Motivating and Engaging Characteristics of E-books for 5th Grade Boys

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Abstract

The effect of several e-book characteristics on students' motivation for reading and engagement with reading were investigated. Student surveys were used to measure the level of motivation and engagement created by each e-book characteristic.

In this study, I investigated how fifth grade boys are motivated and engaged by several e-book characteristics. Motivation can be defined as an ability to encourage students' to participate in reading. Engagement can be defined as an ability to maintain student interest during reading. My motivation to investigate the motivating and engaging characteristics of e-books stemmed from my dual interests in learning how to most effectively integrate technology into my classroom and finding ways to encourage my male, fifth grade students to read.

Introduction

Logan & Johnston (2010) investigated the issue of attention in reading and found that for reading instruction to be effective, students need to be engaged with the learning. However, boys tend to demonstrate less attention during reading lessons than girls, which may hinder their learning and achievement in reading. The use of technology could be a piece of the answer in engaging these unengaged boys in reading.

Electronic books (e-books) are not bound to the traditional paper pages of a traditional text. Instead, the electronic nature of e-books goes beyond the written words and brings into play all types of additional media and specialized features. E-books can include audio, highlighted read along text, end of book quizzes, interactive images, and even reward systems.

Naturally, research has been conducted to determine if and how these new e-book characteristics assist in raising student reading achievement. The results are promising.

However, gaps in the research remain in the area of gender preferences. When it is stated that technology may engage boys in the act of reading, technology must be more carefully defined. Which particular characteristics of online reading make it engaging and motivating for boys? The findings of this study can assist in creating e-book reading materials tailored specifically toward boys to improve their motivation, engagement, and overall reading achievement. The findings can also assist schools and districts in selecting e-book resources that are most effective in addressing the reading preferences of upper elementary boys.

The purpose of this study was to examine the characteristics of e-books to discover which features are most motivating and engaging for fifth grade boys and therefore possess opportunity to improve boys' reading achievement.

Research Questions

1. Which characteristics of e-books are most motivating for fifth grade boys?

2. Which characteristics of e-books are most engaging for fifth grade boys?

Importance of Study

Through the investigation of student opinions about which characteristics of e-books are most motivating and engaging, classrooms, schools, districts, and educational resource developers are better equipped to make data-driven decisions. Classrooms, schools, and districts have improved data to support the types of e-books they invest in for their students. Classroom teachers now have additional data to support methods of reading instruction that include e-books

and ultimately more effectively engage and motivate their reluctant readers. Developers of e-books have a greater understanding of which characteristics are most necessary to create engaging and motivating materials.   Overall, the data that this study generated benefits the reading achievement of upper elementary school boys.

Definition of Terms

Motivation can be defined as an ability to encourage students' to participate in reading. Engagement can be defined as an ability to maintain student interest during reading.

Theoretical Frameworks

Literature Review

E-Book Benefits in Tailoring Reading for Readers and Improving Access to Text

Multiple research studies validate the specialized features that e-books offer their readers. Grimshaw et al. (2007) concluded that electronic books which include pictures, sound effects that align to the story, and narration have the potential to increase children's comprehension and engagement with books. Korat & Shamir (2012) looked into the benefits of highlighted read aloud e-book text. Their research showed the ability of pre-kindergarten and kindergarten students to "learn to read words after exposure to a highlighted digital text (without explanations)." The study cited Evans et al. (2010), who found, "Kindergarten students that are not formally taught reading and writing do not focus on the printed text and consequently cannot be advanced in their print awareness or reading skills." Korat noted that the e-books' highlighted

text drew students' focus to the print and allowed them to make connections between the spoken and written word.

In several cases, the additional characteristic of text audio allowed students better access to reading materials and increased their comprehension. Grimshaw et al. (2007) studied the comprehension and enjoyment differences between electronic and traditional text versions of two books. No significant difference in comprehension was found when the electronic book did not use narration; however, when the electronic book *did* include narration, there was a significant improvement in both comprehension and children's abilities to make inferences.

The most obvious benefits of e-book reading come into play when the e-books include features not provided to students in traditional paperback texts. An example of this can be seen in Grimshaw et al. 2007 research, which studied the use of traditional text reading as compared to electronic book reading. A printed dictionary was provided with the printed text, and an online dictionary provided with the electronic book. The use of the online dictionary was much higher than the use of the printed dictionary, which lead Grimshaw et al. (2007) to conclude that electronic books which include online dictionaries have the potential to increase children's comprehension of books.

There is particular promise of the specialized characteristics of e-books to positively influence the reading of struggling readers. Many of the benefits for struggling readers stem from the tailor-made learning experience that e-books afford students. Larson (2010) looked into the uses and benefits of several types of digital readers in the classroom. She found that "Digital readers show promise in supporting struggling readers through multiple tools and features including manipulation of font size, text-to-speech options, expandable dictionary, and note capabilities" (2010). These features lend themselves to creating a tailor-made reading

experience, in which the text is more accessible to students than when reading traditional books. Researchers such as Huang, Liang, Su, & Chen (2012) believe the benefits of e-book instruction make e-book use outweigh the use of traditional texts. Specifically, e-books allow for the recording and tracking of specific reading activities, so the teacher may analyze the results and then create a more tailored learning experience for the student based on their strengths and weaknesses.

E-Book Benefits in Reading Motivation and Engagement

Many researchers have identified improved reading motivation and engagement as two significant benefits of e-books. Larson (2010) found that the adaptability of e-book text has the potential to increase students' motivation to read. Huang, Liang, Su, & Chen (2012) studied the effectiveness of an Interactive E-book Learning System (IELS) with elementary students. In this study, the participants favored the reading of e-books over traditional printed texts.

Ciampa (2012) noted this improved reading motivation and engagement when he studied eight students in first grade as they used online books during 25-minute sessions over the course of 15 weeks. Students that were normally fidgety and off task during their reading instruction became very focused and motivated during their online reading sessions. These students were instructed that they must finish their seatwork prior to working on the computer. Because of this stipulation, the students completed their seatwork more efficiently than previously observed. Ciampa (2012) noted that the word-by-word matching, animated illustrations, and immediate feedback led to increased engagement, helped in the learning of new words, and assisted in maintaining the attention of the students as they read.

Additional studies have shown that students reading e-books read more and have an improved attitude toward reading. Oakley and Jay (2008) looked at factors that contribute to the success of reading interventions for reluctant readers that used electronic talking books (ETBs). The identified reluctant reader participants noted that they read more than usual during the 10-week study and the majority of the parents of the participants noted that the ETBs had "led to improvements in their children's reading abilities and attitudes" (p.250). Ciampa (2012) studied the reading motivation and listening comprehension of 1st grade students when using e-books as part of an online reading program. The study's results indicated that the participants increased their overall enjoyment in reading and also showed improved reading comprehension after using the e-books as an alternative to traditional texts.

Gender Differences in Reading Achievement and a Potential Solution

From the research previously discussed, one could argue that through their various specialized characteristics, e-books have the potential to improve student engagement, motivation, and reading achievement. This could be exciting news for boys, and the teachers of male students, because boys consistently fall behind girls in reading achievement.

McGeown et al. attributes boys' underachievement in reading to their lack of motivation in reading activities. This low motivation "creates a barrier to their academic attainment" (McGeown et al., 2011). Research has suggested that some boys have a low motivation to read and avoid reading because it is deemed a feminine activity (Baron, 1996). Sokal and Katz (2008) studied the effects of computer-based books on boys' reading achievement and attitudes

and found that the boys showed a decrease in how feminine they saw reading. It appeared that the simple use of a computer made reading seem less feminine.

Boys' reading frequency and reading motivation were studied by Logan and Johnston (2010), and it was determined that motivation may be more important than reading frequency for the comprehension of text. Wang & Guthrie's (2004) study found that text comprehension could be predicted by looking at the level of reading motivation, but text comprehension could *not* be predicted when only looking at reading frequency. Another issue discussed by Logan and Johnston (2010) was the issue of attention. For reading instruction to be effective, students need to be engaged with the learning. Boys tend to demonstrate less attention during reading lessons than girls, which may be hindering their learning and achievement in reading. This leads one to believe that boys would benefit from a style of reading instruction that is more engaging to them.

E-books have been identified in multiple research studies as having the potential to motivate, engage, and improve the reading achievement of students. There are currently many e-book options for teachers and parents to use with their students, and there will no doubt be many more e-books created in the coming years. However, if teachers and parents are going to direct their student to this resource, we should ensure it is as motivating and engaging to the students as possible, or the anticipated improved reading achievement will not have a chance. While there is a wide variety of specialized e-book features, more research is required to determine which characteristics of e-books are most motivating and engaging for elementary boys, and therefore possess the highest opportunity to improve boys' reading achievement.

Methodology Design

Setting and Participants

During this study, I taught fifth grade English Language Arts (Reading, Writing, Spelling, and Grammar) at an elementary school in Marietta, Georgia. I was a member of a four-teacher team, which includes another English Language Arts teacher, Math teacher, and Science & Social Studies Teacher. I taught two English Language Arts classes per day, for a total of 42 students daily. I requested parent consent from the parents of all 19 male students. Participation proved to be a challenge with this study, and only two parent consent forms were returned. I conducted the study using these two students. The 2 participants were 11 and 12 years old. Both were Hispanic and Spanish was their first language; however, both Spanish and English were spoken in their homes. Of these two participants, one read on grade level, and the other read slightly below.

Our classroom housed a laptop computer cart, which students used to access e-books. On a daily basis, students read e-books from *RAZ-Kids*, *TumbleBooks*, and *MackinBooks*. In addition to school access, these participants also had access to these websites at home.

Design

The data was generated using three methods to allow for triangulation of the findings in this study. Two participants completed a quantitative Likert-scale survey examining how motivating and engaging they found each e-book characteristic. I then observed the students reading e-books. Finally, I conducted interviews with both participants to gain further insight about their thoughts regarding each characteristic.

Data Collection

The participants had an active role for four weeks during the study. Data collection occurred during the fourth 9-weeks of our elementary school calendar. During the first 2 weeks of the study, I began by ensuring both participants were accessing e-books for at least 20 minutes

per school day. This ensured participants had enough background knowledge of e-books to allow them to answer the survey and interview questions thoroughly.

During the 3rd week of the study, I administered the motivation and engagement survey during school hours. An online Google Document survey, rather than a teacher, was used to administer the surveys and collect the results, so the students felt more comfortable giving honest answers. Students rated each characteristic using a Likert-scale to rate how much they agreed with each statement about several characteristics of e-books. The possible responses included: 1 = Strongly Disagree   2 = Disagree   3 = Neither agree or disagree   4 = Agree   5 = Strongly Agree.

During the 4th week of the study, I observed students using e-books. I took notes about student use of various e-book characteristics. I then interviewed the participants to gain further insight about their thoughts regarding each e-book characteristic. I encouraged the students to compare between the characteristics of e-books and determine which characteristics are most motivating and engaging. This interview also allowed time to ask students questions formulated based on previous observation of their e-book use.

Reliability & Validity

I collected data from three sources during this study. Data triangulation assisted in reducing the chance of error in the study's findings. I was present when the survey was administered to ensure technological issues or confusion did not interfere with the survey results, but allowed students independence to mark their answers to encourage them to answer honestly. The questions were written at a 3rd grade reading level to ensure all participants could easily read the survey questions. Rather than using a seven point scale, a five point Likert-scale was used to prevent confusing or overwhelming the elementary school participants. The main challenge with

my reliability and validity is due to the small number of participants in this study. If conducted again, this study would greatly benefit from a larger population sample to improve the reliability and validity of the results.

Data Presentation & Analysis

The quantitative data collected from the Motivation and Engagement Surveys was analyzed by finding the mean point value assigned to each characteristic by the students. 1 point was given for *Strongly Disagree*, 2 points given for *Disagree*, 3 points given for *Neither Agree or Disagree*, 4 points given for *Agree*, and 5 points given for *Strongly Agree*. Then, the characteristics were ranked using the means to order the characteristics from most to least motivation and engaging.

The qualitative data collected from the interview and observation phases of the research was analyzed using coding, categorizing, and theme development. I familiarized myself with the collected data, generate codes, and looked for patterns and themes to develop that identified or explained the motivating and engaging characteristics of e-books for my population of 5th grade boys.

From this data analysis, data can be made available to support schools and districts in their data-driven planning and decision making for the benefit of student learning utilizing e-books. Beyond classroom and district decision making implications, this data can also assist developers in their creation of engaging and motivating e-books for students of similar age range and gender.

Findings

Data Analysis of Motivation Survey

The ranked means of the student responses of the Likert-type Motivation Survey (Appendix A) suggest the characteristics that most motivate fifth grade boys to read are: Multiple genre options, high interest topics, reward points/stars/money earned by reading, and spending of reward points/stars/money to buy items online. Theses ranked means also suggest the characteristics that least motivate a student to read are: Online quizzes, built in dictionaries, and recording one's voice while reading.

Data Analysis of Engagement Survey

The ranked means of the student responses of the Likert-type Engagement Survey (Appendix A) suggest the characteristics that *most* engage fifth grade boys and make them want to continue reading once they begin are: Multiple genre options, high interest topics, reward points/stars/money earned by reading, and spending of reward points/stars/money to buy items. These ranked means also suggest the characteristics that *least* engage fifth grade boys and do not make them want to continue reading are: Having books available in Spanish and English, recording one's voice while reading, and getting direct messages from a teacher.

Data Analysis of Engagement Survey and Motivation Survey

The ranked means of the student responses of the Likert-type Engagement Survey and Motivation Survey suggest that 5th grade boys rate multiple genre options, high interest topics, reward points/stars/money earned by reading as both the most motivating (making them want to begin reading) *and* engaging (making them want to continue reading longer). The ability to record one's voice was noted as the least motivating and engaging.

Data Analysis of Student Observations

Both participants were observed during their reading of online books. The students were directed to read as they normally would during independent reading on e-books found online.

Notes were taken during the participants' two separate sessions using the Student Observation Form (Appendix F). The observation data was then coded and analyzed for themes (Appendix B). Using color coding, several reoccurring themes were identified.

The first theme that emerged was the power of choice. The large number of books available to students at their "just right" level appears to motivate and engage fifth grade boys in reading. Having access to books from several genres and topics may lessen the burden of finding books to read, allowing students to more quickly and easily begin the reading process.

The next theme that emerged from the observations was the self-sufficient nature of online reading using e-books. Participants independently navigated the online reading system, understood online reading expectations and procedures for use, and utilized the e-books' built in support to be successful in their reading. It's possible that students, especially reluctant readers, may prefer the independence that e-book reading provides in comparison to the teacher dependence they often feel when reading traditional paper books.

The final theme that came from the observation data was students' problem solving of technical issues. While one might assume that encountering technical issues would make the task of reading less motivating and engaging, the technical issues encountered by students did not seem to hinder their reading or negatively impact their reading motivation or engagement to a significant extent. Students were quick to problem solve and continue reading. This theme connects back to being self-sufficient, in that 5th grade boys respond positively to independence, even when faced with challenges.

Data Analysis of Student Interviews

Student interviews were conducted with each participant. The Student Interview Form (Appendix F) was utilized to collect the data. The data was then coded and analyzed for themes

(Appendix B). Reoccurring themes emerged from the data, which were very similar to the themes that emerged from the Student Observation data.

The first theme that emerged was again choice. During the interviews, students positively discussed the options e-books provide for genres, topics, and levels. They also mentioned the great number of books available to them through e-books. Having the power to choose books that appeal to personal interest appears to be both highly motivating and engaging. This suggests choosing books for students may remove some of the students' engagement and motivation for reading.

The second theme that emerged from the interviews was also noted during the student observations: The self-sufficient nature of online, e-book reading. Student responses suggested that there are several e-book features that assist them in reading successfully. Specifically, students noted that the e-book graphics and audio help them comprehend and learn unknown words. The students also spoke about the progress bar and quizzes assisting them in self-monitoring their progress and understanding of what they read. These built in support features all assist students in finding success in reading, which may by cause for higher levels of reading motivation and engagement.

The last theme that came out of the data was that students sometimes prefer to simply read e-books, rather than complete other tasks on the e-book program. One student commented, "I'd rather be reading," which spoke to the fact that some tasks that students are asked to do may actually take time, engagement, and motivation away from reading. This suggests that teachers may want to consider making non-reading tasks optional, or perhaps require these tasks less frequently. This would allow students choice, which fits with the findings noted above, and

would also prevent interrupting the engagement students have with reading to make them take part in non-reading tasks.

Conclusions

The data suggests that the characteristics that make e-books most engaging and motivating are very closely aligned. In analyzing the data collected through the student survey, observation, and interview, it appears that *choice* is the number one factor in motivating and engaging 5th grade boys in the reading of e-books. The number of available topics and genres were rated the most highly on the student survey of e-book characteristics, and the follow up observations and interviews confirmed this. The participants positively ranked or discussed having choice of reading levels, genres, and topics more often than any other characteristic. These findings suggest that educators should incorporate more choices to best motivate and engage their 5th grade boys.

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Rank	E-Book Characteristic MOTIVATION SURVEY (What degree does an e-book characteristic make the student want to start reading?)	Mean	Student A	Student B
1	Having multiple genre options (fiction, non-fiction, poetry) makes me want to get online and read a book.	5	5	5
1	Having high interest topics (topics you are interested in reading) makes me want to get online and read a book.	5	5	5
1	The reward points, stars, or money earned by reading makes me want to get online and read a book.	5	5	5
1	The ability to spend reward points, stars, or money to buy items makes me want to get online and read a book.	5	5	5
2	The ability to spend reward points to change your avatar makes me want to get online and read a book.	4.5	4	5
2	The moving images makes me want to get online and read a book.	4.5	4	5
2	Having books available in Spanish and English makes me want to get online and read a book.	4.5	4	5
3	The number of leveled books makes me want to get online and read a book.	4	4	4
3	The follow-along highlighted text makes me want to get online and read a book.	4	4	4
3	The ability to listen to book makes me want to get online and read a book.	4	4	4
3	The ability to read book without audio makes me want to get online and read a book.	4	3	5
3	The progress monitoring bar makes me want to get online and read a book.	4	4	4
3	Getting direct messages from my teacher makes me want to get online and read a book.	4	3	5
4	The online quizzes for each book make me want to get online and read a book.	3.5	3	4
4	The built in dictionary makes me want to get online and read a book.	3.5	3	4
5	The ability to record your voice reading books makes me want to get online and read a book.	2.5	3	2

Rank	E-Book Characteristic ENGAGEMENT SURVEY (What degree does an e-book characteristic make the student want to continue reading?)	Mean	Student A	Student B
1	Having multiple genre options (fiction, non-fiction, poetry) keeps my attention and makes me want to keep reading.	5	5	5
1	Having high interest topics (topics you are interested in reading) keeps my attention and makes me want to keep	5	5	5
1	The reward points, stars, or money earned by reading keeps my attention and makes me want to keep reading.	5	5	5
1	The ability to spend reward points to change your avatar keeps my attention and makes me want to keep reading.	5	5	5
1	The moving images keep my attention and make me want to keep reading.	5	5	5
2	The ability to listen to books keeps my attention and makes me want to keep reading.	4.5	5	4
2	The ability to spend reward points, stars, or money to buy items keeps my attention and makes me want to keep	4.5	4	5
3	The number of leveled books keeps my attention and makes me want to keep reading.	4	3	5
3	The ability to read book without audio keeps my attention and makes me want to keep reading.	4	4	4
3	The online quizzes for each book keep my attention and make me want to keep reading.	4	3	5
3	The progress monitoring bar keeps my attention and makes me want to keep reading.	4	4	4
4	The follow-along highlighted text keeps my attention and makes me want to keep reading.	3.5	3	4
4	The built in dictionary keeps my attention and makes me want to keep reading.	3.5	3	4
5	Having books available in Spanish and English keeps my attention and makes me want to keep reading.	3	3	3
6	The ability to record your voice while reading books keeps my attention and makes me want to keep reading.	2.5	2	3
6	Getting direct messages from my teacher keeps my attention and make me want to keep reading.	2.5	3	2

Student A Observation Form, Initial Codes, Reflective Notes   Appendix B
Use a different form for each student observation.

 Student Identifier: ____A_____Date:_____4/8/14_____7:25-7:52_____

Characteristic	Time	Notes:	Initial Codes	Reflective Notes
Books				
number of leveled books	15 min	of 12+ books at Level W, 18 page book	Selection of books accessible at personal level	Books at personal level makes choosing books and reading easier
			Online texts on this site shorter than usual chapter books at this grade level	Short texts may be less overwhelm-ing
multiple genre options (fiction, non-fiction, poetry)		Nonfiction chosen	choice	Many choices provided, which makes students feel in control
high interest topics (topics you are interested in reading)	1 min	Chose quickly from selection in *My Assignment*	Self-directed	Easy to use program makes students self-sufficient (feel in control)
Audio				
follow-along highlighted text		Not used		
ability to listen to book		Not used		
ability to read book without audio		10 mins Reading *Microbes: Friend or Foe* (Nonfiction)	Short reads	Short texts may be less overwhelm-ing
ability to record your voice reading books		Available, but did not use.		
Rewards				
reward points, stars, or money earned by reading		1940 points		

ability to spend reward points, stars, or money to buy items		Not interested in spending or using points. Points accumulating.	Lack of interest in rewards? Or just enjoy reading more?	
ability to spend reward points to change your avatar		Not interested in spending or using points.		
Miscellaneous Characteristics				
online quizzes for each book	11 min	Took quiz at end of book, view book option available and returned to book on question 3 to refer back to text, 10 questions (mouse froze, got another).	Self-directed Support available within program Problem solving Technical issue	Support within the program, ease of use, and basic trouble-shooting skills make students self-sufficient when reading online.
built in dictionary				
moving images		Not moving in this book, book included table, cartoon images, diagrams, photographs, captions, maps, fact boxes "Did You Know?" (in color)	Engaging, brightly colored images and elements Assortment of reading elements	Assortment of engaging reading elements maintains interest
progress monitoring bar		1/8 progress		
direct messages from my teacher		None noted.		
books available in Spanish and English		Read English only		
Additional Observations: Reading Microbes: Friend or Foe (Nonfiction) , clicked NEXT arrow to move through book at own pace Engaged: Eyes on screen, not looking around, chin resting on hand, clicked through at own pace Technical problems: Tried to enlarge text, did not work. Read in small	Self-paced High level of engagement Content, relaxed reading	Combination of choices, self-pacing, engaging features, and ability to be self-sufficient

version. <mark>Mouse froze, immediately stood up and went to get a mouse.</mark> Plugged in, and continued clicking through using mouse.	experience Independent Technical problem Self-sufficient Problem solver	may lead to improved motivation and engagement.

Student B Observation Form, Initial Codes, Reflective Notes   Appendix B

Student Identifier: _____B_____Date:__ 4/8/14_____

Characteristic	Time	Notes:	Initial Codes	Reflective Notes
Books				
number of leveled books	1 min	Scrolled through list of 15+ books at personal level. Most had been selected previously, as shown by faded color.	Large selection of on level texts Student very familiar with program	
multiple genre options (fiction, non-fiction, poetry)	1 min	Logged on. Went directly to *My Assignment*	Self-sufficient	Easily navigated due to simple format and previous procedural instruction
high interest topics (topics you are interested in reading)		"I choose a book I haven't read."	Self-sufficient Understands expectations	Student knows what to do and can verbalize it
Audio				
follow-along highlighted text	8 min	Listened and watched highlighted text option first. Tracked text with eyes and cursor. Encountered problem enlarging the screen to see the words in a larger size. Left at standard size and continued following along.	Engaged Technical problem Attempted problem solving steps	Student did not become discouraged with technical problem. Did not significantly impact reading experience.
ability to listen to book		Adjusted volume 3 times.	Self-sufficient	
ability to read book without audio	12 min.	Read book a second time without audio	Understands expectations set forth for use.	

			Encourages multiple readings	
ability to record your voice reading books		Not used.		
Rewards				
reward points, stars, or money earned by reading		Student "saving up" points. Did not enter store reward area.	Goal setting Postponed gratification	
ability to spend reward points, stars, or money to buy items				
ability to spend reward points to change your avatar				
Miscellaneous Characteristics				
online quizzes for each book	6 min.	Took quiz at end of book. Read, tracked questions with cursor. Referred back to text one time before answering question.	Used support available within program	Built in support may make reading a more enjoyable experience
built in dictionary				
moving images		Book chosen had still, bright images.	Engaging visuals	
progress monitoring bar		2/3 complete		
direct messages from my teacher		Student didn't look at this section.		
books available in Spanish and English		Read English only book.		
Additional Observations: Accessed with ease. Username memorized. No password enabled. Focused, eyes on screen the whole time. Quick recovery when problems experienced. Never used "page page back" key. Text highlighting froze at one point, and remained behind as student worked, student remarked, "That's the first time I've see that frozen like that."			Self-sufficient Engaged Problem solver Problem solver Technical issue	Student very capable and eager to trouble shoot independently. Students may gain enjoyment from being feeling independent, even when problems arise.

Appendix C

Student A Interview Form, Initial Codes, Reflective Notes: Interview

Interview Questions and Responses	Initial Codes	Reflective Notes
Student Identifier: _____A_____ 1. Based on your Motivation Survey, I see that you find **the number of books** characteristic the most motivating. Why do you find it so motivating? (Remember, *motiving* means it makes you want to start reading.) *When there is many books, it means there are many topics, there are many that the kids might like. Might be able to find anywhere else, but can find on the computer. Nonfiction, fiction, history books…most kids like fiction, but I like nonfiction because they have pictures and timelines that help you understand.*	Options Ease of access to books Choices Graphics a plus and aide in comprehension	Reading is made less tiresome and difficult when a variety of text options are easily available and comprehension support is provided through a variety of features.
2. Why do you find the _____ characteristic more motivating than the _____ characteristic? (Remember, *motiving* means it makes you want to start reading.) *Like the rewards on Raz-Kids because you can expand on and buy stuff. When you don't have enough, can go back and read more and get more points, so keep you more interested in reading.*	Enjoy saving points and knowing how to earn more Motivation	Student enjoys earning something for his work and finds it motivating.
3. Based on your Motivation Survey, I see that you find the **moving images** characteristic the most motivating. Why do you find it so engaging? (Remember, *engaging* means it makes you want to start reading.) *Moving images kinda give a mini movie with pictures keeps you more interested. If it's a chapter book without images, it's harder to keep interested. Like, space books with images keep me interested.*	Visuals make books like movies Images keep interested in books	Visuals make the book more like the multimedia today's students are accustomed to seeing.
4. Why do you find the **ability to listen** characteristic more engaging than the **ability to take a quiz** characteristic? (Remember, *engaging* means it makes you want to start reading.) *With the ability to listen, you can listen and if there's a word you do ont know, you can listen and you might get it right. Also, it's a great way to listen to books.* *When take quiz, have to look back to answer if get wrong. Takes*	Audio support	Audio support provides "just in time" scaffolding for students.

some time to get the answers right. <mark>*I'd rather be reading*</mark>*.*	Reviewing answers takes time Prefers reading over other tasks. Some tasks take away reading time—problem?	Quizzes can slow student progress. Some students may find the additional tasks of online books to take away from their precious reading time.
5. What else do you like about e-books that makes them motivating or engaging? *They have* <mark>*many topics*</mark>*, Raz-Kids has non-fiction and fiction.*	Variety of topics, both fiction and nonfiction is positive	Choice is motiving—this seems to be a reoccurring theme.

	Appendix C
Student B Interview Form, Initial Codes, Reflective Notes	

Interview Questions and Responses	Initial Codes	Reflective Notes
Student Identifier: _____B_____ 1. Based on your Motivation Survey, I see that you find the **wide selection of genres** characteristic the most motivating. Why do you find it so motivating? (Remember, *motiving* means it makes you want to start reading.) *It's cuz,* I don't read that much Spanish, but you could start reading Spanish if you wanted. *Well, I love reading* all kinds of genres *and stuff, and* I can find books I like.	Enjoys option of being able to read in other language, although doesn't use it. Ease of access to variety of books	Choice and options are very motivating, whether the student chooses to use them or not. Easy access improve willingness to read
2. Why do you find the **progress monitoring bar** characteristic more motivating than the **ability to record your voice** characteristic? (Remember, *motiving* means it makes you want to start reading.) *Progress bar* helps you keep track of where you are, *and how many tests you take. Never recorded voice before. Don't want to, don't know why.* I don't want to talk a lot. I want to just read instead.	Progress bar helps self-monitoring of progress Dislikes/doesn't use record voice because doesn't want to talk Prefers reading over other tasks (like recording voice)	Perhaps reluctant readers respond better to built in assistance with self-monitoring (rather than constant teacher guidance) Some tasks may be annoying to students if they'd rather be reading, and we don't want to deter their reading
3. Based on your Motivation Survey, I see that you find the **rewards** characteristic the most motivating. Why do you find it so engaging? (Remember, *engaging* means it makes you want to start reading.) *You can* spend stars on the red rocket, and it motivates students to keep reading. *Buying robots and aliens is fun.*	Spending points to buy engaging things makes students want to continue reading Robots and aliens options appeal to 5th	Age appropriate rewards are necessary if a reward is to be

	grade boys	engaging.
4. Why do you find the **online quizzes** characteristic more engaging than the **built in dictionary** characteristic? (Remember, *engaging* means it makes you want to start reading.) *==You can check if you are paying really close attention== when you read and take the quiz, and I like that. The dictionary I don't really use because when I listen to the words read, I know what the word is.*	Quizzes assist in self-monitoring	Quizzes also assist students self-monitor, which means they can also be more independent of the teacher.
5. What else do you like about e-books that makes them motivating or engaging? *I guess the Book Room. It ==has a bunch of books==. You can click on a level and ==choose your level==. I like choosing. Like, if level Q you can read that. If reading level V, you can read that. You can go higher/lower.*	Appreciate choices in books and levels.	Choice is definitely a reoccurring theme. It is both motivating and engaging for students.

Code Book for Observations

Initial Codes and Color Coded Categories
1. Selection of books accessible at personal level
2. Online texts on this site shorter than usual chapter books at this grade level
3. Choice
4. Self-directed
5. Short reads
6. Lack of interest in rewards? Or just enjoy reading more?
7. Self-directed
8. Support available within program
9. Problem solving
10. Technical issue
11. Engaging, brightly colored images and elements
12. Assortment of reading elements
13. Self-paced
14. High level of engagement
15. Content, relaxed reading experience
16. Independent
17. Technical problem
18. Self-sufficient
19. Problem solver
20. Large selection of on level texts
21. Student very familiar with program
22. Self-sufficient
23. Self-sufficient
24. Understands expectations
25. Engaged
26. Technical problem
27. Attempted problem solving steps
28. Self-sufficient
29. Understands expectations set forth for use.
30. Encourages multiple readings
31. Goal setting
32. Postponed gratification
33. Used support available within program
34. Engaging visuals
35. Self-sufficient
36. Engaged
37. Problem solver
38. Problem solver
39. Technical issue

The research question asked with this activity was, "What makes e-books motivating and engaging?" The following themes were identified:

Choice: Large number of books available to choose from at students' personal levels

Self-sufficient Nature of Online Reading: Student could independently navigate system, understood expectations and procedures for use, and was had adequate built in support from the online reading program.

Problem Solving Technical Issues: Technical issues arose several times, but students proved to be excellent problem solvers and the problems did not appear to hinder their reading to a significant extent.

Code Book for Interviews

Initial Codes and Color Coded Categories
1. Options
2. Ease of access to books
3. Choices
4. Graphics a plus and aide in comprehension
5. Enjoy saving points and knowing how to earn more
6. Motivation
7. Visuals make books like movies
8. Images keep interested in books
9. Audio support
10. Reviewing answers takes time
11. Prefers reading over other tasks. Some tasks take away reading time—problem?
12. Variety of topics, both fiction and nonfiction is positive
13. Enjoys option of being able to read in other language, although doesn't use it.
14. Ease of access to variety of books
15. Progress bar helps self-monitoring of progress
16. Dislikes/doesn't use record voice because doesn't want to talk
17. Prefers reading over other tasks (like recording voice)
18. Spending points to buy engaging things makes students want to continue reading
19. Robots and aliens options appeal to 5th grade boys
20. Quizzes assist in self-monitoring
21. Appreciate choices in books and levels.

The research question asked with this activity was, "What makes e-books motivating and engaging?" The following themes were identified:

Choice: Large number of books available to choose from at students' personal levels
Self-sufficient Nature of Online Reading: Student could independently navigate system, understood expectations and procedures for use, and was had adequate built in support from the online reading program.
Prefer reading over other e-book tasks: Some e-book characteristics can be viewed as taking time away from reading, and students would rather not always be interrupted to do those additional activities.

Materials   Appendix F

Motivation Survey

Rate how much you agree with the following statements about several characteristics of e-books:

Level of Agreement:

1 – Strongly disagree

2 – Disagree

3 – Neither agree or disagree

4 – Agree

5 – Strongly agree

Statement	1	2	3	4	5
Books					
The number of leveled books *makes me want to get online and read a book.*					
Having multiple genre options (fiction, non-fiction, poetry) *makes me want to get online and read a book.*					
Having high interest topics (topics you are interested in reading) *makes me want to get online and read a book.*					
Audio					
The follow-along highlighted text *makes me want to get online and read a book.*					
The ability to listen to book *makes me want to get online and read a book.*					
The ability to read book without audio *makes me want to get online and read a book.*					
The ability to record your voice reading books *makes me want to get online and read a book.*					
Rewards					
The reward points, stars, or money earned by reading *makes me want to get online and read a book.*					
The ability to spend reward points, stars, or money to buy items *makes me want to get online and read a book.*					
The ability to spend reward points to change your avatar *makes me want to get online and read a book.*					
Miscellaneous Characteristics					
The online quizzes for each book *make me want to get online and read a book.*					
The built in dictionary *makes me want to get online and read a book.*					
The moving images *makes me want to get online and read a book.*					
The progress monitoring bar *makes me want to get online and read a book.*					
Getting direct messages from my teacher *makes me want to get online and read a book.*					
Having books available in Spanish and English *makes me want to get online and read a book.*					

Engagement Survey

Rate how much you agree with the following statements about several characteristics of e-books:

Level of Agreement:

1 – Strongly disagree

2 – Disagree

3 – Neither agree or disagree

4 – Agree

5 – Strongly agree

Statement	1	2	3	4	5
Books					
The number of leveled books *keeps my attention and makes me want to keep reading.*					
Having multiple genre options (fiction, non-fiction, poetry) *keeps my attention and makes me want to keep reading.*					
Having high interest topics (topics you are interested in reading) *keeps my attention and makes me want to keep reading.*					
Audio					
The follow-along highlighted text *keeps my attention and makes me want to keep reading.*					
The ability to listen to book *keeps my attention and makes me want to keep reading.*					
The ability to read book without audio *keeps my attention and makes me want to keep reading.*					
The ability to record your voice reading books *keeps my attention and makes me want to keep reading.*					
Rewards					
The reward points, stars, or money earned by reading *keeps my attention and makes me want to keep reading.*					
The ability to spend reward points, stars, or money to buy items *keeps my attention and makes me want to keep reading.*					
The ability to spend reward points to change your avatar *keeps my attention and makes me want to keep reading.*					
Miscellaneous Characteristics					
The online quizzes for each book *keeps my attention and makes me want to keep reading.*					
The built in dictionary *keeps my attention and makes me want to keep reading.*					
The moving images *keeps my attention and makes me want to keep reading.*					
The progress monitoring bar *keeps my attention and makes me want to keep reading.*					
Getting direct messages from my teacher *keeps my attention and makes me want to keep reading.*					
Having books available in Spanish and English keeps my attention and makes me want to keep reading.					

Student Observation Form

Use a different form for each student observation.

 Student Identifier: _____Date:_____

Characteristic	Time	Notes:
Books		
number of leveled books		
multiple genre options (fiction, non-fiction, poetry)		
high interest topics (topics you are interested in reading)		
Audio		
follow-along highlighted text		
ability to listen to book		
ability to read book without audio		
ability to record your voice reading books		
Rewards		
reward points, stars, or money earned by reading		
ability to spend reward points, stars, or money to buy items		
ability to spend reward points to change your avatar		
Miscellaneous Characteristics		
online quizzes for each book		
built in dictionary		
moving images		
progress monitoring bar		
direct messages from my teacher		
books available in Spanish and English		
Additional Observations:		

Student Interview Form
Use a different form for each student observation.

Student Identifier: _____Date:_____

6. Based on your Motivation Survey, I see that you find the _____ characteristic the most motivating. Why do you find it so motivating? (Remember, *motiving* means it makes you want to start reading.)

The # of books. When there is many books, it means there are many topics, there are many that the kids might like. Might be able to find anywhere else, but can find on the computer. Nonfiction, fiction, history books…most kids like fiction, but I like nonfiction because they have pictures and timelines that help you understand.

7. Why do you find the _____ characteristic more motivating than the _____ characteristic? (Remember, *motiving* means it makes you want to start reading.)

Like the rewards on raz kids bc can expand on and buy stuff. When you don't have enough, can go back and read more and get more points, so keep you more interested in reading.

8. Based on your Motivation Survey, I see that you find the _____ characteristic the most motivating. Why do you find it so engaging? (Remember, *engaging* means it makes you want to start reading.)

Moving images kinda give a mini movie with pictures keeps you more interested. If it's a chap book w/o images, harder to keep interested. Ex. Space books with images keep me interested.

9. Why do you find the _____ characteristic more engaging than the _____ characteristic? (Remember, *engaging* means it makes you want to start reading.)

With the ability to listen, you can listen and if there's a word you do ont know, you can listen and you might get it right. Also, it's a great way to listen to books.

When take quiz, have to look back to answer if get wrong. Takes some time to get the answers right. Rather be reading.

10. What else do you like about e-books that makes them motivating or engaging?

Student Interview Form
Use a different form for each student observation.

Student Identifier: _____Date:_____

1. Based on your Motivation Survey, I see that you find the _____ characteristic the most motivating. Why do you find it so motivating? (Remember, *motiving* means it makes you want to start reading.)

2. Why do you find the _____ characteristic more motivating than the _____ characteristic? (Remember, *motiving* means it makes you want to start reading.)

3. Based on your Motivation Survey, I see that you find the _____ characteristic the most motivating. Why do you find it so engaging? (Remember, *engaging* means it makes you want to start reading.)

4. Why do you find the _____ characteristic more engaging than the _____ characteristic? (Remember, *engaging* means it makes you want to start reading.)

5. What else do you like about e-books that makes them motivating or engaging?