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Implementing iPad apps for elementary language arts students

Hanan Ibrahim Alkhamis
Eastern Washington University

IMPLEMENTING IPAD APPS FOR ELEMENTARY LANGUAGE ARTS STUDENTS

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Hanan Ibrahim Alkhamis

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THESIS OF HANAN ALKHAMIS APPROVED BY

_____   Date _____

Dr. Tara Haskins
Graduate Study Chair

_____   Date _____

Mariann Donley, MED
Graduate Study Committee

_____   Date _____

Mary Parker, MATESL
Graduate Study Committee

MASTER'S THESIS

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ABSTRACT

This study was to examine the effectiveness of the implementation of iPads with elementary schools students for learning and teaching of language Arts. This study contains a survey which was emailed to teachers of grades K-6 in Washington State. The survey included teachers' perceptions about the impact of iPads on student learning. Specifically, teachers responded to questions and statements around the content areas of reading and writing. Also, examined were perceptions about the classroom environment when iPads were used.

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CHAPTER 1

Introduction

Background

Technology is around us everywhere in our daily lives. People use technology in every part of their lives. In fact, children in this generation are born into the world of technology. They are familiar with technology, curious in discovering new uses and applications, and are comfortable using them as an educational tool. However, they may not be able to take advantage of technology tools inside the classroom. Indeed, many schools still use the traditional methods of teaching and learning; instead of inspiring students and motivating their learning. Using technology materials might be a way to motivate students. Unfortunately, without technology students are seemingly bored in the classroom and are not being taught in a productive and engaging manner.

I always wonder why we allow students to use technology in every part of their lives except in school. In fact, many schools are preventing students from bringing any of their technological tools from home because they think these devices distract them from learning. Consequently, teachers use pencils, papers and a board to explain the lesson plan without supplementing those with technology in his or her lesson plan. However, those tools do not distract this generation, who use technology in nearly every second of their daily life; these devices have been shown to attract learners, improve learning and help them build a successful knowledge base.

I have two daughters in elementary school who enjoy doing their homework or learning new information on their iPad much more than using traditional tools. As I

watch them and many children their age, I feel that it is important to implement iPad technology in the classroom. Students can control their own learning; they become more motivated to learn by using this tool, especially in elementary school. Also, there are many appropriate educational apps that are available for all children, at different ages, and they encourage them to learn more, to become motivated learners and to improve their skills.

Significance of this Study

iPad technology is a world unto itself. Paxhia (2011) pointed out iPads have rich media capabilities and more "computer-like in their functionally" (p. 325). Also, iPad has many things that students can learn and discover by themselves which helps them to improve their skills**.** Thus, using iPads in school increases students' brain development and improves learning in a variety of different ways. One study, Small et al., (2009) found that there was twice as much brain activity in all parts of the brain when doing a Google search than there was while reading a book. This study found that searching online actually helps make the brain more active (p. 121). Using iPads, another example of technology, allows students to learn and research at the same time. Their cognitive development has been increased and improved because of their ability to quickly navigate and manipulate technology and it is important to guide their skills inside of the classroom as well.

Moreover, teachers can facilitate students' learning and help them increase their knowledge and access to information by playing games, watching videos and reading stories on the iPad apps, which have many different techniques to attract students to

improve their learning. Consequently, students who are digital natives will actively

engage in lessons and homework, using iPads for learning; for hours and hours.

Waters (2010) stated that "hundreds of apps available for the iPad can easily

replace the notebook in schools. It can also move technology use to the next level by

providing a simple-to-use, long-battery-life, instant-on-instant-off device that provides

access to information, online tools" (p. n.d) which is why students need to use this

available technology and teachers need to apply it. I think it is true that students will

improve their learning through iPad technology. iPads will help them gain knowledge no

matter what their current learning level is. Students who learn fast can move on to next

level, they will not need to wait for the entire class to get the information before moving

on; they will learn more and faster. Carr (2012) researched about using iPad in education

will help students to increase their achievement, so he found out that technologies with

iPad might be used to guide students to appreciation, innovation, exploration,

preparation, and wonder which may lead to improved achievement. When children want

to search for new skills and ideas, iPad technology will help them to make their searches

more interesting because they will find many pictures and video clips that inadvertently

cause them to learn the information quickly and yet it doesn't seem hard to them. This

capability will encourage them to want to learn because it is fun. Khaddage (2013) noted

that "iPad is now capable of making the learning environment creative, challenging, and

engaging thus enhancing the learning process among students" (p. 3234)

I believe that the implementation of iPads has change the method of learning for

students. Thus, students can learn in creative and innovative technique. Also, using iPad

increases students' knowledge and understanding to the subject. This paper intends to

define the benefits and challenges of integrating iPad technology and applications (apps)

into the classroom for the benefit of the entire education system, especially the learners.

Statement of the Problem

The purpose of the study is to discover how students' learning can be enhanced

and activated through technology application, specifically the iPad. It is assumed that the

data will show an increase in academic learning experiences with iPad usage. The focus

on previous surveys have been weighted for math and science students, but the focus of

this study will be to investigate teacher perception about how iPad can increase language

arts skills and knowledge.

Research Questions

1. What apps are used effectively in the classroom?

2. How are iPads used in the classroom to support writing and reading skills?

3. What are the benefits of using iPads in the classroom?

4. What are the challenges of using iPads in the classroom?

Possible Limitations

iPad technology is relatively new, but Apple has developed many appropriate and

interesting apps that can have a positive impact in the classroom. However, the research

surrounding these tools is not as extensive as it could be and there is a lack of data about

their impact in elementary schools. For this reason, this paper is limited when addressing

its usage in the lower grades and there is much more information about their success in

the upper grades. The data seems to show that they are an engaging and productive tool

for those grades and it is assumed they will be very successful in the lower grades, too,

especially as these are true digital natives.

Definition of Terminology

CCSS: Common Core State Standards that meet quality education standards

Apps: Applications; programs for use on mobile devices

AML: Access My Library; online program for reading, related multi-media activities

ADHD: Attention Deficit Hyperactivity Disorder; can hinder learning

MMDs: Mobile Media Devices that lets users' access educational materials from anywhere.

Wi Fi: Wireless; technology that allows an electronic device connect to the Internet without being connected by a cord or other device.

CHAPTER 2

Literature Review

21st century students need to be able to use all of the available technology possible in order for them to have enhanced learning experiences and to provide students with the most effective knowledge base to build their skills and cognition. Paxhia (2011) stated that "Next-generation digital learning products have tremendous potential to offer students to individualize a solution to their learning challenges" (p. 326). In other words, technology meets the needs of students especially iPads. Alyahya and Gall stated that there are more than 1.5 million iPads being "used specifically for education and more than 20,000 educational applications have been created" (p.1266). Paxhia (2011) noted "the current print value proposition is not meeting the needs of students" (p. 322).

iPads technology and educational applications (apps) have been found to be a very effective strategy for enhanced learning. Students will learn more by using iPads, a kind of mobile tablet computer device, developed and marketed by Apple. It is a platform for video, and other visual and audio materials which have related apps that include many materials for students of all ages; including camera, movies, audio, books, games or web content and any many more (Chen, 2011).

The current generation of students was born into a society where technology is used everywhere, regularly, and this generation is very familiar, and comfortable, with technology. In fact, today's students are not the same students as in the past who were dependent on teachers and parents to get the information or knowledge. Students are now using iPads, iPods, Smartphones, computers and software programs in every second of

their lives. Thus, implementing technology tools in the academic life has become an

important pairing for this generation (Weisberg, 2011). Students need guidance from

teachers to integrate the iPad and appropriately educational apps to fully apply all of the

functions and utilities for a high quality learning experience. Integrating these tools into

the classroom will need effective strategies to determine the best apps that are used

successfully in the classroom and help students to gain knowledge and fast learn. Thus,

students will get an excellent benefit of applying those devices or tools in classes.

Using iPads in the classroom brings school and education to life. Students will

learn more and have fun at the same time. Additionally, students will be able to use

various apps to learn different skills and gain additional knowledge more than in a

traditional book-centered classroom. The iPad is an adjustable tool and can be made

useful for any learner, at any level, and for any subject; allowing the teacher to give

students individual learning, applying the methods that best preserve students' confidence

and keep them engaged throughout the education process (Adams & Chung, 2013). This

chapter focuses on four points of implementing the iPad in elementary school: 1) the

most effective apps for use in the classroom; 2) iPad technology that appropriately

supports writing and reading skills; 3) benefit of using iPads in the classroom; and 4) the

challenges of using iPad technology.

Effective Apps for Use in the Classroom

There are over 500,000 apps in Apple's iTunes Store and the authors noted that

there are many useful ones that can be appropriate to support learning and teaching

(Norris & Soloway, 2012). Carr and Prater (2013) stated "classrooms with the iPads

involved students utilizing apps to reinforce skill acquisition of letters/sounds, sight/spelling words" (p. 3857)

Because there are few studies that have looked at the efficacy of using iPad apps in elementary school, for reading and writing, I have used studies that show promise at that level because of the success found in higher grades. One such report determined that iPads and educational apps are appropriate and effective in grades 6-12. Teachers have their own technique to integrate technology seamlessly in educational Standards under the Common Core State Standards (CCSS), which can be used in all school systems for ensuring proper usage and high quality education (Cohen, 2012).

One such tool Cohen (2012) mentioned is the ePub book format is an open source outlet for students and teachers to download books and use the free Subtext app to analyze or summarize what they are reading. "Subtext aligns with standard 1 by allowing students to make meaning from the text and find evidence to support their arguments, claims, or thesis statements" (p. 32) and they can look up new vocabulary and discuss the books with classmates or others using the apps somewhere else.

Another CCSS app is the Gale Access My Library (AML) program which allows students to enter databases related to a book or assigned topic. Students can use "reliable and vetted sources" (p. 33) for safe, relevant and informative researching. A similar tool is Diigo, which allows students to save the texts, highlight, and add a sticky note in the text book. Also, students can share bookmarks with the whole class and they have an email account that allows them to receive links to books or articles. The Diigo app allows students to work collaboratively through sharing annotations with their peers (Beach & O'Brien, 2013).

The StoryKit app is as an effective mobile application that allows children (between the ages of 4 and 18), to motivate students to create multi-modal stories that can be shared with others, or as a way to design interesting stories for assignments (Bonsignore, 2011). Bonnstette and VanOverbeke (2012) wrote "*StoryKit* is a highly rated app where students can write a story or summarize a fieldtrip with text, illustrations, photographs, and sound effects. The story can be saved in the iPad and published on the *StoryKit* webserver." (p. 3429).

The iWrite Words app is great app for writing which allows students to practice drawing and writing words by using their fingers. Students can write letters, numbers, and sentences (Moffet & Amend, 2011).

The Starfall app and website has many activities that support students in reading for kindergarten and elementary schools. This app and its website motivate students to learn the sound of the letters by showing students how to pronounce them. Also, this app and website is requiring students to discover the instruction by making students ask questions (.Parette & Blum, 2014).

Also, there are apps that help students practice pronunciation, writing skills, vocabulary and fluency such as iDiary apps and Read Me Story. In addition, The Apple Store is has up-dating apps that are appropriate for learners of all ages which make these apps more effective and interesting for students as well as teachers using iPads. In fact, there are numerous applications in all content areas that are available for students, whether they are in preschool, k-12 or college. These apps include games for learning and practicing and study guides for anything that students need (Bonnstette & VanOverbeke, 2012).

There are apps available to help teachers as well, such as iBooks Author. This app allows teachers to make their own textbook that include photos, movies, audios, and images. Also, a class can create their own app on any subject they want (Bonnstette & VanOverbeke, 2012).

iPads Support Writing and Reading

Children in primary ages learn basic literacy skills at school and they need visual materials supporting their learning. In this case iPad apps gives teacher's significant teaching strategies to teach them how to read, write and speak correctly during elementary school. Bonnstette and VanOverbeke (2012) believed "The elementary classroom builds the basis for the content areas and the future success of students. From writing creative stories to fact mastery in mathematics, apps provide an engaging and interactive platform for learning." (p. 3429).

Additionally, iPad apps help students to work cooperatively and independently. Gasparini (2011) mentioned that "iPads have also worked great for independent tasks that students could practice (using a variety of Apps for creativity, 3D viewing, searching or simply working with curriculum)" (p. 49) with technology students will get the knowledge and skills faster and easier because technology tools have many diverse and appealing ways for students to learn. McClanahan et al., (2012) said "technologies have come to redefine literacy in school, work and home" (p. 20) and it makes learning seem easier for students.

A large number of people in this generation are spending less time watching television and reading books and more of their time on playing games, texting, using the

computer and accessing the Internet. Those devices are essential to engaging students in their learning (Geist, 2011). iPads have many apps that are helpful for students to improve their skills in reading and writing. The educational community should consider using iPads apps as a significant factor for enhancing student learning (Geist, 2011).

Using iPads for learning in the classroom provides improved individual and cooperative learning; its capability allows a variety of functions and multimedia access. Apple has created many educational apps for students, including access to games, pictures, personal web or apps that have been shown effective to learning, in more creative ways; its architecture allows programs to be appropriate with other Apple products, improving sharing and cooperation (Omiterue, 2012).

Furthermore, the most effective characteristic of the iPad is the capability to adapt and produce different contents via their applications (Gasparini, 2011). McCombs and Liu (2011) believed that "understanding the impact of iPad in the delivery of curricula will help educators develop efficient and effective course materials" (p. 522) and this also helps the school districts to know what hardware to support and maintain for funding and have a high quality for students and teachers to use in their schools.

Students prefer eBooks and their associated apps for reading because they can change the story or change the characters as they are reading. This motivates students to want to read because they can make the story about themselves; it becomes personal and so is more interesting. They can build their own stories at their own pace and then share their new creation with the rest of the class (Geist, 2011).

iPads applications, help new or struggling readers make more sense of what they are reading, it helps them learn how to correctly pronounce new words, and how to use

them correctly in a sentence. One student, diagnosed with Attention Deficit Hyperactivity

Disorder (ADHD), used eBook in iPad apps and eReader to improve his reading, was

found to have mastered a full school years' worth of reading skills in just six weeks by

using digital reading devices. Six months later, the student was still making significant

progress in his reading ability change because by these devices the student's capable to

write notes, change font size, use dictionary and use an audio-enhanced. iPad has all

these devices in its application. For example, eBook app allows students to read and

listen to the story in the same time. eReader allows students to read and record

themselves. By that students who are struggling in reading can use these apps to look to

the words as well as pronounce the word correctly. Additionally, students were more

comfortable reading via iPad compared with reading in laptop or desk computer

(McClanahan et al., 2012). At this result iPad apps should be connected to students at

school to enhance students' learning and help build a better knowledge base for all

students.

Mobile devices have many apps that help students write and read in a variety of

ways. Students practice writing, spelling, using words in their correct context, enabling

them to create correct sentences, with the apps, in a variety of ways and circumstances;

and they enjoy doing it. This facilitates students in improving their reading and writing

skills and they also have opportunities to work collaboratively; enhancing their

experience. In addition, the diversity apps that iPad has, makes learning more interesting

and enjoyable for students. McClanahan et al., (2012) found that this technology, for

reading books in particular, is "much more than an eBook" (p. 21) because the matching

games and multimedia apps accompanying each book, is what makes the iPad so effective.

Using iPads and the associated apps in reading and writing classes allows students to explore and discover various subjects, on their own independently. Geist (2011) noted that the iPad is a useful tool for elementary students because it "allows children to manipulate objects in a natural way with little adult intervention" (p. 765). Many children in elementary school are mobile learners which means they are moving while are learning so using apps in their learning encourage them to learn more because many apps are animated.

In addition, iPads offer many apps that increase students' reading in different approach such as audio book and voice book, storyline, recordings, picture books and many more.

Benefits of using iPads in the Classroom

Using iPads in the classroom has significant benefits, especially for this new generation of "digital natives". They are familiar with using technology more than previous generations who use the traditional education system. Ludwig and Mayrberger (2012) pointed out that teachers' opinions about using iPads is that these "mobile devices are easy and safe to handle and can be integrated in the class without a big expenditure" (p. 2158). This technology has various advantages in the method of learning because it has a high level of engagement for digital natives and increases student interest and learning. Indeed, iPad apps are useful to design and organize class curriculum, which allows multiple methods to interact with education, and that will make learning more interesting for students. Also, Apple apps help educators to develop their teaching

methods to become more effective because of the variety available for educators to plan their instruction.

iPads help to develop children's knowledge in multi-faceted ways. Instead of studying a book to gain some knowledge or information, using an iPad can expand their experiences and give students much more information in the same amount of time. iPad apps engage students' learning and motivate students to learn a large amount in record time in the classroom. For example: using game apps will help students to learn state capitals, geometrical shapes, and a variety of nicknames in a creative way (Schachter & D'Orio, 2011). Additionally, iPads, in education, engage students as well as connect to other students, collaboratively. Students who use new technology devices in their instruction have positive attitudes toward leaning (Ludwig & Mayrberger, 2012).

Students will become activated learners through using iPad technology, while discovering their own skills, feeling more successful and in control of their own learning, and become more motivated to learn simply by choosing, and playing, their own games educational (Geist, 2011). Furthermore, one of the greatest things about iPad is the speed which allows students to look and find things up as well as research things immediately (Ludwig & Mayrberger, 2012).

Nd An and Alon (2013) used a quantitative study to examine current logistical models designed for using the iPad in New Jersey public school classrooms. The study examined students' and teachers' belief systems and their perceived attitudes about using iPad technology in the classroom. Seventy students in six New Jersey schools, in elementary through high school levels, were participating in this study. The schools had not used iPad technology before the semester that was part of the survey. Data collection

was analyzed for this study to determine the efficacy of iPads in the classroom. The

schools included three elementary schools, one middle school, and two middle and high

schools. All of these schools incorporated iPads for 1 semester. The findings in this study

was both the students and teachers found the iPads to be a valuable tool for learning,

teaching, and retaining knowledge in a highly motivated environment. Because education

should keep pace and adapt to meet the change in students' lives, the use of this tool

enhances learning. These findings are with other research consistent.

Using the iPad as a basic tool in the instruction materials increased students'

achievements in both their current learning environment and in the future (Norris &

Soloway, 2012). The data shows that students become active learners instead of having

passive experiences; the iPad allows them to interact with the program, with other

students, and provides increased knowledge, actively, in the classroom (Geist, 2011).

Providing iPads technology, within the school environment, enhances learning and

promotes skill-building for students.

Students who use iPads become more communicative and socially interactive

because they share information and their learning experience with each other. Students

who use iPads in the classroom prefer working with other students in both partner

settings as well as group work (Ludwig & Mayrberger, 2012). Increased mobile devise

usage gives teachers a chance to improve cooperative learning and team building skills,

among students, because the iPad is also a tool interactive, if used correctly with other

pedagogies (Omiteru, 2012). Rogers et al., (2010) showed "how mobile technologies can

be used to facilitate the switching between task-based and sensemaking activities" (p.

122)

Interaction with technology makes learning enjoyable and interesting. Using iPads for presentations and learning increased student interest and motivated them to become active learners (Norris & Soloway, 2012). Touch screen technology, as with the iPad, iPhone and other tables is so appealing for students especially students at the elementary level. That inspires them to learn and explore more material which expands their learning process.

The results of the McCombs & Liu (2011) study includes 1) general use of Mobile Media Devices (MMDs); 2) device interaction and usage patterns; 3) attitudes, 4) perceptions, 5) and preferences toward time shifting with the iPad; 6) use of iPads for learning purposes; 7) the effectiveness of iPad applications.

The results are as reported: 1) For device interaction and usage patterns, the study investigated students' feedback on iPad usage and found that 92% of participants thought that the iPad touch screen was both useful and enjoyable; 86% of participants felt the iPad was easy to use and they preferred the iPad because of its appropriate size and weight; 86% of the participants noted that it was convenient to access the course material when using iPad technology. 2) Students' attitudes toward using the iPad for mobile learning was analyzed and all of the participants reported that the iPad touch-screen makes interacting with this electronic device enjoyable and learning seems easier; nearly 83% reported that iPad touch-screen behaviors, along with iPad-specific design materials, made learning easier; and 85% reported they got more done when using the iPad for mobile learning. 3) Students behavior and behaviors change associated with time shifting and iPad use, 93% of participant reported that the iPad allowed them to be better engaged in multiple activities while learning. Additionally, 72% of the users reported that the iPad

changed the way they learn and 92% of them thought the iPad is a more convenient tool

for studying; compared to using a desktop or laptop computer. It is important to

recognize that 21st century students prefer using mobile technology; with information

available anywhere and at any time.

iPad technology helps students to design and organize their own classroom.

Students make their own library of apps, designed for the classroom, and learn how to

organize their information, feel in control of their learning, and gain self-esteem from

their success. Various assessment strategies that Apple has included in their iPad

technology, includes both informal and formal assessment plans for iPad usage (Hall &

Mahaley, 2012).

Ultimately, iPads give students control; they let students work at their own pace,

motivating learning (Geist, 2011) while creating a high quality learning environment for

everyone, including the teacher. This technology benefits everyone and encourages active

learning and an engaged learner to learn more and in the same time they will have fun

while they are learning. Alyahya and Gall (2012) noted that "students felt confident

carrying their iPad with them because it organized everything: planner, articles, notes,

emails, appointments…etc" (p. 1269); it helps them feel confident, and capable in school.

Challenges of using iPad Technology

There are some of challenges that will face teachers or schools when integrating

iPads into the classroom. Teachers need to be prepared on how to use iPads and related

technology, and apps, in the classroom. Educators should have the appropriate knowledge

for using iPad technology in the classroom (Omiteru, 2012). Thus, training teachers to

use this type of technology in the classroom is an important factor. If teachers know the

best ways of using technology in the classroom, and how to manipulate or use the apps that are available, they can successfully implement these tools in the classroom. Moreover, the more time a teacher spends using iPad technology and apps, the better the technology worked in the classroom for improved learning by motivated students.

Some teachers often ignore the use of advanced lesson planning when using iPad technology for students; this is a necessary part for successful use. Teachers should be regularly reminded of the research data that shows how invested digital natives are in learning through technology, the increased motivation they have to learn with these tools, and the overall enhanced knowledge base they have built using iPads and their related tools.

Ostashewski & Reid (2012), in their research, provided details on the challenges and successes with iPad devices, apps, and interactive activities, with lesson plans, that can result in the creation of quality digital stories in the classroom. The study wanted to define the challenges of implementing iPad usage for this purpose. Project one consisted of a class set of 15 iPad1 devices integrated into 6th grade classrooms, and the subjects were the teachers and their students. They were to evaluate the technology and its effectiveness in promoting learning, including building writing skills for digital storytelling. One significant challenge the researchers noted with iPad use in the classroom is the need for hard management of the devices. In addition, there was a profound need to provide teachers, and students, with training sufficient and professional development to support integration of the mobile devices.

Another challenge that schools might face by implementing iPad use in the classroom is the cost of iPads. In 2014, the cost of the iPad Mini, which was described as

an educational iPad, started at $299 for 16GB, with Internet connection over Wi-Fi

networks (Apple Inc., 2014). However, this is quite inexpensive if compared with the

cost of books, notebooks and many others tools that teachers need for each grade level

each year.

   This is consistent with other studies showing that technological tools can be

highly effective in enhancing learning, but training and consistent support are needed

until implementation is achieved.

<div align="center">**Conclusion**</div>

   Because many of the current studies about the impact of technology as a tool for

enhanced learning has been done at the upper grade or college level, it is difficult to find

data supporting iPad usage in the elementary level. There are some relevant studies for

elementary schools students, but more research is needed. Current data has shown this is

a very effective tool for motivating students' learning beyond the traditional expectations.

This paper cited findings from research involving multiple grades of students. Geist,

(2011) stated:

    Our education system does a generally poor job of assessing the needs of the

    learner and adapting curriculum content and delivery to meet those needs. Most

    classrooms and education practices are little different that they were 50 or even

    100 years ago. Each of our past major societal changes has been accompanied by

    major changes in our educational systems. (p. 759)

   Research has shown that iPad technology, with educational apps, have a positive

effect in the classroom; enhancing learning, motivating students and building their

knowledge base. Teachers need to utilize this effective tool in the classroom. Indeed, it is

up to us to develop curriculum, in a framework that uses appropriate technological tools,

to deliver the highest quality of education to our students; available research shows that

this should include the use of iPad technology.

CHAPTER 3

Methodology

The world has evolved, and many tools that people use in their daily life are developed by technology, which make using these tools easier and interesting. One of the tools that have changed the way to discover or obtain information is by utilizing the iPad. The creation of the iPad has allowed people to acquire knowledge in creative and simple ways. Observing this, it dawned on the researcher that education is one of the most sensible fields in which to implement iPad use.

As indicated in Chapter One, the purpose of this study is to discover how students' learning can be enhanced by and activated through technology applications; specifically the use of iPads in language arts. In Chapter Two, I reviewed research supporting the use of iPads in the classroom setting. Chapter Three will describe the methodology that was applied in this study of using iPad Apps for elementary language arts students. The survey method was chosen to set the benefits of implementing iPad and apps for elementary schools in reading and writing.

The purpose of The Study

There is a dearth of research on the use of iPads because it is a new technology. In fact, the first iPad was released in April 2010 (Chen, 2011). However, since the iPad was created, the use of it among people has increased over the years, specifically for educational use. Norris & Soloway (2012) states "the iPad has penetrated K12 faster than any other computing technology" (p. 42). Students are more interested in learning by using fresh technologies such as iPods, iPads and tablet devices. To put it in another way,

they are familiar with using technology and they can adapt to it quickly. Hopefully, the

iPad will change the learning environment, as it would be more motivating for students to

learn as well as gain skills and knowledge (An & Alon, 2013). Paxhia (2011) posits that

students in the last decade "use technology to help them master difficult concepts, solve

problems and explore key topics in their course" (p. 322). Using iPads for learning allows

students to be immersed in interactive activities as well as various reading tasks

(Gasparini, 2011).

Utilizing mobile device with this generation presents many benefits from the

schools' perspective (Ludwig & Mayrberger, 2012). A study by Houston University

researchers confirmed the enjoyment of learning via using iPad for students (Wilson et

al., 2013). Therefore, some schools currently have integrated iPad devices into the

classroom setting to improve students' learning and making learning more interactive and

enjoyable.

The purpose of this research project is to examine the implementation of iPads

and apps into the classroom for language arts elementary students, and to learn how the

use of the iPad affects or improves students' learning.

Survey Design

The survey was designed to answer the following research questions; what apps

are used effectively in the classroom? How are iPads used in the classroom to support

writing and reading skills? What are the benefits of using iPads in the classroom? What

are the challenges of using iPads in the classroom?

Prior to the start of the research approval was sought from the Institutional

Review Board for Human Subject Research (IRB) to conduct this research. Approval was

granted one week later (See Appendix A.) The survey questions were then placed online,

allowing the researcher access to a large number of teachers who could respond to their

use of iPads in elementary schools in Washington State. The survey website was chosen

for SurveyMonkey as it has multiple options for the researcher and participants. The Gold

version was purchased from Survey Monkey in order to get results and analysis. The use

of SurveyMonkey also allows for the anonymity of respondents. Additionally, the survey

designs allowed participants to skip the questions they chose not to answer. The time for

participants to take the survey was approximately 10 to 15 minutes.

Data Collection

The survey contained two types of questions which addressed the research

questions. The first part consisted of multiple-choice questions (21questions), including

questions about the participant's demographic characteristics, such as gender, setting,

subjects, years, and level of teaching (See Appendix B). Participants were asked about

access to the internet, including if they had access to wireless in their schools as well as

classrooms. Additionally, questions about the use of technology in teacher instruction and

the types of technology that teachers use in the class were included. Questions around

personal iPad use for both the participants and the students were asked. Lastly, one

written question asked about favorite apps for teacher to use in the classroom as Seen

(Appendix B).

The second part of the survey used a four-level Likert-type Scale which included

29 statements that asked the participants to respond with their level of agreement or

disagreement. This part contained two sections. The first section contained questions

about students' interactions in the classroom. Participants were asked to indicate whether

they perceived the use of iPads helped with student motivation, collaboration, engagement, and organization. Other questions included were the respondent's perceptions if the use of iPads made a difference in student learning, performance, independence and behavior. Specifically, participants were asked to indicate their perceptions about how iPads supported students' reading and writing skills.

The second section covered teachers' beliefs of iPads use in classroom. Participants were asked to indicate whether they believed using iPads in the classroom is a good tool for learning and will help students' collaboration, encouragement, improving teachers' skills, holding the attention of class, changing students' attitudes toward learning, as well as affecting students' achievement. Also, participants were asked if they felt that iPads would replace textbooks as well as questions pertaining to whether this technology decreased or increased management issues. Finally, a question was asked if teachers felt they needed more professional development to use iPads in the classroom as Seen Appendix B.

Participants

The participants of the survey are elementary teachers (kindergarten through six grades). This research took place via an internet survey at the public elementary schools in Washington States in the United States of America. The survey did not include any private schools.

Three letters were written and emailed intended for three target audiences`; superintendents, principals and teachers, requesting permission and participation in the survey project. The first letter was composed and emailed to 317 superintendents in the State of Washington (See Appendix C). The letter to the superintendents asked for their

consent to administer the survey in their respective schools. Many of the superintendents

did not respond. The total number of districts who responded was 46 schools districts, or

14.5%.   However, there were nine superintendents said they did not want to participate

in the survey. Of those nine, that the reasons included "too many curricular changes, too

busy with professional development".

Furthermore, many superintendents and principals declined participate in the

survey as reason they had not implemented an iPad program in their schools now or any

time soon. One school replied "we have made a commitment not to ask our teachers to

take on any outside projects". There were four superintendents who indicated that an

internal approval processes needed to be completed to conduct research in their districts.

For the sake of time, the researcher decided not to pursue those districts that required an

internal approval process. Two superintendents wanted a copy of the survey before

giving the authorization. Some superintendents asked some questions about the survey

and some left the final decision to the principals.

Once consent was granted, a second letter was composed and emailed to the

principals (See Appendix D). The letter asked the principals to forward the survey to their

respective teachers. Many of principals responded and they forwarded the survey to their

teachers in their school. One of the principals asked the researcher to email the survey

directly to the teachers in their schools. Another principal asked to talk to the researcher

asking about the survey. Schools which did not indicate and email address were called

and asked to participant in the survey.

The final step consisted of a third and last letter which was emailed to the teachers

by principals (See Appendix E). The letter asked the teachers to complete the survey.

Some of the teachers responded by emailing the researcher that stating they had completed the survey.

Procedure

Carrying out this research took many steps. It started with writing literature review to investigate the research on the importance of iPad for learning and teaching and the advantages of iPad in the schools and classroom. The researcher found out there are a lot of educational apps for iPads that facilitate students' learning and to improve students' abilities of learning in many subjects area. However, it was hard to find thorough studies on the use of educational apps in the classroom; specifically for writing and reading in elementary schools. Most of the studies about using iPads and apps were in the field math for lower grade levels or for research for upper grade levels. Thus, these studies were used as evidence that iPad apps have a positive impact in the classroom and can change the learning environment as well as improve students' performance.

The next step was collecting data by creating a survey about using iPad and apps in teachers' instruction; specifically for elementary language art students. The researcher collected data by using two Excel files in Microsoft Office. One was for superintendents and another was for principals. The researcher arranged data by colors. Blue highlighting was for school districts that approved doing the survey. Red highlighting was for school districts that did not approve. Yellow highlighting was for schools district that required another application. Brown highlighting was for schools with concern and questions, and green highlighting was for school not reached or failed email.

Data Analyses

Data was collected by SurveyMonkey and exported to another Excel spreadsheet. SurveyMonkey was used to analyze every question separately to allow to the researcher to observe the results individually.

CHAPTER 4

Results

This chapter consists of three parts which present the data findings of the survey project, Implementing iPads and Apps for Elementary Language Arts Students. The first part includes the collection of data. The second part is about data analysis and includes five sections of the survey, which are participants' demographic information, Internet access, technology usage in the classroom, iPad usage, interactions students with iPads and teachers' beliefs about using iPads in the classroom. The last part is a summary of the research findings.

Data Collection

The targeted population of the research study was teachers in elementary schools in Washington State in the United State of America. The survey as seen Appendix B was emailed to 317 superintendents in the State of Washington, 46 (14.5%) schools districts responded (either consenting to the research or not). The total number of principals who emailed the survey to their teachers was 42. The total number of teachers who chose to participate in the survey was 81. The participants were elementary school teachers in public schools in Washington State. All of the schools that were participating in the survey have Internet access and some of them use iPads for their instruction.

Data Analyses

The survey was divided into five sections; the first section was participants' demographic information which included teachers' gender, subject(s), grade(s) and years

of teaching, the number of students in the classroom. Included was data about the setting

of the school (i.e., rural, suburban, urban) and the percentage of free or reduced lunch.

Among the 81 participants, 76 responded to the question about their gender. Of

those 76, 9 (11%) were male teachers and 67 (88%) were female teachers. (See Table 1:

Participants Demographic Information). The participants were from a mix of rural,

suburban, and urban settings. Approximately, half of the participants 41 (56%) were in a

rural setting. Nearly a third of the participants 22 (30%) were in a suburban setting and

nine (12%) of participants were in an urban setting. (See Table 1: Participants

Demographic)

Table 1: Participants Demographic Information

Answer Options	Gender		School Setting		
	Male	Female	Rural	Suburban	Urban
Responded	76		72		
Response Count	9	67	41	9	22
Response Percent	11.8%	88.2%	56.9%	12.5%	30.6%

Of the 77 responded, to the question about what grades the participants taught, 30

(38%) of the participants indicated they taught kindergarten, 22 (28%) of the participants

indicated they taught first grade, 22 (28%) of the participants indicated they taught

second grade, 15 (19%) of the participants indicated they taught third grade, 20 (25%) of

the participants indicated they taught fourth grade, 14 (18%) of the participants indicated

they taught fifth grade, 3 (3%) of the participants indicated they taught sixth grade. (See

Table 2: Participants Demographic Information)

Table 2: Participants Demographic Information

What Grade(s) do you Teach?		
Answer Options	**Response Percent**	**Response Count**
K	39.0%	30
1	28.6%	22
2	28.6%	22
3	19.5%	15
4	26.0%	20
5	18.2%	14
6	3.9%	3
answered question		**77**
skipped question		**4**

The researcher divided the years of teaching experience for the participants into six categories: 1-3 years of teaching, 9 (11%); 4-6 years of teaching, 7 (9%); 7-10 years of teaching, 17 (22%); 11-15 years of teaching, 11 (14%); 16-25 years of teaching, 20 (25%); and, 26 years and more of teaching, 13 (16%). (See Table 3: Years of Teaching)

Table 3: Years of Teaching

How long have you been teaching?		
Answer Options	**Response Percent**	**Response Count**
1-3 years	11.7%	9
4-6 years	9.1%	7
7-10 years	22.1%	17
11-15 years	14.3%	11
16-25 years	25.97%	20
26+ years	16.9%	13
Answered question		**77**
Skipped question		**4**

The participants in the survey taught in the following areas. There were 67 (97%) respondents who taught language arts, 65 (94%) who taught math, 60 (86%) who taught science, 59 (85%) who taught social studies, 29 (42%) who taught computer, 28 (40%) who taught art, 4 (5%) who taught music and PE, three (23%) who taught special education and three (23%) who taught all subject areas in the elementary schools. (See Table 4: Teaching Area)

Table 4: Teaching Area

Which subjects do you teach?		
Answer Options	**Response Percent**	**Response Count**
Math	94.2%	65
Science	87.0%	60
Language Arts	97.1%	67
Social Studies	85.5%	59
Music	5.8%	4
Arts	40.6%	28
PE Arts	5.8%	4
Computers	42.0%	29
Other		13
answered question		**69**
skipped question		**12**

The number of the students in the classroom was distributed into seven categories: 1-10 students, 11-15 students, 16-20 students, 21-25 students, 26-30 students, 31-35 students, and 35 and more students. Four (5%) of the participants had 1-10 students in their classrooms. Three (3%) of the participants had 11-15 students in their classrooms. There were eight (10%) of the participants who had 16-20 students in their classrooms. Around half of the participants 42 (54%) had 21-25 students in their classrooms. Nearly, a quarter of the participants 18 (23%) had 26-30 students in their classrooms. There was

only one (1%) respondent in each category for the 30-35 students and more than 35
students' categories.

The percentage of the students receiving a free or reduce lunch service for
students were distributed into four categories: 0-25 percent, 26-50 percent, 51-75 percent
and 75-100 percent. Three (4%) of the participants had 0-25% students who received a
free or reduced lunch service. Close to a quarter of the participants, 20 (27%), had 26-
50% of students who received a free or reduced lunch service. More than a third of the
participants, 28 (37%), had 51-75% students who received a free or reduced lunch
service. Almost a third of the participants, 23 (31%), had 75-100%, students who
received a free or reduced lunch service. (See Figure 1: Students Receives a Free or
Reduce Lunch Services)

Figure 2: Students Receives Free or Reduce Lunch
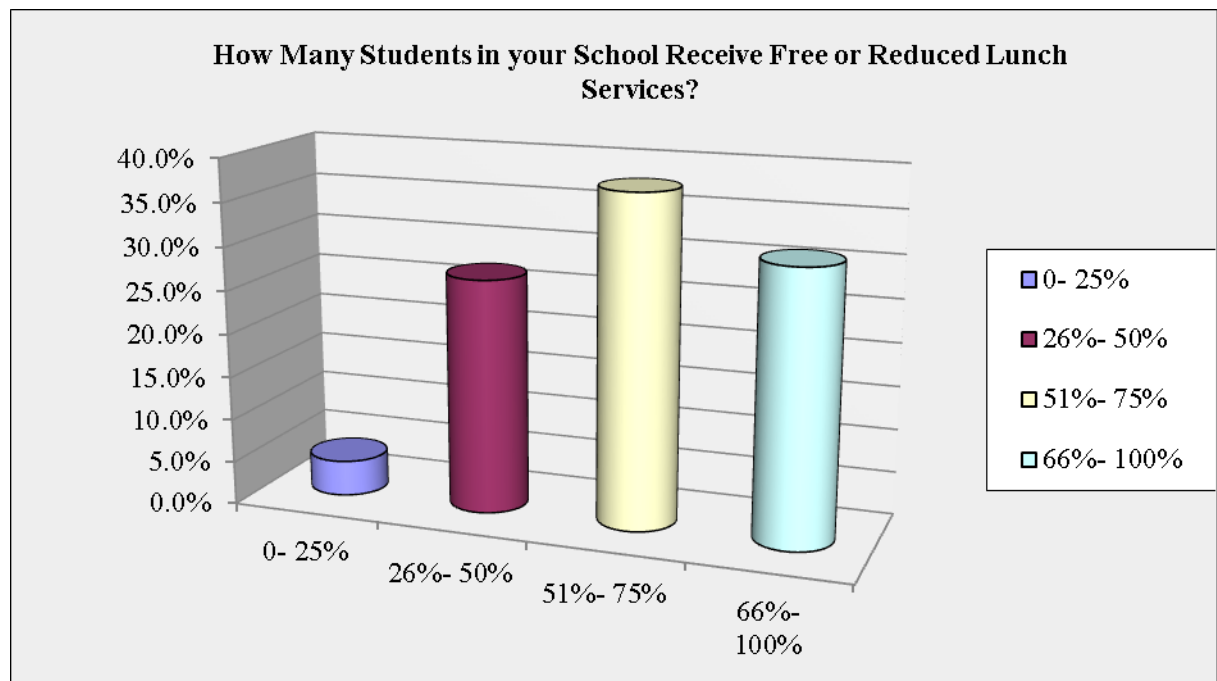
The second section of the survey concerned Internet access. It included three questions regarding Internet access in schools, wireless (Wi-Fi) access in schools, and Internet access in the classroom for students. Each of the 81(100%) of the respondents indicated they had Internet access in their school and 74 (91%) of the participants had wireless access. Of the 76 participants who responded to the question about internet access in the classroom, 70 (92%) indicated that students could access to Internet inside the classroom. (See Table 5: Internet Access in Schools)

Table 5: Internet Access Schools

	School have Internet Access		School have Wireless Internet Access		Students Access to Internet in the Classroom	
Answers Options	Yes	No	Yes	No	Yes	No
Responded	81		81		76	
Responded Count	81	0	74	7	70	6
Responded Percent	100%	0%	91.36%	8.64%	92.11%	7.89%

The third section of the survey was about the use of technology. This part of the survey included three questions regarding using technology in the classroom, types of technology that the participants employ in their instruction, and kinds of technology that students use in the classroom. Of the 76 participants who responded to the question regarding the use of technology in their instruction, 74 (97%) indicated they did and 2 (2%) did not. Of the 75 participants who responded to the question regarding the use of computers for their teaching, 74 (98%) participants indicated they did use technology.

The question also allowed for respondents to comment, providing additional technology

platforms employed in their teaching. Of the 74 respondents, 17 utilized this option,

indicating 14 (82%) participants use iPads. (See Table 6: Technology Use in the

Classroom). Additionally' of the 71 participants who responded to the questions

regarding students using computers for their learning, 68 (95%) participants indicated

students used computers. This question also allowed respondents to leave comments

listing other technological medium. Of the 20 who chose to do so, 17 (85%) participants

indicated students use iPads for learning. (See Table 7: Technology Use in the

Classroom)

Table 6: Technology Use in the Classroom

What kind of technology do you employ while you teach?		
Answer Options	**Response Percent**	**Response Count**
Computer	98.7%	74
Elmo projector	61.3%	46
Smart board	48.0%	36
Projector	64.0%	48
TV	26.7%	20
DVD player	52.0%	39
Camera	45.3%	34
Digital video	26.7%	20
17 Respondents' Comments:		
iPads	82.35%	14
Others	17.65%	3
answered question		**75**
skipped question		**6**

Table 7: Technology Use in the Classroom

What kind of technology do you have your students use for learning?		
Answer Options	**Response Percent**	**Response Count**
Computer	95.8%	68
Elmo projector	40.8%	29
Smart board	45.1%	32
Projector	32.4%	23
TV	8.5%	6
DVD player	9.9%	7
Camera	12.7%	9
Digital video	11.3%	8
20 Respondents' Comments:		
iPads	85.0%	17
Others	15%	3
answered question		**71**
skipped question		**10**

The fourth section of the survey was about iPads use. For the first question,

regarding the use of an iPade, 81 respondents, 69 (85%) have used iPads and 12 (14%)

have not. Question two concerned the personal ownership of iPads. Of the 75

respondents, approximately half of the participants have their own iPads 39 (52%), while

36 (48%) did not. Of the 81 participants responding to the third question regarding the

use of iPads in their instruction, 49 (60%) indicated they used iPads in their instruction,

while 32 (39%) indicated they did not. (See Table 8: iPads Use).

Table 8: iPads Use

Answers Options	Have you Used iPad?		Do you have personal iPad?		Have you used iPad in your classroom?	
	Yes	No	Yes	No	Yes	No
Responded	81		75		81	
Responded Count	69	12	39	36	49	32
Responded Percent	85.19%	14.81%	52%	48%	60.49%	39.51%

Of the 50 participants, who had use iPad in the classroom, 38 (19%) had one to three iPads in the classroom. Over a quarter of the participants 28 (14%) had four to six iPads in the classroom. Six (12%) of the participants had 10 or more iPads. Three (6%) of the participants had an iPad for each student. One tenth of the respondents, 5 (10%), had used their personal iPad in the classroom. (See Table 9: Number of iPads in the Classroom)

Table 9: Number of iPads in the Classroom

Answers Options	How many iPads in the classroom						
	0	1-3	4-6	7-9	10 and more	For each students	Personal iPad
Responded	50						
Responded Count	7	38	28	1	6	3	5
Responded Percent	14%	19%	14%	2%	12%	6%	10%

Of the 59 responded, who responded to the question "How confident are you with using an iPad?" 52 (88%) indicated they liked using iPads, while 7 (11%) indicated they

did not like using iPads. The questioned about how confident the participants are with iPad technology almost one-fourth, 18 (22%), indicated they are very confident with iPads use. About one-third, 28 (34%), of the participants indicated they are somewhat confident with iPads use. About a quarter, 20 (24%), of the participants indicated they are confident with iPad use, and 15 (18%) of the participants indicated they are not very confident with iPad use. (See Table 10: How Confident are you with Using an iPad).

Table 10: How Confident are you with Using iPads

How Confident are you with Using an iPad?		
Answer Options	**Response Percent**	**Response Count**
Very Confident	22.2%	18
Somewhat Confident	34.6%	28
Confident	24.7%	20
Nor very Confident	18.5%	15
Responded		**81**

The survey asked the teachers about the percentage of their students who have access to an iPad at home. Of the 73 respondents, 55 (57%) indicated an estimate of 0-25% of the students have access to an iPad at home, 14 (19%) of the participants indicated that 25-50% of the students have access to an iPad, three (4%) of the participants indicated that 50-75% of the students have access to an iPad,and one (1%) of the participants indicated that 75-100% of the students have access to an iPad at home.

On the question regarding the teachers' favorite iPad application (apps) they used in their instruction, the researcher found there were a variety of apps in the field of education. Of the 39 respondents, five (12%) of the participants used the BrainPOP and

Starfall the classroom. Four (10%) of the respondents have used Find Sums app. Three

(7%) of participants used Educreations app, which allows teachers to create their own

lessons that match with the Common Core State Standards. Three (7%) participants also

reported they used the Futaba app, three (7%) used the iWrite Words app, and three (7%)

used the Splash Math app.

Furthermore, in the comment section, two (5%) of the respondents each indicated

they used the following apps: ABCya; Bob Books; ClassDojo; Doodle Buddy;

Handwriting without Tears; Ladybug Math; Montessori Numbers ; Raz-Kids; ScootPad;

TeachMe:1st Grade; and, YouTube.

Additionally, there were apps used by one (2%) of the participants; such as 123

NUMBER MAGIC app, Build A Word app, Butterfly Math app, Chalk Pad Free app,

Caboose app, Cosmic Counters app, Dr. Seuss's ABC app, Everyday Mathematics app,

First Grade Learning Games app, Geoboard app, iBooks app, Keynote app, Lingo Zoo

app, Little Critter Collection app, Math Duel app, Random Name Selector app,

Oceanhouse Media app, Phonics Awareness app, 1st Grade app, problem solving app,

Reading Rainbow app, Rhyming Words app, 7 Little Words app , ShowMe Interactive

Whiteboard app, SpellingCity app, Spellosaur app, Splashtop app, Study Island app,

TeacherKit app, TraceMath app. Twelve (31%) of the 39 participants did not specify

which apps they used in the classroom.

The fifth section of the survey regarded students' interactions with iPads in the

classroom. Interestingly, when the two columns of "strongly agree" and "agree" were

combined, almost all of the 56 participants, 55 (98. 22 %) thought students were more

motivated when using iPads in the classroom. While only one (1%) participant indicated "disagree" on the statement about iPads motivating students in the classroom.

Furthermore, of the 54 participants who responded to the statement "Student learning is increased" more than half (47, 87%) of the participants responded with "strongly agree" and "agree". Also, of the 53 participants who responded to the statement, "Students are allowed to explore independently", 43 (81%), responded with "strongly agree" and "agree", In addition, of the 54 participants who responded to the statement, "Students are more engaged", 50 (92. 59%), responded with "strongly agree" and "agree". Conversely, of the 52 respondents to the statement "The teacher is more effective" over one-third, 19 (36%), responded with "disagree" and "strongly disagree".

 Additionally, of the 52 respondents, almost three-quarters of the participants, 38 (73%), indicated either "strongly agree" or "agree" to the statement "Reading and writing skills are more supported". While 14 (26%) indicated they "strongly disagree" or disagree" to that statement. Almost three-quarters (35 of 47, 74%) of the participants responded with either "strongly agree" or "agree" to the statement "Reading skills improve". In contrast, of the 48 respondents, 26 (54%), indicated they either "strongly disagree" or "disagree" that using iPads in the classroom improves writing skills.

It is interesting to note, among 44 respondents to the statement "Students score higher on assessments (State, District)", 24 (54%), indicated they either "strongly agree" or "agree"; twenty (45%) indicated they "disagree" or "strongly disagree". Of the 52 respondents to the statement "Students are provided with more choices in their learning", overwhelmingly 49 (94. 23%) indicated they "agree" or "strongly agree" to the statement. (See Table 11: Using iPads in the Classroom).

Table 11: Using iPads in the Classroom

When use iPads in the classroom					
Answer Options	**Strongly agree**	**Agree**	**Disagree**	**Strongly Disagree**	**Response Count**
Students are more motivated.	55.36% 31	42.86% 24	1.79% 1	0% 0	56
Students are more collaborative.	27.78% 15	48.15% 26	24.07% 13	0% 0	54
Students exhibit good behavior in the classroom.	30.19% 16	58.49% 31	11.32% 6	0% 0	53
Students learn and perform better.	20.75% 11	58.49% 31	20.75% 11	0% 0	53
Students' learning is increased.	25.93% 14	61.11% 33	12.96% 7	0% 0	54
Students are allowed to explore independently.	32.08% 17	49.06% 26	18.87% 10	0% 0	53
Students are more engaged.	48.15% 26	44.44% 24	7.41% 4	0% 0	54
The classroom is more organized.	13.73% 7	39.22% 20	45.10% 23	1.96% 1	51
Learning is more enjoyable.	30.19% 16	50.94% 27	18.87% 10	0% 0	53
The teacher is more effective.	15.38% 8	48.08% 25	32.69% 17	3.85% 2	52
Students seem more willing to do their work in the classroom.	29.09% 16	54.55% 30	14.55% 8	1.82% 1	55
Reading and writing skills are more supported.	19.23% 10	53.85% 28	25% 13	1.92% 1	52
Reading skills improve.	17.02% 8	57.45% 27	23.40% 11	2.13% 1	47
Writing skills improve.	12.50% 6	33.33% 16	47.92% 23	6.25% 3	48
Students score higher on assessments (State, District).	18.18% 8	36.36% 16	43.18% 19	2.27% 1	44
Students are provided with more choices in their learning.	26.92% 14	67.31% 35	3.85% 2	1.92% 1	52
Answered question					**56**
Skipped question					**25**

The sixth section of the survey regarded the teacher's beliefs about using iPads in the classroom. Amazingly, when the two indicators "strongly agree" and "agree" were combined, of the 64 respondents, 63 (98. 44%) of the participants believed that iPads are a good tool for learning. Furthermore, of the 59 respondents, nearly more than half of the participants, 34 (57%), believed that iPads will displace textbooks, while 25 (42%), believed that iPads will not displace textbooks.

Additionally, of the 55 respondents, 38 (69%), believed that iPads improved their teaching skills, while 17 (30%) of the respondents did not think iPads improved their teaching ability. Amazingly, 51 (87%) of the 58 respondents, believed that iPads help hold students' attention during class. Of 56 respondents, 40 (71%) believed that iPads have changed students' attitude toward learning. Forty-three (74%), of the 58 respondents, believed that iPads helped students to collaborate. Forty-four (83%) of 53 respondents believed that iPad has affected students' achievement at school positively. Forty-four (81%) of the 54 respondents believed that student behaviors are not difficult to manage when using iPads in the classroom.

When asked about the cost of supplying iPads, 45, (78%) of 57 respondents, believed the cost of supplying iPads, for all students is prohibitive. Of the 60 respondents, 49 (81%), believed that they need more professional development to use iPads in the classroom. A total of 61 respondents, 36 (59%), believed they need more reliable internet access to effectively use iPads in the classroom. (See Table 11: Teacher's Belief in iPads)

Table 12: Teacher's Belief

I Believe...					
Answer Options	Strongly Agree	Agree	Strongly Disagree	Disagree	Response Count
iPads are good tool for learning.	39.06% 25	59.38% 38	0% 0	1.56% 1	64
iPads encourage more whole group participation.	31.58% 18	40.35% 23	5.26% 3	22.81% 13	57
iPads will displace text books.	15.25% 9	42.37% 25	10.17% 6	32.20% 19	59
iPads improve my teaching skills.	16.36% 9	52.73% 29	12.73% 7	18.18% 10	55
iPads help hold the attention of class.	22.41% 13	65.52% 38	1.72% 1	10.34% 6	58
iPads have changed students' attitudes toward learning.	17.86% 10	53.57% 30	10.71% 6	17.86% 10	56
Students are distracted by iPads.	10.71% 6	37.50% 21	16.07% 9	35.71% 20	56
The iPad is a good tool to help students collaborate.	20.69% 12	53.45% 31	6.90% 4	18.97% 11	58
The iPad has affected students' achievement at school positively.	16.98% 9	66.04% 35	5.66% 3	11.32% 6	53
The cost of supplying iPads, for all students is prohibitive.	29.82% 17	49.12% 28	8.77% 5	12.28% 7	57
I need more professional development to use iPads in the classroom.	29.82% 17	49.12% 28	8.77% 5	12.28% 7	60
Students' behaviors are difficult to manage when using iPads in the classroom.	1.85% 1	16.67% 9	37.04% 20	44.44% 24	54
More reliable internet access is needed to effectively use iPads in the classroom.	26.23% 16	32.79% 20	13.11% 8	27.87% 17	61
Answered question					65
Skipped question					16

Summary

The analysis of the data found that half of the teachers have experience in the use of iPads in the classroom. However, there was a low percentage of participants who never have used an iPad in their life. Interestingly, many of participants believed implementing iPads in classroom has a positive effect on a teacher's skills as well as on student learning. In fact, many of teachers are willing to integrate iPads in their classroom.

The data resulted with a majority of the respondents believing that implementing iPads in the elementary school students will help improve students' reading skills. However, many teachers believed that iPads will not improve a student's writing skills.

Also, the numbers of teachers who consider iPad apps as a good tool for learning are high. Indeed, the majority of the respondents believed iPad apps make students more motivated, more collaborative and more engaged. In addition, teachers agree that students who use iPads in the classroom learned and performed better, exhibited good behaviors, explored the information independently as well were more willing to do their work.

Many teachers indicated that using iPad apps in the classroom provided students further choices in their learning, increased students' knowledge and their learning become more enjoyable and interesting.

The majority of teacher respondents believed iPads apps improved their teaching skills, encouraged more whole class participation, changed students' attitudes toward learning, affected students' achievement at school positively, and held the attention of class and teachers could manage students easily in the classroom. In addition, some teachers believed that iPads will eventually displace text books.

The data results showed the cost of supplying iPads for all students in the schools is prohibitive. As well, iPad apps need more professional development as well as more reliable Internet access to implement effectively.

There is a wide array of iPad apps available for use in the K-6 environment. A majority of respondents indicated an assortment of personal preferences. This highlights two areas of the future research: the criteria used for choosing apps, and if schools and districts have guidelines for app choice selection.

CHAPTER 5

Conclusions and Recommendations

This chapter consists of two sections; the first section contains the results and the findings of the survey on implementing iPads for elementary language arts students. This section answers the five research questions. First, teachers have used many apps effectively in the classroom. Second, teachers stated that iPad apps support students in reading and writing skills. Third, teachers believe there are benefits and advantages to using iPad apps in the classroom. Fourth, teachers agree there are challenges that they face when using iPads apps in the classroom. The second section contains recommendations for future studies about using iPads apps for elementary schools students.

Research Question 1: What apps are used effectively in the classroom?

The research data found there are countless numbers of apps for the iPad in different subject areas which are appropriate and effective for learning and teaching. These apps are available for students of all ages and grades. Any person could find the right apps that support his or her education.

iPads apps cover different subjects. There are more language arts apps than the other subject areas. Indeed, about 50% of apps are based on national education standards (Watlington, 2011). iPad apps have a good impact on the method of learning and teaching for both students and teachers.

Teachers in the survey wrote names of the favorite apps that they have used in their instruction. The data found there were several apps that assist educators to improve

their skills of teaching. One of the effective apps in the classroom that wrote in the survey was Starfall apps; many teachers used this app in their instruction. The second app that had a high rating was Educreations, which allows teachers to make their lesson plan match with Common Core State Standards.

Research Question 2: How are iPads used in the classroom to support writing and reading skills?

Elementary school iPad apps provide teachers significant teaching approaches to teach students how to read, write and speak correctly. Teachers in this research believed students are improving their reading skills through using iPad apps because iPad apps contain images, photos, audios, voices, and much more. These features allow students to learn in a comprehensive way. In addition, many apps have different reading levels which allow students to easily know their level and let them to transition to the appropriate level.

There are apps that assist for students in kindergarten and first grade by teaching them the sound of the letters and words. Furthermore, iPad apps teach students to pronounce letters correctly. These apps make students in the early ages learn phonics as well as pronounce words in an easy, simple and fun way.

iPad apps improve writing skill for students because many writing apps assist students with organization in their writing which helps them to write in the way that makes sense for them. Also, iPad apps allow students to create their own walls that have different images and pictures. What makes iPad apps more helpful for students are the different tools students can use; students can change the colors, fonts, and many more.

In addition, students in grades K-6 enjoy playing games. Thus, iPad apps makes games more useful and helpful because there are many educational games apps those students can choose and play while they are learning. Moreover, the variety of iPad apps allows teachers to know the strengths and weaknesses of their students as well as facilitates the improvement of those strengths and weaknesses.

With the dawn of the new Common Core State Standards, many apps have been developed to assist teachers to help in the instruction of their students' learning. The usages of iPads apps provide a chance for teachers to use these apps effectively to improve students' learning and increased as well (Cohen, 2012)

Research Questions 3: What are the benefits of using iPads in the classroom?

The majority of teachers in the survey have a similar perspective of the huge benefits that iPad apps can made in the classroom for students and teachers as well. They think iPads apps improved and changed their method of teaching and make their teaching style more useful and successful as well.

Indeed, the iPad itself has a significant benefit; which is the ease of carrying and using it. Shepherd and Reeves (2011) observed "A benefit of the iPad is its mobility (easy to carry) and functionality (music, video, calendars, pictures, and games) all of which encourage constant companionship with the user" (p. 4). This benefit is wonderful for students at young ages that are hard for them to carry heavy materials; the platform of iPads for eBooks and apps allow students to dispense carrying a heavy book or notebooks around them.

The size and the screen of iPads make it appealing for students in K-6 which encourages them to explore this tool and that allow students to learn from instruction in a

different way. In other words, iPads have changed the environment of learning because the format of iPads such as the light weight, the large screen, feature touch, and diverse functions makes the learning practical for students and teachers (Shepherd & Reeves, 2011). Miller (2012) said "the activity with the iPads allowed students to improve skills with the added benefit of teaching information seeking in a mobile environment" (p. 57).

Students via using iPads could know their weaknesses and strengths (i.e., their instructional levels); iPads apps have a verity of application which allows students using the appropriate educational apps to learn and improve their weakness. That alone is a key advantage of iPads apps which takes into account individual differences.

Also, many teachers in the survey indicated that using iPads in the classroom makes students more motivated and engaged toward learning; which results in a more hands-on and interesting environment. Allowing students this type of environment is important for learning, especially for students at young ages. In addition, participants in the survey indicated that using iPads makes the classroom more organized Miller (2012) noted that "The benefit of using the iPad is that it offers a unique way to organize thoughts and connect ideas and concepts" (p. 57)

Research Questions 4: What are the challenges of using iPads in the classroom?

Applying new technology in any field will be a challenge because it is people do not know the best way of use this technology. In general, the iPad is considered a new technology tool specifically in education. However, schools and teachers will face several challenges when they implement iPads in their schools. One of these challenges is managing the devices, which needs specialized technicians to help and manage these

devices. Another challenge that schools face is teachers cannot control iTunes accounts in iPads for students; it is hard to manage and control (Ribich, 2014).

Also, in the survey, participants indicated of some challenges one of which is the expensive cost of supplying iPads for each student in the school. Furthermore, teachers need to train students to use iPad appropriately in the in the class.

What was notable to me was the finding in the survey is that many teachers are ready to change their educational environments. They want to use the new technologies for students even though they faced some challenges. Three teachers in the survey indicated that they used their own personal iPads for their students in the classroom to make the educational environment more effective.

Recommendations

This was an initial study on a teacher's perceptions of the use of iPads in the classroom. More research is needed on students' and parents' perceptions about using iPads in the classroom. In addition, the effectiveness of the development of skills and concepts for students when they used iPads in the classroom needs to be studied. That is, more research is needed of the positive academic effects of using iPads in the classroom. This will allow teachers to integrate researched criteria and evidence-based practices while implementing iPads in the classrooms.

If iPads are becoming the new textbook, research on in instructional strategies and assessment would be useful. This would help teachers be more intentional with the implementation of iPads both for teaching and assessing.

Also it would be beneficial if the long-range effects on social skills were examined more thoroughly. If iPads do become more common in classrooms, will the

reliance on this technology cause students to lose the important skills of communicating and interacting with people? As the iPad becomes more commonplace and implementation is delved into more, it will become clearer of the immediate and long-term effects of iPad use.

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Appendix A

IRB Approved

EASTERN WASHINGTON UNIVERSITY

start something **big**

Office of Grant & Research Development
210 Showalter Hall, Cheney, WA 99004-2444
509-359-6567

TO: Hanan Alkhamis, Department of Education

FROM: Ruth A. Galm, EWU Human Protections Administrator

DATE: July 19, 2013

SUBJECT: A Survey of the Implementation of iPads and Apps for Elementary
Language Arts Students (HS-4331)

Human subjects protocol HS-4331 entitled "A Survey of the Implementation of iPads and
Apps for Elementary Language Arts Students" has been approved as an exemption from
federal regulations under CFR Title 45, Part 46.101(b)(1-6).

Student research qualifying for an exempt IRB review is valid for a period of one year. If
subsequent to initial approval, the research protocol requires minor changes, the Office of
Grant and Research Development should be notified of those changes. Any major
departure from the original proposal must be reviewed through a Change of Protocol
application submitted to the IRB before the protocol may be altered. Please refer to HS-
4331 on future correspondence as appropriate as we file everything under this number.

Cc: HS-4331 file
      Dr. Tara Haskins, RPI
      Graduate Office

**Institutional Review Board
for Human Subjects Research**

Application for Exemption

Return original and two copies to: Grants Office, 210 Showalter

Principal Investigator/Title/Department /Address/Phone/email	Responsible Project Investigator/Department/Phone/email
Hanan I Alkhamis/Education. 1090 W Betz rd. Apt# 1525 Cheney, WA 99004 (415) 230-9859 Hanan.alkhamis@eagles ewu edu	(faculty or staff supervisor required if PI is a student) Tara Haskins Department of Education 359-2879 thaskins@ewu.edu

Title of Project
  A Survey of the Implementation of iPads and Apps for Elementary Language Arts Students

For students only: Is this research being done to meet a course, thesis or other academic requirement? (please specify)
If not, why is it being done?
Yes, this research is being done to meet thesis.

Project anticipated starting date September, 2013	Anticipated termination date March, 2014

Funding: Non-funded X   Internal funding   External funding
Funding status: proposal in preparation____pending agency decision____ funded____
Funding Agency (if applicable):   Grant or Contract Number:

Check the type of exemption applicable to the project
1.___X____ 2._____ 3._____ 4._____ 5._____ 6._____ None_____
Why should this project be considered exempt?

This study entails research by way of a survey on the teacher perceptions of the effectiveness of the use of iPads as instructional techniques and curricula in elementary classrooms.

Please state the purpose and methodology of the research:

  The purpose of the study is to determine how students' learning can be enhanced and

activated through technology application specifically the iPad. It is assumed that participants in

the study will report an increase in academic learning experiences with iPad usage. The focus

on previous surveys have been weighted for math and science students but the focus of this

study will be to investigate how iPad can increase Language Arts skills and knowledge.

rev. 5/31/06

Describe the procedures: what specifically will subjects do? If data are anonymous, describe the data gathering procedure for insuring anonymity.

This study is a quantitative (descriptive) research study which entails the use of a survey (see attached survey) focuses on the use of iPads for the teaching of language arts content in elementary schools in the state of Washington.

The Principal Investigator and Responsible Project Investigator will contact superintendents via email from all school districts in the Washington State and ask consent to administer the survey to district teachers (see attached statement to superintendents). Once consent is granted the Principal Investigator and Responsible Project Investigator will email elementary school principals (from those districts with consent) asking the principals if they would forward the email with survey link to their teachers (see attached statement to superintendents, principals and teachers). Also consent is included in the message ("By your taking the survey you consent to the use of your responses in this study.")

In the email will be a link to Survey Monkey. Once teachers respond, data will be compiled and analyzed by the Principal Investigator.

All data will be collected via Survey Monkey and will be anonymous with no way to identify participants.

Attach all surveys, questionnaires, cover letters, information sheets, etc. (including required IRB contact information (see instructions)

The information provided above is accurate and the project will be conducted in accordance with applicable Federal, State and University regulations and ethical standards

Signature, Principal Investigator(s)_____ Date__7/11/13____

Recommendations and Action   Date   Approve/Disapprove

Faculty Sponsor (for student)___*Sara Hashem*____ 7/11/13 ___*Approve*___

Dept IRB Representative or Dept Chair_____ _____ _____

Institutional Review Board___*Ruth C. Galm*___ 7/19/13 ___*approve*___

Conditions:_____*none*_____ Approved from _7/19/13_ To __7/18/14__

rev. 5/31/06

Appendix B

Survey

Implementing iPads and Apps for Elementary Language Arts Students

Welcome and thank you for participating of this survey.

1. **What grade(s) do you teach?**
   - o K
   - o 1
   - o 2
   - o 3
   - o 4
   - o 5
   - o 6

2. **Which subject(s) do you teach?**
   - o Math.
   - o Science.
   - o Language Arts.
   - o Social Studies.
   - o Music.
   - o Arts.
   - o PE Arts.
   - o Computers.
   - o Other (please specify) (   )
   - o

3. **How many students in your classroom?**
   - o 1-10
   - o 11-15
   - o 16-20
   - o 21-25
   - o 26-30
   - o 30-35
   - o 35+

4. **Are you**
   - o Male.
   - o Female.

5. **How long have you been teaching?**

- o 1-3 years.
- o 4-6 years.
- o 7-10 years
- o 11-15 years.
- o 16-25 years.
- o 26+ years

6. **In what setting would you consider your school to be?**
   - o Rural.
   - o Urban.
   - o Suburban.
   - o Other (   )

7. **How many of the students in your school receive Free or Reduced Lunch services?**
   - o 0- 25%
   - o 26%- 50%
   - o 51%- 75%
   - o 66%- 100%

8. **Does your school have Internet access?**
   - o Yes.
   - o No.

9. **Does your school have wireless Internet access (wi-fi)?**
   - o Yes.
   - o No

10. **Can your students access the Internet in your classroom?**
    - o Yes.
    - o No.
    - o No Internet Access.

11. **Do you use technology in your teaching?**
    - o Yes.
    - o No.

12. What kind of technology do you employ while you teach?
- o   Computer.
- o   Elmo projector.
- o   Smart board.
- o   Projector.
- o   TV.
- o   DVD player
- o   Camera
- o   Digital video
- o   Other. (   )

13. What kind of technology do you have your students use for learning?
- o   Computer.
- o   Elmo projector.
- o   Smart board.
- o   Projector.
- o   TV.
- o   DVD player
- o   Camera
- o   Digital video
- o   Other. (   )

14. Have you used an iPad?
- o   Yes.
- o   No.

15. Do you own an iPad for your personal use?
- o   Yes.
- o   No.

16. Have you used an iPad in your classroom with your students?
- o   Yes
- o   No

17. If so, how many iPads do you have access for use by your students?
  (   ).

18. Do you like using iPads in the classroom?
- o   Yes.
- o   No

19. How confident are you with using an iPad?
- o Very confident.
- o Somewhat confident.
- o Confident.
- o Not very confident.

20. What are your favorite apps to use in your classroom/school? (please type in)

21. What percentage of students do you think or know have access to an iPad at home?
- o 0- 25%
- o 26%- 50%
- o 51%- 75%
- o 66%- 100%

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
22) When Using iPad in the Classroom				
Students are more motivated.				
Students are more collaborative				
Students exhibit good behavior in the classroom.				
Students learn and perform better.				
A student learning is increased.				
Students are allowed to explore independently.				
Students are more engaged.				
The classroom is more organized.				
Learning is more enjoyable.				
The teacher is more effective.				
Students seem more willing to do their work in the classroom.				
Reading skills and writing skills are more supported.				
Reading skills are improved.				
Writing skills are improved.				
Students score higher on assessments (State, District).				
Students are provided with a choice in their learning.				

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
23) I believe….				
iPads are good tool for learning.				
iPads encourage more whole group to participation.				
iPads will displace text books.				
iPads improve my teaching skills.				
iPads help hold the attention of class.				
iPads have changed students' attitudes toward learning.				
Students are a distracted by iPads.				
The iPad is a good tool to help students collaborate.				
The iPad has affected students' achievement at school positively.				
The cost of supplying iPad, for all students is prohibitive.				
I need more professional development to use iPads in the classroom..				
Students behaviors are difficult to manage when using iPads in the classroom.				
More reliable internet access is needed to effectively use iPads in the classroom.				

Appendix C

LETTER TO SUPERINTENDENTS

Dear Superintendent,

My name is Hanan Alkhamis. I am a graduate student working toward a Master's degree

in Instructional Media and Technology at Eastern Washington University. My thesis is

focused on *Implementing iPads and Apps for Elementary Language Arts Students*. I am

conducting a survey that will take 5-10 minutes to take. I would like to seek permission

to email the following message to principals at your elementary schools asking them to

forward it to their teachers. Would you be willing to consent to my asking your

principals, and teachers, to be a part of my research study?

Thank you so much for your consideration as this will help me complete my thesis.

Sincerely,

Hanan Alkhamis, Graduate Student
 Department of Education
Eastern Washington University

Tara Haskins, Ph.D., Advisor
Department of Education
Eastern Washington University

Appendix D

LETTER TO PRINCIPALS

Dear Principal,

My name is Hanan Alkhamis. I am a graduate student working toward a Master's degree

in Instructional Media and Technology at Eastern Washington University. My thesis is

focused on *Implementing iPads and Apps for Elementary Language Arts Students*. I am

conducting a survey that I would like teachers in your school to take. The survey will

take 5-10 minutes of their time. I have received permission from your district office to

administer this survey. Would you be willing to forward the following message to

teachers in your school?

Thank you so much for your consideration as this will help me complete my thesis.

Sincerely,

Hanan Alkhamis, Graduate Student
 Department of Education
Eastern Washington University

Tara Haskins, Ph.D., Advisor
Department of Education
Eastern Washington University

Appendix E

LETTER TO TEACHERS

Dear Teacher,

My name is Hanan Alkhamis. I am a graduate student working toward a Master's degree in Instructional Media and Technology at Eastern Washington University. My thesis is focused on *Implementing iPads and Apps for Elementary Language Arts Students*. I am conducting a survey that will take 5-10 minutes of your time. The survey is completely anonymous at no time will you be identified. No harm or risk should be involved by your taking this survey. Also, you can stop taking the survey at any time. By your taking the survey you consent to the use of your responses in this study.

You will find the survey at the following link.

https://www.surveymonkey.com/s/52M299G

Thank you so much for your time.

Sincerely,

Hanan Alkhamis, Graduate Student
 Department of Education
Eastern Washington University

Tara Haskins, Ph.D., Advisor
Department of Education
Eastern Washington University

VITA

Author: Hanan Ibrahim Alkhamis

Place of Birth: Riyadh, Saudi Arabia

Undergraduate Schools Attended: Princess Nora University.

Graduate School Attended: Eastern Washington University.

Degrees Awarded: Bachelor's of Arts and Education , 2004, Princess Nora

University.

Master of Education, Eastern Washington University, 2014

Honors and Awards: King Abdullah scholarship to the United State 2010-2014

Professional Experience: A responsible for the distribution of products, Foundation

of Grass World, 2008 -2010

Teaching high school, Riyadh, Saudi Arabia, 2005