THE USE OF IPAD APPLICATIONS FOR READING INSTRUCTION IN THE
ELEMENTARY CLASSROOM

by

Sara Beth Cowan

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ABSTRACT

The use of technology in education is becoming increasingly popular and has affected the way we teach and learn in the classroom. One of the newest forms of technology that is making its way into the educational system is the Apple iPad. The iPad offers a variety of learning applications to support the learning in all subject areas and levels. This project explores the use of the iPad to support reading instruction for second through fourth grade levels in a small rural school district in Michigan. A teaching guide was developed to support and instruct teachers on how to effectively implement iPads to enhance reading instruction and development. This teaching guide provides an in-depth review of the reading applications that are available. The guide also identifies the apps that are most effective and actually support reading instruction and curriculum needs for second through fourth grades.

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CHAPTER 1

INTRODUCTION TO PROJECT

Over the past 30 years technology has impacted the way we teach and learn in the classroom. Specifically, technology has reshaped how we teach students to read and how student learn to read. Elementary students are particularly affected by the use of various forms of technology because this is the level at which direct reading instruction occurs. In addition, technology plays a key role in reading instruction especially as a remedial tool in order to improve the reading skills of struggling readers.

This study will present the research on technology that has previously been used to support reading instruction and development as well as new technology that is currently being implemented. One of the newest forms of technology that is making its way into schools is the Apple iPad. The iPad is currently a very hot topic in the education system and is being implemented in numerous schools throughout the United States. The iPad has numerous applications (apps) that are geared toward education and instruction for students in all subject areas and grade levels.

This project involves developing an evaluation guide for other teachers to use in order to better understand how to effectively implement iPads to enhance reading instruction in an elementary classroom. The teaching evaluation guide will provide an in-depth look into quality reading apps that are available, specifically for third through fifth

grade classrooms. For the purpose of this project the term quality apps will be used to reference apps that meet curriculum standards, are easy to implement, and are user-friendly.

PURPOSE OF PROJECT

The use of technology in our society has rapidly increased and has ultimately changed the way we conduct business, learn, and communicate. Technology has opened many doors in today's education system and is changing how teachers teach, as well as, how students learn. Many school districts are incorporating new technology in their classrooms to better meet the diverse learning and instructional needs of today's students. The iPad is currently a popular technological tool that is being implemented in schools throughout the United States.   The iPad provides an extensive amount of tools, apps, and interactive activities that can enhance learning if they are properly implemented in the classroom. With so many schools implementing iPads into the classroom many teachers are unaware of how to effectively use the iPads with their students.

PROJECT GOALS

1. To help teachers identify quality reading instruction apps for upper elementary classes.

2. To identify quality apps that support and enhance reading instruction and development in upper elementary classes.

SIGNIFICANCE OF PROJECT

The use of iPads in the classroom is a relatively new concept, especially since the iPad was first created for everyday use in 2010 (Pratt, 2010). It is evident that this device has huge potential to enhance and change the way we educate students. Due to the fact that iPads are still new, especially in the education setting, very little research has been conducted and reported. Many schools throughout the U.S. are incorporating iPads in some way or another. Since very little research has been completed, teachers and administrators do not have a clear path to follow on the most effective way to use iPads. Given the popularity of using iPads in the classroom, teachers may find the lack of effective tools of implementation overwhelming. The iPad educational apps are one area that can be especially overwhelming for teachers. There is an enormous amount of education apps available to download; however, not all apps are created equally and some are more effective than others. Funding to buy apps may be limited so it becomes extremely important for teachers to know what they are getting before they buy it. This project will provide teachers with an evaluation guide to quality apps in teaching and remediating reading skills for elementary students in third through fifth grades.

KEY TERMS

Applications (Apps).   Downloadable web-based applications that can be added to the devices via a wireless Internet connection (Banister, 2010).

Basic Reading- Basic reading skills focus on the ability to read words in isolation and in passages **(**Mather & Goldstein, 2001).

iPad.   Portable tablet computer

Reading Comprehension-Reading comprehension is the ability to understand the meaning of words and texts **(**Mather & Goldstein, 2001).

Reading Fluency- Reading fluency encompasses the speed or rate of reading, as well as the ability to read materials with expression **(**Mather & Goldstein, 2001).

CHAPTER 2

LITERATURE REVIEW

INTRODUCTION

Since the iPad has only been available to the public since 2010, much of the research in using this tool in the field of education is still being conducted. The use of assistive technology in schools is a topic of study that is gaining increasing momentum and has significant impacts as to how it affects learning and achievement at the elementary level. The majority of the literature in the realm of technological devices in the classroom has shown a positive impact on students. The following portion of this paper will address prior research on the impact of technology on reading development.

Technology and Reading Instruction

One of the major challenges educators are facing in today's classrooms is finding a way to provide effective instruction that meets the diverse needs of each and every student. As more students with disabilities are included into the general education classrooms, the greater the need to differentiate instruction becomes. The National Center for Education Statistics (2001), found that teachers felt unprepared to address and teach the literacy needs of students with disabilities that are struggling readers. It is clear that you cannot meet all of the diverse learning needs with a "one size fits all" reading program that has been used in the past. Teachers are expected to provide differentiated

instruction for each and every reading level that exists in their classroom. In order to effectively differentiate instruction to meet the diverse needs, many school districts have included the use of technology to assist in this challenge. According to Wyer (2001) technology is "the great equalizer" in educational settings. It is thought to provide access and opportunity, to encourage students to be empowered, and to promote independence (Edyburn, Higgins, & Boone, 2005). When it comes to a student with a disability technology is thought to make things otherwise impossible; possible. Higgins and Raskind (1997) found that the greater the reading disability the more likely assistive technology was able to assist in reading comprehension. In the following section prior technological avenues will be explored with regard to the impact each has had on reading development.

Audiobooks and EBook Readers

One way in which technology has assisted in reading development for students is through the use of sound recordings. Wysocki (2005) found that audiobooks used in the classroom improved listening skills directly connected with reading comprehension. Students may find visually reading the words to be challenging and instead would benefit from a recording to aid in the cognitive process. A more current update to audiobooks is the eBook reader created by Microsoft to convert office documents into eBooks that can be accessed free online (Chen, 2012). Students now cannot only have books read to them but they can also have teacher-created documents read to them as well. Since there are many learning styles, not limiting teaching reading to just visual, but opening it to audio as well has been shown to increase literacy (Schaff, Jerome, Behrmann, & Sprague, 2005).

Reading Pens

Yet another tool that has been used to aid in reading instruction is the reading pen. The reading pen is a device that allows a user to scan printed text either word by word or a line at a time (Higgins & Raskind, 2005). This allows a student to hear the word. The idea is that if a student comes across a word he or she cannot read, the student may hear the word and then be able to recognize it or ask for clarification. Higgins and Raskind (2005) found that students with disabilities who used the Quicktionary Reading Pen II scored significantly higher on reading comprehension tests when compared with students with disabilities who silently read to themselves. According to Higgins and Raskind (2005) students found the pen easy to use and were able to use it independently with little adult support. The ease of technology is important to consider when implementing new technology into the classroom.

ILS (Success Maker)

Integrated Learning Systems (ILS) are computer based systems that set up an individualized program of study for delivering curriculum (O'Byrne, Securro, Jones, & Cadle, 2006). According to O'Byrne et al., (2006) ILS allow students to move through material they already know and advance to higher levels of difficulty. They are given tutorials and additional support if needed and the feedback for every question is immediate. This allows teachers to monitor the students' progress and make note of any additional support that is needed. There are different types of ILS, however, in a study conducted by Pierre and Germain (2005) two of the top performing ILS are SuccessMaker and Read 180; both produced similar effects for reading levels of third grade students. Both programs showed significant improvement on reading scores when

compared to classroom where an ILS was not being used. Perhaps it is the individualized attention and adjustment associated with this technology that makes it a successful tool to use in the classroom.

Interactive Whiteboards

Another technological advancement that has indirectly aided in reading development is the interactive whiteboard. Interactive whiteboards are large interactive displays that connect a computer with a projector (Koenraad, 2008). They have been found to promote discussion in the classroom (Levy, 2002) and contribute to concentration (Solvie, 2004). Interactive whiteboards have also been found to allow more opportunities to participate and cooperate (Hall & Higgins, 2005). Although these findings are not directly related to reading comprehension, it could be argued that discussion in the classroom, an increase in concentration, and cooperative behaviors are a part of classroom engagement. An engaging supportive classroom environment could be conducive to a greater understanding of content and therefore a higher level of comprehension (Bouck, 2010).

Mobile Devices

Technology has advanced quite rapidly in the past ten years. Mobile devices such as cellular phones, iPods, iPhones, PDAs, and personal computers have entered into the educational setting as a means to aid in learning (Melhuish & Falloon, 2010). These devices were not originally intended for educational purposes and therefore often present a challenge to educators (Hemmi, Bayne, & Land, 2009). Like assistive technology (ILS and Interactive Whiteboards) used before the invention of mobile devices, the focus has been on individualized learning plans and connectivity. If used correctly in the classroom

mobile devices have been found to aid in reading difficulties (Gasparini & Culen, 2012),

however, much research has yet to be conducted.

iPads

In 2010 the Apple iPad was created for everyday use (Pratt, 2010). According to

Melhuish and Falloon (2010) the iPad' s size and weight make it an ideal portable

learning device. Although the long term benefits associated with the iPad cannot be

known at this time, research (Gasparini & Culen, 2012; McClanhan, Williams, Kennedy,

& Tate, 2012; Melhuish & Falloon, 2010) seems to support the use of an iPad as an

assistive tool for struggling readers. Therefore the focus of this study will be to use the

current knowledge of the iPad success in educational settings, and develop a teaching

evaluation guide for teachers on how to implement iPads to support and enhance the

reading development of elementary aged students. One of the most valuable functions of

the iPad is the enormous amount of learning apps that are available, making the iPad

more appealing than other forms of technology for use in today's classrooms. With so

many educational apps available it makes it difficult to know which apps are quality tools

to use in the classroom. This study will research the reading apps specifically designed

for third through fifth grade to determine which apps are quality and actually support

reading instruction and curriculum needs.

Considerations

One critical factor when looking at the impact of technology on students is to

make sure the person and the technology match. In other words the compatibility between

the student and the device must fit. If a student cannot use the technology because he or

she does not understand it, the technology is useless. Not only is use important but also

the student's attitudes and interest in using the device will influence whether or not the device is effective (Bouck, 2010).

Another important factor to consider when implementing a new technology is training; not only training students how to use technology but training teachers about what to use and when to use it. Traxler (2010) argued that some of the assistive technologies that are implemented into educational settings were meant for the corporate environment which means educators struggle to develop educationally sound applications for their use. Consequently, this study will begin to sort through the plethora of applications available for reading development on the newest assistive technology, the iPad.

CHAPTER 3

METHODOLOGY

This project focused on how the iPad can be used to enhance reading instruction in an elementary classroom. The work completed here provides a teaching evaluation guide on the most effective practices in implementing iPads to support reading instruction. The project reviewed a variety of educational apps that are available for students and teachers. Specifically, the teaching evaluation guide is geared toward third through fifth grade teachers; however, much of the content will be applicable or can be modified for all elementary classrooms. The teaching evaluation guide is intended to be used in a small, rural, mid-western elementary school in Michigan. This project is specifically geared for teachers in a general education classroom with approximately twenty to thirty students. The teaching evaluation guide is written to help teachers determine quality apps to use to enhance and support reading instruction. It is geared for teachers with a classroom set of iPads; one iPad per student, however, the information presented will be applicable in classrooms with any number of iPads available.

This project specifically focuses on iPad apps and a review of 100 apps that are geared toward reading instruction for third through fifth grade levels. The teaching evaluation guide provides an in-depth look into the reading apps and identifies the quality apps available to support reading instruction for third through fifth grades. This

teaching evaluation guide provides instructions and helpful hints on how the apps work and ways the apps can be incorporated to support reading instruction.

The equipment requirements needed to execute this design and implementation include: Apple iPads (one per student and one for the teacher), wireless router, projector, Apple T.V., and the ability to purchase apps from iTunes, which then can be downloaded on all of the iPads.

In order to develop the most effective evaluation guide for teachers, standard iPad functions and applications were researched, evaluated, tested, and assessed by the researcher. The district technology department participating in this project chose an app evaluation rubric created by Tony Vincent (2012), to evaluate the quality and effectiveness of each app and how it may impact student learning. The rubric focuses on seven areas which include: relevance, customization, feedback, thinking skills, engagement, usability, and sharing. The rubric is based on a four point system, four being the highest and one being the lowest. Permissions to use this rubric can be found in Appendix A. Most apps that were chosen rated a three or four in all categories. However, some apps were included that scored lower in certain sections but it was determined that the lower scores didn't affect the overall quality of the app. In addition to the evaluation rubric other factors were used to determine the overall quality of each app, such as the cost, iTunes rating, customer reviews, and teacher testing and recommendations. The iTunes rating is determined by customer reviews and feedback, which means not all apps will have an iTunes rating.

This evaluation guide includes a variety of apps to target all areas of the reading process for upper elementary readers. The apps are organized into categories based on

the reading skill that is taught, practiced, or enhanced. The reading skills addressed in this evaluation guide include: reading comprehension, reading fluency, word work/spelling/vocabulary, sight words/phonics, and interactive/e-book readers.

CHAPTER 4

APP REVIEW EVALUATION GUIDE

Included in this chapter is a teaching evaluation guide that provides a review of iPad apps intended to enhance and support reading instruction and development. After reviewing 100 apps, a total of twenty-seven iPad apps were selected and are included in the review. The purpose of this teaching evaluation guide is to research, review, and evaluate reading apps that are geared for upper elementary readers, specifically third through fifth grades. However, many of these apps can be adapted to use at different grade levels. In addition, this evaluation guide offers many apps that could be used to support struggling readers at the secondary level.

Reading Application Review Evaluation Guide for Upper Elementary Teachers

A review of reading apps available for grades 3-5

This Evaluation guide Includes:

- App Evaluation Rubric
- App Review:
  - Apps for Reading Comprehension
  - Apps for Reading Fluency
  - Interactive Books/E-book Apps
  - Apps for Word Work
  - Apps for Sight Words and Phonics

App Evaluation Rubric

App Name: _____
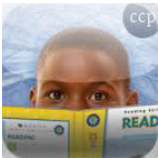
Educational App Evaluation Rubric

Purpose for App: _____

	4	3	2	1
Relevance	The app's focus has a strong connection to the purpose for the app and appropriate for the student	The app's focus is related to the purpose for the app and mostly appropriate for the student	Limited connection to the purpose for the app and may not be appropriate for the student	Does not connect to the purpose for the app and not appropriate for the student
Customization	App offers complete flexibility to alter content and settings to meet student needs	App offers some flexibility to alter content and settings to meet student needs	App offers limited flexibility to adjust content and settings to meet student needs	App offers no flexibility to meet student needs
Feedback	Student is provided specific feedback	Student is provided feedback	Student is provided limited feedback	Student is not provided feedback
Thinking Skills	App encourages the use of higher order thinking skills including creating, evaluating, and analyzing	App facilitates the use of higher order thinking skills including evaluating, analyzing, and applying	App facilitates the use of mostly lower order thinking skills like understanding and remembering	App is limited to the use of lower order thinking skills like understanding and remembering
Usability	Student can launch and operate the app independently	Student needs to have a teacher show or model how to operate the app	Student needs to be cued each time the app is used	App is difficult to operate or crashes often
Engagement	Student is highly motivated to use the app	Student uses the app as directed by the teacher	Student perceives app as "more schoolwork" and may be off-task when directed to use the app	Student avoids the use of the app and might complain when its use is required
Sharing	Specific performance summary or student product is saved in app and can be exported to the teacher or for an audience	Performance data or student product is available in app but exporting is limited and may require a screenshot	Limited performance data or student product is not accessible	No performance summary or student product is saved

c b a Tony Vincent
learninginhand.com/rubric

Rubric based on one edited by Kathy Schrock and originated by Harry Walker

Apps for Reading Comprehension

Garfield Fact or Opinion	iTunes Rating- 4 Stars	
	Relevance- 3	Usability-3
	Customization- 1	Engagement-3
	Feedback- 3	Sharing- 1
	Thinking Skills-3	

Cost- Free
Target Grade Levels- 3-5
Description: Garfield and friends teach about Fact and Opinion through fun and entertaining comic strips.
Pros: The entertaining comics make it fun to read and the "try and apply" section incorporates higher level thinking skills to really assess student learning. The report card provides a clear picture of how the student preformed on all of the learning tasks.
Cons: The comics in this app provide instruction, examples, and practice to help students understand the different between fact and opinion; however, the amount of reading and level may not be appropriate for all students to complete independently. This app should be incorporated with teacher instruction before allowing students to use independently. Be aware that students can complete all of the activities very quickly with minimal understanding if they are not closely monitored

Reading Comprehension	iTunes Rating- 3 Stars	
	Relevance – 3	Usability - 2
	Customization – 1	Engagement - 1
	Feedback -2	Sharing - 1
	Thinking Skills - 2	

Cost- Free (1 unit is included, 5 additional units can be added for $1.99)
Target Grade Levels- 3-8
Description: This app is geared for both teachers and students by providing instructional units that include: lesson plans, pre-tests, reading passages, and follow-up assessments.
Pros: This app is unique because it is geared for both teachers and students and is made to be used in conjunction with direct teacher instruction. The pre/post assessments included with each unit provides an easy way to track student learning.
Cons: This app was very boring, difficult to use and confusing to navigate. Students would require direct instruction on how to use and navigate this app. The concept of this app is very intriguing, however, it falls short because it does nothing to target or engage students. It is basically an electronic version of a reading workbook.

Jungle Journey	**iTunes Rating- Not Rated**	
	Relevance – 4	**Usability – 4**
	Customization – 3	**Engagement – 4**
	Feedback - 3	**Sharing - 1**
	Thinking Skills - 3	

Cost: $4.99
Target Grade Levels: 4-5 (Jungle Journey 2-3 is also available for $4.99)
Description: Jungle journey is an app that uses a game board format to help students build reading comprehension skills such as sequencing and cause and effect. This app allows for single or multiple players and is geared towards upper elementary students.
Pros: Jungle Journey allows for one or more players to build comprehension skills in a fun and engaging way. This app is very kid-friendly and extremely easy to navigate. It also provides the ability to meet the needs of all types of learners with adjustable settings such as difficulty of opponents, adjustable timer, and other key features to change the game. The questions are age appropriate and provide higher order thinking. This app contains a lot of content and will keep students engaged and entertained for hours. This app is a little pricey but it is worth the investment for at least one device.
Cons: The biggest weakness in this app is the inability to save, track, or share student settings, results, and progress. Another drawback is the limited amount of time that the computerized opponent's response is shown. The response disappears without giving students enough time to read, process, and understand the question and answer.

Reading Skills 3.A	**iTunes Rating- 3 Stars**	
	Relevance – 4	**Usability – 4**
	Customization – 1	**Engagement – 3**
	Feedback -3	**Sharing - 3**
Reading Skills 4A, 5A, and 6	**Thinking Skills - 3**	

Cost: $1.99
Target Grade Levels: 3-6
Description: This app provides a collection of twelve nonfiction reading passages with three supplemental activities to support comprehension and understanding.
Pros: The Reading Skills App series offers a fun and interactive way to engage students in reading nonfiction text. The record keeping system provides a clear picture of a student's progress and understanding for each activity.
Cons: This app is geared directly for the third grade reading level and cannot be differentiated to meet the various reading levels that exist in a classroom. This app is made to be used by one user at a time and is not practical to use on a shared device.

<u>3rd Grade Science Reading Comprehension</u>	iTunes Rating- Not Rated	
	Relevance – 4	**Usability – 3**
	Customization – 3	**Engagement – 3**
	Feedback - 3	**Sharing - 4**
	Thinking Skills - 3	

Company offers apps for grades K-5 for Science, Social Studies, and Reading-fiction
<u>**Cost-**</u> - $2.99 (There is a free version that includes 4 out of 20 passages)
<u>**Target Grade Levels-**</u> 3
<u>**Description:**</u>   Third grade Science Reading Comprehension offers 20 nonfiction passages on high-interest topics. Students are tested on their understanding and comprehension of each passage with three different types of quiz formats that include: multiple choice, yes/no, and matching questions.
<u>**Pros:**</u> This app has some great features for use in the classroom: the ability to add and manage multiple accounts, password protects settings, detailed reporting system, and connects with drop box. This app can be altered to target specific learning topics and units by allowing teachers the ability to create their own lessons and quizzes.
<u>**Cons:**</u> It is a very simple format that is easy to use and navigate but has limited entertaining features to motivate students to want to continue.

<u>**Story Kit**</u>	iTunes Rating- 4 Stars	
	Relevance – 4	**Usability – 4**
	Customization – 3	**Engagement – 3**
	Feedback – N/A	**Sharing - 4**
	Thinking Skills - 4	

<u>**Cost**</u>: Free
<u>**Target Grade Levels**</u>: 2-5+
<u>**Description:**</u> Story Kit is an app for digital story telling. This app provides two different opportunities to create, write, illustrate, and record digital stories. Students can create their own books or have an opportunity to recreate/edit classic stories that are loaded on the app.
<u>**Pros:**</u> This app is very kid-friendly and easy to navigate to edit and create digital storybooks. Students can add and edit text, add pictures or photographs, and reorder pages of classic stories or create their very own story. An audio recorder is available for students to be able to record their stories or add sound effects. This app also allows stories to be saved on the device or can be uploaded to share with others.
<u>**Cons:**</u> This app is designed for iPods and iPhones but can be downloaded and used on an iPad. It does offer a feature to enlarge the screen for better viewing on the iPad but the picture is blurry and can be hard to read. The format and design of this app is simple and may not initially grab students' attention.

Reading Comprehension: Fable Edition	**iTunes Rating- 4 Stars**	
	Relevance – 4	**Usability – 3**
	Customization – 1	**Engagement – 3**
	Feedback -3	**Sharing - 2**
	Thinking Skills - 1	

Cost- - $0.99 for Book Collection One (Two additional collections $1.99 each)
Target Grade Levels- 2-4
Description: Each book bundle includes a collection of 10 different stories from Aesop's Fables. Each story comes with a 10 question quiz.
Pros: This is a good app and targets reading comprehension skills, test taking practice, and practice with reading and understanding fables. This app offers a wide range of short stories that are entertaining and easy to read. Students have the ability to email their test results to help track their progress. This app would be a good app to use if you have a limited number of devices in your classroom.
Cons: One area of concern is this app doesn't keep track of student progress through the stories and quizzes so teachers will be required to keep track and record student scores.

Compare a Twist	**ITunes Rating**- 4.5 Stars	
	Relevance – 4	**Usability – 4**
	Customization – 4	**Engagement – 4**
	Feedback - 4	**Sharing - 4**
	Thinking Skills - 4	

Cost: $1.99
Target Grade Levels: K-12
Description: Compare a twist provides the ability to create interactive compare and contrast activities. This app comes with six built in comparing lessons, however, it offers a platform to create your own lessons to share with students.
Pros: One of the best things about this app is the ability to easy create and upload your own lessons to specifically target or support the needs of students. This app offers an easy and interactive way to support learning with compare and contrast activities. This app could easily be used for any subject but is especially effective to support reading comprehension.. Teachers can create and upload new lessons through Google docs and quickly push out to students via email. This app allows for either images or text to be used, which makes it appropriate for any grade level. Students are provided direct feedback and can share their results through email.
Cons: In order to create your own lessons users must have a Google account to access Google drive or a Mac application that can be downloaded at http://www.appofappproval.us. This app does require extra time to prepare, create, upload, and email lessons before it can be ready to use with students. Students will need their own email address to access lessons and share results.

Apps for Reading Fluency

K-12 Timed Reading and Comprehension	**iTunes Rating- Not Rated**	
	Relevance – 4	Usability – 3
	Customization – 4	Engagement – 3
	Feedback -3	Sharing - 3
	Thinking Skills - 2	

Cost- - $3.99
Target Grade Levels- K-4
Description: This app is filled with numerous stories for kindergarten thru fourth grade to provide practice to increase reading speed and fluency. It also provides multiple choice questions after the reading to assess for comprehension.
Pros: This app provides timed reading passages for students to read and practice building reading speed and fluency. This app allows teachers to differentiate the reading level for each student. The app offers a very nice record keeping system that shows a clear picture of progress and understanding for each activity. This app saves and tracks progress for multiple students at a time making it a good choice if only one device is available.
Cons: One thing to be aware of is this app does not record or monitor if the student is actually reading the entire passage or if they are reading it correctly. In order to really address, build, and improve in all of those areas students should be closely monitored when using this app if you are looking for results that are accurate.

One Minute Reader	**iTunes Rating- 4 Stars**	
	Relevance – 4	Usability – 3
	Customization – 3	Engagement – 3
	Feedback -3	Sharing - 4
	Thinking Skills - 3	

Cost: Free (1 story at each level is included) Additional books are available for purchase at all levels for $2.99 and up.
Target Grade Levels: 1-5 (struggling readers at any level)
Description: The Minute Reader is an app that is geared towards building reading fluency by giving students short passages to complete timed readings, read along practice, and timed quizzes.
Pros: This app saves progress and data for multiple users on one device. This app provides multiple opportunities for both independent and guided practice with each passage. This app has a great system to report, track, and share progress for each student.
Cons: The cost of this app can get a little pricey to purchase additional books especially if you are buying multiple levels for your classroom. There is no way to completely determine if students are actually reading the entire passage or reading all of the words correctly. In order to get an accurate reading score, an adult will need to be present to hold students accountable.

Young Reader	**iTunes Rating- 4 Stars**	
	Relevance – 3	Usability – 2
	Customization – 2	Engagement – 2
	Feedback -2	Sharing - 2
	Thinking Skills - 2	

Cost: $3.99
Target Grade Levels: 3-8
Description: Young Reader is an e-reading app made by quick reader that comes pre-loaded classic children's books. In addition to being an e-reading app this app also can be customized to help improves reading skills and increase reading fluency.
Pros: This app includes over one hundred classical children's books that are already pre-loaded on the app and doesn't require an internet connection.
Cons: This app is very confusing to use and operate and is not kid-friendly. Links to instructional videos on You Tube did not work. The pre-loaded books are not arranged by reading level making it almost impossible for students to choose an appropriate book. The only difference between this app and any other e-reading app is it does display how many words were read per minute.

Fluency Finder	**iTunes Rating- 4 Stars**	
	Relevance – 3	Usability – 3
	Customization – 4	Engagement – 3
	Feedback – N/A	Sharing - 4
	Thinking Skills - 3	

Cost- - $6.99
Target Grade Levels- 1-5 (Teacher Tool)
Description: Fluency Finder is a teaching tool to help teacher assess reading fluency by calculating and storing a words per minute score for an entire classroom of students. This app is meant for assessing fluency for first through fifth grade reading levels and offers six different passages at each level.
Pros: Fluency Finder offers a quick and easy way to calculate and track the number of words a student is reading correctly in one minute. It provides a large database to allow for up to one hundred students to be added and tracked. The wide range of reading levels offers the ability to differentiate and assess students at his or her reading level. Comprehension questions are provided with each passage to help gauge student's ability to understand the text. Student scores and history can be shared via email.
Cons: This app does provide a quick way to assess a student's reading rate, however, it lacks some key elements that many fluency assessments offer. One of these elements includes the ability to record and track student mistakes. This app only allows for a running tally of mistakes that are made. It doesn't address or assess the other important areas of fluency, such as tone, expression, pausing. It would be very beneficial to include these areas as well as a place to enter teacher notes and observations.

Interactive Books/EBooks

Audiobooks	iTunes Rating- 4.5 Stars	
	Relevance – 3	Usability - 2
	Customization –3	Engagement - 3
	Feedback – N/A	Sharing - 3
	Thinking Skills -	

Cost: Free

Target Grade Levels: K-12

Description: This app provides a large database of audiobooks including thousands of free classical books. All of the audiobooks are professionally narrated making them easy to listen to and stay engaged.

Pros: The Audiobooks app is a great way to support and engage all levels of readers. Listening to a professional narrator will demonstrate important reading fluency skills such as tone, pausing, expression, and rate.

Cons: This app has an enormous library filled with thousands of audio books but can be a bit overwhelming and confusing for young readers. The books are separated into genres, which do make it easier for students to find children's books; however, it only lists books by title making it more difficult for kids to find a good book. When searching by genre be careful because the free books are mixed in with books that cost money, this will also make browsing more difficult for young students. This app only provides the audio version of the story it does not include an e-book.

Reading Rainbow	iTunes Rating- 4 Stars	
	Relevance- 4	**Usability-4**
	Customization – 4	**Engagement-4**
	Feedback- N/A	**Sharing- 3**
	Thinking Skills-3	

Cost: Free (1 book is included) Subscription to reading rainbow is needed to read additional books (1 month is $9.99 or 6 months for $29.99)

Target Grade Levels: K-3

Description: Reading Rainbow is an interactive book app that includes numerous books, video field trips, and follow-up activities. This is a very kid-friendly app that allows children ages 3-9 the ability to read, explore and interact with a variety of books. This app also comes with a parent dash board that identifies the books that have been read and how much time was spent reading.

Pros: This app is very engaging and kid-friendly making it easy for young children to navigate, pick books and read on their own. Each book comes with two reading options (read to self) (read to me) which provides independent reading practice for all levels and abilities. In the read to me version an actual person is reading the story instead of the computer generated voice.

Cons: This app is very expensive especially if it is being used in a classroom setting. The cost of one account for a year would be around $60.00; however, only five children can be added to one account. Making this available for an entire classroom would be very costly and hard to manage. The follow-up activities that are included with each book offer limited educational benefits.

Brush of Truth	**iTunes Rating- Not Rated**	
	Relevance – 4	Usability – 4
	Customization – 3	Engagement – 4
	Feedback – N/A	Sharing - 3
	Thinking Skills - 4	

Cost: $1.99
Target Grade Levels: 3-6 (Reading level is geared more for 5th and 6th graders)
Description: "Brush of Truth" is an interactive story that allows students to take control of the plot and make decisions at critical points in order to control how the story ends.   The app includes 165 pages of story, 65 decision points for children to choose from, and 20 different endings.
Pros: This app offers a fun and interactive way to engage students in reading. This app can be used over and over again because it allows students to create a different story through the wide variety of story paths and endings. The bookmark feature to keep track of where the student left off, as well as what story paths that have been used. In addition, the makers of this app have a website that offers corresponding lesson plans, activities, and printable worksheets to extend learning.
Cons: This app only allows for one user at a time and would not be the best app to use on a shared device. The reading level is more appropriate for grades 5 and 6 and may be too difficult for grades 3 and 4.

Storia	**iTunes Rating- 3.5 Stars**	
	Relevance – 4	Usability – 3
	Customization – 4	Engagement – 4
	Feedback - 3	Sharing - 3
	Thinking Skills - 3	

Cost: Free (Includes 5 free books to start)
Target Grade Levels: k-8
Description: Storia is an e-reader app from the Scholastic Company. This app includes an enormous library of e-books, enriched books, and "read to me" e-books from the Scholastic book collection. With a scholastic account, teachers are able to purchase books, create bookshelves, assign appropriate books for students, and track progress.
Pros: This app offers an enormous selection of kid-friendly and popular books to purchase. The enriched books offer an engaging and interactive approach to reading. The "read to me" e-books are also a nice feature especially for young or struggling readers.   Storia also comes with a dictionary that connects with all e-books and provides age-appropriate definitions. Reading reports connected to individualized books shelves can be created to track reading habits and book choices.
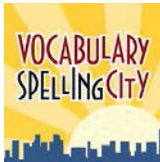**Cons:** One drawback is the cost needed to purchase the books. Another area of concern is time, it requires a lot of teacher time to search, purchase, assign, and manage e-books for an entire classroom of students. Teachers must enter their username and password on each device to register it into their account.

Apps for Word Work

SpellBoard	iTunes Rating- 4.5 Stars	
	Relevance – 4	Usability – 3
	Customization – 3	Engagement – 3
	Feedback - 4	Sharing - 4
	Thinking Skills - 3	

Cost: $4.99
Target Grade Levels: 1-5+
Description: Spellboard is a tool that can be geared towards weekly spelling units, tests, and word practice. This app allows you to customize and create your own spelling lists and then provides activities for students to practice the words with as well as take an actual spelling test.
Pros: Spellboard provides fun activities, practice tests, and actual spelling quizzes with the words you choose. Spelling tests and individual student results can easily be shared via email, drop box, Google drive, etc. Spellboard allows for multiple student profiles making it easy to track scores and progress for an entire class.
Cons: Entering all of the weekly spelling lists can be time consuming but it can be saved from year to year. In the spelling test mode, students do not have the option to go back and fix their answers so if they hit enter too soon, or typed the wrong letter on accident it will be counted against them**.**

Jumbled Sentences 3	iTunes Rating- 4 Stars	
	Relevance – 4	Usability – 3
	Customization – 2	Engagement – 4
	Feedback - 3	Sharing - 1
	Thinking Skills - 3	

Cost: Free
Target Grade Levels: 3-5
Description: Jumbled Sentences 3 is part of a series of five free iPad apps that target sentence building skills. This app provides three levels of drag and drop activities to sort jumbled words into sentence format. Students earn points for each correct sentence they complete within the given time.
Pros: Multiple levels are available in the Jumbled Sentences app series to make it easy to target the needs of all levels of learners. The app offers a narration feature that reads the words and the sentences the student constructs. This app is easy to use and the fun outer space theme with detailed graphics will definitely appeal to students.
Cons: The biggest drawback is that this app doesn't save or share student scores in order to track progress.

Bluster	**iTunes Rating- 4 Stars**	
Teacher's Pick	**Relevance- 4**	**Usability-3**
	Customization- 2	**Engagement-4**
	Feedback- 3	**Sharing- 1**
	Thinking Skills-3	

Cost: Free
Target Grade Levels: 2-4
Description: Bluster is a word matching game that builds vocabulary skills and understanding of words. It is broken down by grade level and skill. 2nd grade focuses on prefixes, synonyms, and rhyming words. The focus areas for 3rd grade include: prefixes, suffixes, root words, and homophones. The skills for 4th grade include prefixes, suffixes, adjectives, and rhyming words. This app allows for single play or for multiple players in the "versus" or "team" categories.
Pros: Bluster is a fun and interactive app that is easy and fun to play. The different settings for type of play offer the ability to play against a classmate.
Cons: Some things that could be improved in this app are the ability to store, track, and share student progress. It also does not provide any instructional tools to teach about the skill areas so pre-teaching key concepts is essential for student success.

Spelling City	**iTunes Rating- 3.5 Stars**	
	Relevance – 4	**Usability – 3**
	Customization – 4	**Engagement – 4**
	Feedback - 3	**Sharing – 3**
	Thinking Skills - 3	

Cost: Free (Premium Membership-approximately $1.50-$2.00 per student)
Target Grade Levels: k-12
Description: Spelling City provides a fun way to learn spelling and vocabulary words through a variety of interactive games. The free version of this app includes ten word lists with eight different activities. In addition to the app, teachers/parents can go online at www.spellingcity.com to upload additional word lists or create customized word lists.
Pros: This app offers a wide variety of fun, engaging learning games to help students practice spelling/vocabulary words. The spelling city website is a tool that should be used in conjunction with the app because it allows teachers the ability to upload additional word lists as well as create their own word lists to be used in the app.
Cons: Teachers must register on their website in order to add word lists; this cannot be done in the app. In order for the app to save any learning data, kids must have access to a student login, which is only available with a Premium membership.

Futaba	iTunes Rating- 3.5 Stars	
	Relevance – 3	Usability – 3
	Customization – 3	Engagement – 3
	Feedback -2	Sharing - 1
	Thinking Skills - 3	

Cost: Free
Target Grade Levels: 1-4
Description: Futaba is an interactive multiplayer word game that helps students build vocabulary and word identification skills.
Pros: This app offers the option to have up to four players playing at one time. This app is very kid-friendly and easy for all ages to navigate and play. The upgraded version is available for $2.99 and allows teachers the ability to create customized lists by adding their own words and visual picture cues.
Cons: This app does not save or share any of the progress, or setting information for individual players. One minor drawback is the word bank is limited to only one hundred words.

Chicktionary	iTunes Rating- 4.5 Stars	
	Relevance – 4	Usability – 3
	Customization – 3	Engagement – 4
	Feedback - 3	Sharing - 3
	Thinking Skills - 3	

Cost: Free (100 word puzzles are included, $1.99 to purchase additional puzzle packs)
Target Grade Levels: 2-5+
Description: Chicktionary is an entertaining and kid-friendly word game that can be played in two different modes: speed play or long play. Seven hens appear bearing a letter; students drag the hens to create as many words as possible. The makers of this app also created a multiplayer version called Chicken Coop, which allows multiple players the opportunity to challenge each other at the same time.
Pros: Chicktionary is very easy to use and its unique graphics and customizable chickens will surely grab the attention of students. This app does allow scores to be shared by email and saved through game center.   Overall Chicktionary provides a fun and engaging way for students to work on word building skills.
Cons: One major thing to think about when using this app with students is the fact that they must be connected with the game center in order to save their scores and progress. When comparing Chicktionary to Chicken Coop, Chicktionary is the better option for elementary students. In order to unlock all of the features including the multiplayer option, players must sign in with a Facebook account.

PopWords!	iTunes Rating- 4.5 Stars	
	Relevance – 3	Usability – 4
	Customization – 3	Engagement – 4
	Feedback - 3	Sharing - 2
	Thinking Skills - 3	

Cost: Free
Target Grade Levels: 2-5+
Description: Pop Words is a word game app similar to a word search format. Players search for combinations of letters that form words in any possible direction as long as the letters are touching.
Pros: This is a fun and interactive word game app that offers three different formats (classic, practice, and puzzle). The record keeping feature keeps track of records, average scores, and a list of the best words that have been found.
Cons: One possible concern with this app would be when using it on a shared device with multiple users. In order to keep track of words found and records, the users must log in and out through the game center. One other area of concern with this app is the fact that there are times that inappropriate words can be made as the letter tiles move and other letters appear. This doesn't happen often but it is important for teachers to be aware of the possibility of this occurring.

Grammar Wonderland	iTunes Rating- 4.5 Stars	
	Relevance – 4	Usability – 4
	Customization – 4	Engagement – 4
	Feedback - 3	Sharing - 2
	Thinking Skills - 4	

Cost: Free (Lite version- offers 1 game per category) $2.99
Target Grade Levels: 3-6
Description: Students practice reading and identifying nouns, verbs and adjectives while guiding their character through exciting adventures.
Pros: This is a fun and interactive app that is easy to navigate and sure to grab the attention of students. It is created by McGraw-Hill and is directly connected to the content and characters found in the Reading Wonders reading series. The level of difficulty and skill to focus on can be adjusted based on each individual user. This app offers a practice mode for students to use before they test their skills by exploring new worlds.
Cons: One possible concern with this app would be when using it is it doesn't keep track of student's progress throughout each of the skills and levels. It also does not provide support or instruction to help explain the rules of the different skills.

Apps for Sight Words and Phonics Skills

1,000 Sight Words	**iTunes Rating- 3.5 Stars**	
	Relevance – 4	**Usability – 3**
	Customization – 3	**Engagement – 3**
	Feedback - 3	**Sharing - 3**
	Thinking Skills - 3	

Cost: Free
Target Grade Levels: k-3 (Struggling readers at any level)
Description: This app provides reading and spelling practice to help master 1,000 of the most commonly used words. There two different modes of practice: reading and spelling. Both modes offer a checkmark tool to check off the words that have already been mastered within each set of 20.
Pros: This app is kid friendly and provides a fun way to practice reading and spelling sight words. One of the great features of this app is the multiple player feature, it stores and tracks progress for up to three different players at a time. The words are broken up into 50 groups of 20 words which make it a more manageable way to master 1,000 words. The self-check feature allows players to check off the words they already know in order to focus on unknown words.
Cons: One thing to watch out for with this app is student accountability and accuracy. The checkmark option allows for students to check off words they have mastered, however, unless directly monitored there is no way to know that they have actually mastered all of the words they have checked off. This app requires audio; you may want to consider having headphones available especially if you have multiple students using this app at the same time.

Abby Sight Words Games & Flash Cards	**iTunes Rating- 4 Stars**	
	Relevance – 3	**Usability – 3**
	Customization – 4	**Engagement – 3**
	Feedback -3	**Sharing - 2**
	Thinking Skills - 3	

Cost: Free ($1.99 to unlock all games)
Target Grade Levels: k-3 (+ Struggling readers)
Description: This app provides a variety of interactive activities for students to practice basic sight words that are organized by grade level (pre-K-3rd). The activities include fun games as well as spelling practice and flashcard practice.
Pros: This app saves up to six profiles at a time. The kid-friendly features make it very easy for young readers to navigate through the app without assistance. Customize settings like speed, audio, and select the words to practice for each profile.
Cons: The free version includes only two out of six interactive activities. The app does not track results or student progress for teachers to view.

ABC Reading Magic (1, 2, 3, 4)	iTunes Rating- 4.5 Stars	
	Relevance – 4	**Usability – 3**
	Customization – 2	**Engagement – 3**
	Feedback –N/A	**Sharing - 1**
	Thinking Skills - 2	

Cost- Free (1, 2, and 3) Level 4 is $0.99

Target Grade Levels- K-3 (struggling readers at any level)

Description: Reading Magic 1 (short vowels) provides early readers with experience with letters and sounds to help build students phonemic awareness skills. Reading Magic 2 (consonant blends) help students gain mastery with consonant blends. Reading Magic 3 (blends and syllables) gives students solid and direct experience with letters and sounds to help build their phonemic awareness skills. Reading Magic 4 (silent e) focuses on words that contain silent final e. Words are categorized according to vowel sounds and then they are categorized by topics instead of by vowel sounds.

Pros: This series of apps provides practice with letter sounds, blending and phonetic rules that will help increase reading development for readers at all reading levels. This app has a feature that requires students to blend letter sounds to form words versus relying only on picture cues.

Cons: This app does not allow student profiles to be saved, shared, or tracked causing it difficult to track student progress through the various levels. This app also doesn't provide any feedback about student progress and has no way to detect if students are actually building understanding in each of the units.

CHAPTER 5

CONCLUSION

This project set out to accomplish the following goals: to help teachers identify quality reading instruction apps for upper elementary classes and to identify quality apps that support and enhance reading instruction and development in upper elementary classes. After much research, these goals were accomplished by creating an evaluation guide that includes a complete review of quality apps that support and enhance reading instruction in third through fifth grades.

As with any form of technology that has been used to support reading instruction, the iPad should not replace teacher instruction. The iPad can be a powerful tool when implemented correctly in order to facilitate learning of all students. However, the task of learning how to effectively use and implement iPads into the classroom can be overwhelming challenge for many teachers. One of the most desirable features of the iPad, especially for teachers, is the numerous educational apps available; however, this also becomes one of the greatest challenges for teachers looking to implement iPads in their classrooms. The enormous amount of educational apps available makes it an extremely difficult and overwhelming task for teachers to weed through.

In order to provide educators with a guide that includes a detailed review of the best quality reading apps available, 100 reading apps were researched and evaluated. You may have noticed that only twenty-seven apps were included in the review guide. Each

app was evaluated based on a variety of factors and only apps that met the criteria were included in the guide. The goal of this project was not to list all of the reading apps available but rather, to weed through the available apps to find the quality apps. Many factors were used and considered when evaluating the quality of each app. Some of the factors include: earning threes or fours in the majority of the categories on the evaluation rubric, having an iTunes rating of at least three and a half stars, and researching customer and teacher reviews.

An app evaluation rubric created by Tony Vincent (2012) was used to help evaluate the quality and effectiveness of each app and how it may impact student learning. The rubric focuses on seven areas, which include: relevance, customization, feedback, thinking skills, engagement, usability, and sharing. In addition to the evaluation rubric other factors were used to determine the overall quality of each app, such as the iTunes rating, customer reviews, and teacher testing and recommendations.

<div align="center">Limitations</div>

There were some things I wish I had included in this project. One of the major limitations was the price of apps that were purchased. The funds available for conducting this research was very limited and made it impossible to purchase and test out higher priced apps. So this project only included apps that were free or cost less than ten dollars. However, this research may be very beneficial for many school districts because they are often looking for the best buy for the least amount of money.

Another limitation to this study was the fact that the apps included in the review guide were researched and reviewed by a teacher; however, there was no research on how effective they would be in a classroom. Although some apps were used with small

groups of students, many of the apps were rated before actually trying them out with students. I had to use my experience and understanding of students in third through fifth grade to determine if the app provided features that were both age appropriate and engaging.

The scoring rubric also posed as another limitation to this study. The rubric that was used in this study was chosen because it was required by my school district. I had no say in the criteria that was to be used to rate each app. It is undetermined if the use of a different scoring rubric would have significantly changed the results, but it is something that should be noted.

The number of apps reviewed was another limitation to this study. The goal of the researcher was to evaluate a total of 100 apps, however, this only covered a fraction of the reading apps that are available. It would be an impossible or never-ending task to assess all of the reading apps available for third through fifth graders because new apps are being created and added each and everyday.

In addition, another limitation to this project also falls in the area of apps. It would have been really helpful to include a list of all 100 apps that were evaluated. This list would have made it easier for teachers to quickly check to know if an app was worth downloading or not.

In addition, I wish I had identified the Common Core State Standards that each app corresponds with. With the increasing amount of emphasis being placed on the Common Core State Standards, teachers would benefit with specific apps that target each standard.

The purpose of the study was to help teachers narrow down the enormous field of apps to help make it easier to decide which apps would work best in his/her classroom. This project does a good job of meeting that goal, however there are some things that could have been done differently. One of the biggest things that I would do differently would be to test out the apps in the classroom and allow students to rate each app and provide direct feedback. In addition, I wish I had had students try, rate and review the apps to provide a different perspective. It would have been extremely helpful to have direct feedback from students to include in the review and possibly could have changed some of the apps that were included.

Another thing I would do differently in the future is review fewer apps, but provide a step-by-step user guide on how to set up, use and manage those specific apps. The actual implementation part of iPads and all of the apps has become an overwhelming task for teachers in my district. Teachers have numerous apps that are brand new to them and are constantly trying to figure out what they do, how to set them up, and how to use them in the classroom, which has become very overwhelming.

Despite some of the limitations, this study did produce a helpful tool for many teachers and has opened the door for additional research and future projects that could be done to better support and enhance the use of iPads for reading instruction.

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APPENDIX A

RUBRIC PERMISSION

Re: Permission to use your Educational App Evaluation Rubric

1 message

Tony Vincent <tony@learninginhand.com>

Sun, Nov 10, 2013 at 4:30 PM

To: scowan@rayder.net

Hi Sara,

Thanks for contacting me. You certainly may use my rubric in any way you'd like. Thanks for asking.

Best,

Tony Vincent

On Nov 10, 2013, at 2:09 PM, Squarespace <no-reply@squarespace.com> wrote:

Name: Sara Cowan

Email Address: scowan@rayder.net

Subject: Permission to use your Educational App Evaluation Rubric

Message: Hello,
My name is Sara Cowan and I am currently a grad student at Ferris State

University. I am asking for permission to use and include your Evaluation Rubric as an evaluation tool to conduct research for my final capstone project.

I look forward to hearing your response.

(Sent via [Learning in Hand](#))