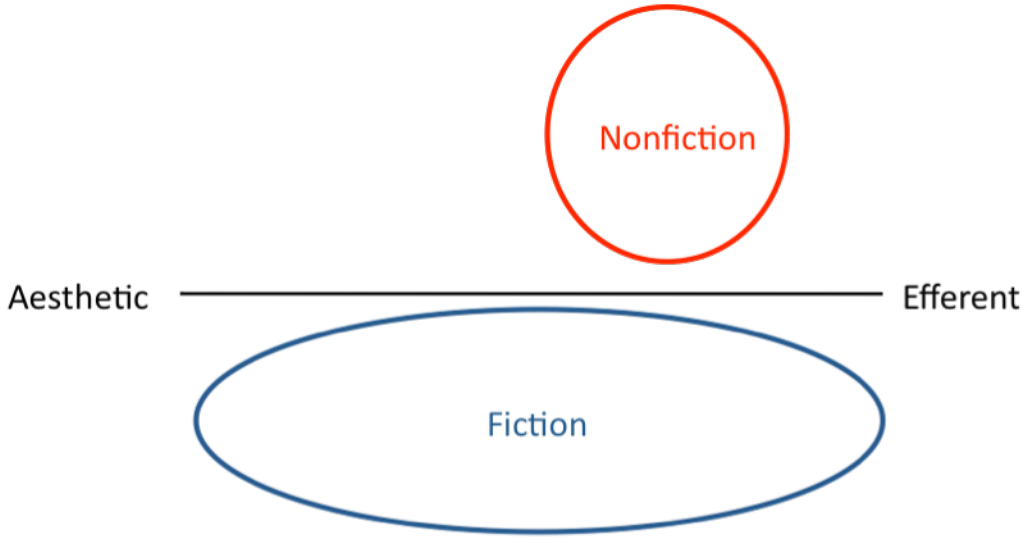
Figure 3



Commonly assumed relationship between Fiction reading and Nonfiction reading as a function of the Aesthetic/Efferent spectrum

Instead there are two other ways to think of this relationship. Figure 3 is about the relationship of fiction and nonfiction and aesthetic and efferent reading for youth in school who are doing in school and/or assigned reading.

Figure 4



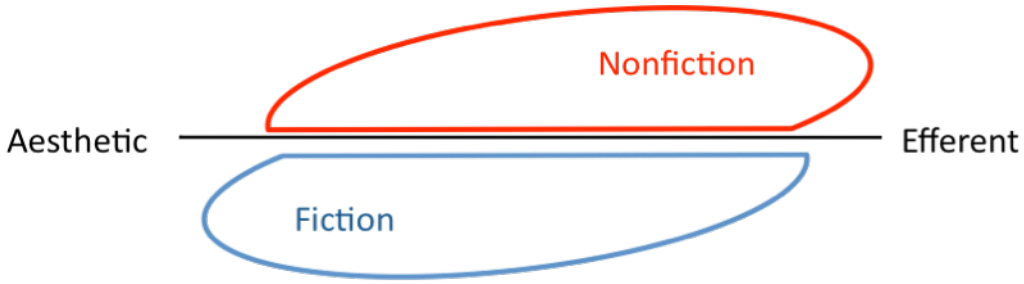
Relationship between School Fiction reading and School Nonfiction reading as a function of the Aesthetic/Efferent spectrum

Most of the nonfiction that students read is for content area knowledge and is thus clustered near (but not all the way at the end of the) efferent side of the spectrum. It is close to the center because at times students might be able to have aesthetic reading experiences with nonfiction, however, it is far less likely to happen with school-based reading. Fiction is spread along the entire spectrum because fiction reading in school is just as likely to be efferent as aesthetic. Here there is great variety from school to school and even classroom to classroom. Some teachers will emphasize reader-response activities and experiences in their classes, others will want

students to study and dissect the literature for themes and elements of literature. In terms of fiction in school, much depends on both the student's approach to the reading and the teacher's framing and teaching of the texts, which is why, in school, fiction reading is found on both ends of the spectrum with the bulk of it near the center.

In reading outside of school, leisure reading can be seen this way in Figure 4:

Figure 5



Relationship between Leisure Fiction reading and Leisure Nonfiction reading as a function of the Aesthetic/Efferent spectrum

Here both fiction and nonfiction are on both sides of the spectrum, with most readers closer to the middle. Fiction is slanted towards, but not exclusive to, aesthetic reading, and nonfiction is slanted towards, but not exclusive to, efferent reading. This figure coupled with Shearer's world of leisure reading, which illustrates about the same ideas, are the best ways of thinking of the interplay between efferent and aesthetic reading, and fiction and nonfiction texts.

Audiobooks, E-books, and Online Reading

Does reading response theory and engaged reading only apply to printed materials? In short, no. Just like all types of print reading can be included in aesthetic reading, and can be part of engaged reading, different formats do not affect the reading experience to the point where these theories cannot be applied. In this work I use formats to differentiate between the three ways in which the texts are presented. Other researchers, particularly those in New Literacies use the term 'modalities' in much the same way. In the following section, reading response theory and engaged reading are applied to two alternative reading formats: e-books and e-book readers and audiobooks.

Nothing in Rosenblatt's work or the work of other reading response theorists limits aesthetic reading to "literature." Indeed, as I have argued above, all types of fiction reading can be aesthetic reading as long as the reader is having an aesthetic reading experience with them. Langer is also in agreement with this point, arguing that the genre matters little, what it is really about is the reading experience itself.

E-Book Readers and Online Reading

E-book readers like the Kindle, Nook or the Sony Reader are designed to replicate the experience of reading a printed book. Approximately the size, shape, and heft of a paperback book, the text is displayed in a screen the size and shape of a printed page, and the reader has to "turn" the page using a special button or finger touch to advance to the next page of text. The major difference between the printed book experience and that of the e-book reader is that e-book readers usually provide a

more accessible reading experience; text can easily be enlarged for readers with poor vision and the lightweight nature of the device means that it is easy to hold, especially for readers with hand problems. Even frequent readers can come to prefer to read from an e-book reader after cramping their hands holding open tightly bound paperbacks or exhausting their arms from hours of holding up enormous bug-crusher sized fantasy books. Based on anecdotal evidence from readers and claims from the developers, the e-ink technology currently used by both the Kindle and the Sony is reportedly much clearer and easier to read than that found in many books, especially cheaply printed paperbacks with thin pages and indistinct text.[cxcix] Users often report that the lack of backlighting eliminates the eyestrain, which can be caused by computer based reading.

Above all, the Kindle and Sony e-book readers are designed to replicate the printed leisure reading experience at its best, while eliminating the problems that can curtail lengthy reading sessions. Thus in my mind, there is no reason at all that traditional theoretical frameworks and models of reading cannot apply to e-book reading. In the preface to the last edition of *Literature as Exploration*, Rosenblatt explicitly states in response to the idea that printed text is dying, "Even if this… were to come true, the efferent-aesthetic continuum simply describes the two main ways in which we look at the world, and the transactional process would still apply to transactions with whatever media prevail."[cc]

While an increasingly important part of modern society, online reading is rarely considered in terms of leisure reading, because most of the research focuses on online information seeking or web users who browse widely, scanning, but rarely

reading deeply. Here online reading is considered only in the ways that it differs or is similar to e-book reading, which is the only type of online reading that is part of this project.

Online reading for leisure can take two forms. First is reading narrative texts, such as essays, fanfiction, chapters in books; second is postings that are part of a community discussion for the purpose of interacting with and being a member of an online community. All of these activities have existed for years, but with the exception of some recent work on fanfiction, have largely been ignored in favor of more information based studies of online activities.

In terms of this study of leisure reading formats, both types of online reading can be considered but reading that consists primarily of narrative texts is of much more interest because this type of reading is most closely related to print leisure reading, which most often consists of narrative works. Most important to consider is for what purpose the reader is choosing to read online rather than what or how they are reading. As long as the reading is for leisure then it can be considered and studied in terms of aesthetic reading. The online reading experience can also be seen in terms of Langer's four reading stances because online readers are just as likely to move through each of these stances as they read online as they would when reading a printed book. There is also nothing to indicate that readers cannot do engaged reading with screen-based reading. Based on prior experience and preferences some readers may be more or less likely to have engaged reading experiences with online texts, but there is nothing that would make it impossible for readers to have engaged reading.

Audiobooks

I think the only question to ask when considering audiobooks is whether reading out loud counts as "real" reading. Since I think that everyone would agree that reading out loud is an important part of children learning to read, then it follows that audiobooks are also "real" reading and that theoretical models and processes of reading that apply to printed materials also apply to audiobooks. While logically the two formats can be argued to be the same, this is a point of contention among reading researchers. When considering audiobooks the additional acts of listening comprehension must also be considered, as should the increased engagement audio can provide for many readers.[cci] I would argue that listening is in fact "real" reading and that listeners can engage with audiobooks in much the same way as they can engage with printed or electronic texts, so therefore theories of engaged and motivated reading can most certainly be applied to audiobooks.[ccii]

Nothing in Langer's work speaks to listening as reading or to audiobooks. In fact I would argue since she is so clearly inclusive of all types of texts as reading and her stances describe the reading process, her work *can* be applied to audiobooks, despite her only having directly addressed printed works in her publications. Listeners can have both discursive and literary reading experiences and they can move through her four stances as they listen, just as well as if they were reading a printed text.

However, Rosenblatt does address the listening experience in *The Reader, the Text, the Poem* in her chapter on transactions, "The Poem as Event." She believes that an essential element of the transaction, or the poem, is the reader's recreation of

the verbal clues offered by a speaker, such as emphasis, pitch or inflection. "Hence the reader, in contrast to the listener, finds it necessary to construct the speaker, the author… the persona, - *as part of what he decodes from the text*."[cciii] In an audiobook reading experience, the listener does not have to construct these elements of the listening experience, instead they are supplied for the listener through the offices of the professional narrator reading the text.

The question then becomes whether or not this element of the transaction is so crucial that without it the transaction cannot occur. I would argue no, that in fact Rosenblatt's transactions can be applied to listening experiences even with this missing element, because while it is important, it is not the only or most important element of the transaction. However, this is not a view without controversy. Many early texts recorded for sight-impaired patrons were deliberately read without any inflections or emphases so as not to bias the listener. These extremely dull recordings, still used for some textbooks and news reading, are not popular with most sight-impaired readers and are almost never used for popular texts aimed at a mainstream audience. The booming professional audiobook market for children and adult listeners with high quality production and talented narrators has also contributed to the elimination of this type of recording.

Based on these arguments I conclude that reading response theory and engagement motivation can be applied to leisure reading, whether in print, online, on an e-book reader, or while listening to an audiobook. Both reading response theory and engagement and motivation are important theoretical models to consider in

studying leisure reading, regardless of format, as they contribute many important ideas and elements of the leisure reading experience.

Notes

[cxxxv] W. Knulst and G. Kraaykamp, "Trends in Leisure Reading: Forty Years of Research on Reading in the Netherlands." *Poetics* 26, no. 1 (1998): 21-41.
[cxxxvi] Ibid., 30.
[cxxxvii] Greaney, V., "Factors Related to the Amount and Type of Leisure Reading," *Reading Research Quarterly* 15, no. 3 (1980): 337-357.
[cxxxviii] While most educators view Accelerated Reader and similar programs as a tool to promote reading comprehension, school and public librarians often view it from a leisure reading perspective because they need to provide the same type of advisory services as they do for entirely self-selected leisure reading material, and frequently are suggesting the same text.
[cxxxix] Sandra Hughes-Hassell and P. Rodge, "The Leisure Reading Habits of Urban Adolescents," *Journal of Adolescent & Adult Literacy* 51, no. 1 (2007): 22.
[cxl] Jessica E. Moyer, "Learning From Leisure Reading: A Study of Adult Public Library Patrons." *Reference and User Services Quarterly* 46, no. 4 (2007): http://www.rusq.org/2008/01/06/learning-from-leisure-reading-a-study-of-adult-public-library-patrons/.
[cxli] Moyer, 2007; Ross, C. S. "Finding Without Seeking: What Readers Say about the Role of Pleasure Reading as a Source of Information," *Australasian Public Libraries and Information Services* 13, no. 2 (2000): 72-80.
[cxlii] L.M. Rosenblatt, *Literature as Exploration*. 5th ed. (Modern Language Association: New York, 1995).
[cxliii] Ibid., xvi.
[cxliv] L.M. Rosenblatt, *The Reader, the Text, the Poem: The Transactional Theory of the Literary Work*. 2nd ed. (Southern Illinois University Press: Carbondale, IL, 1994): 12.
[cxlv] Rosenblatt 1995, xvii.
[cxlvi] Rosenblatt 1994, 23.
[cxlvii] Rosenblatt 1994, 24.
[cxlviii] Ibid., 23.
[cxlix] Ibid., 27-28.
[cl] Ibid., 30.
[cli] Rosenblatt, 1995, xvii.
[clii] Rosenblatt 1994, 24-25.
[cliii] Ibid., 29.
[cliv] Ibid., 35.

[clv] Ibid., 37.
[clvi] Ibid., 37.
[clvii] Rosenblatt, 1995, xix.
[clviii] Ibid., xix.
[clix] J. A. Langer, *Envisioning Literature: Literary Understanding and Literature Instruction*. (International Reading Association and Teachers' College Press: Newark, NJ, 1995).
[clx] Ibid., 9.
[clxi] Ibid., 10.
[clxii] Ibid., 14.
[clxiii] Ibid., 14.
[clxiv] Ibid., 14.
[clxv] Janice A. Radway, *Reading the Romance: Women, Patriarchy, and Popular Literature*. 2nd ed. (University of North Carolina Press: Chapel Hill, NC: 1991).
[clxvi] Langer, 1995, 15.
[clxvii] Ibid., 16-19.
[clxviii] Ibid., 17.
[clxix] Ibid., 17.
[clxx] Langer, 17-18; Moyer 2007; Ross 2000.
[clxxi] Langer, 18.
[clxxii] Ibid., 18.
[clxxiii] Ibid., 19.
[clxxiv] Ibid., 32.
[clxxv] John T.Guthrie et al. "Growth of Literacy Engagement: Changes in Motivations and Strategies During Concept Oriented Reading Instruction," *Reading Research Quarterly* 31, no. 6 (1996): 306-332.
[clxxvi] Ibid., 309.
[clxxvii] Ibid., 309.
[clxxviii] Ibid., 309.
[clxxix] John T. Guthrie, "Educational Contexts for Engagement in Literacy," *The Reading Teacher* 49, no. 6 (1996): 432-445.
[clxxx] Ibid., 433.
[clxxxi] Ibid., 433.
[clxxxii] Ibid., 434.
[clxxxiii] M. Wolff. *Proust and the Squid: The Story and the Science of the Reading Brain*. (HarperCollins: NY, 2007).
[clxxxiv] Ross, 2000.
[clxxxv] Lee Galda & Richard Beach, "Theory into Practice: Response to Literature as a Cultural Activity," *Reading Research Quarterly* 36, no. 1(2000): 64-73.
[clxxxvi] Ibid., 70-71.
[clxxxvii] Ibid., 71.
[clxxxviii] Victor Nell, *Lost in a Book: The Psychology of Reading for Pleasure* (Yale University Press: New Haven, Conn, 1990)
[clxxxix] D. Smith, "Valuing Fiction," *Booklist* 94, no. 13 (1998:): 1094-1095.

[cxc] Ibid., 1094.
[cxci] B. Usherwood and J. Toyne, "Reading the Warning Signs: Library Book Reading Research," *Public Library Journal* 15, no. 4 (2000): 112-14; B. Usherwood and J. Toyne, "The Value and Impact of Reading Imaginative Literature," *Journal of Librarianship and Information Science* 34, no. 1 (2002); 33-41.
[cxcii] Ibid., 2002.
[cxciii] Catherine Sheldrick Ross, "Chapter 4: Adult Readers." In *Reading Matters: What the Research Reveals about Reading, Libraries, and Community,* by C. S. Ross, L. E. F. McKechnie, & P. M. Rothbauer. (Westport, CT: Libraries Unlimited, 2006).
[cxciv] D. Pennac. *Better Than Life*. Translated by David Homel. (Toronto: Coach House Press: 1994); Ross, 2006.
[cxcv] Ibid., 165.
[cxcvi] Radway ; Ross, 1999; and Moyer, 2007
[cxcvii] Rosenblatt, 1995, 6.
[cxcviii] Kenneth D. Shearer, "Chapter 4: The Appeal of Nonfiction: A Tale of Many Tastes," in *Nonfiction Readers' Advisory*, ed. Robert Burgin. (Libraries Unlimited: Westport, CT: 2004): 67-84.
[cxcix] "E-Ink: Readable." http://www.eink.com/readable.html, last accessed April 26, 2011.
[cc] Rosenblatt, 1995, xviii.
[cci] Grimshaw, et al.
[ccii] Scholars such as: William Irwin, "Reading Audio Books" *Philosophy and Literature* - 33, no. 2 (2009):,358-368; and Helen Aron, "Bookworms Become Tapeworms: A Profile of Listeners to Books on Audiocassette," *Journal of Reading* 36, no.3 (1992): 208-212, argue that listening is equal to or even better than reading print books
[cciii] Rosenblatt, 1994, 20.

Chapter 3: Methodology

As e-books and e-book readers have become an increasingly common part of modern society, and digital audiobooks are readily available and accessible, it becomes increasingly important to study the possible differences between new and emerging formats. As many of these are aimed at the leisure reading market, it is important that studies of e-book readers and audiobooks consider leisure reading materials as well as educational texts. Is the reading experience really the same when a story is enjoyed on a Kindle or listened to on an iPod? No previous studies have directly addressed this question, yet there are dozens of opinion and anecdotal-based pieces being published every month making competing claims about reading in the new and emerging formats.

Guiding Questions

To begin to answering questions about the reading experience in multiple formats, this study focused on three areas:

1. In terms of leisure reading, can college students comprehend and engage with texts the same way when they are presented in print, digital, and audio formats?
2. Does their current level of reading ability affect engagement?
3. What are the characteristics of college students in terms of reading?

Background and Role of the Researchers

Jessica Moyer is a doctoral candidate in literacy education and holds an M.S. and a C.A.S. degree in Library and Information Science. She has previously conducted survey and interview based studies of adult readers, as well as having

completed advanced qualitative and quantitative research methods courses in library science, education, and psychology.[cciv] An avid and lifelong reader and listener, Jessica reviews science fiction, mysteries and audiobooks for library publications, and has published chapters on science fiction and crime stories in multiple formats.[ccv] She regularly teaches workshops and professional development seminars on audiobooks, e-books and readers, and adult and teen readers and library services.

Lauren Jackley is a senior in psychology and a member of C-Nerve, a cognitive neuroscience group at the University of Wisconsin--Stout. In addition to introductory research methods courses, Lauren has studied psychophysiology and experimental research, and worked as a research assistant with several members of the UW Stout faculty. After completing her B.S. in psychology Lauren will be attending graduate school to study school psychology

Both Jessica and Lauren acted as nonparticipant observers during the experimental and survey portions of the study. They interacted with participants during the one-hour time they were in the lab, explaining procedures, answering questions, and gathering data. Appointments for participation were made using an automated online system.

Lauren was the first pilot test participant, then was trained to run participants independently. She completed several participants under Jessica's supervision and it was clear that she understood and was able to adhere to all research protocols. Lauren successfully supervised several participants in the experimental portion and conducted both of the interviews.

Procedures and Data Sources

Study Design

The study design (illustrated in figure 5) was developed with the assistance of experts in social science statistics and research methods.[ccvi]

Figure 6

	T1	Assessment	T2	Assessment	T3	Assessment		
Group A (n = 18)	Print book, *Dogs of Riga*	Interest Inventory	Ebook, *Bloodwork*	Interest Inventory	Audiobook, *Fatally Flaky*	Interest Inventory	Content Reading Inventory	Reading Survey & Debriefing
Group B (n = 18)	Audiobook, *Bloodwork*	Content Reading Inventory	Print book, *Fatally Flaky*	Content Reading Inventory	Ebook, *Dogs of Riga*			
Group C (n = 18)	Ebook, *Fatally Flaky*		Audiobook, *Dogs of Riga*		Print book, *Bloodwork*			

After being randomly assigned to one of the three conditions, each participant experiences all three texts and all three formats. Use of the partially crossed design allowed for counterbalancing both texts and formats that would hopefully eliminate any time or order effects in the analysis of the results. After each reading experience participants complete the two measures. The final step is a survey about the participants' reading habits and interests, followed by debriefing.

Pilot Testing

A complete pilot test of all materials and protocols was conducted with a small group of undergraduate psychology student volunteers and research assistant

Lauren Jackley. Jessica conducted the pilot test with each participant. They were encouraged to give verbal and written feedback throughout and at the end of the experiment, which was then used to refine and finalize each of the instruments and the general experimental protocols. As the pilot was smooth and successful and only minor changes were needed to the instruments, it was determined to move ahead and recruit participants.

Recruitment

Participants for the study were recruited through the psychology department SONA system, which is used for all departmental research projects requiring human subjects. Students in several introductory psychology courses are required to participate in 2 total hours of research before the end of the semester. This experiment was listed in SONA at the beginning of November, 2010. The following was listed as a description of the study: *Print Books, Audio Books, and E-Books Study. Participants will read and listen to short selections and answer questions*. Jessica Moyer, Dr. Desiree Budd (site sponsor), and Lauren Jackley are listed as the investigators. Students from Dr. Budd's Psych 290 course also participated. Jessica visited the class and described the study and took questions from the students, after which they signed up for appointments in the SONA system. In return for their participation Dr. Budd was given an anonymized selection of the data for student analysis as part of a unit on ANOVA.

Jessica created appointment times in the SONA system, each for 90 minutes. Students self selected for this study as this was one of several options available.

Students used their university logins to access SONA and to sign themselves up. The researchers then received a notification of the upcoming appointment and name of the participant.

Selection of texts

A total of three individual novels were needed for the experimental portion of the project. They needed to be similar enough to be comparable, but unique enough to preclude previous knowledge effects in the comprehension measures. They also needed to be typical of leisure reading texts, so that the experimental results could be generalized. The first step in this process was to choose a genre, in this case mysteries and thrillers were selected as this is one of the most popular genres, and unlike romance or science fiction, does not tend to be more popular with one sex than another.[ccvii] Mysteries were also selected because of the variety of subgenres which would allow for similar yet comparable titles to be selected.

As one of the major requirements of the study is an audiobook component, this became the next step in the process. Audiobooks in tape, CD, and digital formats were all considered, but eventually discarded in favor a new technology, the Playaway. Playaways are small mp3 players that are preloaded with a single title.[ccviii] Designed for library sales, these devices are easy for patrons to use and eliminate the technology element needed for other audiobook media. An additional factor in deciding to use these was the individual nature of the devices and their ease of use, which would eliminate several sources of error that could be possible with digital audio files that were accessed on a regular mp3 player, or a computer. Findaway

World, the owner and developer of the Playaway deice, agreed to donate any Playaways that were needed for this project, eliminating the need to purchase or borrow any additional equipment.

Findaway World supplied a complete list of the Playaway catalog in a searchable spreadsheet with information fields that included author, title, narrator, genre, and length of complete audio. Because it was important that the listening experience be of the highest quality, it was decided that only titles recorded by narrators who had won lifetime achievement awards from Audiofile Magazine would be used.[ccix] After limiting to these narrators and to the mystery genre, a list of titles was generated. After eliminating new and/or bestselling titles that the research participants might be familiar with, and ensuring that all titles had corresponding in print paper books, five titles were selected that represented male and female narrators and five of the major subgenres of mysteries and thrillers. *The Millionaires* by Brad Meltzer is a legal thriller, with the audio version read by Scott Brick.[ccx] *The Spy Who Came in From the Cold* is a spy thriller by John Le Carre and the audio is read by Frank Muller.[ccxi] The third title was *Dogs of Riga* by Henning Mankell, read by Dick Hill, a Swedish police procedural.[ccxii] Diane Mott Davidson's *Fatally Flaky*, as read by Barbara Rosenblatt was the fourth title, which is a cozy featuring an amateur sleuth.[ccxiii] The final title on the shortlist was *Bloodwork* by Michael Connelly, read by Scott Brick, a thriller featuring a retired private investigator.[ccxiv]

As only the beginning of each audio would be used in the experiment, it was important to choose pieces that were easy to understand from the first sentence. After receiving Playaways of all five titles, I listened carefully to each one, assessing the

audio quality and comprehensiveness. *The Spy Who Came in From the Cold* was eliminated because it was difficult to grasp what was going on in a short time period.

Readability

The next step was to determine the readability of each of the four remaining titles to be sure that they would be comparable when measuring participants comprehension across formats. To test readability the first 250 words of each title were entered into a Word document and saved as a txt file allowing it to be analyzed using several different comprehension measures.

Lexile, a propriatery format owned by MetaMetrics, is commonly used in schools. Educators enter text on the Lexile Analyzer website and a lexile level is then generated.[ccxv] Each of the four texts were entered into the Lexile Analyzer. The text files were then analyzed using a software package, Readability Calculations, version 7.0 that tested the passages using several other well known readability tests.

Table 1

	Bloodwork	**Millionaires**	**Dogs of Riga**	**Fatally Flaky**
Flesch Reading Ease (1 to 100 scale)	**82**	**82**	**84**	**70**
Flesch Grade Level	**5.0**	**4.1**	**3.7**	**6.2**
FOG	**9.0**	**7.3**	**7.0**	**8.0**
SMOG	**8.5**	**8.0**	**8.1**	**8.6**
FORCAST	**8.1**	**8.7**	**8.5**	**10.3**
LEXILE	**970**	**610**	**610**	**840**

Eventually *Millionaires* was eliminated due to a combination of strong language that might bother some participants and readability levels that were comparable to other, more appropriate texts.

The remaining titles to be used in the experiment included one female narrator, two male narrators, and the subgenres of police, amateur cozy, and private investigator thriller.

Data Sources

Comprehension measures, an engagement and interest measure, a background knowledge questionnaire, and a general reading survey were all used to collect data.

Comprehension Measure

As none of the selected texts had standardized reading passages or tests associated with them, it was determined that the next best option would be to design a comprehension measure for each text. The Content Reading Inventory (CRI) is commonly used by classroom teachers to assess comprehension of assigned texts which lack formalized measures.[ccxvi] The CRI measures literal, inferential, and vocabulary comprehension and is considered a valid between subjects measure when it is properly constructed and tested. Although a standard CRI requires only 250 words of text and nine items, for best results we developed a measure based on the entire four to six page reading passage (approximately ten minutes of listening time), with 15 totals items, five in each category.

The measure was developed by the researchers who carefully read each passage and then developed at least seven items for each comprehension area for each

text. The two researchers then compared their questions and selected seven to eight of the best queries for the participants. These questions were then used in the pilot study and a final set of five questions per category were selected based on feedback and scores from the pilot test, making for three unique measures.

The CRIs were developed to answer question one: is there is a difference in comprehension across formats? While it was possible that there might be a difference in comprehension between texts (based on textual and reader differences), it is not known if different formats also affect comprehension.

During the experimental portion each participant completed a CRI for each of the three texts, immediately after experiencing each title.

Interest and Engagement Measure

Unlike the CRIs, which were unique to each text, the same Interest Inventory was used for all three texts as it contained only content neutral questions. This measure attempted to gauge participants' interest and engagement with the text, making between subjects and formats comparisons possible. The Interest Inventory consisted of five items using a Likert scale. Responses ranged from 1 (I strongly agree) to 5 (I strongly disagree) and included questions about whether or not the participant enjoyed the text and would be interested in reading more of it. The questions were based on the researcher's extensive knowledge of readers' advisory and genre fiction and the study completed by Grimshaw, et al.[ccxvii]

This measure was designed to answer question two: is there is a difference in interest and engagement across formats? It was known that there would likely be

interest and engagement differences across texts (reading can be influenced by personal preferences) but not known if the format in which the text was experienced could influence interest and engagement.

During the experimental portion participants completed the Interest measure three times, once after experiencing each title.

Reading Survey

The reading survey is a series of multiple choice questions with space for comments developed by the researcher and based on previous surveys.[ccxviii]

The reading survey was designed to answer several questions and was divided into three general areas. See Appendix E for the complete questionnaire. The first area asks for demographic information (age and sex). The second queries format experience and preferences and the last focuses on general reading habits and interest. Part two questions include information about each participant's experience with and opinions of audiobooks, ebooks, and ebook readers. Part three was based almost entirely on a portion of the survey used in "Learning from Leisure Reading," as it had proved to be easy to understand and fill out and provided valuable data about the participants. This focused on questions about what and how often participants generally read. This measure was designed to answer the third research question: what are the habits and characteristics of college students in terms of reading?

Experimental Protocols

Cards with the numbers and group assignments 101-120 (A), 121-140 (B) 141-160 (C), and 201-204 (A), 211-214 (B), and 221-224 (C) were created and placed

in a small box. Envelopes with all the materials and instruments for each participant were created and numbered using the same scheme. In preparation for each session, one card was randomly drawn from the box. This unique number was then assigned to the participant and the matching envelope containing all the materials was selected. All the materials in each envelope were also labeled with the participant number in case any pieces were separated.

The following figure shows the order of titles and formats for each group

Table 2

Group A	Print	Audio	Kindle
n = 23	*Dogs of Riga*	*Bloodwork*	*Fatally Flaky*
Group B	Audio	Kindle	Print
n = 23	*Fatally Flaky*	*Dogs of Riga*	*Bloodwork*
Group C	Kindle	Print	Audio
n = 23	*Bloodwork*	*Fatally Flaky*	*Dogs of Riga*

Each participant was welcomed to the lab and asked to sit at one of the two desks (separated by a screen). They were then given the consent forms and asked to read over and fill them out and ask any questions they had about the study. The following checklist is a list of all the steps used for a participant in the A group after all the consent forms had been signed. Participants in the B or C group received their formats in a different order as reflected in the table above.

1. Background survey

2. Reading 1 Book
3. Interest inventory and CRI (these were stapled together with the Interest Inventory on top)
4. Reading 2 Audio
    a. Show how Playaway works, start/stop buttons, volume controls
    b. Remind how long to listen (until the end of chapter 1)
5. Interest inventory and CRI (these were stapled together with the Interest Inventory on top)
6. Reading 3 Kindle
    a. Show how Kindle works – page turns, dictionary access
7. Interest inventory and CRI (these were stapled together with the Interest Inventory on top)
8. Reading survey
9. Debrief – review purpose of study, answer questions

All participants from the Participant Pool were female, four male students from the Psych 290 class participated, but their data will not be used in final analysis. However, the male participants were treated identically to the female participants, including being randomly assigned a participant number. A total of 72 students participated in and completed all experimental procedures.

Notes

[cciv] Moyer, 2007.

[ccv] Jessica E. Moyer, Christy Donaldson, and Cassie Wagner, "Everything Science Fiction," in *Integrated Advisory Services: Breaking Through the Book Boundary to Better Serve Library Patrons*, Jessica E. Moyer, ed. (Libraries Unlimited: Santa Barbara, CA: 2010); Jessica E. Moyer and Gary W. Neibuhr, "Everything Crime," in *Integrated Advisory*.
[ccvi] Figure designed and created by Christopher A. Moyer.
[ccvii] Ross, 2006; Carl Kulo, "The Mystery Book Consumer in the Digital Age," Sisters in Crime and Bowker pubtrack, 2010. http://www.linkpdf.com/download/dl/consumer-book-pdf-.pdf.
[ccviii] "Playaway For Libraries," Findaway World, http://library.playaway.com/.
[ccix] "Golden Voice Award," *Audiofile Magazine*, http://www.audiofilemagazine.com/gvpages/hill.shtml. *Audiofile Magazine* is the premier source for audiobook reviews and industry information.
[ccx] Brad Meltzer, *The Millionaires*. (Grand Central Publishing, 2002); Scott Brick, "*The Millionaires* by Brad Meltzer," (Hachette Audio, 2002).
[ccxi] John Le Carre, *The Spy Who Came in From the Cold*. (Scriber: New York, 2001); Frank Muller, "*The Spy Who Came in From the Cold* by John Le Carre," (Recorded Books: Prince Frederick, MD, 1987).
[ccxii] Henning Mankell, *Dogs of Riga*. Translated by Laurie Thompson. (Vintage: New York, 2004); Dick Hill, "*The Dogs of Riga* by Henning Mankell," (Blackstone Audio: Ashland, OR, 2006).
[ccxiii] Diane Mott Davidson, *Fatally Flaky*. (William Morrow: New York, 2009); Barbara Rosenblat, "*Fatally Flaky* by Diane Mott Davidson." (Recorded Books: Prince Frederick, MD, 2009).
[ccxiv] Michael Connelly, *Bloodwork*. (Grand Central Publishing: New York, 2002); Scott Brick, "*Bloodwork* by Michael Connelly." (Brilliance Audio: Grand Haven, MI, 2009).
[ccxv] "Lexile Analyzer" MetaMetrics, Inc. http://lexile.com/analyzer/.
[ccxvi] http://departments.weber.edu/teachall/reading/inventories.html#Content%20Area%20Reading%20Inventory%20%28CARI%29; John E. Readence, Thomas W. Bean, and R. Scott Baldwin, *Content Area Literacy: An Integrated Approach,* 8th ed. (Kendall/Hunt Publishing, 2004): 84-88.
[ccxvii] Grimshaw, et al.
[ccxviii] Moyer, 2007.

Chapter 4: Analysis and Results

As described in the previous chapter, the methodology for the experiment and survey was deployed at the research site, UW Stout. All students who were required to participate in a research project for a psychology course were eligible to participate in this study. Students self-selected participation by choosing the study in which they wanted to participate. This study was one of several options available. Research participation is required for all students taking introductory psychology courses and is optional for several advanced courses. A total of 72 students signed up and completed the experiment and survey. Participants were randomly assigned to one of three groups.

Experimental Results

The first step in analyzing the experimental data was to remove the data for the four male participants, and two females for a total of 66 participants. The two female participants were removed from the experimental data because they were accidentally given materials in the wrong format and order for their assigned group.

Group A n = 23

Group B n = 22

Group C n = 21

Two repeated measures, ANOVA tests, were run using the SPSS statistical package to check for time and order effects. On both dependent measures, the comprehension test and the interest measure, there were no significant effects. The test for comprehension was non-significant ($p = .476$) and the test for interest was also non-significant ($p=.927$). Due to the non-significant time effect for

comprehension and interest, a simple ANOVA test of between subjects results using the independent variable of format. The alternative would be a more complex ANOVA that would reflect the partially crossed nature of the design and would require the use of the more advanced statistical program R. Because of the non-significance of the repeated measures ANOVA it was possible to treat each variable independently, thus allowing for a one way ANOVA with three levels of formats to check for main and interaction effects on the dependent measures of comprehension and interest. Because current reading ability is a known factor in reading comprehension and interest, all analyses were initially run as a one-way ANCOVA using ACT Read scores as a covariate.[ccxix]

Comprehension

Comprehension was measured using the scores from the CRIs for each text and participant as described in Chapter 4. The ANCOVA test used ACT Read sub-scores as the covariate.

Table 3: ANCOVA Comprehension

Tests of Between-Subjects Effects

Dependent Variable: CRI

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	55.191[a]	9	6.132	2.913	.003
Intercept	794.738	1	794.738	377.540	.000
ACT	6.458	1	6.458	3.068	.082
Text	27.082	2	13.541	6.433	.002
Format	3.594	2	1.797	.854	.428
Text * Format	18.629	4	4.657	2.212	.070
Error	313.652	149	2.105		
Total	27110.000	159			
Corrected Total	368.843	158			

a. R Squared = .150 (Adjusted R Squared = .098)

As can be viewed above, Table 2 ACT Read score as a covariate was not significant ($p = .082$). As a result, the analysis was repeated as a one-way ANOVA. After it was found that the R^2 was actually higher in the ANOVA test, this test was used as the basis for reporting and analyzing all results.

Table 4 ANOVA Comprehension

Tests of Between-Subjects Effects

Dependent Variable: CRI

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	73.689[a]	8	9.211	4.154	.000
Intercept	32816.254	1	32816.254	14799.615	.000
Format	2.120	2	1.060	.478	.621
Text	41.855	2	20.928	9.438	.000
Format * Text	29.907	4	7.477	3.372	.011
Error	419.083	189	2.217		
Total	33411.000	198			
Corrected Total	492.773	197			

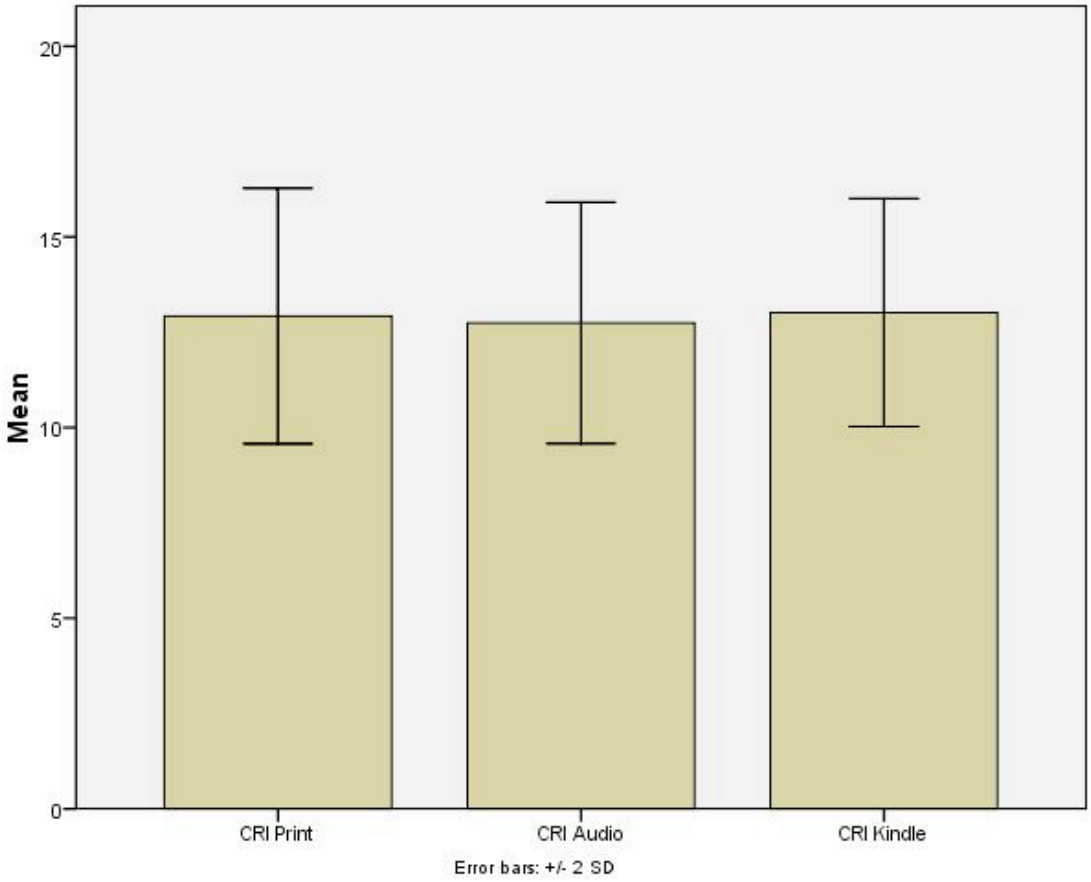
a. R Squared = .150 (Adjusted R Squared = .114)

There was no significant effect for format on comprehension ($p = .621$), but text does significantly affect comprehension ($p < .001$), which is not surprising as there are known differences between the individual texts. While the readability measures and analysis of the texts as reported in Chapter 4 found the texts to be similar enough for comparison, they were not identical. Additionally, the content for each text was purposefully different so to eliminate order effects, yet were still similar enough for comparison (see previous chapter for details on text selection).

There was also a significant interaction between text and format ($p = .011$), using an alpha level of $p < .05$. The R^2 for the comprehension ANOVA is .15, which is an indicator of the amount of variance accounted for in the model.

The effect of format on comprehension results are graphed below using the standard deviation scores.

Figure 7



Interest

Interest was measured using the Interest Inventory score for each text and participant, as discussed in Chapter 4. Initially the Interest measure was tested using an ANCOVA model with ACT reading sub-score as covariate, just as with Comprehension.

Table 5 ANCOVA Interest

Tests of Between-Subjects Effects

Dependent Variable:II

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	451.199[a]	9	50.133	3.269	.001
Intercept	1008.409	1	1008.409	65.763	.000
ACT	.743	1	.743	.048	.826
Text	316.528	2	158.264	10.321	.000
Format	1.161	2	.581	.038	.963
Text * Format	134.906	4	33.727	2.199	.072
Error	2284.775	149	15.334		
Total	29555.000	159			
Corrected Total	2735.975	158			

a. R Squared = .165 (Adjusted R Squared = .114)

The test of Interest in the ANCOVA model is significant (p = .001) but ACT as a covariate was not significant (p = .762), replicating the Comprehension measure results. The analysis was then repeated as a one-way ANOVA. After it was found that the R^2 was actually higher in the ANOVA test, this test was used as the basis for reporting and analyzing all results

Table 6 ANOVA Interest

Tests of Between-Subjects Effects

Dependent Variable:II

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	549.202[a]	8	68.650	4.921	.000
Intercept	33431.556	1	33431.556	2396.302	.000
Format	.752	2	.376	.027	.973
Text	423.137	2	211.569	15.165	.000
Format * Text	132.532	4	33.133	2.375	.054
Error	2636.798	189	13.951		
Total	36648.000	198			
Corrected Total	3186.000	197			

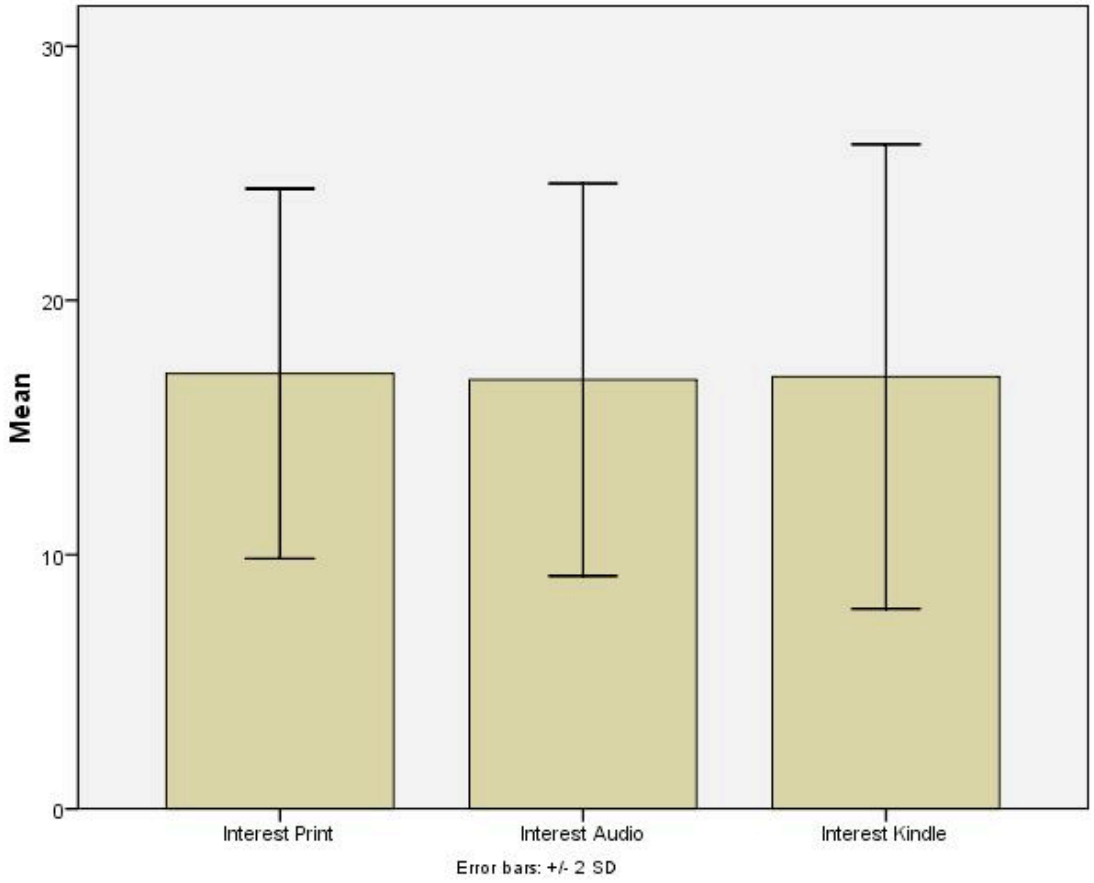
As illustrated in Table 5, there was no significant format effect ($p = .973$, but a significant text effect ($p < .001$). The format in which they received the text did not significantly predict their level of interest. Participants were as likely to have a high or low interest score on the same texts regardless of the format. In other words, if they disliked *Fatally Flaky* in print, they were just as likely to dislike the audio and e-book versions. What matters here is that interest in the text was not affected by the format in which it was presented.

The interaction between text and format in terms of interest is not significant ($p = .054$), indicating once again that format did not affect participants' interest in a text. However, as this is very close to the alpha of .05, it indicates that a larger sample size of different population might make this a significant interaction.

The R^2 for this ANOVA is .172, which is another indication of the complexity of measuring individual reader interest and engagement with a text.

The effect of interest on format results are graphed below using the standard deviation scores, which clearly illustrate the lack of effect of format on interest in text.

Figure 8



Correlations

It is important to test for correlations as the previous research indicates relationships between interest and comprehension. As part of the ANOVA test the Pearson correlations were computed between interest and comprehension, and found

to be significant (r=.243, p=.01.) This matches with the theoretical framework of motivation and engagement which argues higher level comprehension can't be measured without considering multiple variables of participants' interest, engagement, and motivation.

Survey Data

The last part of the experimental research was a survey on reading habits, interests, and experience with various formats. This was designed to answer question three, "What are the characteristics of college students in terms of reading?" The results included both quantitative data and qualitative data from the many written in comments.

Demographics

Participants were female college students between the ages of 18 and 29.

Table 7

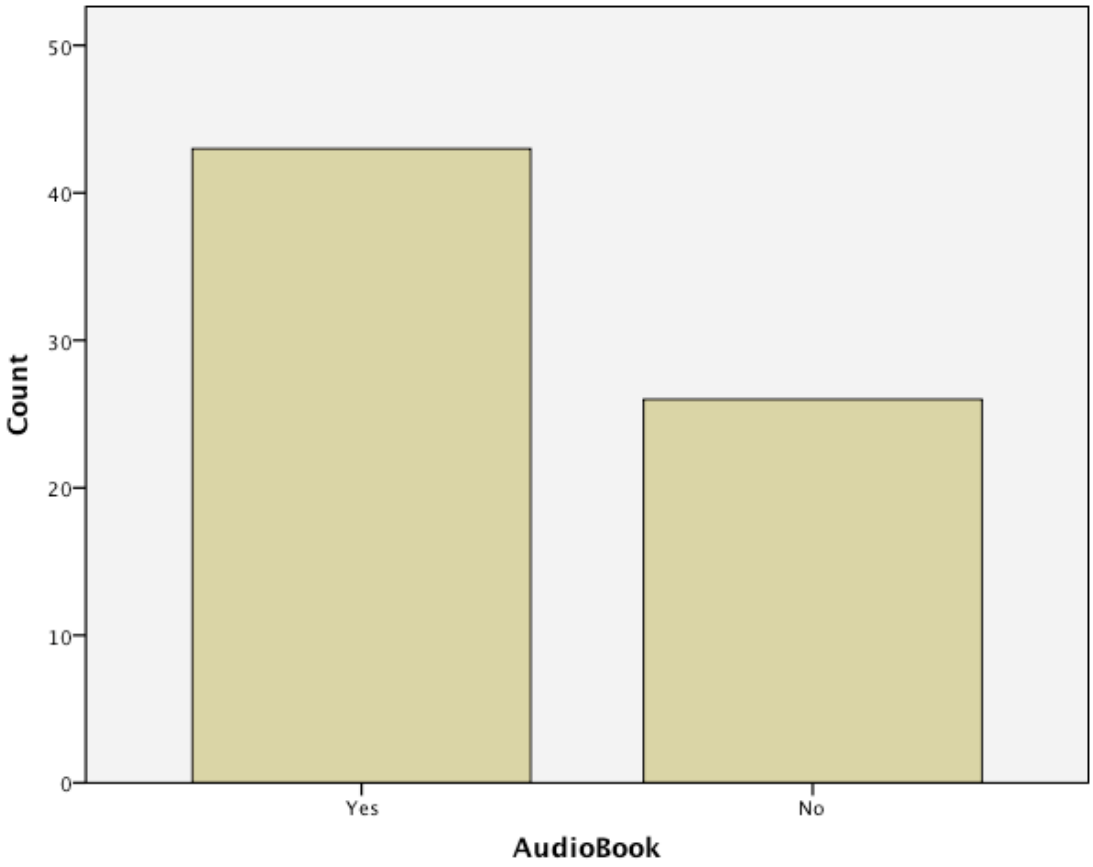
Ages	Totals
18	22
19	10
20	16
21	7
22-29	11

Previous Experience

Few participants had previous experience with either e-books or e-book readers. Only five participants had been exposed to an e-book reader (usually belonging to a family member). E-book use was slightly higher, for 10 of the 68 participants, which may be due to the e-book collections available at the university library. Students at this location have access to laptops (all students are assigned a university-owned laptop upon matriculation), and observation of participants showed that most had smart-phones, which clearly played an important role in their lives, which matches the results that showed if they read e-books it was mostly likely on a laptop or phone.

Experience with audiobooks was much higher (see Figure 8). Participants who had listened used a variety of formats, including tapes, CDs, digital files on MP3 players (or smart-phones). None of the participants had used a Playaway prior to participating in this study.

Figure 9



Format Preference

"When I have time for leisure reading my preferred format is: Please rank, 1 favorite, 2 okay, 3 least favorite"

Print was by far the most popular choice, and e-books were a solid second choice. Audio was the least favored format.

Figure 10

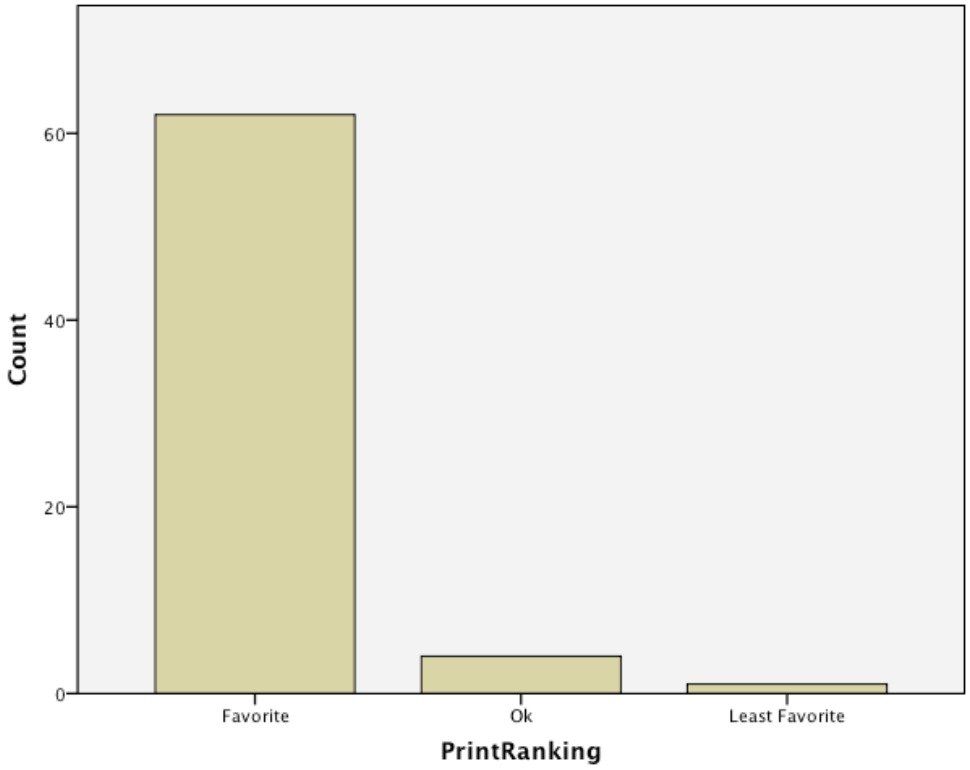


Figure 11

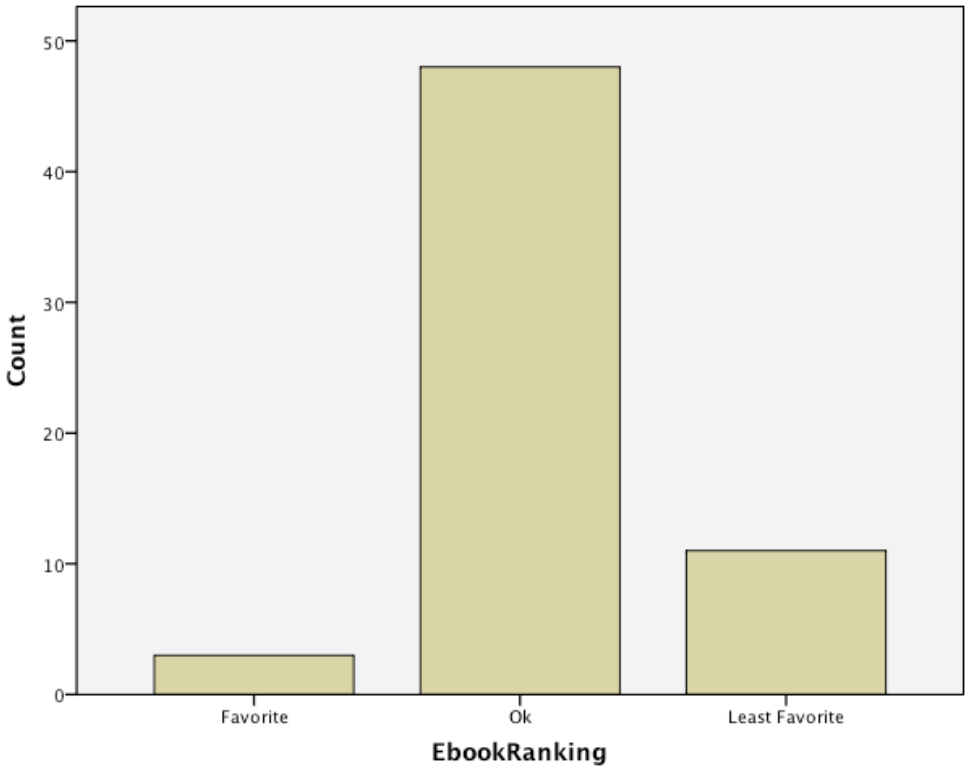
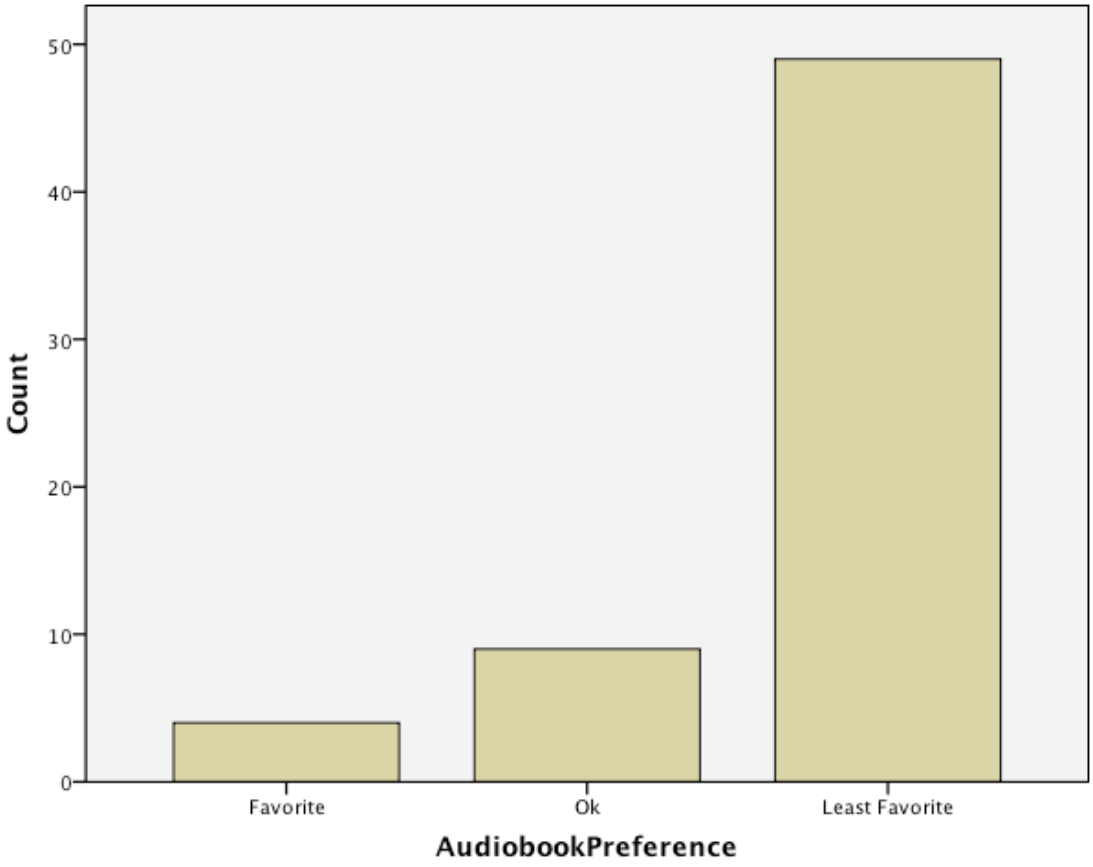

50
40
30
20
10
0
Count
Favorite
Ok
Least Favorite
EbookRanking

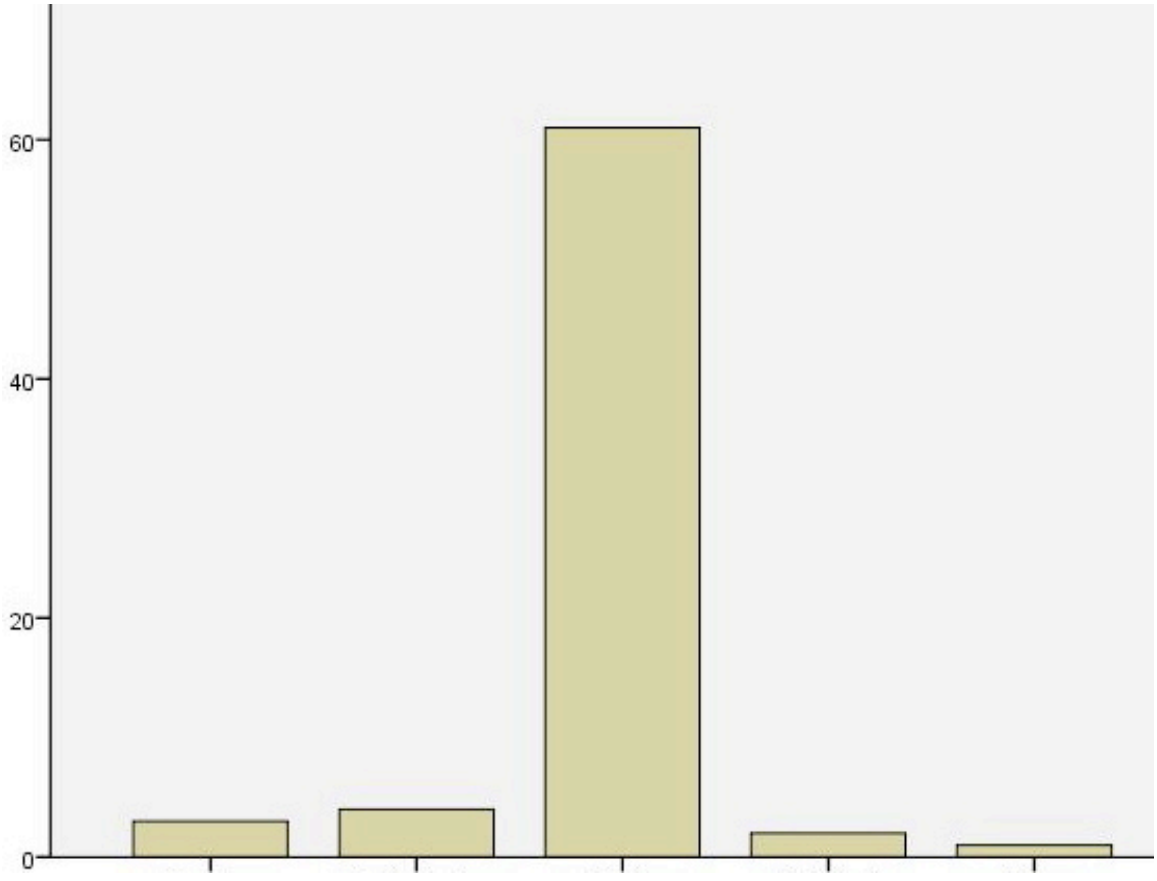
Figure 12



A second format question found that this was a consistent result, with a very strong preference for print (91%), and a few participants who preferred to read online or with an e-book reader. This strong preference may be due to their limited exposure to e-books and e-book reading, and/or a preference for what they know and are used to using.

"When I am ready to read (not for school or work) I prefer to:"

Figure 13



The other (one participant) noted that she has a Kindle which she enjoys reading while at school or on vacation, but when at home she prefers to read print books. Another participant who owns a Kindle noted: "I love how my Kindle allows me many titles in one (small) location but I truly prefer the experience of a print copy (feel, smell, etc)."

Despite these strong preferences, many participants made spontaneous comments or left written notes about how much they enjoyed using the Kindle, such

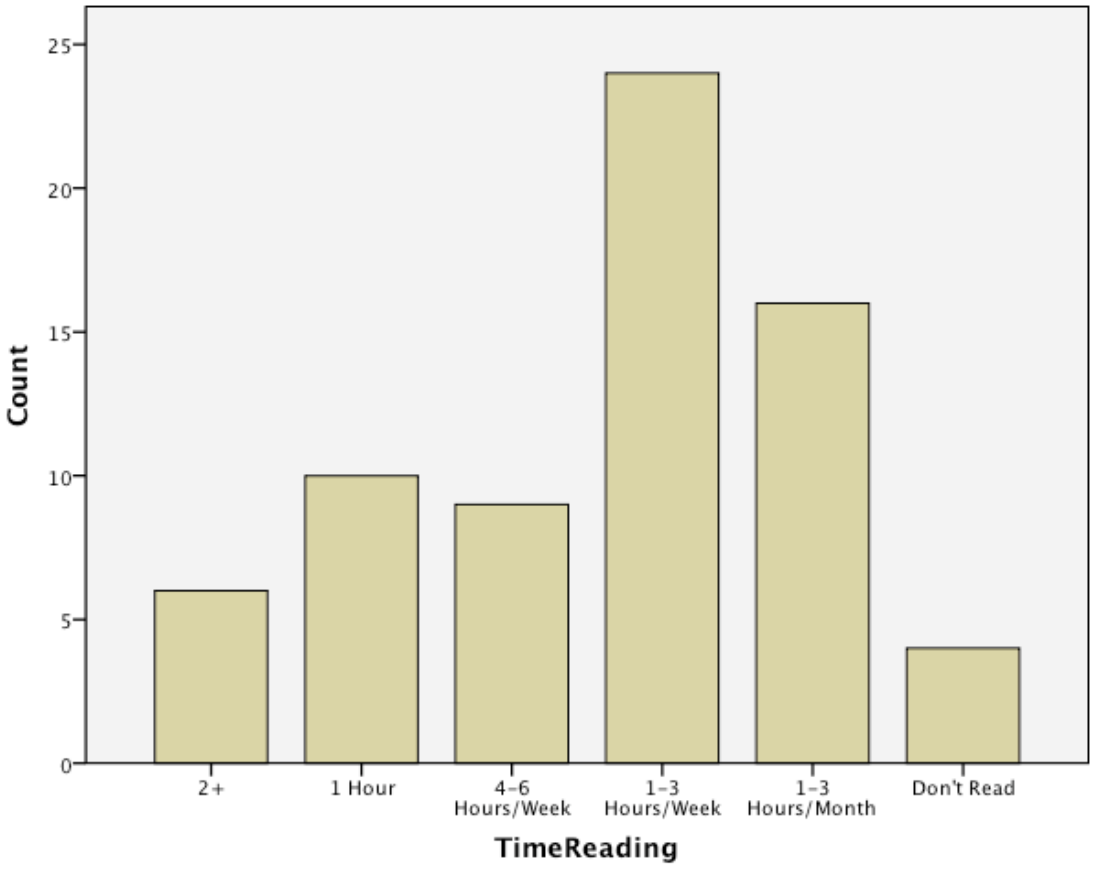
as: “Interesting,” “I like it,” “Might consider buying one in the future,” “really cool!” “I enjoyed using the e-book for my first time, I would love to use one again” and “I liked using an e-book more than I thought I would.” Several participants singled out the dictionary feature as their favorite feature.

Reading habits

Study participants represented a range of readers. Participants ranged from spending several hours a day reading, to not reading at all.

Study participants represented a range of readers. Participants ranged from spending several hours a day reading, to not reading at all.

Figure 14

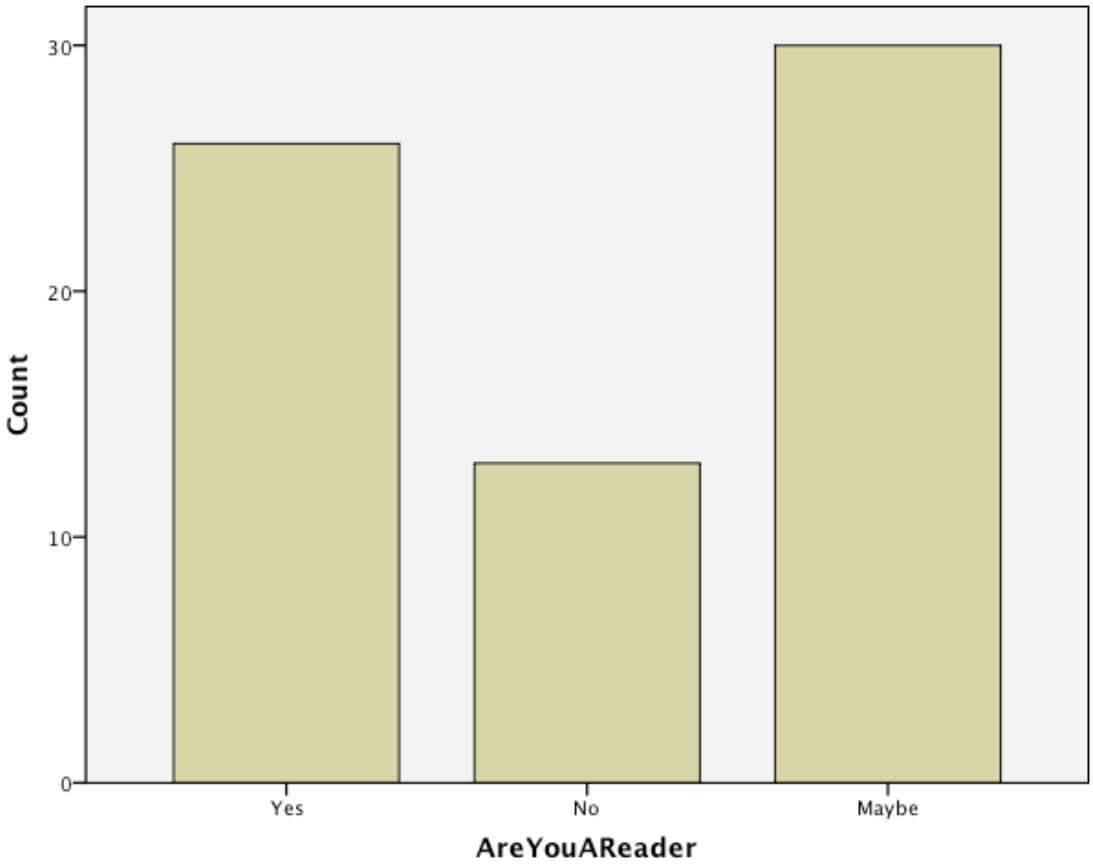


Eight of the nine participants who used audiobooks were occasional listeners (one to three hours a month). Only one listened for a few hours each week. The rest of the participants did not do any regular listening.

Are you a reader?

This question asked participants to self-identify as a reader, and provided some of the most interesting qualitative and quantitative data. 26 participants self-identified as readers, 13 considered themselves not to be readers, while the majority (29) answered "maybe," and provided illuminating comments.

Figure 15



Most of the "maybe" group indicated that they enjoyed reading and would like to do it more. The most common reason for limited reading was a lack of time, due to school and work obligations. Some example comments: "I love to read but I've found in college that I never get free time to read for fun" or "I like to read, but I don't really have time." Several of these respondents indicated that they do read during breaks. "I read a lot in the winter and the summer" and "I read more in the summer compared to during the school year." Others noted that they have a hard time finding materials that they really enjoy. "I do it when I have time and find good books. I like to read but

finding something that keeps me interested is difficult," and "I need to find the right materials in order to hold my interests."

Type of Reader

I would describe myself as: (This can include any type of reading.)

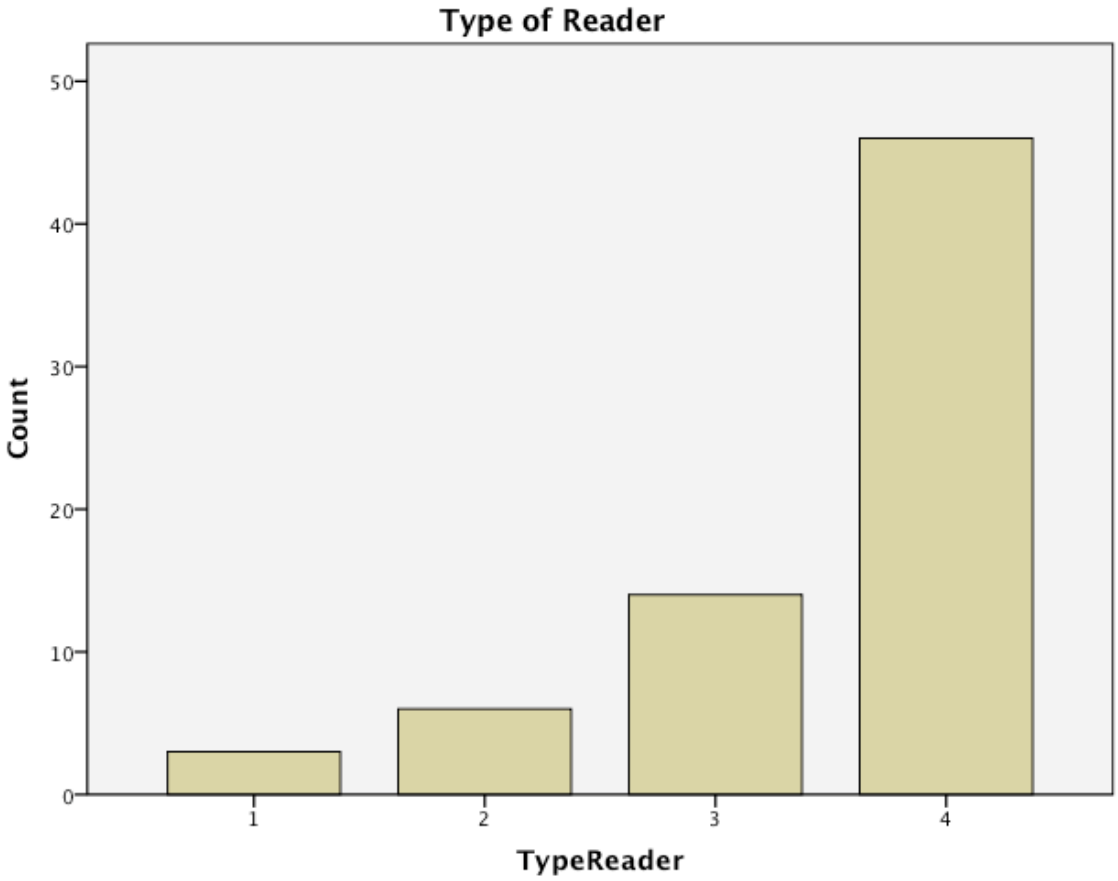
1: A heavy reader or listener (more than 3 books a week)

2: A frequent reader or listener (1-3 books a week)

3: A moderate reader or listener (2-4 books a month)

4: Occasional reader or listener (less than 2 books a month)

Figure 16



Genres

Participants were asked to rate their interest in each of the following genres: crime, fantasy, historical, literary, religious, romance, science fiction and suspense/thriller, on a 1 (I love it) to 5 (I hate it) scale.

Table 8

	N	Minimum	Maximum	Mean	Std. Deviation
crime	69	1	5	2.01	1.105
fantasy	69	1	5	2.59	1.332
historical	69	1	5	3.35	1.370
literary	69	1	5	3.20	.901
religious	69	1	5	3.04	1.206
romance	68	1	5	1.94	.991
SF	69	1	5	3.41	1.240
Suspense	69	1	5	1.87	1.136

Suspense, romance, and crime were the most popular. Historical, literary, and science fiction were the least popular.

Correlations between genres were also explored, with some interesting results. There is a significant ($p = .002$) negative correlation between romance and science fiction (-.366), as well as between religious and crime ($p = .01$) at -.31 and religious and suspense ($p = .002$) at -.371. Science fiction is positively correlated with several areas: Literary ($p = .002$) is .372, Historical ($p = .005$) is .331 and fantasy ($p < .001$) at .466. The strongest correlation can be found between Suspense/Thriller and Crime ($p < .001$) at .693.

Notes

[ccxix] When available. Only 53 of the 66 participants had current ACT scores on file with the UW Stout Admissions office.

Chapter 5: Discussion and Conclusion

Experimental Results

The first research question was, "Can college-age students comprehend and engage with texts in the same way if they are presented in multiple formats including print book, e-book and audiobook. " The strong, unambiguous results from the experimental data clearly answers the first research question. Comprehension is not significantly affected when leisure reading materials are presented in the different formats of print book, e-book, or audio. Interest and engagement with texts is also not significantly affected when participants were presented with text in multiple formats. They were significant differences in comprehension and interest across the three texts, but these were to be expected because of the individual differences between the texts that were used. The fact that these differences did not carry over to the various formats is what makes this result so significant. In other words, if participants found a text more difficult to comprehend in print, they were equally as likely to find that text difficult to comprehend in audio or e-book formats. This was the same for interest – *Fatally Flaky* had the lowest levels of engagement in all three formats; regardless of whether they read the text in a book, on a reader, or listened to it, participants still did not like it very much.

The second question, "Does their current reading ability affect participants' comprehension or engagement when materials are presented in print book, e-book, and audiobook formats?" was answered using ACT Reading subscores as the measure of current reading ability, and analyzed as a covariate. The ACT scores showed no

effects for comprehension or interest measures in terms of format. This may be due to the limited sample size as ACT scores were only available for 53 of the 66 participants, or it may be due to the reading level of the materials presented. All three of the texts used in this project were deliberately chosen to be representative of leisure reading materials and thus have reading levels between 6th and 8th grade, as compared to the college level reading materials presented in the ACT. Like most adult leisure reading materials these books had reading levels between 5th and 8th grade, which should be easily comprehended by college students.

The significant but modest correlation between comprehension and interest is compatible with the theoretical framework of motivation and engagement, which argues that higher level comprehension can't be validly measured without considering the constructs of interest, engagement and motivation

Because this project clearly shows that the format in which the materials are presented does not effect interest or comprehension, libraries, schools and colleges should not hesitate in adopting audiobooks and e-books, particularly for leisure or independent reading assignments. Students should be allowed and even encouraged to read in the format that is most comfortable and accessible for them, and all reading materials should be made available in all three formats.

Survey Data

Question 3 asks, "What reading habits or preferences characterize college age students?" is fully answered in the survey data results. With a variety of participants between the ages of 18 and 29, a wide range of reading habits, interests and experiences was represented. Experience with e-books and e-book readers was

extremely limited, which may be one reason for the strong emphasis on printed texts as the preferred format. With increased exposure and experience with e-books, and in particular dedicated e-ink based e-books, I think it is likely that the preference for print will gradually erode as more and more readers come to prefer to many benefits and affordances of e-book readers. This conclusion is reinforced by the many positive comments that participants made after using the Kindle e-book reader for the first time.

Most participants had previously listened to an audiobook, but few selected audio as their preferred or second choice format. This indicates that only a small minority of the population may be dedicated listeners, and further research on audiobooks should attempt to target populations that already enjoy and regularly listen to leisure reading materials in audiobook formats.

Participants read and enjoyed a variety of genres, and while some were less popular than others, none of the scores were so skewed as to indicate that any particular genre is not generally accepted in this population. Instead the range of responses is similar to other work on adult reading interests, finding that readers enjoy a wide variety of materials and that there is a great deal of individual variation in genre preferences. For this study the fact that crime and suspense were the most popular vindicates the choice of using crime fiction as the genre for all three of the selected texts as nearly all participants indicated that they were at least okay with reading this type of material. The high popularly of romance is likely a result of all the participants being female, as romance fiction has a much higher readership of

female than male readers. The ratings for genres are one area that might differ significantly if this study were to be replicated with male readers.

While this is only a small sample, the fact that the science fiction and fantasy rating were only modestly correlated and not much higher than the correlation between science fiction and literary fiction, and not nearly as strong as the correlation between crime and suspense/thrillers, is one more piece of evidence that science fiction and fantasy should not be considered the same genre, nor should they be shelved together if collections are separated by genres.

The amount of time that participants spent reading ranged widely and was normally distributed with most participants reading for a few hours a week. Most considered themselves occasional readers reading two or fewer books per month. The many explanatory comments about school and work commitments reducing reading time indicate that this population is generally positive about reading, but may lack the time, motivation, or easy access to engaging materials. This result is echoed in the question, "Are you a reader?" in which the majority responded "maybe." Only 13 of the 68 participants did not think of themselves as readers, which compared to the general population indicates that with at least this particular group of college students, most value and have positive inclinations towards reading as a leisure activity.

Further Research

While this research answers the research questions, it also brings up many more areas that should be explored. Since there are known sex differences in reading interest, comprehension, and material selection, this is an area that should be studied

immediately by replicating this study using male college students. It should also be explored whether these results continue to hold true for both older and younger readers, as well as this same age group as they get older and e-reading technologies become even more prevalent.

The issue of prior reading ability and its effect on comprehension and interest with leisure reading materials in multiple formats is one that needs to continue to be explored, and the differences between struggling and on-grade level readers would be of particular interest. The affordances that new reading technologies like the iPad offer also deserve exploration, both as a way to engage struggling or reluctant readers, and a way to integrate new materials into leisure reading or curriculum collections. What exactly will it mean to read and use an enhanced e-book? Some reading materials, like magazines or graphic novels may best be experienced on a full color and interactive device like the iPad, while more traditional narrative titles may not translate as well. Differences in format preferences for long and short form reading, and long and short reading times is another possible area of exploration.

Lastly the results make it clear that listening to audiobooks is not something that is enjoyed by a majority of this population. Whether it is a function of this particular group or a feature of all college age students should be further explored. Further study of reader interactions and experiences with audio formats may best be studied by using participants who already identify as listeners.

Conclusions

With reader experiences being essentially the same across print, e-book, and audio formats, downloadable audiobook and e-book collections should no longer be

considered an optional service for any type of library. It is critically important that libraries start to provide these collections in order to reach out to the thousands of readers who are rapidly converting to e-book reading. If library materials are not available to them now, they will not look to the library in the future to provide their leisure material reading needs. This is especially important for libraries serving youth populations as entire generations of children will soon (if not already) be arriving in the library used to only reading e-books, whether on their parents iPhones and iPads, or even school assigned iPads.[ccxx]

Finally, researchers and governmental agencies need to modernize their definition of reading to account for the emergence of new formats. As long as funding agencies are using traditional print and narrative based definitions, it will be impossible for researchers to conduct research that truly defines the new ways of reading that will continue to emerge along with new advances in technology. In the less than 18 months that tablet computers have existed, not only have millions sold, but reading is one of the most popular activities, and books (especially for children) some of the most popular apps. More importantly, definitions of reading that do not embrace these changes keep schools and teachers from experimenting and using materials that exploit these new formats.

Notes

[ccxx] Chris Matyszczyk, "School's Supe: iPad More Important than a Book," http://news.cnet.com/8301-17852_3-20052512-71.html.

Bibliography

Abrams, Stephen. "Ebooks Part 2: Trends and Standards." *Multimedia and Internet @ Schools* (July/Aug 2010): 24-27

Allmang, Nancy. "Audiobooks on ipods: Building a program for a research library." *C&RL News* 70 (2009:3): 173-176

Alvermann, Donna E. and M. C. Hagood, "Fandom and critical media literacy." *Journal of Adolescent and Adult Literacy* 43(5, February 2000): 436-446;

American Library Association, "E-Books in U.S. Public Libraries," http://www.ala.org/ala/research/initiatives/plftas/2009_2010/ebooksmap0910.cfm

Aron, Helen. "Bookworms become tapeworms: a profile of listeners to books on audiocassette." *Journal of Reading*, 36:3, Nov 1992,

Associated Press, "One in Four Read No Books Last Year." *USA Today*. August 21, 2007, accessed, December 8, 2008, http://www.usatoday.com/news/nation/2007-08-21-reading_N.htm

Audio Publishers Association, "Americans are tuning in to audio: audiobooks sales on the rise nationally," online at: http://www.audiopub.org/PDFs/2007SalesSurveyrelease.pdf (Audio Publishers Association: New York, N.Y., 2007)

Audio Publishers Association, "Audio Publishers Association Releases Major Consumer Survey and Announces Increase in Audiobook Usage: Nearly 25% of US Population is Listening to Audiobooks," 2006, online at:

http://www.audiopub.org/files/public/2006ConsumerSurvey COMPLETEFINAL.pdf, (Audio Publishers Association: New York, N.Y., 2006)

Audio Publishers Association, "More Americans are all ears to audiobooks: 28% of American has listened to audiobooks in the past year, sales surpass one billion dollars," http://www.audiopub.org/pdfs/2008%20sales%20consumer%20final.pdf, (Audio Publishers Association: New York, N.Y., 2008)

Audio Publishers Association. "Audio Publishers Assocation Press Release September 12, 2006: Audio publishing industry continues to grow; shows 4.7% increase in sales: Audiobook sales reach an estimated $871 million," http://www.audiopub.org/files/public/APASalesSurveyResultsFactSheet2006COMPLETE.pdf; (Audio Publishers Association: New York, N.Y., 2006)

Auld, Hampton (Skip), ed. "Perspectives 'That all may read…': Talking Books for the Blind and Physically Handicapped." *Public Libraries* 44:2 (March/April 2004):68-70

Australian Romance Readers Association, "Australian Romance Readers Survey 2009" http://www.box.net/shared/rm94qyvx6v

Aviv, Rachel. "Listening to Braille," *New York Times*, (Dec 30, 2009) http://www.nytimes.com/2010/01/03/magazine/03Braille-t.html?pagewanted=1&_r=1

Brick, Scott "*Bloodwork* by Michael Connelly." Brilliance Audio: Grand Haven, MI (2009)

Brick, Scott. "*The Millionaires* by Brad Meltzer" Hachette Audio (2002)

Burkey, Mary. "Sounds Good To Me: Listening to Audiobooks With A Critical Ear." *Booklist* (June 1 & 15 2007): 104.

Byrom, Gillie. "If you can't read it then audio it." *Reading* (July 1998): 3-7.

Cardillo, A., et al., "Tuning in to audiobooks: Why should kids listen?" *Children and Libraries* 5(2007: 3): 42-46.

Casbergue, M. and K. Harris, "Listening and Literacy: Audiobooks in the Reading Program." *Reading Horizons,* 37 (1996): 48-59.

Chandler-Olcott, Kelly and D. Mahar, "Adolescents anime inspired "fanfictions": an exploration of multiliteracies." *Journal of Adolescent and Adult Literacy,* 46(7 April 2003): 556-566

Clark, R. C. "Audiobooks for Children: Is this really reading?" *Children and Libraries,* 5(2007: 1): 49-50;

Coiro, Julie and E. Dobler,. "Exploring the Online Reading Comprehension Strategies Used by Sixth-Grade Skilled Readers to Search for and Locate Information on the Internet." *Reading Research Quarterly*, 42(April/May/June 2007:2): 214–257

Coiro, Julie. "Exploring literacy on the internet: reading comprehension on the internet: exploring our understanding of reading comprehension to encompass new literacies." *The Reading Teacher* 56(February 2003: 5), 548-464;

Cole, J. M. and V. R. Hilliard, "The Effects of web-based reading curriculum on children's reading performance and motivation." *Journal of Educational Computing Research* 34(2006: 4):353-80

Connelly, Michael. *Bloodwork*. Grand Central Publishing: New York, NY (2002);

Cooper, Brett. "Listen up – using audio books to help improve reading," *Literacy Lense* *4*(1) http://msit.gsu.edu/Readingconsortium/Literacylens/Listen_Up.pdf.

Culpepper, J. M. *The Internet's influence on literacy instruction and literacy development in a middle-school language arts classroom*. Dissertation, University of Georgia: (Athens, GA, 2002);

Davidson, Diane Mott. *Fatally Flaky*. William Morrow: New York, NY (2009)

Demski, Jennifer, "The Device Versus the Book," *Campus Technology*, (May 1, 2010) http://campustechnology.com/Articles/2010/05/01/The-Device-Versus-the-Book.aspx

Derks, Blaise. "The River Forest Public Library Experience With the Kindle." In Pawlowski: 68-69.

Diakidoy, Irene-Anne. N. P. Stylainou, C. Karefillidou, and P. Papageorgiou "The Relationship between listening and reading comprehension of different types of text at increasing grade levels." *Reading Psychology*, 26(2005):55-80

"Does the Brain Like Ebooks?" *New York Times*, (October 14, 2009) http://roomfordebate.blogs.nytimes.com/2009/10/14/does-the-brain-like-e-books/#gloria

Duncan, Ross. "Ebooks and beyond: the challenge for public libraries," *Australasian Public Libraries and Information Services* 23 (June 2010:2):44-55

E-Books, E-Readers Slow to Catch on with College Students: Study finds preference for print continues; Laptop love prevails," National Association of College Stores

Press Release, (Oct 27, 2010), http://www.nacs.org/advocacynewsmedia/pressreleases/ebooksereadersslowtocatchonwithstudents.aspx>

E-Ink: Readable. http://www.eink.com/readable.html, last accessed April 26, 2011

Elkin, Judith. "Special Needs/Special Places," in *Reading and Reader Development: the pleasure of reading*. (London: Facet, 2003): 143-170.

Engelen, Jan. "A Rapidly Growing Electronic Publishing Trend: Audiobooks for Leisure and Education" *Proceedings ELPUB 2008 Conference on Electronic Publishing, Toronto, Canada* (June 2008)

Engelen, Jan. "Modern Digital Libraries, the Case of the Audio-Book Boom." In ICCHP 2008, LNCS 5105, K. Miesenberger et al., eds. 2008: 284–290. >;

Esteves, Kelli J. Audio-Assisted Reading With Digital Audiobooks for Upper Elementary Students With Reading Disabilities, Dissertation, Western Michigan University (2007)

Fallows, D. *The Internet and Daily Life*. (Washington, D.C.: Pew Internet and American Life Project, 2004)

Ferreri, P. "Listening for Literacy: A Guide for Using Children's Audiobooks." *Teaching K-8*, 31(2000:2): 61

Fues, Marianne Cole. "Getting teens to read with their ears." *Library media connection* (May/June:2009): 54

Galda, Lee & Richard Beach "Theory into practice: response to literature as a cultural activity." *Reading Research Quarterly 36*(1) 2000: 64-73

Geoffrey A. Fowler Nonprofit tries One Kindle Per Child in Ghana, Wall Street Journal, (Aug 5, 2010), http://blogs.wsj.com/digits/2010/08/05/nonprofit-tries-one-kindle-per-child-in-ghana/; Mike Sundermeyer, David Risher, Colin McElwee Worldreader.org: E-reader Trial Report (2010) http://www.worldreader.org/trials.php

Golden Voice Award" *Audiofile Magazine*, http://www.audiofilemagazine.com/gvpages/hill.shtml. *Audiofile Magazine* is the premier source for audiobook reviews and industry information

Goldsmith, F. (2002) "Earphone English." *School Library Journal*, 48(2002: 5): 50-53

Greaney, V. "Factors related to the amount and type of leisure reading." *Reading Research Quarterly, 15*:3, 337-357 (1980, 340)

Grimshaw, S. Naomi Dungworth, Cliff McKnight, & Anne Morris. "Electronic books: children's reading and comprehension." *British Journal of Educational Technology* 38 (2007: 4): 583-599.

Grover, S. and L. Hannegan, "Hear and Now: Connecting Outstanding Audiobooks to Library and Classroom Instruction." *Teacher Librarian*, 35(2008: 3): 17-21;

Guthrie et al. "Growth of literacy engagement: changes in motivations and strategies during concept oriented reading instruction." *Reading Research Quarterly, 31*: 6, 306-332: 1996. 309

Guthrie, John T. "Educational contexts for engagement in literacy." *The Reading Teaching, 49*:6 (March: 1996), 432-445

Hamilton Montrese, "Using Kindles in Library Settings – A Survey, Law and Technology Resources for Legal Professionals," *LLRX*, (October 17, 2010), http://www.llrx.com/features/kindlesurvey.htm;

"Hard Times for Traditional Books as China's Digital Publishing Industry Grows," *The Independent*, (August 4, 2010) http://www.independent.co.uk/arts-entertainment/books/hard-times-for-traditional-books-as-chinarsquos-digital-publishing-industry-grows-2042649.html

Harrison Group and Scholastic, *Kids and Family Reading Report*, (2010):16, http://mediaroom.scholastic.com/kfrr

Hill, Dick. "*The Dogs of Riga* by Henning Mankell." Blackstone Audio: Ashland, OR (2006)

Hoy, Susan. "What Talking Books Have to Say: Issues and Options for Libraries." *Australasian Public Libraries and Information Services 22*(2009:4): 164-180

Hughes-Hassell, Sandra and Rodge, P. (2007, September). The Leisure Reading Habits of Urban Adolescents. *Journal of Adolescent & Adult Literacy, 51*(1), 22

Hutton, Eileen."Audiobooks Deserve Marketing, Too: It's time for store promotions to catch up with the growth in audio sales." *Publishers Weekly* (October 24, 2005): 66

Irwin, William. "Reading Audio Books" *Philosophy and Literature* - Volume 33, Number 2, October 2009, pp. 358-368

Kang, Yen-Yu, Mao-Jiun J, Wang, and Rungtai Lin "Usability Evaluations of E-books," *Displays* 30 (2009):49-52

Kim, Ann. "AudioVideo 2006: The Future is now." *Library Journal* (May 15, 2006): 60-63

Knulst, W. and Kraaykamp, G. "Trends in leisure reading: forty years of research on reading in the Netherlands." *Poetics, 26*:1 (September: 1998), 21-41

Kolowich, Steve "Colleges Test Amazon's Kindle E-book Reader as Study Tool," *USA Today* (Feb 23, 2010) http://www.usatoday.com/news/education/2010-02-23-IHE-Amazon-kindle-for-college23_ST_N.htm

Korat, Offra "Reading Electronic Books as a Support for Vocabulary, Story Comprehension and Word Reading in Kindergarten and First Grade." *Computers and Education* 55(2010):24-31

Kulo, Carl. "The Mystery Book Consumer in the Digital Age." Sisters in Crime and Bowker pubtrack, 2010. http://www.linkpdf.com/download/dl/consumer-book-pdf

Kurby, Christopher A. Joseph P. Magliano, David N. Rapp (2009) "Those voices in your head: Activation of auditory images during reading" *Cognition* 112 (2009): 457-461

Langer, J. A. *Envisioning literature: literary understanding and literature instruction*. (International Reading Association and Teachers' College Press: Newark, N.J. and New York, N.Y.: 1995)

Larson, Lotta, "Digital Readers: Advancing Ebook Reading and Response," 2009 National Reading Conference, Summary of full paper" (www.nrc.org)

Le Carre, John. *The Spy Who Came in From the Cold*. Scriber: New York, NY (2001);

Lee, Der-Song, Kong-King Shieh, Shie-Chang Jeng, and I-Hsuan Shen "Effect of character size and lighting on legibility of electronic papers," *Displays* 29 (2008): 10-17

Lenhart, A. et al. (2008) *Writing, Technology and Teens*. (Washington, D.C.: Pew Internet and American Life Project, 2008)

Lenhart, Amanda, et al., *Teens and Social Media, Pew Internet and American Life Project* (Washington, D.C.: 2007).http://pewresearch.org/pubs/1484/social-media-mobile-internet-use-teens-millennials-fewer-blog

Leu, D. J. and L. Zawilinski, "The New Literacies of Online Reading Comprehension." *The New England Reading Association Journal* 43 (2007: 1) 1-7.

Leu, D. J. Jr. & D. D Leu Teaching with the Internet: lessons from the classroom. (Norwood, MA: Christopher-Gordon:1998); ,

Leu, Jr. D. J., & C. K. Kinzer, "The convergence of literacy instruction with networked technologies for information and communication." *Reading Research Quarterly*, 35(2000:1): 108-127.

Lewis, Cynthia & Bettina Fabos. "Instant messaging, literacies, and social identities" *Reading Research Quarterly* 40 (2005:4): 470-501

"Lexile Analyzer" MetaMetrics, Inc. http://lexile.com/analyzer/

Library Journal and *School Library Journal*, "Survey of Ebook Penetration and Use in U.S. Public Libraries." November 2010, http://www.libraryjournal.com/csp/cms/sites/LJ/info/Reportpurchase.csp;

Library Journal and *School Library Journal*, "Survey of Ebook Penetration and Use in U.S. School (K-12) Libraries." November 2010.

Liu, Z. "Reading behavior in the digital environment: changes in reading behavior over the last 10 years." *Journal of Documentation* 61(2005: 6), 700-712.

Liu, Z. and X. Huang, "Gender differences in the online reading environment." *Journal of Documentation* 46(2008: 4): 616-626.

Lo, Patrick. *Effects of Online Audiobook Resources on Library Usage and Reading Preferences and Practices of Young Learners in an Elementary School Library Setting in Hong Kong*, World Library and Information Congress, 75th IFLA General Conference and Council (Milan, Italy: August 23-27, 2009) http://www.ifla.org/annual-conference/ifla75/index.htm

Mankell, Henning. *Dogs of Riga*. Translated by Laurie Thompson. Vintage: New York, NY (2004)

Matyszczyk, Chris. "Schools supe: iPad more important than a book" http://news.cnet.com/8301-17852_3-20052512-71.html

Maughan, S. "Downloads have Publishers Singing a New Tune." *Publishers' Weekly,* 253 (May 19 2006): 8, 13-15

McCormack, Heather. An Optimist-Pessimist's Guide to Avoiding Ebook Armageddon, *Digital Book World* (Aug 10, 2010) http://www.digitalbookworld.com/2010/an-optimist-pessimists-guide-to-avoiding-ebook-armageddon/>

Mediatore, Kaite. "Reading with your ears: readers' advisory and audio books," *Reference and User Services Quarterly*, 42:4 (Summer 2003): 318-323

Meltzer, Brad. *The Millionaires*. Grand Central Publishing, 2002

Milani, Ann Maria Luisa Lorusso, and Massimo Molteni (2010) The Effects of Audiobooks on the Psychosocial Adjustment of Pre-adolescents and Adolescents with Dyslexia *DYSLEXIA* 16 (2010): 87 – 97

Milliot, J., "Simply Audiobooks to Abandon DRM." *Publishers' Weekly*, 254(2007: 39): 6

Montgomery, Joel R. *Using Audio Books to Improve Reading and Academic Performance*, (Arlington, Va : ERIC Document Reproduction Service, ED Working Paper, 2009)

Morgan, Greg, "A word in your ear: library services for print disabled readers in the digital age," *The Electronic Library* 21:3 (2003): 234-239.

Moyer, Jessica E. and Gary W. Neibuhr, "Everything Crime," in *Integrated Advisory Services: Breaking Through the Book Boundary to Better Serve Library Patrons*, Jessica E. Moyer, ed. Libraries Unlimited: Santa Barbara, Calif.: 2010

Moyer, Jessica E. *Research Based Readers' Advisory*, (Chicago, Ill., ALA Editions, 2008)

Moyer, Jessica E. (2007) "Learning From Leisure Reading: A Study of Adult Public Library Patrons." *Reference and User Services Quarterly, 46*:???

Moyer, Jessica E. and Kaite Mediatore Stover, "Chapter 4: Audiovisual Advisory," in *Research Based Readers' Advisory*: 56-76

Moyer, Jessica E. Christy Donaldson, and Cassie Wagner. "Everything Science Fiction," in *Integrated Advisory Services: Breaking Through the Book Boundary to Better*

Serve Library Patrons, Jessica E. Moyer, ed. Libraries Unlimited: Santa Barbara, Calif.: 2010;

Muller, Frank. "*The Spy Who Came in From the Cold* by John Le Carre," Recorded Books: Prince Frederick, MD (1987)

National Endowment for the Arts, *Reading at Risk: A Survey of Literary Reading in America*. Research Division Report no. 46 (Washington, D.C.: National Endowment for the Arts, 2006)

National Endowment for the Arts, *Reading on the Rise*, (Washington, D.C.: National Endowment for the Arts, 2009)

National Endowment for the Arts. *To Read or Not to Read: A Question of National Consequence*. Research Division Report no. 47, (Washington, D.C.: National Endowment for the Arts, 2007)

Neary, Lynn. "The E-Textbook Experiment Turns A Page," National Public Radio, *All Things Considered*, (Sept 17, 2010) http://www.npr.org/templates/story/story.php?storyId=129934270

Nell, Victor, *Lost in a Book*, ????

Oswald, Ed. "E-Books Take Longer To Read Than Print, Study Says," *Beta News*, (July 5, 2010), http://www.betanews.com/article/Ebooks-take-longer-to-read-than-print-study-says/1278345706

Overdrive, "How ebook Catalogs at Public Libraries Drive Publishers' Books Sales and Profits: Thought and Leadership White Paper." Overdrive, Cleveland, OH, May 2010, http://www.overdrive.com/files/PubWhitePaper.pdf

Pawlowski, Amy. "E-book in the Public Library," in *No Shelf Required: E-books in Libraries*, Sue Polanka, ed. American Library Association, Chicago: IL 2010: 55-74

Pennac, D. *Better than life*. Translated by David Homel. Toronto: Coach House Press: 1994; Ross 2006

Peters, Tom "Digital Audiobooks." *Library Technology Reports*, (January/Febraury 2007) American Library Association

Pitman, Randy. "Viewers' advisory: handling audiovisual advisory questions," in *The Readers' Advisor's Companion*, ed. Kenneth Shearer and Robert Burgin, (Englewood, Colo.: Libraries Unlimited, 2001): 229-237.

"Playaway For Libraries" Findaway World, http://library.playaway.com/

Polanka, Sue. "BISG Study – 7% of eBook downloads are from a library," *No Shelf Required*, (August 5, 2010) http://www.libraries.wright.edu/noshelfrequired/?p=1305

Porter, Karla. Types of Reading Inventories, http://departments.weber.edu/teachall/reading/inventories.html#Content%20Area%20Reading%20Inventory%20%28CARI%29. Accessed April 29, 2011

Price Waterhouse Coopers, "Turning the Page, The Future of e-books", Price Waterhouse Coopers: Technology, Medial and Telecommunications, 2010 http://www.pwc.com/gx/en/entertainment-media/publications/future-of-ebooks.jhtml

Price Waterhouse Coopers, "Turning the Page, The Future of e-books", Price Waterhouse Coopers: Technology, Medial and Telecommunications, 2010 http://www.pwc.com/gx/en/entertainment-media/publications/future-of-ebooks.jhtml

Radway, Janice A. *Reading the romance: women, patriarchy, and popular literature*. 2nd ed. University of North Carolina Press: Chapel Hill, N.C.: 1991

Ramirez, E. "The impact of the internet on the reading practices of a university community: the case of UNAM," *Proceedings of the 69th IFLA General Conference and Council*, (2003) available at www.ifla.org/IV/ifla69/papers/019e-Ramirez.PDF

RAND Reading Study Group *Reading for Understanding: Towards an R&D program in reading comprehension.* (2002) Available online at: http://www.rand.org/multi/achievementforall/reading/readreport.html 14

Readence, John E. Thomas W. Bean, and R. Scott Baldwin, *Content Area Literacy: An Integrated Approach*. Kendall/Hunt Publishing, 8th edition (2004) pages 84-88

Roberts, D. F. U. G. Foehr, and V. Rideout, *Generation M: Media in the Lives of 8 to 18 Year Olds* (Menlo Park, CA: The Henry J. Kaiser Family Foundation, 2005)

Roberts, D. F., U. G. Foehr, & V. Rideout, *Generation M: Media in the lives of 8 to 18 year olds.* (The Henry J. Kaiser Family Foundation: Menlo Park, CA., 2005)

Robinson, L. "For the love of books: expanding e-books and audio books in school libraries." *Media Methods, 40*(2003: 2): 6-12; R.

Rosenblat, Barbara. "*Fatally Flaky* by Diane Mott Davidson." Recorded Books: Prince Frederick, MD (2009)

Rosenblatt, L. M. (1994) *The reader, the text, the poem: the transactional theory of the literary work*. 2nd ed. Southern Illinois University Press: Carbondale, IL., 12)

Rosenblatt, L. M. (1995) *Literature as exploration*. 5th ed. Modern Language Association: New York, N.Y

Ross, C. S. (2000) "Finding without Seeking: What Readers Say about the Role of Pleasure Reading as a Source of Information," *Australasian Public Libraries and Information Services 13*:2 (June), 72-80.

Ross, Catherine Sheldrick "Chapter 4: Adult Readers." In *Reading Matters: What the research reveals about reading, libraries, and community,* by C. S. Ross, L. E. F. McKechnie, & P. M. Rothbauer. Westport, CT: Libraries Unlimited: 2006

Rubery, Matthew (2008) Play It Again, Sam Weller: New Digital Audiobooks and Old Ways of Reading. Journal of Victorian Culture, Volume 13, Number 1, Spring 2008 , pp. 58-79

Sarkamo, Teppo et al. Music and Speech Listening Enhance the Recovery of Early Sensory Processing after Stroke. *Journal of Cognitive Neuroscience 22* (2010:12): 2716–2727

Shamir, Adina, Ofra Korat, and Nili Barbi, "The Effects of CD-ROM Sotrybook Reading on Low SES Kindergartners Emergent Literacy as a Function of Learning Context," *Computers and Education* 51 (2008):354-67

Shearer, Kenneth D. "Chapter 4: The appeal of nonfiction: a tale of many tastes." In *Nonfiction readers' advisory*, ed. Robert Burgin. Libraries Unlimited: Westport, Conn.: 2004, 67-84.

Smith, D. (1998) "Valuing Fiction," *Booklist 94*(13): 1094-1095

Sony Reader Library Program, http://ebookstore.sony.com/library-program/

Stone-Harris, Syed. *The Benefit of Utilizing Audiobooks With Students Who Are Struggling Readers*. Dissertation, Walden University (2008);

Usherwood, B. and Toyne, J. "Reading the warning signs: library book reading research," *Public Library Journal 15*(4)2000: 112-14

Usherwood, B. and Toyne, J. "The value and impact of reading imaginative literature," *Journal of Librarianship and Information Science 34*(1)2002: 33-41

Varley, Pam. "As Good As Reading: Kids and the Audiobook Revolution." *Horn Book* 78 (2002:3): 251-262.

Vollmar-Grone, Michael. "Hearing and Seeing: the case for audiovisual materials, " in *Nonfiction Readers' Advisory*, Robert Burgin, ed. (Englewood, Colo.: Libraries Unlimited, 2004): 85-99

Von Drasek , Lisa. "Teaching with Children's Books: Heard Any Good Books Lately?" *Teaching K-8*, 34(2004: 8): 90-91;

Whitten, Robin "The Growth of the Audiobook Industry." *Publishing Research Quarterly* 18:3 (2005): 3-11

Winn, B. C. H. Skinner, R. Oliver, A. D. Hale, & M. Ziegler, "The Effects of listening while reading and repeated reading on the reading fluency of adult learners." *Journal of Adolescent and Adult Literature,* 50(2006: 3): 196-205

Wolff, M. (2007) Proust and the Squid: The Story and the Science of the Reading Brain. HarperCollins: N.Y., N.Y.

Wolfson, G. "Using Audiobooks to the needs of adolescent readers." *American Secondary Education,* 36(2008: 2): 105-114

Woody, William Douglas David B. Daniel and Crystal A. Baker "E-books or Textbooks: Students Prefer Textbooks," *Computers in Education* 55 (2010):945-948

Yingling, John. A Study of Audiobook Users at the Salem, Ohio Public Library. Masters Paper, Kent State University. (Arlington, Va : ERIC Document Reproduction Service, ED 424 859, 1998)

Zucker, Tricia Amelia K. Moody, Michael C. McKenna "The effects of electronic books on pre-kindergarten to grade 5 students' literacy and literacy language outcomes: A research synthesis. *Journal of Educational Computing Research* 40(2009: 1): 47-8

Appendix A: Blood work

Inferential:

1. Why did McCaleb dismiss his annoyance to the woman standing in his boat?

    a. He was curious about her

    b. He thought he could get money out of her

    c. He thought he recognized her as his long lost sister

d. He wanted to sell her his first catch of the day

2. Why do you think McCaleb feel déjà vu when he got up close to the women?

   a. He knew it was his twin sister that run away twenty-five years ago

   b. He saw her picture in a magazine

   c. He thought she was beautiful, so much so he wanted to recognize her

   d. He only met her once at the Catalina Gold Cup

3. Why do you think Graciela wanted to hire McCaleb as a private investigator

   a. She wants to find someone she knows who went missing

   b. She just wants to flirt with him

   c. She doesn't know what else to do with her free time

   d. She wants to get revenge on him because he broke her heart in high school

4. Why do you think McCaleb is no longer working as a private investigator?

   a. He got bored of the tedious tasks involved such as paperwork

   b. He never felt a real passion for the job

   c. He has enough money to retire and it's a risky job that he doesn't want to indulge in anymore

   d. He wants to go into a different field of work

5. Why do you think McCaleb said he could recommend Graciela to a different private investigator who won't rip her off?

    a. He wanted to let her down easy

    b. There are a lot of corrupt private investigators

    c. She seemed to need a private investigator

    d. All of the above

Literal:

1. What was McCaleb wearing when he met the woman?

    a. A light green polo and shorts

    b. A flannel button down and tailored jeans

    c. A baseball cap, v-neck tee and running pants

    d. A t-shirt and ripped jeans that were spattered with stains

2. What song was McCaleb listening to when he approached the woman?

    a. "Bye, Bye, Bye" by Nsync

    b. "I ain't superstitious" by Howlin' Wolf

    c. "Rock the Casbah" by The Clash

    d. "Hung Up" by Madonna

3. Who is Graciela Rivers?

   a. **The woman on McCaleb's boat**

   b. McCaleb's florist

   c. A famous western singer McCaleb loves

   d. An old girlfriend of McCaleb

4. What was McCaleb's old job profession?

   a. An artist

   b. An accountant

   c. A private investigator

   d. A farmer

5. Where did Graciela hear of McCaleb?

   a. A friend

   b. On the TV

   c. The internet

   d. The newspaper

Vocabulary:

1. What is the definition of taut when used in the context, "McCaleb couldn't see her feet yet but he guessed by the taut lines of the muscles he saw in her brown legs that she wasn't wearing boat shoes?"

a. Decaying or deteriorating

b. **Having no give or slack**

c. Tend to meet or come together

d. To draw a line around

2. What is the meaning of reprimand in the context, "She ignored the reprimand and went on?"

a. Make shiny by rubbing

b. To surrender unconditionally

c. Thicken; congeal

d. **A severe or formal criticism for a fault**

3. What does bilge mean in the sentence, "He pointed to the open bilge hatch that she was lucky not to have fallen into?"

a. **The part of the underwater body of a ship between the flat of the bottom and the vertical topsides**

b. Grain storage bin

c. Card game

d. Place where two roads cross

4. What does pang mean in the sentence, “She didn’t say anything and he felt a pang of sympathy for her”

    a. Lack of feeling or emotion

    b. **A sharp attack of mental anguish**

    c. Being pleasant and at ease in talking to others

    d. Characterized by ease and friendliness

5. What does stern mean in the context, “He stepped over to the stern gunwale, picked up the sunglasses he had forgotten to take on his walk?”

    a. **The rear end of a boat**

    b. Expressive of severe displeasure

    c. Forbidding or gloomy in appearance

    d. Having a definite hardness or severity of nature or manner

Appendix B: Dogs of Riga

Dogs of Riga

Inferential:

1. Why did Kurt Wallander have such small patience with Martinsson?

    a. Martinsson always asked him dumb questions

    b. **Martinsson was newer to the police force**

    c. Martinsson reminded Wallander of his old partner

    d. Martinsson always mocked Wallander

2. Why did Wallander's thoughts immediately turn to his old friend Rydberg after he had started his car?

    a. He was in a comfortable environment where he could easily reminisce

    b. He was reminded of the fatal shot Rydberg had took in the head while driving in his car

    c. Rydberg had died on a snowy evening

    d. Rydberg had driven around with him often in his vehicle before he passed

3. Why does Wallander not believe he can manage without Rydberg solving difficult cases even though Wallander is plenty experienced?

    a. He probably misses the old companionship and leadership Rydberg would take when they worked together

    b. He doesn't like having to do things himself, he'd rather have someone else figure it out for him

    c. He doesn't believe he is very intelligent

    d. He wants Martinsson to take over

4. Why does Wallander call his dad every day?

    a. He likes to remind his father how horrible he treated him as a child

    b. He wants money from him

    c. He likes to cry on the phone to his father about his depressing experiences on the police force

    d. He loves his father and wants to make sure he is alright

5. Why did Martinsson seem to believe the man called about the dead bodies being washed up?

    a. Martinsson seemed to have a gut feeling about this one

    b. Martinsson is gullible

c. He believes in horoscopes and he read something like this would happen in his horoscope that week

d. Martinsson is still looking for his son who disappeared three years ago and he goes with every lead that comes his way

Literal:

1. Who is Martinsson?

   a. **One of the younger officers**

   b. Kurt's younger brother

   c. A new member in the bowling league

   d. A pedestrian who was run over

2. What pain was excruciating for Kurt Wallander?

   a. Biting his tongue

   b. Swallowing chew spit out of a soda bottle on accident

   c. Stubbing his big toe

   d. **Locking his muscles under his chin after a huge yawn**

3. What did the man from the anonymous phone call claim would be washed up near the police station?

a. Gingerbread men

b. **Rubber life-raft containing two dead bodies**

c. Roses in a white box

d. A bottle with a note inside dating back to the 1800s

4. Why can't the police track the number from the mysterious lead?

a. **He called from a phone box**

b. He is an alien

c. He is an undercover FBI agent that has a gadget so his calls can't be traced

d. He didn't call the cops, he left a note

5. Who is Rydberg?

a. A guy in the mafia

b. The postman

c. **An old friend and colleague of Wallander**

d. The murder suspect

Vocabulary:

1. What does besiege mean in the context of the story when it stated, “The town was deserted, as if people were preparing to be besieged by the approaching snowstorm?”

    a. To comply or give in

    b. To surround with armed forces

    c. To be perplexed or confused

    d. To renounce an oath

2. What does subsided mean in the phrase, “Wallander continued to massage his jaw until the pain subsided?”

    a. To send forth new growth

    b. To become less

    c. To grow and expand rapidly

    d. Foreboding or foreshadowing evil

3. What does anonymous mean when used in the phrase, “But we can’t start a search based on nothing more than an anonymous telephone call?”

    a. Hostile feeling or attitude

    b. Abnormal or irregular

c. Aversion or dislike

d. Not named or identified

4. What does excruciating mean in the statement, "The pain was excruciating?"

a. To inflict intense pain on: torture

b. A state of being beyond reason and self-control

c. A state of overwhelming emotion; especially **:** rapturous delight

d. A mystic or prophetic trance

5. What does hoax mean in the story, "Sometimes you can hear straight away that it's a hoax?"

a. Unstained purity

b. To trick into believing or accepting as genuine something false

c. Freedom from prejudice or malice

d. Unreserved, honest, or sincere expression

Appendix C: Fatally Flaky

Inferential:

1. Why is Billie a flake?

    a. She didn't show up for her own wedding

    b. She stiffed the waitress

    c. She left her mother stranded in Denver

    d. She was never on time for meetings with her caterer

2. Why do you think the caterer couldn't make it through these weddings without being married?

    a. It would be too much to handle emotionally without having her own lover to go home to

    b. She would try and get with the groom

    c. There would be no comic relief

    d. She always hated weddings

3. Why is the main character the only caterer in Aspen Meadow, Colorado

    a. The town is too small to have another caterer

    b. If someone wants a bigger celebration they can drive to Denver

c. She offers a cheaper catering service than in Denver

d. All of the above

4. Why do you believe the caterer is comparing the price of a wedding to being able to buy a house?

    a. She believes in being stingy

    b. She thinks there are better ways to spend a engaged couple's money

    c. She feels that weddings are trifle

    d. She always wanted an elegant wedding

5. Why is it so costly to change the contract with the caterer?

    a. There is a lot of planning and coordinating involved and it is costly to the caterer to make changes therefore the wedding party must incur the expenses

    b. The caterer wants to make you miserable

    c. The caterer just wants more money from you

    d. It is not expensive to make contract changes

Literal:

1. What is one thing caterers need?

    a. Lunch

    b. Patience

    c. Comic relief

    d. Asti Spumante

2. What is the name of the assistant?

    a. Julian Teller

    b. Pollyanne

    c. Charlotte

    d. DJ

3. What kind of car does Bridezilla Billie drive?

    a. Lamborghini

    b. Mercedes

    c. Ford

    d. Nissan

4. Who is Tom?

a. Bridezilla Billie's husband

b. The assistant's husband

c. The caterer's husband

d. The DJ

5. What town is the Caterer from

a. Aspen Meadows

b. Denver

c. Columbia

d. Minneapolis

Vocabulary:

1. What is a cynic as used in the phrase, "Cynics say getting married is a death wish?"

a. A stingy person

b. Faultfinding critic

c. Flat coil with the apex at the center

d. False appearance

2. What meaning does nuptial have in the context, “And as the bodies piled up around the Attenborough nuptials?”

    a. Marriage

    b. Circus

    c. Priest

    d. Lamb

3. What does axiom mean in the context, “Unfortunately, the events surrounding Bridezilla Billie Attenborough’s wedding proved the truth of the original axiom?”

    a. Lack of balance

    b. Relating to an empire or emperor

    c. Enter in or on a panel

    d. A maxim widely accepted on its intrinsic merit (maxim is a general truth)

4. When the caterer states, “Billie, was in short, a flake” what does flake mean?

    a. A small loose mass or bit

    b. A thin flattened piece or layer: chip

c. An annoying person who changes her mind too frequently and doesn't show up for appointments on time or at all

d. Slang: cocaine

5. What does content mean in this statement, "But Bridezilla Billie, as I'd come to call her, was never content?"

a. Satisfied

b. Irritated

c. Loved

d. Conspicuous

6. What does pere mean in the statement, "Attenborough pere having died of a bleeding ulcer long ago?"

a. Father –used after a name to distinguish a father from a son

b. an intermediate support for the adjacent ends of two bridge spans

c. a structure (as a breakwater) extending into navigable water for use as a landing place or promenade or to protect or form a harbor

d. an auxiliary mass of masonry used to stiffen a wall

Appendix D: Interest Inventory

Based on the previous selection you read or listened to please rank the following statements, from 1 Strongly Agree to 5, Strongly Disagree

1. I really enjoyed the book that I read or listened to

1 (Strongly Agree) 2 (Agree) 3 (Neutral) 4 (Disagree) 5 (Strongly Disagree)

2. I would be willing to look for more books like this to read or listen to

1 (Strongly Agree) 2 (Agree) 3 (Neutral) 4 (Disagree) 5 (Strongly Disagree)

3. I would like to continue on and read or listen to the rest of the title

1 (Strongly Agree) 2 (Agree) 3 (Neutral) 4 (Disagree) 5 (Strongly Disagree)

4. I did not like what I read or listened to

1 (Strongly Agree) 2 (Agree) 3 (Neutral) 4 (Disagree) 5 (Strongly Disagree)

5. I am interested in finding the rest of the selection and to read or listen to more of it

1 (Strongly Agree) 2 (Agree) 3 (Neutral) 4 (Disagree) 5 (Strongly Disagree)

Appendix E: Follow-up Survey

Part 1: General Information

I am (circle one) Male Female

I am age (circle one) 18 19 20 21 Other

Part 2: Modality Preferences

1. I have read an ebook before

(Please select one)

Yes No

Comments:

2. I have used an e-book reader (Amazon Kindle, Sony Reader, Kobo, Nook or other)

(Please select one)

Yes No

Comments:

3. I have read an e-book on another platform (Computer, iPod Touch, iPhone, iPad, other smartphone)

(Please select one)

Yes No

Comments:

4. I have listened to an audiobook before

(please select one)

Yes No

Comments:

3a. If yes, My preferred format for listening to audiobooks is

Tape

CD

Mp3 Player

Playaway or other dedicated audiobook playing device

Other – please explain

Comments:

4. When you have time for leisure reading what is your preferred format?

Please rank, 1 favorite, 2 okay, 3 least favorite

Print book

Ebook

Audiobook

I have no preferences

Comments:

Part 3: Reading Information

All of these questions are about leisure reading, or reading that is not required for school or work.

1. Considering print, online (internet) and any other electronic text, how much time do you spend reading materials that are not for school work?

2 or more hours a day

1 hour a day

4 to 6 hours per week or 30 to 60 minutes per day

1 to 3 hours a week

1 to 3 hours per month

I don't read (less than 1 hour a month)

2. How many hours do you spend listening to audiobooks

2 or more hours a day

1 hour a day

4 to 6 hours per week or 30 to 60 minutes per day

1 to 3 hours a week

1 to 3 hours per month

I don't listen (less than 1 hour a month)

3. What type of materials do you regularly read?
    a. News
        i. Online
        ii. Print newspaper
    b. General nonfiction
    c. General fiction (i.e. romance, mystery, science fiction, fantasy)
    d. Other: please explain

4. Do you consider yourself a reader?

    Yes

    No

    Maybe – please explain

5. When I am ready to read (not for school or work) I prefer to:
    a. Read on a computer
    b. Read on an e-book reader (Kindle, Sony, smartphone, iPod Touch or iPhone)
    c. Read print books
    d. Listen to an audiobook
    e. More than 1 – list your order and explain

6. Fiction Genres: Rank the following types of fiction – which ones do you enjoy reading?

1 - Strongly Agree **2** - Agree **3** - Neutral **4** - Disagree **5** - Strongly Disagree

(**1** - I love it **2** - I like it **3** - its okay **4** - I'd rather not read it, **5** - I hate it)

	I love it				I hate it
Romance	1	2	3	4	5
Religious/Inspirational	1	2	3	4	5
Literary	1	2	3	4	5
Science Fiction	1	2	3	4	5
Fantasy	1	2	3	4	5
Historical	1	2	3	4	5
Crime	1	2	3	4	5
Suspense/Thriller/Adventure	1	2	3	4	5

7. I would describe myself as: (This can include any type of reading.)

(Please circle one)

A heavy reader or listener (more than 3 books a week) A frequent reader or listener (1-3 books a week)

A moderate reader or listener (2-4 books a month) Occasional reader or listener (less than 2 books a month)

7. In an average month how many
    a. Print books do you read: (please circle one)

    1 or less 2 to 4 5 to 8 8 to 10 more than 10

    b. E-books: please circle one)

    1 or less 2 to 4 5 to 8 8 to 10 more than 10

    c. Audiobooks do you listen to please circle one)

    1 or less 2 to 4 5 to 8 8 to 10 more than 10

    Comments