

Increasing Leisure Reading among University Students Using E-readers with Audio

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This article reports on a study investigating leisure reading among university students using Kindle devices. The study employed a pre-post reading engagement survey of a cohort of twenty-one college students. Students participated in the study by completing self-reported surveys before and after a semester-long reading engagement program. The program involved preloaded audio and e-books on Kindle Fire devices, giving students the option to read, listen, or read and listen simultaneously. The students were selected by their enrollment in either a reading improvement class or a comparative literature class contained within a multilingual student course cluster. All students either struggled with English language skills, based on SAT scores, or were ESL students. Students indicated in the presurvey results that they spent less than one hour weekly reading material. In the postsurvey results, analysis shows that students were more interested in recreational reading materials, noting that they were likely or very likely to read or listen to books outside of class material in the future.

Increasing Leisure Reading among University Students with Audio + Text Devices

Encouraging students to read can be challenging. Leisure reading, also known as recreational reading, is particularly difficult for busy college students. Torn among classes, work, internships, family obligations, and socializing, reading for fun is often last on a long list of priorities, if it was even an interest to begin with. However, literacy is an important skill that will have an effect on the remainder of students' lives. Research has found that the more one reads, the better one gets at reading, and the less one reads, the more impeded one's literacy skills become.¹ Literacy skills are the foundation on which college classes are built. By encouraging students to improve these skills, librarians and instructors also help students feel confident in their classwork. With this in mind, how do instructors and librarians encourage reading for fun?

One idea explored in this study is to use technology in an innovative way to open students to different ways of reading. Kindle Fires, loaded with text and audio content able to be read and listened to simultaneously, may help students improve literacy skills and help them become more than reluctant readers. This study looked at two classes where students were provided Kindles with audio and text book selections and measured levels of engagement and interest in leisure reading before and after using the device.

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Literature Review

Many researchers note that college students today are reading fewer books than in previous generations.² In a 2004 Pew Research Foundation study, the typical 18- to 29-year-old had started or completed five books in a twelve-month period.³ This number goes up when individuals increase education attainment levels. The study does not note whether the books were leisure reading or reading done for work or school. Sandra Hughes-Hassell and Pradnya Rodge, in their study of the leisure reading habits of urban adolescents, define leisure reading as “the reading students do on their own, as opposed to reading that is assigned to them.”⁴ It is also referred to as voluntary reading or recreational reading and depends on the students’ own choice of materials, whether that be a book or something else. Some may argue that students receive the benefits of reading whether they read books for school or recreationally, but Pauline Dewan notes that fostering a culture of reading is a way to go beyond the typical mandate of academic librarianship and provide a means to the student success and retention that institutions of higher education prioritize.⁵ As Hughes-Hassell and Rodge write, “research indicates a strong relationship between leisure reading and school achievement, [so] understanding the leisure reading habits of youth is important.”⁶ Further, as noted by Julie Gilbert and Barbara Fister, many college students do enjoy reading and explain that they would appreciate help from academic libraries in discovering what to read next.⁷ Academic librarians must take advantage of this opportunity and work with students to facilitate reading for pleasure as well as for coursework. Marty Frailey, Greta Buck-Rodriguez, and Patricia Anders agree, adding that the incoming freshmen with low ACT scores “in part, might be attributed to a lack of practice reading books for pleasure.”⁸ It is these students with which this study is concerned: students whose literacy skills leave them unready for college. Research has suggested that reading deficiencies are the greatest obstacle that underprepared students face in college.⁹ Research has also suggested that literacy skills can be gained not only by reading text, but also through audiobooks.¹⁰

Research on using audiobooks in the classroom mostly centers around elementary and middle school students.¹¹ There is little research on audiobook usage in college- or university-level courses, though Catherine Stern, Brock Peoples, and Carol Tilley all look at the importance of adopting audio resources by academic libraries.¹² While all touch on the usefulness of audio, none mention pedagogical techniques or research practices at universities that do have audio holdings. Stern notes that, while adoptions of audiobooks at colleges is increasing, very small numbers of survey respondents from four-year institutions are aware of audiobooks being used in the classroom.¹³ While both articles agree that broadening collections to include emerging audio resources is important, there is a gap in the literature on the practice of using audiobooks in the college classroom, specifically with students who struggle with literacy skills.

Looking at younger populations, the gain in literacy skills due to listening to audiobooks is noted by many authors.¹⁴ Sharon Grover and Lizette Hannegan note current research demonstrates that “listening to audiobooks fosters reading comprehension, fluency, language acquisition, vocabulary development, and improved achievement.”¹⁵ Gene Wolfson acknowledges much the same, stating that reading audiobooks supports the development of all four language systems -phonological, semantic, syntactic, and pragmatic -and that “audiobooks may be used ...to improve fluency, expand vocabulary, activate prior knowledge, develop comprehension, and increase motivation to interact with books.”¹⁶ These are skills that we

ask our students to have before entering college but that many reluctant readers either do not possess or continue to struggle with.

A common theme in research on using audiobooks for literacy skills is the idea that listening provides the same literacy skills as reading text. This is evident in Kyleene Beers' work, which extols examples of successful audiobook programming in elementary schools.¹⁷ Similarly, Wolfson refutes the idea that comprehending audio does not equate the skills of reading.¹⁸ He argues that listening does not meet the threshold of "reading" only if one solely defines reading as the act of decoding words on a page, "but most of the literacy skills and strategies that are utilized by the audiobook reader are exactly the same as the comprehension skills and strategies that we teach our students." Wolfson goes on to explain that "the only difference is that we have substituted the visual understanding of written words with the auditory understanding of written words."¹⁹ An elementary language arts instructor interviewed in Beers' article explains, "Listening to the English language is one of the best ways to improve their vocabulary, their usage, and their comprehension. Just reading books doesn't help these kids very much. They need to hear the language."²⁰ Listening to audiobooks is not a substitution for reading skills, but rather a supplement meant to help engage students with the idea of reading as well as help improve skills that are also learned through traditional textual means. Wolfson states, "Audiobooks are not intended to replace the act of reading text, but rather to provide students with another dimension for understanding."²¹ Simply put, being able to comprehend a story or plotline will aid students' literacy, whether that story is read or listened to.

What if students read *and* listened? Some research has been done on this synchronized activity, and Beers' article does note examples of students listening to audiobooks while following along in their books. It also notes teachers putting books on iPods for students to listen to while reading. One student explains, "Lots of times when I'm reading I don't know what the word is but then if someone will say the word I'm, like, 'so that is what that word looks like.'"²² The simple act of hearing a word spoken while also seeing that word allows the student to connect the visual recognition with the sound of the word. For students who struggle to sound out words while reading, this is an important aid. It may also be a helpful tool for international or multilingual college-age students, or students whose first language is not English. Wolfson agrees, stating, "Removing the restraints of a student's word recognition and decoding skills provides a very positive approach to focusing on the meaning behind an author's words."²³ Larson also notes the benefits of listening to a story while reading. Within audiobooks, there is "the potential to introduce new vocabulary within the context of a story while modeling fluent reading and appropriate phrasing, intonation, and articulation."²⁴ Students reading on their own may struggle with new words, pronunciation, or intonation, eventually grow frustrated and simply put the books down. Instead, given proper audio support, they may continue to read.

The idea of how to engage students in reading and listening is another aspect of this study. The benefits of audio narration are many, but how to get students to listen? Rebecca Dierking argues that technology is the key.²⁵ Again, working with a slightly younger population than this study does, she comes to the same conclusion that Wolfson, Beers, and Larsen did: audio increases the ease with which students read. Dierking argues that technology is the draw for even reluctant readers and will increase their reading time at school as well as at home.²⁶ Using devices such as Nooks or Kindles allows students to get excited about the prospect of reading

or listening while also coordinating the knowledge they already possess about technological interfaces into a new platform; the hope is that it will be one with which they will continue to engage. The statistics show that new tech is an exciting way of life for adolescents and young adults. A Kaiser Family Foundation study from 2010 found that young people from 8 to 18 years old spend roughly 7.5 hours each day using technology.²⁷ It is possible, even likely, that, in the eight years since that study was published, those numbers have gone up.

Nancie Atwell, speaking more generally about learning, states, "Learning is more likely to happen when students like what they are doing."²⁸ Students enjoy technology, so Dierking comes to the conclusion that merging reading and technology seems an obvious choice. "If students who have become inured to reading show interest and see how convenient these devices are, they may continue to read."²⁹ Furthermore, the benefits of devices such as Nooks and Kindles are numerous. No longer do students need a physical dictionary or a separate device to look up a definition; there is powerful dictionary built into their e-reader. Larger text size, the ability to slow down or speed up the narration, and backlight options are all ways that students can extend their reading time. Synced narration has also come a long way from text-to-speech robotic voices. Larson notes all of these ideas, echoing Dierking, and states, "Furthermore, the combined reading/listening experience allowed [students] to adjust their reading rate and tackle unfamiliar or difficult-to-read words. For many students, the extra audio support improved their reading stamina, enabling them to read more and for longer periods of time."³⁰ Giving students multiple tools, including audio, to support growth of their literacy skills better prepares them to not only succeed in college but continue to improve and become lifelong readers.

Methodology

This study protocol was reviewed and approved by the Institutional Review Board. Students gave informed consent before participating. The study was conducted at Penn State Brandywine, a growth campus in the Penn State Commonwealth Campus system. Brandywine lies outside Philadelphia and draws its population of close to 1,500 students from the city of Philadelphia, nearby counties in Pennsylvania, New Jersey, and Delaware, and internationally from countries in Asia, the Middle East, and Africa.

The two classes chosen for this study had students who were "reluctant readers" in some capacity. The first ten participants were enrolled in a reading improvement class comprising first-year students in their second semester. This three-credit class is strongly recommended on an individual basis to students who, by their SAT scores, have been identified as struggling with English language skills. The instructor for this course believed the use of devices and presentation of reading as something other than simply text on a page would increase students' engagement with material. The other students in this study were enrolled in a comparative literature class in the Multilingual Student Course Cluster. This is a program at Penn State Brandywine that is offered to multilingual students and includes intensive tutoring. Most students in this cluster are non-native English speakers or come from a household where English is not the primary language. The coordinator of the multilingual student programs at Brandywine, and the instructor of this course, believed these students would benefit from listening to pronunciation, syntax, and diction, in addition to the benefit of the dictionary built into the Kindle Fire e-readers. The eleven students enrolled in this course ranged in class standing from freshman to senior.

The audio and text versions of *I Am Malala* by Malala Yousafzai, *The Absolutely True Diary of a Part-Time Indian* by Sherman Alexie, and *We Were Liars* by E. Lockhard were downloaded onto twenty-one Kindle Fires. These three selections were made from a list of YA books, both fiction and nonfiction, recommended by the American Library Association. Care was taken to make selections available with characters of diverse backgrounds and narratives with engaging storylines. Materials were created that showed how to simultaneously read and listen to the book and audiobook and passed out to each student with the Kindle Fire.

Data were collected through students' own assessments of their reading habits in pre- and poststudy surveys.³¹ Included in the survey were questions about current leisure reading habits, as well as any tools that students use to support their reading. This survey also asked whether students used audiobooks in any capacity. Prestudy surveys were given as the Kindle Fires were handed out, which was week 1 of spring semester. Students were asked twelve questions, including their native language and class standing, as well as their planned major, if they had one.

Students were then asked to choose at minimum one book to read during the next eight weeks. Two "book club" lunches were options for students to attend during this time, with small-group discussions of the material. After eight weeks, students were no longer required to read on the Kindle Fires, but they were allowed to keep them until the end of the sixteen-week semester.

At the end of the semester, as students turned in their Kindle Fires, they were given a fourteen-question poststudy survey. This survey had some of the same questions as the pre-survey to gauge any changes in reading habits, as well as general usage questions, and asked students to reflect a bit on their experience and what they thought of the Kindle.

Data were analyzed to determine what percentage of respondents claimed they did or did not read in their spare time. For nonreaders, reasons they gave for not reading were examined. The prestudy surveys were analyzed to get an idea of students' established leisure reading practices. The survey explained that reading materials not assigned by an instructor would count as "leisure" reading. It did not specify whether internet articles, magazines, or other types of reading were to be thought of, so it is unclear whether students were thinking only of books or if they counted other materials when responding to this survey. The questions were meant to gauge current reading habits, including how often they read something outside of class, whether they ask for help with definitions or pronunciation, and what they think about using a Kindle to listen and read at the same time. The poststudy survey was analyzed for differences in percentages of students who claimed they were likely to participate in recreational or leisure reading in the future versus the percentage from the presurvey that claimed they did participate in leisure reading.

Twenty-one students were enrolled in the two classes combined. All twenty-one students completed the prestudy survey, while eighteen students completed the end of semester poststudy survey. Of the eighteen students who completed both surveys, six were female, twelve were male. Eleven of the eighteen respondents were native English speakers. The seven non-native English speakers who completed the poststudy survey were native speakers of Spanish, Mandarin Chinese, Russian, or Persian.

Findings

In the prestudy survey, seventeen of the twenty-one students estimated that they spend between zero and two hours a week reading leisure materials. Of these seventeen students, nine

said they did not read material not assigned by their instructor. The major reasons given for this were lack of free time and no interest. Fifteen students responded that they had listened to an audiobook before. When asked if they thought they would enjoy simultaneously reading and listening to a book, most responses were positive, with only one student responding negatively. This student had not previously used an audiobook. Students' ideas of the benefits of reading and listening simultaneously ranged from "saves time," to "takes up less space," to "improves reading skills." Five students wrote that they thought reading and listening would help their comprehension and pronunciation. Of the twenty-one students, fifteen responded that they have asked someone how to say a word when reading. Eight students said they use a dictionary or other tool to look up definitions of unfamiliar words.

With these initial prestudy survey results, it was anticipated that students would gain important literacy skills from using audio and text simultaneously. The Kindle Fire e-reader devices used in this study have dictionaries built into the interface, so it was also thought that students would use this tool for words with which they were unfamiliar.

The poststudy results asked what books they read as well as what books they listened to. None of the students responded that they read or listened to more than one book on their Kindle. However, when asked if they were likely to spend time "leisure" reading in the future, fifteen participants responded positively. Only three of the eighteen postsurvey respondents responded negatively or not at all to the idea of leisure reading in the future. Again, only three students responded that they did not find an e-reader useful, while fifteen students mentioned that it was something they did find a benefit from. Those responses included help with pronunciation, saving time by listening, or increasing an interest in reading.

Seven students responded that they had used the built-in dictionary tool when reading. This matches roughly with the number of students in the prestudy survey who responded that they use a dictionary tool when reading for class. Fourteen of the eighteen postsurvey respondents agreed that the audiobook helped them know how to pronounce words they were unfamiliar with. In the prestudy survey, fifteen of twenty-one responded that they have asked someone how to pronounce a word when reading.

Implications

This study questioned if college-age students who are reluctant to embrace leisure reading would become more engaged readers through use of new technology, specifically technology that is simultaneously audio- and text-capable. The results show that the audio plus text option did increase students' interest in leisure reading. Sixteen out of eighteen poststudy survey respondents replied that they were likely to spend time leisure reading in the future. That is an increase from the ten students who, in the prestudy survey, said they read materials not assigned by their instructor. While this is encouraging, it is not clear whether this increase is due to listening to an audiobook, using text and audio simultaneously, being given a Kindle for the semester, or perhaps some other factor. However, seventeen of eighteen respondents to the poststudy survey found using an e-reader beneficial.

While the choice of words in describing what they liked about the Kindles differed, there was a theme of improvement of reading skills. This has good implications for the benefit of using devices to gain important literacy skills among college age students. Some of the benefits students listed include hearing pronunciation, easier to listen than to read text, that it saves time, and that it saves space.

While a majority of students in this study were more interested in leisure or recreational reading, it is worth noting that the Kindle Fire devices were not always used for the purpose of simultaneous text and audio consumption. In conversation with the participants in this study, most noted that they tended to either read or listen, sometimes switching between the two, but most often did not read and listen simultaneously. This implies that further study of use of audiobooks for college-level reluctant readers would be useful. Students who previously asked for assistance when reading, whether on pronunciation or defining words, used the Kindle for that purpose. Students who did not ask for help with pronunciation or definitions did not use the Kindle for that purpose. The built-in options did not entice students to dive deeper into how the Kindle could help improve their reading. Perhaps simply listening to the audiobook would be just as useful for students who have trouble engaging with a text when it is simply words on a page.

What was evident from this study is the important role that engagement plays in student interest levels. Again, through casual conversation during the two book club meetings, many students noted how much they enjoyed meeting in small groups and discussing their chosen books. Building a sense of community and readership with students unfamiliar with the joys of sharing the experience of a book club was a benefit that was hoped for and, with some students, achieved. In a longer study, qualitative measurement of student reactions during a small-group meeting would be an important part of measuring students' leisure reading habits and increased engagement with texts.

Further Research

As noted in the implications, this study touches on many issues that need more in-depth research. The limited sample size needs to be expanded and separated into two groups. This study was conducted with one group of first-year students in a reading improvement class, and another group of multilingual students ranging in class standing and first language. For the purpose of this study, both groups were targeted as "reluctant readers," but the first-year college reading improvement class gained the fewest benefits from using a text and audio e-reader, according to their own poststudy surveys. While some respondents noted that they were more likely to read for fun in the future, they were less reflective on the skills they gained or benefits they received from the Kindle Fire. The group of multilingual students, as anticipated, mentioned in their surveys the usefulness of the audio and dictionary on the Kindle Fires more frequently. The differences in how these two groups interacted with and learned from use of the device would benefit from further study.

It is worth noting that the texts in this study were preselected by instructors and librarians. If students had a choice of materials, would their engagement be different? Further, with devices such as Kindle Fire, magazines and podcasts could also be used for comprehension and engagement skills, depending on the goals of the programs. This study was limited to a few choices of fiction and nonfiction YA-level books. Students were also not directed, in completing the pre- and poststudy surveys, whether to consider magazine or other reading in their responses to current leisure or recreational reading habits. A further study might examine the leisure reading habits of students across more types of media. A further study may also look solely at reading and listening simultaneously, including whether students gained academically from this practice.

Conclusion

While the goal has never been to replace print texts with digital texts, this study and other similar studies done in elementary, middle, and high schools have found that the definition of reading is increasingly broad. No longer is it viable to ignore changes in literacy or technology. In traditional text forms, readers rely on two-dimensional pictures to make meaning. In digital readers, a range of formats is available, including hyperlinked text, audio, video, and animations. Learning environments and instruments, such as Kindle Fires, that benefit students in many ways should be examined for use in the university classroom and learning centers.

The Kindle Fire is one option to entice students to read, with both text and audio. Making different formats available, and showing students how to partake of these formats, is the responsibility of librarians in the digital age. With new tools and new support, university-level reluctant readers may find they enjoy reading in a format they never knew qualified as reading.

APPENDIX A. Pre-Study Survey Questions

1. What is your first language?
2. What is your class standing?
3. What is your major?
4. How many hours a week do you spend reading material for class?
5. When reading for class, do you use a dictionary or other tool to look up definitions?
6. When reading for class, have you ever asked someone how to say a word?
7. Do you read materials not assigned by your instructors?
8. If yes, how many hours a week do you spend reading “leisure” materials? (material not assigned by your instructor)
9. If no, why not?
10. Have you listened to an audiobook before?
11. On a scale of 1 to 5, 1 being not at all and 5 being very much, how much would you like reading and listening to a book at the same time?
12. Do you think using an e-reader would be helpful?

APPENDIX B. Post-Study Survey Questions

1. How many hours a week do you spend reading material for class?
2. Did you read and/or listen to any portion of the three books on your Kindle this semester?
3. If no, why not?
4. Which books did you read?
5. Which books did you listen to?
6. Did you read and listen to any book simultaneously?
7. If yes, which book or books?
8. Did you find the audiobook helpful?
9. If yes, what was helpful?
10. Did you use the dictionary on your Kindle?
11. Did you enjoy reading?
12. Did you enjoy listening?
13. How likely are you to spend time “leisure” reading in the future? 1 is not likely, 5 is very likely. (Remember, leisure reading includes material not assigned by your instructor.)
14. What did you think about using the Kindle Fire?

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