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

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Research Proposal

Abstract

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

In this study, I will investigate 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? These findings could assist in creating e-book reading materials tailored specifically toward boys to improve their motivation, engagement, and overall reading achievement. The findings could 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 is 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 materials developers will be better equipped to make data-driven decisions. Classrooms, schools, and districts will have data to support the types of e-books they invest in for their students.

Classroom teachers will have 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 will have a greater understanding of which characteristics are most necessary to create engaging and motivating materials.   Overall, the data that this study will generate will benefit 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

I teach fifth grade English Language Arts (Reading, Writing, Spelling, and Grammar) at an elementary school in Marietta, Georgia. I am a member of a four-teacher team, which includes another English Language Arts teacher, Math teacher, and Science & Social Studies Teacher. I teach two English Language Arts classes per day, and a total of 42 students daily. I will use the male students from each of these classes for my research, for a total of 19 male participants ranging from 10 to 12 years of age.

Of these 19 fifth grade participants, 17 are reading below grade level. Seven students are reading at a third grade level, 10 are reading at a 4th grade level, and one student is reading at a fifth grade level, and one students is reading at a 6th grade level. 90% of the students at the school receive free or reduced lunch due to living below the poverty line.

Our classroom houses a laptop computer cart, which students use to access e-books. On a daily basis, students read e-books from RAZ-Kids, TumbleBooks, and MackinBooks. In addition to school access, approximately half of the participants have internet access and may use these e-book sites at home.

Design

The data will be generated using three methods to allow for triangulation of the findings in this study. Participants will complete a quantitative Likert-scale survey examining how motivating and engaging they find each e-book characteristic. I will then observe the students reading e-books. Finally, I will conduct interviews with several participants to gain further insight about their thoughts regarding each characteristic.

Data Collection

This study will take eight weeks, with participants having an active role for five of those weeks. The final three weeks will be dedicated to interpreting the findings and writing a clear and concise report.

Data collections will occur during the third and fourth 9-weeks of our elementary school calendar. During the first 2 weeks of the study, I will begin by ensuring all participants are accessing e-books for at least 20 minutes per school day. This will ensure participants have enough background knowledge of e-books to allow them to answer the survey and interview questions.

During the 3rd week of the study, I will administer the motivation and engagement survey during school hours. An online platform will be used to administer the survey and collect the results, so that the students feel more comfortable giving honest answers. Students will rate each characteristic using a Likert-scale.

During the 4th week of the study, I will observe students using e-books. I will take notes about student use of various e-book and various characteristics.

During the 5th week of the study, I will interview several participants to gain further insight about their thoughts regarding each e-book characteristic. I will encourage the students to compare between the characteristics of e-books and determine which characteristics are most appealing. This interview will also allow time to ask students questions formulated based on previous observation of their e-book use.

The 6th, 7th, and 8th week of the study will be dedicated to interpreting the findings of the research and writing the report in a clear and concise manner.

Reliability & Validity

I will collect data from three sources during this study. Data triangulation will assist in reducing the chance of error in the study's findings. The survey will be administered with a teacher present to ensure technological issues or confusion does not interfere with the survey results. The questions will be written at a 3rd grade reading level to ensure that all participants can read the survey questions. Rather than using a seven point scale, a five point Likert-scale will be used to prevent confusing or overwhelming the elementary school participants.

Proposed Analysis

The quantitative data collected from the Motivation and Engagement Surveys will be analyzed using descriptive statistics. The findings about each identified characteristic of e-books will be summarized using simple graphs noting the median values for each characteristic to determine which characteristics are viewed as the most motivating and engaging. The median value for each characteristic will be identified and compared to the median values of the other e-book characteristics.

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

From this data analysis, data will 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 could also assist developers in their creation of engaging and motivating e-books for students of similar age range and gender.

Materials

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:_____

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?

Parental Consent Form

Your child is being invited to take part in a research study conducted by Amber Genzink of Kennesaw State University, as part of the Specialist in Instructional Technology Program. Before you decide to participate in this study, you should read this form and ask questions about anything that you do not understand.

My signature below indicates that I have read the information provided and have decided to allow my child to participate in the study titled "Motivating and Engaging Characteristics of E-books for 5th Grade Boys" to be conducted in my child's classroom between the dates of 2/3/13 and 3/28/13. I understand that the signature of the principal and classroom teacher indicates they have agreed to participate in this research project.

I understand the purpose of the research project will be 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. I also understand that my child will participate during regular school hours, in the following manner:

1. Utilize e-books during independent reading time (this is part of our regular reading in the classroom, and will not require any additional time from the student).
2. Take a motivation and engagement survey using an online platform to give his opinion about several characteristics of e-books (estimated to take less than 25 minutes).
3. Possibly be selected to take part in a short interview to discuss his preferences when reading e-books (estimated to take less than 15 minutes).

There are no known risks or anticipated discomforts in this study.

Potential benefits of the study are:

1.   Students may be allowed additional time to read e-books with characteristics that support comprehension.
2.   Students may gain an increased metacognitive awareness of what motivates or engages them during reading.
3.   At the conclusion of the study, the teacher may be able to better understand what the student considered motivating and engaging and locate more materials that students find particularly engaging and motivating.

I agree to the following conditions with the understanding that I can withdraw my child from the study at any time should I choose to discontinue participation.

- The identity of participants will be protected. No information identifying student names will be collected.

- Information gathered during the course of the project will become part of the data analysis and may contribute to published research reports and presentations.

- There are no foreseeable inconveniences or risks involved to my child participating in the study.

- Participation in the study is voluntary and will not affect either student grades or placement decisions. If I decide to withdraw permission after the study begins, I will notify the school of my decision.

- Data collected online will be handled in a confidential manner and the school computer's Internet Protocol addresses WILL be collected by the survey program.

If further information is needed regarding the research study, I can contact Amber Genzink.
Phone: 678-842-6955
Address: LaBelle Elementary School, 230 Cresson Drive, Marietta, GA 30060.

MOTIVATING AND ENGAGING E-BOOK CHARACTERISTICS

I agree and give my consent to participate in this research project. I understand that participation is voluntary and that I may withdraw my consent at any time without penalty. As the participants in this study are expected to be between the ages of 11 and 13 years of age, parental/guardian permission is required to participate.

Signature _____

         Parent   Date

Signature _____

         Participant / Student   Date

Signature_____

         Principal   Date

Signature_____

         Classroom Teacher / Investigator   Date

PLEASE SIGN BOTH COPIES OF THIS FORM, KEEP ONE AND RETURN THE OTHER TO THE INVESTIGATOR

Research at Kennesaw State University that involves human participants is carried out under the oversight of an Institutional Review Board. Questions or problems regarding these activities should be addressed to the Institutional Review Board, Kennesaw State University, 1000 Chastain Road, #0112, Kennesaw, GA 30144-5591, (678) 797-2268.

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