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**THE EFFECTS ON USING IPADS IN TEACHING SIGHT WORDS TO
ENGLISH LANGUAGE LEARNERS**

by
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A Thesis

Submitted to the
Department of Language, Literacy, and Special Education
College of Education

In partial fulfillment of the requirement

For the degree of
Master of Arts

at
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Thesis Chair: Dr. Joy Xin, Ed.D

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Dedication

I would like to dedicate this manuscript to my family , friends, and students.

Acknowledgements

I would like to express my appreciation to to Drs. Joy Xin and Jiyeon Lee for their guidance and support throughout this research. I would also like to acknowledge the Gloucester Township Public School District for allowing me to conduct research with my students. Additionally, I would like to recognize my students who participated in this study.

ABSTRACT

Samantha Funaro

THE EFFECTS ON USING IPADS IN TEACHING SIGHT WORDS TO ENGLISH
LANGUAGE LEARNERS

2013/14

Joy Xin, Ed.D

Master of Arts in Special Education

The purpose of this research was to (a) examine the effects of using iPad technology to teach high frequency Dolch sight words, in terms of identification and application, to beginner English language learners (ELLs), and (b) evaluate satisfaction and motivation among participants in the use of iPads in sight word acquisition. The participants consisted of two fourth grade and one third grade English as a second language students (ESLs). A multiple baseline single subject design with AB phases was used. During the baseline, each participant's performance was assessed using flashcards and cloze sentences. Their scores were recorded. During the intervention, each student was taught the sight word categories using the *Pixopop Sight Word and Spelling* app. The results showed that each student increased scores in both word identification and application when using the iPad app. Using handheld technology devices, such as iPads, is discussed and recommended to teach ELLs.

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Chapter I

Introduction

1.1 Statement of Problems

Vocabulary development is an important language skill in reading and writing. The ability to understand and apply words in academics subjects rely largely on how well vocabulary skills develop over time. Within the realm of language learning, vocabulary lies smaller skills that add up to form a successful reading experience. Among the skills of vocabulary development, reading fluency, and word decoding the acquisition of high frequency vocabulary is the most important.

High frequency words refer to the English vocabulary most frequently used in reading and writing. According to the Houghton Mifflin Publishing Company (1997) approximately 1,000 words of this type of vocabulary are presented in our daily lives. For example, *I*, *and*, and *the* can account for 10% of all words in printed English. These words give students a basic context for figuring out other words. Once they recognize *the*, they can predict with amazing accuracy what the next word will be. Knowing and recognizing these words aid young readers when learning to become better fluent readers. Practicing and memorizing these words will help a child's reading fluency and to understand the meaning of the written text, thus encourage his or her interests in reading activities to achieve success in learning language and other subjects involving reading. Recognition of high frequency words is imperative in the reading process, and critical to developing fluency in reading.

English language learners (ELL's) or English as a Second Language (ESL) students are those who do not speak English as their primary language and are in the process of learning English. Most of these students were not born in the United States and not exposed to an English speaking environment (Robinson, Keogh, & Kosuma-Powell, 2013). Attending American schools for the first time is a large hurdle for these students to overcome and, teachers need to be aware of their characteristics. They are considered "pure type" EL as described by Robinson, Keogh, & Kosuma-Powell (2013) these students may remain silent in class as they adjust to a new school, environment, and culture" These students frequently struggle with culture shock, which is, according to Wikipedia (2013), the personal disorientation a person may feel when experiencing an unfamiliar way of life due to immigration or a visit to a new country, a move between social environments, or simply travel to another type of life. These newcomers may also go through a silent period that can last a few days or several months or a year during which they often experience some discomfort in the new environment (Robinson, Keogh, & Kosuma-Powell, 2013). Although these students may be timid and not as outgoing as teachers expect, they do typically soak up much of the English they are exposed to from their peers and teachers; however, it may take longer for these newcomers to feel confident enough to apply the language in their school.

Along with "pure type" ELL students, there are English learners who were born in the United States but to parents who speak no English. These students tend to learn English more quickly because they do not have to deal with such advanced culture shock and they more than likely have English speaking friends. They have a great advantage if

they are exposed to the language in and outside of school as they make friends to foster their English development more rapidly (Robinson, Keogh, & Kosuma-Powell, 2013). In addition to “pure type” ELL’s and second language learners who were born in the United States, there is also another type of second language learners. This third type of student is one who has not received adequate schooling in their home country in their home language; thus, arriving in America illiterate in their own language while being expected to learn English. Educating these types of students can be the most difficult because they lack a background in phonemes, phonemic awareness, or writing in their own language. As indicated by Robinson, Keogh, and Kosuma-Powell (2013) these students who have not established adequate competence in their primary language, and may continue to have difficulty with developing fully a second language, despite sustained exposure to the target language. Difficulties in vocabulary development and syntax, impoverished or immature writing, and difficulty keeping up and participating in class may all be the symptoms of an earlier lack of competence in a first language.

Regardless of what type of characteristics an ESL student falls into, learning and comprehending English is a challenge and the number of these students is growing in public schools. According to Douglass Horsford, & Sampson (2013) nearly one in every ten public school students (roughly 4.5 million of 50 million total students) were classified as English language learners (ELL’s) during the 2010-2011 school year. As stated by Wikipedia (2013) as of 2009, the approximate number of people living in America that spoke a language that was not English was around 57 million. Among those people, about 4.7 million were school age children enrolled in either a bilingual or

English a Second Language program at their attending school because they are not proficient in English (Armario, 2009). As the number of children coming into this country who speak another language rises, the need to know how to teach them English literacy becomes imperative.

It is important for ESL students to develop adequate vocabulary to succeed. According to Bancroft (2004), there are three important factors impacting on second language acquisition: (1) the relationship between vocabulary and the learner's ability to communicate; (2) the learner's perceptions about the importance of vocabulary development; and (3) the critical role of vocabulary knowledge in the development of grammatical competence.

Lack of grammatical knowledge may impede successful transmission of meaning, while vocabulary words often impede the transmission of meaning in reading. For example, if one tries to request something with incorrect grammatical structure, others may understand what the person is trying to say. If the same person requests something without appropriate vocabulary usage, it can be more difficult for people to understand what the person is talking about (Bancroft, 2004).

Most ELL students are interested in learning vocabulary and how to apply it in their daily communication. One of the pressures a second language learner faces is to figure out how to fit in with their new culture and society. A lack of vocabulary will reveal to others that they may not be as competent or understood as others who are fluent speakers in that community, thus, impeding on their transition to a new environment.

With respect to how vocabulary acquisition and grammar knowledge is learned it is suggested that, "...the ability to use language correctly and fluently, with regard to what one knows to be "grammatical" in nature, depends on processing individual words and combinations of words repeatedly over long periods of time" (Bancroft, 2004, p201) For example, Healy and Sherrod (1994) demonstrated that English speakers' ability to pronounce the word "the" using the "th" phoneme before consonant sounds (the book, the front) and the phoneme /i/ before vowel sounds (the author, the inside) is based on knowledge at the level of words and connections between words that is built up over time (Bancroft, 2004).

The importance of an ELL acquiring the appropriate and necessary amount of vocabulary is a significant element in the schooling. There are some ways to teach an ESL student high frequency vocabulary. Some educators depend on an English students' surroundings and peers to help them acquire vocabulary. Read (2004) noted that in studies on second language vocabulary learning, a distinction had long been made between incidental and intentional learning, with the main focus on the former, especially exploring the extent to which students can learn vocabulary items incidentally while engaging in other language learning activities. Intentional learning refers to teaching a lesson with a specific objective. For example, besides using immersion as a incidental vocabulary acquisition method, exercising the use of intentional text-based tasks can also aide in learning vocabulary. It would be effective for teachers to provide students with target vocabulary items through tasks, as well as to ask them to read only the texts that include the target words. For example, students can read and retell a text generatively

with their own words (Nam, 2010). Using this method, if students read a word in which they do not know its meaning, they can use a picture dictionary or different verbal cues to find out; however, that may be more difficult for high frequency vocabulary.

According to PBS Learning Media (2013), the usage of technology in the classroom has grown considerably in the past decade. It was found that 74% of teachers agreed that educational technology is a student-motivator to reinforce and expand content and motivate students to learn (Larson, 2013) Also, 69% of educators agreed that technology does much more than ever before for their students and 65% stated that technology can demonstrate something “I can’t show in any other way.” It was also shown that, more than one-third of teachers used an e-reader in their classroom, which was much higher than those in the previous year. If technology can be used with all students, these should include ESL students (Larson, 2013).

The iPad is a relatively new technology being used in schools; however, it is growing in popularity all around the world. According to EmergingEdTech (2012), a school in Kent, England proposed a survey in which a school was supplied with iPads to accompany instruction. The outcomes of the study clearly demonstrate the value of the iPad as an educational tool. The various uses of the iPad at the school ranged from “reading course materials” to “using subject related Apps” (Walsh, 2012). iPads were used in a college course too. It was found that 75 % of students indicated that the iPad was helpful for sharing information with others in class (Pepperdine University, 2013). It seems that the iPad has the capacity to be a communication, productivity, and gaming device in one convenient mobile platform” (Pepperdine University, 2013). Thus iPads

can benefit students in learning; however, little research has been conducted for ELLs in vocabulary acquisition.

The goal of this study is to add to the repertoire of the above vocabulary acquisition methods to examine if using iPads can support ELLs.

1.2 Significance of the Study

Technology changes rapidly over time in the area of education. Smartboards, Mimios, document cameras, and other devices have infiltrated our school systems to help students learn in different ways. Among those students, English as a second language learners especially need support in learning English. The use of an iPad may give them a new avenue to learn high frequency vocabulary words. Reviewing previous research, few studies were found in the area of vocabulary instruction using iPads for these students. This study is designed to examine the effects on using iPad applications for newcomer, 'pure type' ESL students to recognize, retain, and apply high frequency words. It attempts to promote vocabulary instruction and improve ELL students' scores in identification and application of high frequency vocabulary using iPad applications.

1.3 Statement of Purpose

The purposes of this study are to: (a) examine the effects on using iPad technology in teaching high frequency vocabulary words for ELLs, specifically student performance in vocabulary identification and applications and (b) evaluate their satisfaction with the use of iPads in their vocabulary learning

1.4 Research Questions

1. Will ELL students increase their scores of vocabulary identification tests when vocabulary instruction is provided with iPads?
2. Will ELL students increase their scores of vocabulary application tests when vocabulary instruction is provided with iPads?
3. Will ELL students be satisfied in learning vocabulary with iPads?

Chapter II

Review of Literature

Vocabulary acquisition is one of the largest elements in reading success. There are two types of vocabulary a student must acquire in order to become a successful reader: content and high frequency. Content vocabulary refers to words that have a specific meaning. These words can act as nouns, verbs, adjectives, or adverbs. High frequency words do not carry a specific meaning but occur the most in the English language (Houghton Mifflin Publishing Company, 2013).

While it is imperative to retain both types of vocabulary to become a fluent reader, students often begin their vocabulary acquisition by learning high frequency words. Students can be exposed to and retain this type of vocabulary by emphasizing the spelling of the words, and using words in writing letters, crossword puzzles, and playing word games with peers (Ediger, 1999). According to Evans and Saint-Aubin (2013), younger students can be taught high frequency vocabulary through the execution of whole group read alouds and matching the text to pictures.

For English language learners, acquiring vocabulary is needed to become fluent in English. Identifying and applying high frequency vocabulary are the building blocks to lead an ELL to learn how to read and write in English.

There are many ways in which a teacher can present vocabulary to their students. This chapter focuses on the importance of vocabulary acquisition, vocabulary acquisition of ELLs, vocabulary learning strategies among ELL, and the use of technology.

2.1 Importance of Vocabulary Development

Vocabulary development is an important building block in all academics and in communication. According to Ediger (1999), a rich vocabulary can allow a person to express himself clearly and correctly, show proficiency when moving into the working world, be regarded more highly among peers, enjoy reading, improve problem solving, have an easier time expressing his or her personality, and produce high quality of conversation with others.

Acquiring adequate vocabulary knowledge in school may be one of the most important skills. Vocabulary attainment covers the four domains of language learning: listening, reading, speaking, and writing. As a result, a large meaningful vocabulary is beneficial as students journey through their school careers. In school, teachers can determine which children are getting the appropriate amount of vocabulary exposure at home and at school by simply starting a conversation or asking questions to check for understanding. Knowledge of a wide vocabulary is also evident in a students' grades. Vocabulary usage and exposure is important in not only language arts literacy, but also in other areas of academics requiring reading such as social studies, science, and mathematics, low grades in these subjects could be a result of poor vocabulary skills.

The action of learning vocabulary stresses that students are actively engaging in learning in general (Ediger, 1999). New vocabulary acquisition relays largely on investigating and inquiry on the students, and in doing this, the student is finding a purpose in learning whatever subject matter presents. This way of thinking coupled with the clear benefits of adequate and appropriate vocabulary attainment shows how vital a

skill of vocabulary acquisition is to student academic and social well being. A lack of these skills will harbor difficulties in reading comprehension and communication; thus, creating obstacles in other academic areas and socialization.

In terms of reading, comprehension relies largely on a student's vocabulary development (Ediger, 2013). A student cannot understand what is being read if he or she does not have the vocabulary to support comprehension. Vocabulary development allows a student to better comprehend what he or she is reading, and a student lacking comprehension skills would hinder their vocabulary knowledge. The more that a person reads, the more vocabulary acquisition he or she will gain, thus nurturing stronger reading comprehension skills (Cohen, Johnson, 2010).

Reading encompasses not only required skills in learning literacy, but also in other subjects such as science and social studies. Those subjects especially rely on the reader to understand new vocabulary and comprehend the reading text. According to Cohen and Johnson (2010), vocabulary and reading comprehension are dependent on each other. A student who has difficulty with comprehension more than likely has a difficulty with acquiring new vocabulary. It is important to know that teachers play a large role in closing the gap between vocabulary development and reading comprehension to produce successful readers.

Exposure to new vocabulary does not begin in school. Rather, it commences at home and is recommended as early as possible in a child's life. The earlier a child begins to be read to and participate in reading activities with parents at home, the more likely that child will have a wider range of vocabulary. Younger children can learn new

vocabulary with great speed; however, it depends on the amount and quality of words they are exposed to (Christ & Wang, 2012). Having students with adequate background knowledge would make introducing new vocabulary and concepts much easier; however, that is almost never the case. A teacher may have students that have never been to school, come from disadvantaged backgrounds, such as a low socio-economic status household, have speech and language difficulties, or English language learners who may not be able to articulate as well as native English speakers (Christ & Wang, 2012). Vocabulary acquisition is a greater necessity for students in those categories, because it may be the only way they improve in all academic areas. School may be the only place these students get the opportunity to learn and engage in new vocabulary development and application. For a teacher to achieve the goal of providing background knowledge to all students, especially those who are disadvantaged, there are many strategies that can be used such as creating word walls, labeling items in the classroom, or using chants (Jasmine, 2009).

Acquiring vocabulary at a young age through early and frequent exposure to oral and written language is critical in a child's vocabulary development. The quality and quantity of the language shapes how a child will succeed in literacy based skills, which include the application and identification of high frequency words. Furthermore, this exposure also predetermines how one will communicate with others.

2.2 Characteristics of Vocabulary Acquisition of English Language Learners

In regards to vocabulary acquisition, one demographic that has some of the most complex characteristics and traits when it comes to application and retention is English

language learners (ELLs). Min (2013) describes the English language as having one of the largest vocabularies in the world. Most native English speakers know approximately 70,000 words, while non English speakers know less than a quarter of that (Min, 2013). Depending on what country and home language background a student is from, an ELL may have more difficulty applying the English alphabet due to the fact that English is complex in regards to grammar and spelling pattern. Depending on what home language the student learns, it may be more difficult to acquire new language rules (Wang & Koda, 2007). Also, a new comer ELL may or may not be coming into the new school setting being completely literate in their first language, and may not have had the opportunity to learn the native language in his or her home country (Trupke-Bastidas & Poulus, 2007). For a student to acquire vocabulary he or she must be able to read (Tran, 2006). In conjunction with the possible lack of literacy, ELLs also do not have enough background knowledge in their new country and language, which makes it more difficult for them to acquire new vocabulary (Llach & Gómez, 2007). With little background knowledge, ELLs are found to have limited breadth and depth of vocabulary in their second language (August, Carlo, Dressler, & Snow, 2005). In addition, the alphabet of the native language may not be similar to English. For example, students who come from Middle Eastern or Asian countries have difficulty in learning alphabet and sound correspondence that are produced with different consonant and vowel patterns.

Wang and Koda (2007) describe the English language as having letter-sound correspondences in some words but not in others. English possesses a trait of irregularity when it comes to words, which makes it more difficult for ELLs. For example the word

must is a regular word in that the *-ust* is always pronounced the same way with other words that rhyme with it, such as *just* and *dust*. On the other hand, the word *have* is irregular because words with a similar ending like *gave* or *cave* are not pronounced the same way (Wang & Koda, 2007). In their study, a comparison between Chinese and Korean ELLs was conducted. It was found that these ELLs were able to identify regularly spelled words more easily than words that had exceptional spellings. The regularity of the words' spellings affected the accuracy of identification, especially lower frequency words, which were more difficult to identify than the high frequency. When teaching an ELL basic English phonemes in order to build up to learning vocabulary, the alphabet usage and exceptions must be taken into consideration. This type of student tends to have more difficulty in reading, writing, and word acquisition due to the complexity of English (Wang & Koda, 2007).

Further, the amount of literacy an ELL has also plays a role in vocabulary acquisition. Depending on a student's home country background and education, the situation of teaching an illiterate child can be a daunting task. Trupke-Bastidas and Poulos (2007) explain literacy as using written information to be successful in society and in one's own personal life. This goal is essential when educating ELLs, especially with those who have no language background to begin with. This type of English learner needs to acquire basic phonics skills, such as the alphabet and matching letters up with the corresponding sounds. Obtaining phonemic awareness is the first step to apply and identify English vocabulary. Once phonemic awareness is mastered, lower level ELLs are required to develop decoding skills, which is the practice of sounding out words.

Thus, ELLs are required to recognize letters, identify and produce the sound of those letters, blend the sounds together, and recognize and read the word (Trupke-Bastidas & Poulos, 2007).

In addition to the academic characteristics associated with illiterate ELLs, self-esteem in regards to education also has to be taken into consideration. Naturally, students with high self-esteem do better academically, however, an illiterate ELL who comes into a new environment with no language background is the opposite. According to Kanafani (2011), ELLs have low task self-esteem and display various behavior problems such as rebelling, withdrawing, or failure to take responsibilities. These characteristics may be synonymous to illiterate ELLs, and would effect their language acquisition.

Another factor that should be considered is ELL's background knowledge in English. Students coming from Middle Eastern countries, for example, may not have been exposed to experiences that typical American students have been. Lack of background knowledge directly effects these students' learning (Llach & Gómez, 2007). Native English speakers already know 5-7,00 words before they begin formal reading instruction in school, while ELLs have few or none (August, Carlo, Dressler, & Snow, 2005). Umbel, Pearson, Ferandez, and Oller (1992) proved this idea by testing receptive vocabulary in English and Spanish with Hispanic students in Miami. The 105 first graders were divided by what they primarily speak at home: Spanish speaking only and Spanish and English speaking. They were required to participate in tasks that measured the child's understanding of words with multiple meanings. The first test was sentence judgement to determine if the provided sentences made sense. The second was to ask students to write

down as many meanings as they could for the words “*bug*,” “*ring*,” “*light*,” and “*hand*”. The results showed that the bilingual group performed one standard deviation better as their native Spanish speaking peers. This study shows that having a background knowledge in the home language and English is essential, and those who do not have the background knowledge know fewer English vocabulary words, and the meanings (August, Carlo, Dressler, and Snow, 2005).

In regards to this concept, it is also expressed that newcomer ELLs can more comfortably connect and identify with vocabulary that can be represented clearly to link with their background knowledge. For example, concrete vocabulary words represented by a picture or, an action or body language. Such as, the words *table*, *tree*, and *dog*. ELLs can more easily attempt to connect those words to their background knowledge from their first language or home country (Llach & Gómez, 2007). In contrast, introducing abstract vocabulary may not be in their best interest, especially for those newcomers. For example, presenting grammatical concepts to ELLs would prove to be confusing and too abstract.

In addition, knowing cognates, words that are similar in structure or sound in two languages, also plays a role in a newcomer ELL’s background knowledge. For example, the word *amoroso*, in Spanish, means loving. In English, the word *amorous* means the same (August, Carlo, Dressler, and Snow, 2005). If a Hispanic ELL reads this word in context, he or she will know what it means if background knowledge of the word in Spanish is present due to the phonological spelling. The word *obscure* in English means vague and uncertain and *oscuro* in Spanish means dark. While these words do not have

exact identical meanings, these are also considered cognates in that they sound similar (August, Carlo, Dressler, & Snow, 2005). Thus, if a Hispanic ELL reads *obscure* in a reading passage, he or she will make the connection that *obscure* may mean not clear or uncertain.

The amount of background knowledge a newcomer ELL possesses is a characteristic that can give a true baseline of how much vocabulary he or she has and how much he or she needs to learn. Knowing a student's personal experience helps teachers understand his or her vocabulary development and make better instructional decisions.

Learning a second language is more easily accomplished at a learner's early age. Kindergarten expressive vocabulary is a strong predictor of a child's reading ability and comprehension in his or her schooling and this is also true to an ELL (Negris, Jackson, Goldstein, 2010). Students who have a limited vocabulary in English at this age generally experience an exacerbation of vocabulary and reading difficulties once they step into the 1st grade (Negris, Jackson, & Goldstein, 2010).

The read aloud is a method commonly used in the early stage. It is a whole group instruction in which the teacher reads appropriate and relatable content to the class and asks provoking comprehension questions to check for understanding. This reading activity gives ELLs an opportunity to be exposed to expressive and relatable vocabulary with background knowledge about material they may have no experience with. Books allow young or disadvantaged students to gain background knowledge those children may never experience in real life (Evans and Aubin 2013). Exposing children to books

early in life provides a higher chance of developing a more advanced vocabulary. When a child hears a new word, he or she automatically will search for the picture in the book corresponding with the word. In the mean time, the parents or teachers can enhance on that experience by asking the child questions about the pictures, thus, creating another opportunity for the child to acquire new vocabulary. According to Evans and Aubin (2013), the read aloud can be one of the most effective methods to promote vocabulary learning and comprehension, especially among younger learners. If the story is engaging and meaningful to the child, vocabulary development will more than likely occur. The more a child is exposed to oral reading, the greater his or her vocabulary will be built. (Mathissen, 2013).

Creating a language rich environment allows a child to develop vocabulary. Children who are taught to be aware of words and how to apply those words in their life will be successful across an academic subject and grade level (Mixan, 2013).

Listening is also the cornerstone for vocabulary development. The earlier and more frequently a child is exposed to oral language, the more likely vocabulary acquisition will occur and be retained. Reading aloud to children is a meaningful activity to listen to and sound out words together with the teacher. This activity provides a reading experience to children to provide a background that they may not have access to in their daily lives.

2.3 Vocabulary Learning Strategies For English Language Learners

Vocabulary acquisition is the beginning to the process of learning to read, comprehend, and write. Learning new words and their meanings for ELLs serves as a

way to become more affiliated with new surroundings and successful in new environments. Providing vocabulary learning strategies is important for teachers to support these students to advance in academic and social contexts.

Incidental vocabulary acquisition is learning in nature that provides three benefits for language learners: First, a stronger grasp on contextual meaning and use of the words, second, the ability to learn vocabulary through the concurrency of two activities, such as reading or listening and vocabulary learning, and third, a learner centered learning process (Shahrokni, 2009). In Shahrokni's study (2009) 90 Iranian adult learners were divided into three groups depending on results from a standardized English placement test. Each group was given three sessions of instruction on five computerized reading texts including 25 target vocabulary words. The first session focused on becoming familiar with the computer program and provided a demonstration of the program. In the second and third sessions, the participants were required to read the texts and consult the glosses for each vocabulary word. The participants were then tested on their incidental vocabulary learning two types of assessment, using words and pictures. As a result of this study, it was determined that the group that was assessed with pictures only outperformed the textual groups; however, the group that was given both the word and picture assessments performed the best over the other participants. It is found that incidental learning can be beneficial when using the appropriate tools, such as the combination of words and pictures to acquire vocabulary. (Shahrokni, 2009).

Deliberate learning is the acquisition of vocabulary through use of pre-planned and methodical practices. It may happen in a natural setting with concrete methods such

as using flash cards or word lists (Elgort, 2011). In Elgort's study (2011), 48 adult participants who were advanced in their second language acquisition were given 48 English pseudo-words or nonsense words from word cards following a specific learning schedule. Each pseudo-word was printed on one side of the card with the other side providing a short definition for learners to view simultaneously. Learning from the cards could be achieved by retrieving a word from its meaning and vice versa. These word cards represent deliberate learning because the learner is aware of the main goal of the activity to learn the target words. As a result, deliberate learning was efficient, convenient, and effective in terms of retaining second language vocabulary.

Differing viewpoints have suggested that incidental learning is not as effective as deliberate learning. Elgort (2011) indicated that incidental learning is not a suitable method of vocabulary acquisition because it does not "affect the acquisition of linguistic knowledge," (p.367) while Krashen (1989) argues that linguistic knowledge is, "...acquired only when the learner's attention is focused on the message, for example, when reading or listening for meaning, and that only acquired knowledge is involved in authentic language use." (p.367-368) It seems that more studies are needed to determine which is more effective.

2.4 Technology in Vocabulary Acquisition for English Language Learners

The use of technology has become increasingly popular in vocabulary instruction in the past years (Larson, 2013). It is found that close to 74% of teachers use some form of technology regularly in their classrooms (Larson, 2013). Technology provides presentation of material for students who may not be able to acquire information in the

traditional way with pencil and paper. With the expansion of Smart Boards, iPads, and computer programs, ELLs may benefit from the use of technology in their vocabulary learning.

The US National Assessment of Educational Progress (2010) has monitored and observed the large gap between English language and non English language learners' advancement in literacy and mathematics. In 2005, 54% of ELL students scored at or above on basic mathematics assessments while, 83% of non ELL students scored at or above the achievement level. A study was conducted at the Round Rock Independent School District in the use of interactive white boards (IWB) to support ELLs (López, 2010). In this school 213 3rd graders were divided into three groups: 1) English speaking students in a traditional (no Digital Learning technology present) classroom, 2) ELLs in a traditional classroom, and 3) ELLs in a Digital Learning classroom. Three teachers were chosen, one teacher was trained to use the IWB to teach these students, according to the school's math curriculum during the 2006-2007 school year. Before the Digital Learning Classroom project, ELL students scored at 69.0% proficient- 15.5% below the English speaking students who scored at 84.5% proficient. After the IWB technology was provided ELL students scored at 82.4%, which was only 2.1% below the proficiency percentage of 84.5% which was achieved by the non ELL students (López, 2010). It seems that IWB provided an opportunity for ELLs to improve their English as well as math skills.

Additionally, the Newcomer Center, an alternative school for recent immigrants in Illinois and, the Comal Independent School District in Texas have taken full advantage of the benefits of providing technology to its high ELL student population.

In 2010, the Newcomer Center began its movement to infiltrate iPads with 30 students. They were able to take them home daily to help with homework and practice. The iPad provided an app where students can record themselves reading and, the recording can be transferred to the teacher's main iTunes library for instant feedback on fluency. The iPad also allowed for more visual supports through various apps, such as the Kindle reading app (Demski, 2011). When interviewed, a teacher expressed that the usage of the Kindle app on the iPad has helped her differentiate and individualize instruction.

At the Comal Independent School District, administrators and teachers searched for a device that would provide support for textbooks in an audio format, with movies and videos, and internet access both at school and home. The iPod Touch was chosen as the technology tool. Students were able to easily use the iPod touch at home and at school, and found that the most useful app was the dictionary.com app (Demski, 2011). At the Comal Independent School District, the utilization of the iPod Touch allowed students to have 24/7 access to technology which aided them anywhere they went where English language was needed (Demski, 2011).

Although these school districts are using technology to their full advantage, unfortunately, it is too soon to collect significant quantitative data on how these technological devices have effected ELL's performance. Nonetheless, from the teachers'

points of views, the usage of these modes of technology has shown their potential to improve instruction in school and beyond (Demski, 2011).

The computer program *Rosetta Stone* also serves as a form of technology for ELLs to utilize to learn and practice English skills. Marcy (2007) describes *Rosetta Stone* as an independent study, interactive software designed to increase a ELLs vocabulary and language comprehension without translation. The program is constructed in a way that everything associated with written or spoken words is correlated to pictures of the objects or actions to convey meaning (Marcy, 2007). The English version of the program has five levels with eight units and 11 lessons each. Each lesson introduces 40 vocabulary words. The instruction of the words are constantly spiraled in the level. The new vocabulary words will be added in activities with previous words learned in former lessons. In addition to learning the target language, *Rosetta Stone* is also designed to improve metacognitive skills, such as pattern recognition, correlation, deduction, and induction to help the learner find the meaning of unknown words (Marcy, 2007). Teachers are able to log on the program and progress monitor their students by viewing the results of the unit tests in the program.

Corkery (2008) describes the impact of *Rosetta Stone* in his own classroom at the Ingram Roads Primary School in Leeds. A Polish speaking student arrived in his classroom knowing very little English. He began instructed with the school's ESL coordinator and, immediately began using *Rosetta Stone* as a support tool. According to Corkery (2008), as a result of using *Rosetta Stone*, his new student began learning

English quickly. He was able to build vocabulary and practice speaking, listening, writing, and reading skills on a variety of topics, such as school and sports.

In addition, a study by the Association of Latino Administrators and Superintendents (ALAS) (2011) was conducted among six school districts with high ELL populations. They are: Centralia School District, California, Cinnabar Elementary School, California, Hueneme Elementary School District, California, Lawrence Public High School Learning Center, Massachusetts, Manor Independent School District, Texas, and Washington Elementary School District, Arizona. The studies in each school highlighted the success of using *Rosetta Stone* among their ELL populations. It was determined that in each school district, the program was deemed a success. ALAS (2011) identify the importance of integrating technology, such as *Rosetta Stone*, to support research based pedagogy. It appears that *Rosetta Stone* is successful as an integral part of a complete ELL program (ALAS, 2011).

2.5 Summary

The United States Census Bureau(2010) reported that in the past three decades, the number of non- English speakers over the age of five that live in the United States has increased 140%. According to the National Center for Educational Statistics (2011), as of 2011, 4.7 million children in the United States are enrolled in an English as a Second Language program. As the numbers of non- English speaking students rise, research and practice in teaching

functional and high frequency vocabulary to English language learners is imperative. Newcomers who come to the United States bring their customs and culture have to learn how to assimilate themselves in a new environment to survive, which includes learning a new language to communicate. Some of them may come from a country in which they received no formal schooling or are illiterate in their first language. Educators need to be aware of how to approach an ELL academically and emotionally, and their characteristics and needs when providing instruction. English as a second language teachers, in addition to regular classroom teachers, play a vital role in helping ELL students achieve their goal to become a fluent English speaker.

Reviewing the research encompassing vocabulary acquisition in English language learners and instructional methods presently used in school, it is clear that more studies are needed. Current techniques and methods may be effective, but may not be specific to ELLs focused on general vocabulary acquisition. Technology can be a great asset to students, however, information on how technology serves ELLs specifically was presented sparingly.

In this particular field of education, the future holds more immigrant families traveling to the United States in hopes that their children can receive an excellent education. More focus on this demographic will lead to more research supporting teaching and intervention. While all the techniques mentioned are necessary and play an important role in allowing students to acquire the vocabulary, increased attention on the usage of technology is imperative. In the future, technology such as iPads, iPods, *Rosetta Stone*, and Interactive Smart Boards will evolve constantly resulting in the need for the

improvement and innovation in teaching ELLs the literacy and communication skills necessary, however, further research on this particular area of teaching methodology needs to be explored at a larger extent.

Chapter III

Methods

3.1 Setting

This study took place in a large elementary school in southern New Jersey. There are approximately 750 students enrolled. It is considered a Title I school, which means that a large majority of the school's population is categorized as qualifying for free or reduced lunch and are considered "at risk" academically due to low economic status.

There are approximately 45 ESL students in the school. Spanish, Mandarin Chinese, Turkish, Urdu, Pashto, Haitian Creole, French, Tagalog, Vietnamese, Bengali, and Arabic languages are spoken at home.

The study took place in the ESL classroom. These students were instructed for an hour each day in this setting. The classroom is a shared space between the speech language therapists and an additional ESL teacher. There were three students in this group; all coming from different ethnic backgrounds with different durations in the ESL program. The teacher had six years of Pre-Kindergarten to 5th grade instructional experience in ESL programs.

3.2 Participants

Three ESL students, two boys and one girl, between the ages of 8 to 10 participated in the study. All participants have been in the ESL program for fewer than two years, and are considered beginners on the World-class Instructional Design and Assessment (WIDA, 2014) language acquisition scale. Table 1 presents the general information about the participants.

Student A was a 9 year, 7 month old, fourth grade male whose native language is Mandarin Chinese. He immigrated with his family to the United States from China in 2011. He entered the public school system in January, 2012 and was identified as illiterate in Mandarin Chinese as a result of lacking schooling while in his home country. He was not considered a Title I student due to his free and reduced lunch status, but was “at risk” academically due to his status on the Response to Intervention (RtI) tiers. Student A was on Tier 3 of RtI, and was referred to the Child Study Team for further testing for special education services. He has received math and reading intervention since the beginning of fourth grade, as well as daily ESL sessions since third grade with limited progress. Student A has acquired spoken English comparable to that of a fluent speaker, and his listening comprehension was considered on grade level, however, his reading and writing skills are on a first grade level. He was also attending guidance counseling sessions once per six day cycle as a result of showing consistent behavior problems associated with anger, frustration, and unwillingness to attempt work.

Student B was a 10 year, four month old, fourth grade female whose native languages are Haitian-Creole and French. She arrived in the United States from Haiti and has been in the public school system for six months. Student B began school with some English knowledge in each of the four language learning domains, however, she was on the beginner level according to the WIDA language acquisition levels; receiving a 0.0 score on the entry W-APT (WIDA-Access Placement, 2014) test.

Regardless of her English level, Student B was an ambitious, good-natured, and hard working child who was willing to try and learn anything on a daily basis. She is considered a Title I student due to her socio-economic status.

Student C was an 8 year, 6 month old, third grade male whose native language is Spanish. He arrived from Mexico to the United States, and has been in the public school system for six months. Student C arrived to school having little knowledge of English, however, he was able to decode English words with little difficulty according to the assessments provided during the baseline. Out of 218 Dolch sight words, he was able to identify 185; however, he could not apply the words in sentences. His strengths in learning English were decoding words, and he lacked skills in speaking, writing, and reading. In addition, he began school dealing with a large amount of culture shock because he was not used to the school system. He demonstrated feelings of sadness for about a month, and cried each day. He was able to grow into his new surroundings better by 2013 when he began to try to speak English and participate in class. He is considered a Title I student due to his socio-economic status.

Table 1

General Information of Participating Students

Student	Gender	Age	Language	Years in ESL	2013 AC-CESS Scores	Entry WAPT Scores
A	M	9.7	Mandarin Chinese	1.5	Listening: 4.0/6.0 Speaking: 5.4/6.0 Reading: N/A Writing: N/A Oral Language Composite: 4.8/6.0	N/A
B	F	10.4	Haitian-Creole, French	<1	N/A	0.0
C	M	8.6	Spanish	<1	N/A	0.0

3.3 Measurement Materials

Flashcards. Each week, students were assessed on sight word identification and sight word application in a cloze sentence. The sight word identification assessment was teacher made, and consisted of a flashcard test. The level of sight words for each student was determined from the baseline data accumulated, and each student received two levels to acquire. Each flashcard test consisted of approximately 9 to 15 words and students were required to read and pronounce them correctly. The students had to identify the words within 10 seconds. Their responses were calculated into percentages.

Cloze Sentence. Students were also assessed on their ability to correctly input a learned sight word into a cloze sentence. They received 9 to 15 cloze sentences corresponding with the sight words assigned during the week. Each sentence had between four and 10 words. If any student did not understand a word, that word would be read, however, this did not apply to the sight word choices for the sentences. Students were given up to 45 minutes to complete the assessment, which was the length of time of their ESL time block. Their correct responses were calculated into percentages.

Student Survey. To measure students' satisfaction with the usage of the iPad in conjunction with the regular class activities, survey was given at the end of the study. The survey consisted of three questions that asked if the students enjoyed using the iPad, if they felt it helped them to learn better, and if they would like to use the iPad to learn more in the future. The rating system is based on a Yes or No pictorial answer system. Each question was read to students, and they were required to circle a thumb's up or a thumb's down symbol for their response.

3.4 Instructional Materials

Three Times Each. In a sight word composition notebook, students divided a piece of paper into three columns and wrote each sight word three times each.

Sailboat Words. On a worksheet, the appropriate amount of sailboats according to sight words were copied. Each completed worksheet was stapled into the sight word composition book.

Sentence Writing. In the sight word composition notebook, students chose half of the assigned words and wrote a sentence for each.

iPad App. The *Pixopop Sight Word and Spelling* iPad app was adapted as an interventional practice (Widarto, 2012). This app was designed to allow students to practice sight words using the four language domains of speaking, listening, reading, and writing through three activities: identification, reading, and spelling. The first activity, identification, involved students hearing the word and repeating. The second activity, reading, allowed students to hear the sight words and read to pick them out of a group of three. The third activity, spelling, involved students spelling the sight words out using an on screen keyboard.

3.5 Research Design

A multiple baseline research design across students with A B phases was used. In phase A, each student was assessed using Dolch sight words, and the application of sight words using cloze sentence worksheets before adding the intervention of the iPad app. This phase lasted for two weeks. In Phase B, the *Pixopop Sight Word and Spelling* iPad app was provided in practice. The weeks in which the students received the intervention was staggered. Student A began the intervention at week 3, student B at week 4, and student C at week 5. This phase lasted for seven weeks. Assessments for identification and application were given weekly. The students' scores were converted into percentages.

3.6 Instructional Procedures

For weeks 3 through 9, students were instructed in their assigned Dolch sight words using a variety of activities Monday through Thursday. Monday consisted of introducing the sight words to each student using teacher made flash cards. These cards were placed on a looser binder ring, and students were responsible for bringing them to

ESL group each day. Tuesday's lesson involved a quick flashcard review, and practice writing the words. Students were instructed to write each new sight word three times each. Wednesday's activity involved writing as well. Students were instructed to complete "Sailboat Words" where in which students were given a worksheet with the appropriate amount of sailboats on it in rows. Students were asked to write each sight word one letter at a time in the sail of the boat, and once all letters were written, write the word again in the base of the sailboat. On Thursday each week, the participants practiced using the words in sentences by choosing half of the number of words they had during the week, and writing a sentence for each of them. Friday of each week was reserved as the assessment day. In addition to these instructional procedures, the students were also given homework each day, Monday through Thursday, which was to take the flashcards on the binder ring home and practice reading them.

3.7 Measurement Procedures

Word Identification. Week 1 consisted of obtaining the baseline data for each student in regards to word identification. During the course of the week, students were given a flashcard assessment for each Dolch sight word in each category, and their correct responses were calculated into percentages. In weeks 3 through 9, students were assessed weekly on the Dolch sight words using flashcards, however, they were only assessed on two categories of words each, which was dependent upon their percentage scores of the baseline performance. This identification assessment was given weekly.

Word Application. Each student received two levels of the Dolch sight words to place in cloze sentences. Student A had pre primer and primer, student B had first and

second grade, and student C had second and third grade. During weeks 3 through 9, students were given a weekly assessment with cloze sentences which coincide with the assigned sight words given in that week. A percentage score was calculated for these assessments.

Student Survey. At the end the study (week 9), a teacher made survey was given to students to measure their enjoyment of using the iPad, if they think it helped them with acquiring sight word knowledge, and if they would like to keep using them in the future. The response choices consisted of a green happy face for “yes”, and a red sad face for “no”, and the students were read the survey individually, and were instructed to put an “x” through the happy or sad face to show their opinions.

3.8 Data Analysis

Three sets of two graphs representing each student were created for sight word identification and three were made for sight word application using cloze sentences. Each graph had nine data points. On graph one for each student, the first data point showed the baseline data for identification of sight words while the rest represented the results of the weekly Friday assessment. On graph two for each student, the first data point identified the baseline data for application of sight words in cloze sentences while the rest showed the results of the weekly Friday assessment for application. The data points were compared to the baseline data and the weeks the students were not using the iPads. These graphs showed if the iPad intervention was effective in promoting growth in sight word identification and application.

Chapter IV

Results

The results indicated that all participants experienced an improvement or had no change in the identification and application of the assigned Dolch sight words by using the *Pixopop Sight Word and Spelling* iPad app. All students expressed satisfaction in using the iPad. The overall outcome of the intervention has proven positive, and has produced some growth in sight word identification and application.

4.1 Word Identification

Student A. The results for student A are shown in figure 1. Figure 1 depicts the percentage of pre- primer and primer Dolch sight words which were identified correctly according to the end of the week flashcard assessments. The pre primer and primer sight word identification results from each week were presented in figure 1. Pre primer sight word identification took place during weeks 1 and 3 through 5. Student A scored 75% of pre primer knowledge in the baseline. Using the iPad in the intervention in week 3, he rose to 100% in per primer sight word identification.

Primer sight word identification took place during weeks 1 and 6 through 9. Student A scored 42% during the baseline. Using the iPad intervention in week 6, he rose to 92% of primer knowledge. The mean percentage of pre primer and primer sight words correctly identified after the iPad intervention was at 95%, a growth of 36% comparing to that of the baseline.

Student B. The results for Student B can be found in figure 1. Figure 1 shows the percentage of first and second grade Dolch sight words that were correctly identified in the end of the week flashcard assessments. First grade sight words were assessed during weeks 1 and 3 through 5; weeks 1 and 3 serving as baseline data. During weeks 1 and 3, Student B received a first grade mean baseline percentage of 76% correct. Using the iPad in week 4, she rose to 100% in first grade sight word identification. Additionally, the percentages shown for the second grade Dolch sight words identified are in figure 1. Student B received a second grade mean baseline of 53%. Using the iPad in week 6, she elevated to 93% in second grade sight word identification.

Student C. The percentage results for student C regarding identification of second and third grade Dolch sight words are found in figure 1. The second grade assessment took place during weeks 1 and 3 through 9; weeks 1, 2, 3, and 4 serving as baseline data. Student C scored 89% of second grade knowledge in the baseline. Using the iPad in the intervention in week 5, he rose to 93% in second grade sight word identification. The third grade assessment took place during weeks 2 and 3 through 9; weeks 2, 3, and 4 serving as baseline data. Student C scored 83% of third grade knowledge in the baseline. Using the iPad in the intervention in week 6, he rose to 93% in third grade sight word identification.

4.2 Word Application

Student A. Figure 1 also shows the pre primer and primer sight word cloze assessment percentages from each week. The pre primer cloze assessments took place during weeks 2 and 3 through 5, week 2 being the baseline. Student A scored 67% during the baseline in week 2. When provided the iPad, the mean percentage of pre primer sight words correctly applied in cloze sentences rose to 91%, an increase of 24%.

The primer cloze assessment occurred during weeks 2 and 6 through 9. Student A scored 50% of correct sentence applications. Once the iPad intervention was introduced, the mean scores reached 95%, an increase of 45%.

Student B. Figure 1 also displays the data for the first and second grade Dolch sight word cloze assessments. The first grade words were assessed during weeks 2 and 3, through 5; week 2 serving as the baseline data. Student B scored 55% during the baseline in week 2. When provided the iPad in week 4, the mean percentage of first grade words correctly applied in cloze sentences rose to 90%. Moreover, figure 1 depicts the percentage results for the second grade sight word cloze assessments. Student B scored 73% during the baseline in week 2. Once she began working with second grade words in week 6, her percentage correct rose to 93%.

Student C. Similarly, figure 1 shows the percentage of second and third grade words which were correctly applied in the assigned cloze sentence assessments. Regarding the second grade cloze assessments, student C began with a second grade words baseline of 79% correct. Following the usage of the iPad app, the mean percentage went up to 80%; an increase of 1%. Student C scored 45% during the third grade cloze as-

assessment baseline in week 2. Upon using the iPad app in week 6, is percentage went up to 89%.

4.3 Student Survey

At the end of week 9, participants completed a teacher made, student survey to determine their satisfaction with the *Pixopop Sight Word and Spelling* app, and the overall usage of the iPad. This technology had not been used previously with these students during ESL sessions. The survey consisted of three questions as follows: (1) Did you like using the iPad app to learn sight words? (2) Do you think the iPad app helped you learn sight words better? (3) Would you like to use this iPad app, or other apps, next year in ESL? The response choices consisted of a green happy face for yes, and a red sad face for no. The students were read the survey individually, and were instructed to put an “x” through the happy or sad face to show their opinion.

Results of the student survey indicated that the iPad and the *Pixopop Sight Word and Spelling* app were both satisfactory and approved. All students (100%) chose “yes” as a response to each survey question.

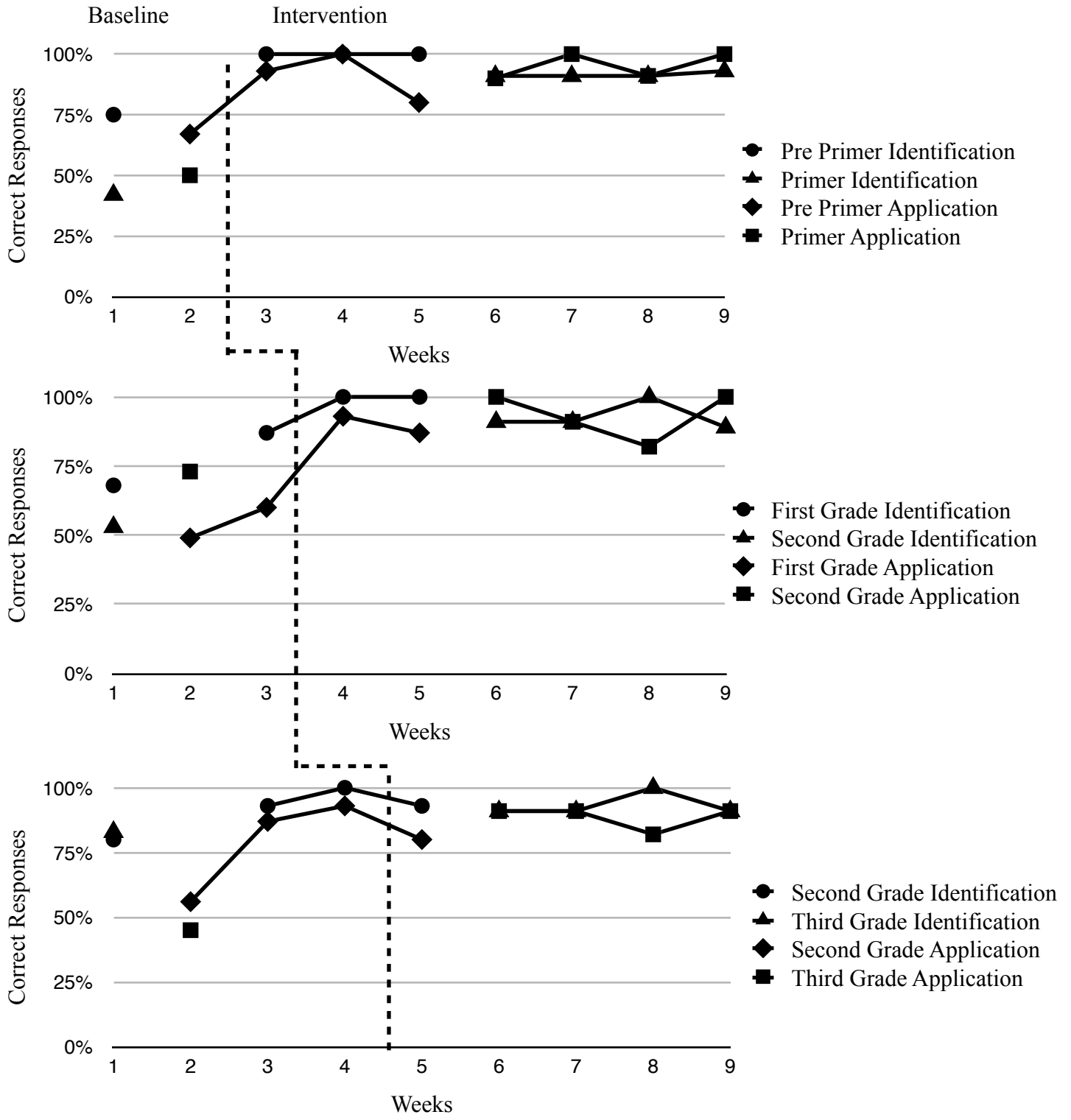


Figure 1. Individual students' performances on weekly identification and application assessments.

Chapter V

Discussion

The purpose of this action research was to determine whether the usage of iPad app technology fostered increased student performance in the areas of identification and application of the Dolch sight words, and if using the iPad as an intervention promoted satisfaction and motivation among beginner English Language Learners (ELLs). Over the course of 9 weeks, 3 participants from China, Haiti, and Mexico took advantage of this intervention. The *Pixopop Sight Word and Spelling* app was utilized as this intervention after extensive research. This app focuses on the acquisition of sight words through the four language domains: listening, speaking, reading, and writing. ELLs are expected to learn and acquire these domains to become fluent and literate in English. According to Margaret Williams (2010), language acquisition among English language learners does not depend solely on whether they can speak in conversation clearly; it depends on if the ELL can communicate and become literate.

Participants completed a language domain activity each day of the week for 9 weeks. These activities consisted of repeating sight words, reading and identifying the correct sight words out of a group of words, and spelling the assigned sight words. These exercises concluded with sight word identification and cloze sentence application assessments. As a result of using the iPad, each participant showed evidence of academic growth through the results of the weekly assessments. Additionally, participants were also evaluated on their satisfaction with the iPad and the iPad app. The students were asked if they enjoyed using the iPad, if they approved of the app chosen, and if they

would like to use the iPad in the next school year during ESL group. All participants expressed positive feedback concerning these questions.

5.1 Implications

In consequence to the usage of the iPad and the Pixopop Sight Word and Spelling app, it is evident that incorporating an intervention that depends on the four language domains to teach an abstract topic, such as sight words, is beneficial to beginning English language learners. Moreover, using an intervention that is highly engaging also promotes growth. This can only be done, however, once thorough research has been done to choose an appropriate app to suite students' needs. According to a study performed in a school in Kent, England, the benefits of using iPads in an education setting were clear, however, those benefits depended on the appropriate choice and usage of the apps (Walsh, 2012). For the usage of the iPad to be effective, choosing and researching apps that coincide with the desired skills to improve upon are necessary. Also, choosing apps that are interesting and engaging is important for students to remain interested. Educators in the classroom, especially those who are interventionists, reading specialists, special education resource teachers, special education self contained teachers, or English as a second language teachers, can benefit from using iPad apps to present new information in a different way that can fulfill any child's learning style.

While this study has shown that incorporating technology to encourage growth and engagement can be effective, there are some additions and changes that could benefit an intervention such as an iPad when working with English language learners. In the future, translating words in to a student's native language, and having that word visible

along side its English counterpart, could aid in an ESL student's ability to apply the words in context in a cloze sentence activity. Having the ability to communicate and convey information to an ESL student in their native language and English can make the transition of processing new vocabulary easier (Russell, 2004). In this case, that would mean choosing an app that incorporates the ability to translate, or adding that feature manually in conjunction with the app use.

An additional suggestion in conjunction with the choosing of an appropriate app for ESL students would be to be sure that the app includes not only the four language domains, but many graphics as well. For example, the computer program *Rosetta Stone* demonstrates the need for picture representations greatly. Vocabulary that is presented while using this program is always associated with a graphic to convey meaning and make a connection with the learner (Marcy, 2007). Using and involving as much graphical representation as possible with ESL students will foster English acquisition.

5.2 Limitations

Throughout the course of this research, there were limitations evident. Within the 9 weeks, there were eight days in which the school district had either a full snow day or a two hour delay, which meant the participants were not able to be taught formally on those days, and thus, were not able to use the iPads. Additionally, the sample size of participants was small, with only 3 newcomer English language learners participating. More students may yield a different outcome than what was shown. Also, the students presented in this study did not speak the same native language. A more complicated native alphabet system and language could make learning sight words more difficult. Finally, the

app chosen had no graphical representations for students to refer to. While it may be more difficult to connect sight words with pictures, it can be a great advantage to ESL students to have pictures connected to what they are learning, which could increase academic growth.

5.3 Recommendations

Although the results from this research shows that the proposed intervention was successful, there is still more evidence needed in the field of using technology when instructing English as a second language students. There is very little research and studies that have been conducted in that respect. Should a study centered on ESL students and technology, I would suggest teaching a larger group of participants. Furthermore, I would research and utilize technology that is heavy on picture representation of vocabulary. In conclusion, the usage of technology (e.g., iPad) can and will benefit beginner ESL students in the area of language acquisition.

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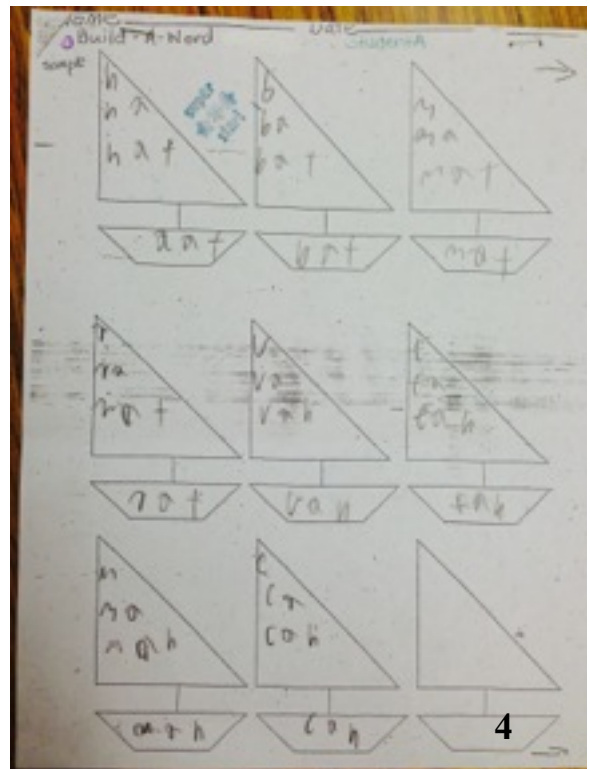
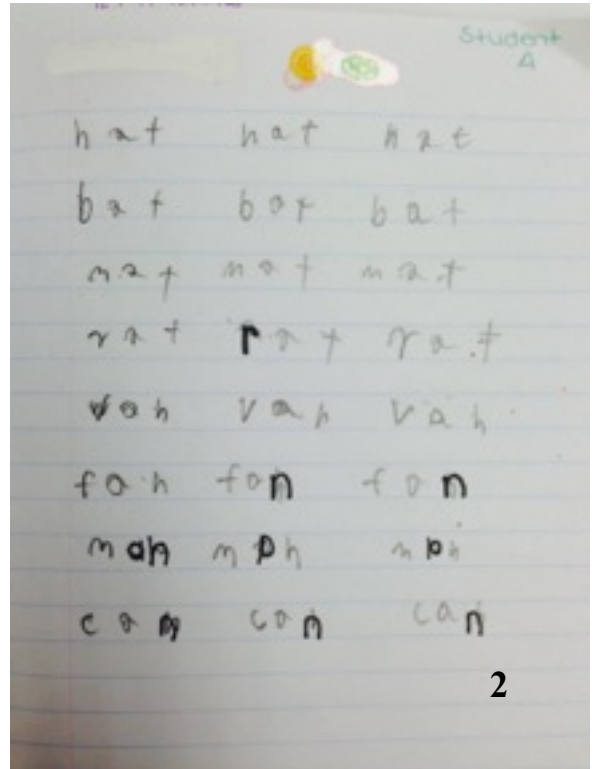
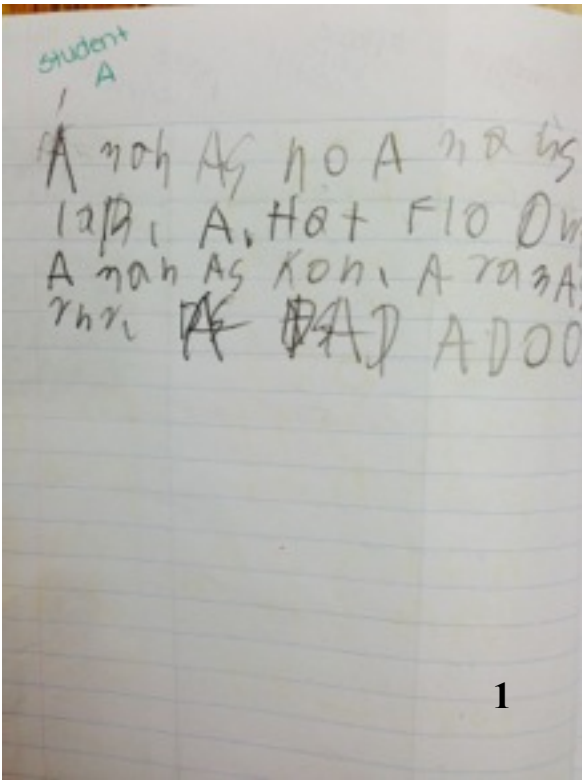
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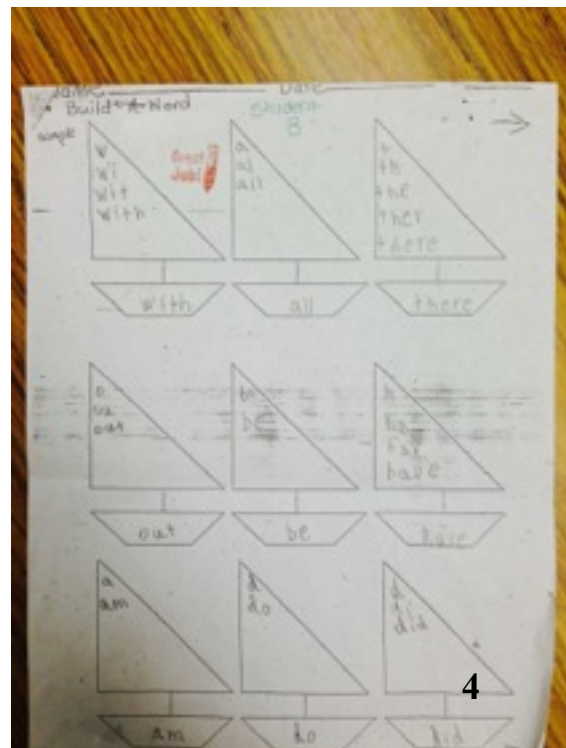
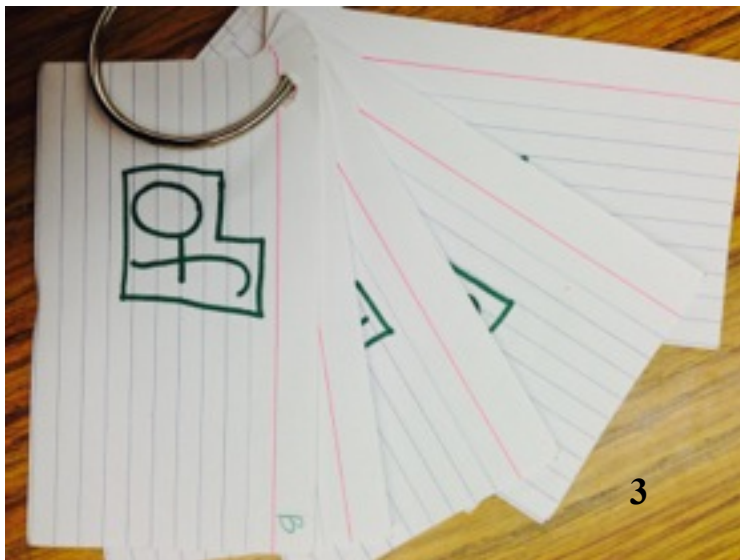
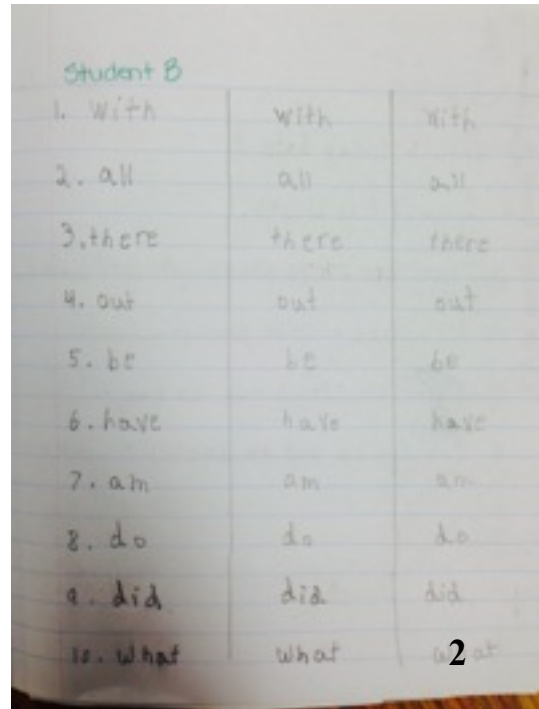
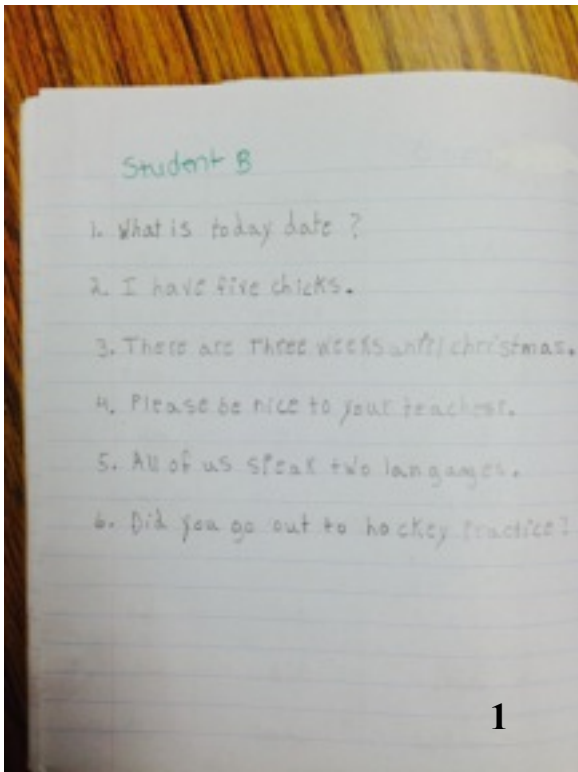
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Appendix A

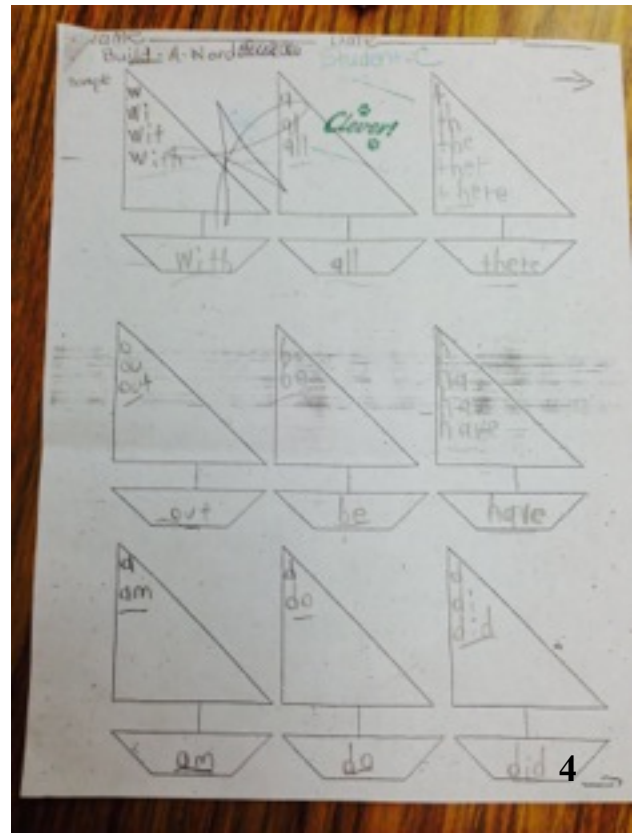
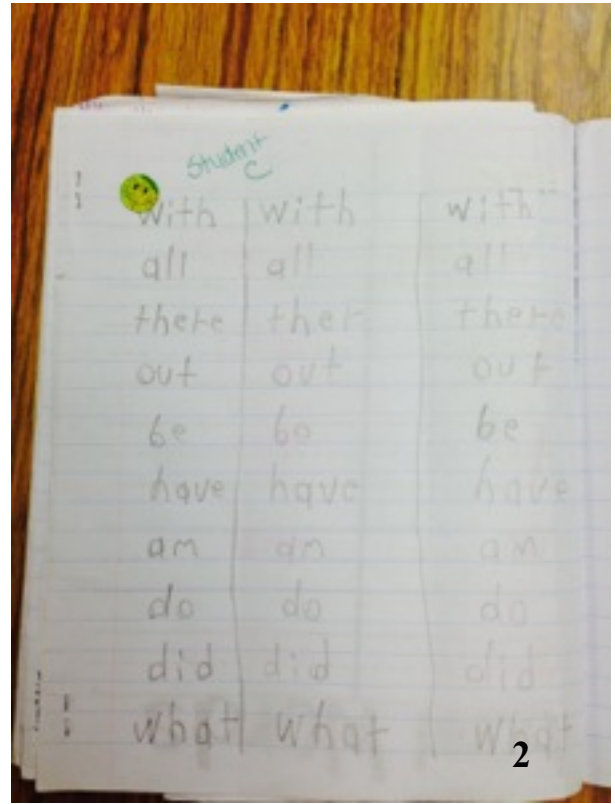
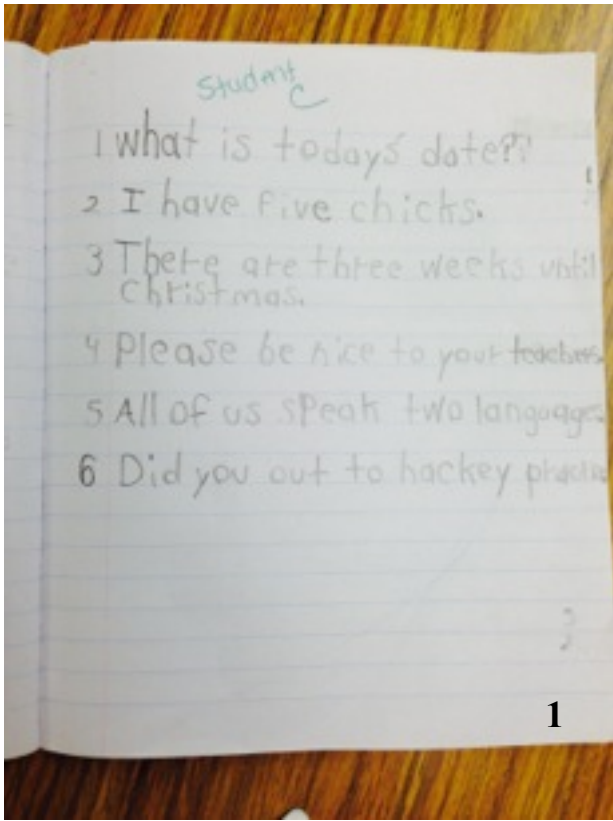
Instructional Materials



Student A: 1. Sentences, 2. Three Times Each, 3. Flashcards, 4. Sailboat Words



Student B: 1. Sentences, 2. Three Times Each, 3. Flashcards, 4. Sailboat Words



Student C: 1. Sentences, 2. Three Times Each, 3. Flashcards, 4. Sailboat Words



Sight Word and Spelling Pixopop app screen shots.
 1. Home Screen, 2. Word Lists, 3. Word Challenge activity, 4. Spelling Activity, 5. Inputting new words into lists.

<https://itunes.apple.com/us/app/sight-words-spelling-pixopop/id520191544?mt=8>

Appendix B

Measurement Materials

Student A (ID: __/15) (Cloze: __/15)
Sight Word Cloze Assessment: Week 3: February 21, 2014
Pre-primer
<http://specialed.about.com>

1. Here is (in, the, can) big book.
2. Come with me (the, is, to) school.
3. I see the cat (and, is, you) dog.
4. I see (a, for, blue) ball.
5. (I, In, Two) run to school.
6. (You, Blue, Come) can play ball.
7. Is (and, the, it) the blue one?
8. It is (come, in, big) the box.
9. I (come, said, can) "Hi" to the boy.
10. The hat is (can, for, two) Bill.
11. We can go (blue, for, up) the tree.
12. I (for, can, look) at the book.
13. Where (is on, down) the yellow dog.
14. We (for, blue, go) to the store after school.
15. (Then, Said, We) jump on the bed.



*Student A Cloze Assessment and
Flashcard Identification Assessment*

Student B

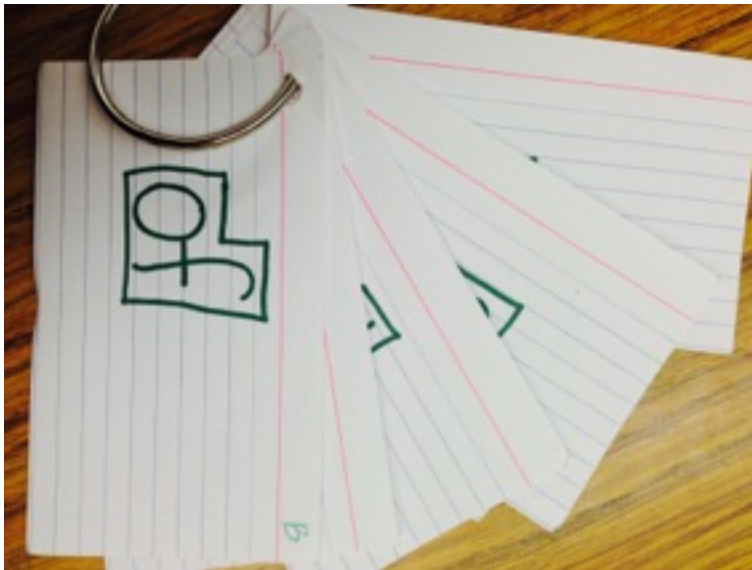
(ID: __/15) (Cloze: __/15)

Word Cloze Assessment: Week 3: February 21, 2014

First Grade

<http://specialed.about.com>

1. They will open the door (him, stop, of) the little house.
2. She is just as old as (let, help, his) sister.
3. She (had, give, once) a car.
4. Give (after, him, how) the ball.
5. She will ask (fly, again, her) mother to walk to the store.
6. (Some, Give, Open) boys like to take the train.
7. She is just as old (as, of, when) his sister.
8. We are going to school, (when, her, then) we are going to the park.
9. He (could, by, when) not see the cat.
10. They take the bus to school (fly, when, were) it is going to rain.
11. How (think, could, were) the boys going to walk to school?
12. Give (them, his, find) the box.
13. She will (also, some, ask) her mother to walk to the store.
14. She likes to eat (take, once, an) apple.
15. She will live in the big house (could, over, may) there.



*Student B Cloze Assessment and
Flashcard Identification Assessment*

Student C

(ID: __/15) (Cloze: __/15)

Word Cloze Assessment: Week 3: February 21, 2014

Second Grade

<http://specialed.about.com>







1. Because it is cold, she said he (call, buy, would) need a hat.
2. He wants to know if she can carry it (only, very, good) far.
3. Does the radio work in (sit, your, both) car?
4. (Call, Off, Its) nose is cold.
5. (Around, Buy, Both) the house she likes to sing).
6. The teachers (was, use, don't) call on Bobby because he will cry.
7. She always goes home (next, pull, right) after school.
8. Did she tell you to wash the (read, green, also) car?
9. Before school, she found (thing, thank, their) ball under the table.
10. Did you (or, sing, call) your mom?
11. I wish I could (sleep, black, red) at your house.
12. I have (see, upon, five) pencils.
13. Did you (write, out, wash) the green car?
14. Did they write a letter to the right one (or, pull, of) not?
15. (Before, Big, New) school, she found their ball under the table.



*Student C Cloze Assessment and
Flashcard Identification Assessment*

Appendix C

Student Satisfaction Survey

Did you like using the iPad apps to learn sight words?		
Do you think the iPad app helped you learn sight words better?		
Would you like to use this app, or other iPad apps, next year in ESL?		

Appendix D

Student Activity Log

Students A, B, and C Activity Log					
Week	Monday	Tuesday	Wednesday	Thursday	Friday
1	Snow Delay	Snow Delay	ID Baseline	ID Baseline	ID Baseline
2	Cloze Base.	Cloze Base.	Cloze Base.	Snow Delay	Snow Delay
3	Snow Delay	iPad-Flash-cards	iPad-Word Challenge	Snow Delay	Assess.
4	iPad-Flash-cards	iPad-Word Challenge	iPad-Spelling	iPad-Free Choice	Assess
5	Snow Delay	iPad-Flash-cards	iPad-Word Challenge	iPad-Spelling	Assess
6	iPad-Flash-cards	iPad-Word Challenge	iPad-Spelling	iPad-Free Choice	Assess
7	Snow Delay	iPad-Flash-cards	iPad-Word Challenge	iPad-Spelling	Assess
8	iPad-Flash-cards	iPad-Word Challenge	iPad-Spelling	iPad-Free Choice	Assess
9	iPad-Flash-cards	iPad-Word Challenge	iPad-Spelling	iPad-Free Choice	Assess