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How Does the Use of Extensive Reading Compared to the Use of Intensive Reading Affect MAP Reading Scores in a Class of ESL Students?

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**How Does the Use of Extensive Reading Compared to the Use of Intensive Reading Affect
MAP Reading Scores in a Class of ESL Students?**

by

Melissia Young

A Thesis

Submitted to the Graduate Faculty of

St. Cloud State University

in Partial Fulfillment of the Requirements

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Abstract

This is a qualitative study comparing seven points of quantitative data in the areas of phonological awareness, phonics, concepts of print, vocabulary and word structure, comprehension, writing and overall score, to compare two teaching methods. The main subjects of this study are basal readers, leveled readers and MAP reading scores. The study participants were second grade ESL students in separate classrooms. Although this study touches on the use of sight-words, visual images, context vocabulary, reading time and word play through word use, the main focus of the results are a comparison between two different ways to present reading lessons to students. It is shown in the results that leveled readers can improve reading scores. These results can be used to improve reading instruction in any grade and at all levels.

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I: Introduction

Statement of Problem

As a beginning ESL teacher I was faced with the challenge of finding the best method to teach multiple classrooms with students at multiple language development levels. Because many ESL students who have started to read are mainstreamed before they are ready, classes with multiple language levels present a common situation in many elementary schools around the country. This is because students, for social development reasons, are placed according to their age, and not their level of learning. The problem facing a teacher in this type of classroom is how to educate all of the students so that they can all make gains towards yearly growth without falling further behind. Additionally, how can students go beyond yearly growth and best catch up with their peers?

Background and Need for the Study

Although a good deal of research has been done involving reading in the area of native language learners, there is very little research in the area of second language learners in a mainstreamed classroom. The need for vocabulary and phonics instruction is also a debated topic in many schools. These two factors make reading instruction for second language learners a subject that should be examined more closely.

Purpose of the Study

The purpose of this study was to see if the application of theories that suggested extensive exposure to vocabulary strategies and increased reading time would improve reading comprehension and have an effect on student Rasch Unit (RIT) reading scores as assessed by the Measures of Academic Progress (MAP) reading assessment.

Research Question

How will a reading program using leveled readers, visual images, and word play affect RIT scores in one class of second grade students compared to the use of basal readers in another class of second grade students? When the scores are broken down, will phonological awareness, phonics, concepts of print, vocabulary and word structure, comprehension, writing, and the overall combined score show statistically relevant growth in the study group beyond that of the control group? What challenges will manifest throughout the year of instruction?

II: Literature Review

Generally, a common belief is that if students read more they will learn faster. Students who read more are supposed to be better learners, better participants, and better in all of their other subjects too. These statements, however, are non-specific, and too broad to measure. However, according to Guthrie, Wigfield, Metsala, and Cox (1999), “students who spend a large amount of time reading will increase in fluency of using such cognitive strategies as applying prior knowledge, finding the main idea, inferencing, and building a casual model of the text” (p. 251). Just reading, however, is not as simple as it sounds. “The socio-phycolinguistic view is based on the belief that reading is a universal process of constructing meaning from text by using background knowledge, linguistic cues, and psychological strategies” (Freeman & Freeman, 2012, p. 115). While there are a few studies that have been done specific to reading and how it affects student learning, many of these studies were done using the students’ first language. The purpose of this study was to examine what teaching methods showed the greatest results and find a way to combine them into a curriculum that helped students learning a second language.

First Language Advantages

According to Droop and Verhoeven (2003), first language speakers come to the task of reading with a lot of advantages. They already know how to form the words correctly with their mouths. They also have very extensive lexical information about the words they are sounding out. This foundation in spoken language is not available to L2 learners. Bialystock (2001) writes that reading is the primary way students are expected to learn in most subject areas. Because these expectations are more difficult for children who do not know the language of the text, these students fall behind in their classes. As a result, there is a lot of push to get native language instruction into the schools for second language learners who are struggling to

understand their core curriculum (Verhoeven, 2000). But, for some minorities, this is not an option. It is too difficult to find teachers in their own language. Or, there would need to be many different schools with many different languages. It would be expensive for the school system to maintain. Therefore, most ESL students are forced to use what knowledge they have of their first language and apply it the best they can manage. This can cause problems while learning a second language if an understanding in the native language hinders how the second language is processed (Verhoeven, 2000). This would further slow down the learning rate for students trying to learn both languages and could affect their learning in more ways than just vocabulary and content.

Not only words, but also cultural differences can cause misunderstandings. “Exposure to stories in a given language determines children’s ability to use the literate register of that language” (p. 159), and this skill does not appear to cross-over (Bialystock, 2001). For example, if a student learns how to tell a story in one language, the same story telling method might not be used in the other language by a different culture. This does not only apply to story telling. Writing styles vary greatly from culture to culture (Schmitt, 2008). So, if reading is so important for student learning, and it will in many cases need to be done in the second language, what things need to be focused on to help second language students to follow the content of a class and catch up to their peers?

Vocabulary

Most experts would agree that it is difficult to predict how well each student in a class will be able to read. “Accurate early prediction of future poor readers may be doomed to failure, as it cannot account for subsequent variance in... quality of instruction,... frequency of school changes, school attendance, and so on” (Bowey, 2005, p. 158). But, according to Stahl and Nagy

(2006), vocabulary knowledge was the best predictor of how well students would do on reading assignments. Therefore, increasing students' vocabulary understanding should increase students' reading ability. There are many different theories about how to approach vocabulary teaching, however. Stahl and Nagy write that metalinguistic awareness, phonemic awareness, morphological awareness as well as the ability to understand figurative language and multiple meanings of words are all needed for reading comprehension. Another necessary skill listed by Stahl and Nagy is automatic word learning (sight words), which will be discussed later. In the study done by Verhoeven (2000), vocabulary was found to have even more influence on L2 learning than L1 learning, because vocabulary affected both reading comprehension and class discourse. It is also believed that students need to be taught strategies to figure out words in context that they do not understand. The real problem is, which method for vocabulary teaching does a teacher choose? Does context reading outweigh automatic word learning or classroom discussions, for example? Not in the least. According to Stahl and Nagy (2006), the answer is to choose all forms of vocabulary acquisition. All of these methods need to be combined to increase student vocabulary and reading comprehension.

Truly learning a word requires seeing it used often and in different settings. "...Virtually anything that leads to more exposure, attention, manipulation, or time spent on lexical items adds to their learning" (Schmitt, 2008, p. 339). Methods Schmitt suggests using to develop vocabulary ownership include: on-line databases, chat programs, using the word in a sentence, producing new forms of the word by adding a prefix or suffix, defining the word in their own words, and even just recording them in a notebook. This word ownership is important. Learning needs to focus on both meaning and form. What good comes from knowing a word, if the student does not know the use or multiple uses of that word? Schmitt states, "...a learner must

also know a great deal about each item in order to use it...The quality of 'depth' of vocabulary knowledge...is as important as vocabulary size" (p. 33). Schmitt warns, however, that instructors need to be careful when teaching vocabulary because, "...single episodes of instruction may not only be ineffective, but may actually be counter productive..." (p. 335) when done to the extent that the full meaning of the text is forgotten. Stahl and Nagy (2006) voiced an identical concern. Therefore, teachers have to be careful not to simply brush by topics without reinforcing the student comprehension of what is happening and how it fits into the bigger picture.

Educational Misunderstandings

ESL instructors are familiar with the measurement that it takes about two years for a New-to-Country student to develop conversational English. It is also commonly known that it takes an additional five years to develop a reliable academic English (Palmer, Zhang, Taylor, & Leclere, 2010). During this learning time, "bilingual students probably function in an interlingual purgatory" (Bialystock, 2001, p. 62) that combines what they know about each individual language, until they can sort it out. The common mistake made by most teachers who do not have an ESL background, is to assume that these students understand what is going on in class, just because they speak normally outside of class. Another common classroom strategy that feeds this problem is the teaching of exclusive phonics programs in lower elementary grades. "Although their oral reading may sound good, many of these students have difficulty retelling what they have read. They become good word callers who lack comprehension" (Freeman & Freeman, 2012, p. 115-116). A Dutch study done with minority students who were taught how to sound out the Dutch words in their early school years is a good example of this problem. While all of the students could decode the words verbally with almost no problem at

all (because Dutch is a phonetic language that easily follows a set of rules that work in all situations to sound out the words), the minority children scored lower at the beginning of the study on word comprehension. The differences in reading comprehension only increased as time progressed because the students were reading words perfectly that had no meaning to them (Droop & Verhoeven, 2003). Many teachers will hear students reading a text with little or no difficulty. However, the topic of a given text may be a word that has absolutely no meaning to the student. They have no mental picture or feeling of the word or anything with which they can associate its meaning. Although, “a minimal level of phonological awareness is required to learn to read and spell,” (Verhoeven, 2000, p. 314) vocabulary is an equally if not more important part of learning for these students.

Another false belief held by the general public is that younger children are better at learning a new language. However, what many people do not take into consideration is that older students need to come into a language at a higher level of learning. This means that conversations will be more complex, vocabulary will be more extensive, and it will appear to teachers that these older students are having a much harder time (Palmer et al., 2010). Additionally, very few vocabulary studies have shown that additional vocabulary focus helps after a certain point in learning (Fukkink, Hulstijn, & Simis, 2005). But, what these studies do not take into account is the word difficulty after a certain point (Pichette, Serres, & Lafontaine, 2012). Concrete words such as ‘cat’, ‘dog’, and ‘newspaper’ are much easier for students to grasp than ‘accent’, ‘conversation’, and ‘idea’.

Context Teaching

One way some teachers approach the subject of vocabulary is by teaching to topics, rather than individual words. Background knowledge and pictures are important to beginning

readers. If they know *about* a word, they will understand it in context. If they do not know the word or only know it in another language, they will not comprehend meaning (Palmer et al., 2010). According to Guthrie et al. (1999), students need to have a good understanding of a variety of topics to improve their reading abilities and comprehension. When studying a topic, “instruction should also be aimed at a deeper level of processing. Numerous encounters with a word in many different contexts should be provided” (Droop & Verhoeven, 2003, p. 101). Context teaching is helpful for second language learners, because they, “not only have less extensive vocabularies than first-language learners but also fewer associative links between words” (Droop & Verhoeven, 2003, p. 812). Knowledge of a topic makes new words easier to learn and increases read-ability (Stahl & Nagy, 2006). According to Schmitt (2008), teaching both use and meaning increases learning. And, “prior knowledge, often conceptualized as a schema, also predicts subsequent text comprehension” (Guthrie et al., 1999, p. 232). Why is this the case? According to Akamatsu (2008), “the reader needs to reach such a stage [of topic comprehension] that the moment he or she fixes on a word, all the corresponding mental representations are automatically retrieved” (p. 176). Topic teaching needs to be individualized to specific classes, however, because different groups will have different gaps in their learning. Stahl and Nagy (2006) suggest the use of mind mapping on the board to test for prior knowledge. This method has also been tested for results, and it was found that, “training that involves students engaged in repeated reading of texts, under a variety of conditions and specific activities, almost uniformly led to improved comprehension outcomes” (Grabe, 2010, p. 75). In addition, learning by topic not only helped students fill in the gaps, but also motivated them to learn and read more about the topic (Hammond & Danaher, 2011).

While the teaching of so many different topics with multiple words for each can become difficult, it is important to not only show students how these words are used in the classroom, but also out in the world around them and whenever possible in their own cultures. They need to see the value in both learning and remembering so that the new vocabulary is not as quickly forgotten as it was learned. This may mean that certain words are not covered as intensively as others, but ANY word that a student is having difficulty understanding should not be ignored. Teachers need to take advantage of both planned and opportunistic times to teach what students show the need to understand. The new words need to be owned, so that they can access them easily in connections to new words and contexts as they continue to learn (Stahl & Nagy, 2006). Those words also need to be recalled as quickly as possible so that comprehension does not fail in the fast moving environment of a classroom (Levy, Abello, & Lysynchuk, 1997).

As previously mentioned, individual vocabulary does play its part in context teaching. According to Bialystock (2001), “it may be that the acquisition of syntax and phonology is adequately triggered by exposure to the language, but vocabulary needs to be learned” (p. 66). Not even L1 learners can instantly discover the meaning of a word they have never seen before, even in context. Applying false concepts to a word can result in even further confusion for young readers. Stahl and Nagy (2006) write that there are 3 principles of teaching words. First, both the definition and context information need to be presented to the learner. Second, there needs to be word play. Children need to be involved in actively processing and using the new vocabulary. Third, multiple methods of exposure to the word in context need to be applied. Stahl and Nagy are not the only authors who share this theory. Schmitt (2008) also suggests that repeated exposure to specific words in context helps students to create a kind of ownership in the understanding of that word so that it will not be easily forgotten.

Sight Words

Another approach is teaching individual words as a quickly recalled picture with a name. The first way many students (both first and second language learners) experience this approach is through the use of sight-words. This is not a phonetic approach to word learning, but a whole word approach. Automatic word learning increases comprehension because it decreases processing-time. After repeated exposure to a word, the brain starts to recognize the word as a picture rather than a set of sounds (Akamatsu, 2008; Droop & Verhoeven, 2003). In a study done by Levy et al. (1997), all of the readers showed improvement in the speed of their reading through the repeated exposure to single words.

It can be argued that this study focused more on speed than comprehension, which is a valid point. In fact, according to research done previously by Levy et al. (1997), many studies have shown that vocabulary training does not increase comprehension, but that leads to the following questions: How was the vocabulary taught? Were pictures used along with the vocabulary? Was meaning given to the words? Were the words just letters on a page, or were they made personally relevant to the student?

However, opinions on this subject vary. In the study done by Levy et al. (1997), they found that reading comprehension did improved because of word repetition. Fukkink et al. (2005) found that many researchers do believe teaching vocabulary through word automatic recognition will help with comprehension and L2 learners should spend a large amount of time on this activity. Similarly, a study done by Fukkink et al. showed that repeated exposure to the same words (learning for automatic word recognition) increased the reading skills of the L2 learners in the study. And, specific to L2 learners, Akamatsu (2008) found that word recognition training improved both their speed and their accuracy when reading.

Unfortunately, many teachers beyond the first grade level stop focusing on sight words because they usually believe all of their students are already familiar with them (Stahl & Nagy, 2006). These teachers need to keep in mind that the human mind can only do so many things at one time. There is a reason that these words need to first be learned automatically. “When learners’ language proficiency is limited, they may exhaust their attention finishing decoding. As a result, they have little attention for comprehending the text” (Iwahori, 2008, p. 73). These words are additionally confusing for students because “the most frequent words in the [English] language have a pretty broad range of utility” (Stahl & Nagy, 2006, p. 101). Anyone who doubts this claim needs only to look up words like “read” and “bow” in a dictionary. Not only do both of these words have two different meanings, but they also have two different pronunciations. Therefore, although it is important to teach these words as sight words for recognition, it is equally important to teach them in context so that the learner will experience the multiple uses and meanings of these words.

Children pick-up information about what words mean and how words are used as they repeatedly hear the words or see them in print. Even for those words that are explicitly taught, much of students’ knowledge of them ultimately comes from further encounters with those words in text. (Stahl & Nagy, 2006, p. 173)

Rich Language

No matter how good a vocabulary program is, however, it would be impossible for any program to cover the multiple topics and meanings of every word to which a student is exposed. Stahl and Nagy (2006) write that, “exposure to rich language, whether written or oral, is a necessary condition for vocabulary growth” (p. 50). The first place that all learners (both L1 and L2) are exposed to language and vocabulary is in their homes. Because of this, the majority of

vocabulary that is learned at these young ages is through context (Stahl & Nagy, 2006), and most of that learning occurs outside of school. Bialystock (2001) performed a study on L1 learners who were read to at home compared to L1 learners who were not read to at home. Bialystock found that children who were read to often showed a better ability to invent a story and find words to go along with a picture book that had no story attached. These read-to L1 learners also used more adjectives to describe stories than the students who did not have stories read to them. Stahl and Nagy (2006) believe that interactions with adults are some the best vocabulary experiences for young children. Anderson, Wilson, and Fielding (1988) also found that students who spent time sitting and eating with their families showed more growth because of the adult interactions. Whereas speaking to children does increase their vocabulary, reading to children has proven to be even more effective. According to Stahl and Nagy (2006), “children’s books are almost twice as rich in rare words as adult conversations; [and] comic books are about three times as rich...” (p. 126). However, because many L1 learners are not read to at home and many L2 learners have parents who are also learning a new language and cannot always read to them in the new language, it becomes important for the teacher to create exposure to reading and rich language in the classroom. In addition to the rich language in reading, teacher explanations for school content are also considered rich language for learning (Stahl & Nagy, 2006). Therefore, it is important to catch the reading interest of the student and present the subjects in a way that will hold their continued interest.

Reading

Reading, reading, and more reading are also recommended for vocabulary acquisition. It is a never-ending circle: reading improves vocabulary while vocabulary improves reading.

Grabe (2010) found many studies show greater amounts of reading equal more vocabulary growth.

It then becomes the role of the teacher to provide opportunities for students to read. They need to provide access to books, incentives to motivate students, read-aloud options for students to listen, and time for reading (Anderson et al., 1988).

Pichette et al. (2012), however, warns that reading alone for incidental acquisition only produces limited results. Schmitt (2008) echoes this concern with studies that showed reading alone produced little improvement in students without explicit vocabulary instruction. There are a number of reasons why having students only read, without the help of vocabulary instruction, can change the results of a study. The first of these problems was obvious to almost any teacher who has been in a classroom, but was recorded in research by Stahl and Nagy (2006). Some of the students were only pretending to read. The lack of gain in these particular students needs no explanation. Another reason is the range of vocabulary that students already possess when they enter school. While this number can vary greatly for even L1 students, there are also estimates that the difference in L2 learners can range from 2,000 to 7,000 words (Droop & Verhoeven, 2003). That is a substantial difference.

This difference in vocabulary knowledge translates almost immediately to a difference in reading ability that separates students soon after they begin reading in school (Bowey, 2005). Those students with more advanced vocabularies pull ahead quickly, while those with smaller vocabularies pull forward at a much slower rate (Bialystock, 2001). Guthrie et al. (1999) found that, “In first grade, good readers encounter 80% more words in their reading instruction than did poor readers” (p. 233).

Additionally, reasons for differences in second language proficiency among bilingual students include the lack of automaticity in recognizing words and slower orthographic processing skills (Bialystock, 2001). Also, “it can be assumed that any differences in the children’s reading comprehension will increase when children are confronted with more complex and abstract language.... these differences manifest themselves around the fourth grade...when education gets more complicated” (Droop & Verhoeven, 2003, p. 97). If all of these students are supposed to be held up to the same standard for measurement, it is not only unfair to those learning at a slower rate, but it is expecting something unrealistic and ultimately setting them up for failure.

As educators, we cannot expect to see immediate results. Nation (1997) found, “the benefits of extensive reading do not come in the short term” (p. 16). There are far too many different skills being learned at the same time to expect students to show instant results. Reading fluency at any level involves a combination of word recognition, reading rate, extensive exposure to print, and accuracy in comprehension. In addition, “many reading skills...only emerge as an outcome of implicit learning. And implicit learning can only come about through extended periods of exposure and meaningful time on task” (Grabe, 2010, p. 73). This clearly places the effectiveness of a reading program in the hands of the teacher. The program needs to be both meaningful and extensive with an implicit learning goal.

How can this task be accomplished with so many students in one class? The answer is the use of graded or leveled readers. A study done by Iwahori (2008) showed that extensive reading of leveled, enjoyable materials with a focus on meaning improved both comprehension and vocabulary knowledge of the students involved. Schmitt (2008) writes that there is substantial research showing the effectiveness of leveled readers. The rich language of authentic

texts is valuable as readers grow, but it can also hinder the learning ability if the reader has not reached a 90 percent level of vocabulary comprehension (Droop & Verhoeven, 2003). (This measurement of 90 percent is discussed in more detail in the section on lexical knowledge and comprehension.) Not only do leveled readers simplify the vocabulary load for learners, but they also recycle many of the same words to help develop quick recall and recognition. Freeman and Freeman (2012) wrote that the strategy of using leveled readers during reading instruction and then using more difficult texts for re-reading the vocabulary helps with comprehension. This may not expand the vocabulary as quickly, but it is, "...very useful in developing and enriching partially known vocabulary" (Schmitt, 2008, p. 348), an essential skill for beginners. In a study done by Levy et al. (1997), it was discovered that poor readers in grades three through six who were given leveled readers showed "...benefits at the single – word level and at the content level..." (p. 174).

Once a basic level vocabulary is established, however, students still need to learn a variety of strategies to decode the remaining words on the page. The advice of Iwahori (2008) is to avoid dictionaries as much as possible. Dictionaries take a large amount of time and call on other skills that break down the comprehension of the text. Additionally, Stahl and Nagy (2006) point out that dictionary definitions often have long descriptions of the words that only confuse the learner further. Instead, the first strategy a teacher should try to show students is how to guess the meaning of the word from the context. This, again, revisits the value of teaching vocabulary in the context of a topic that is being read about in class. Schmitt (2008) also emphasizes that the focus must be kept on constructing meaning for the topic. Focus on the meaning of a text can also be helpful as a strategy. Inference is a skill used more commonly by beginning learners than advanced learners, but it remains a skill that is not inherent to most

learners at all and must be taught. Droop and Verhoeven (2003) suggest using pre-reading tasks because the context will be more difficult for some readers than others. Schmitt (2008) suggests using post-reading tasks that focus on the USE of new vocabulary rather than forcing students to know the MEANING of new vocabulary. Done in small groups for discussion, this gets the students using the target words rather than guessing at them. Freeman and Freeman (2012), whose book focuses specifically on teaching L2 learners, suggest multiple strategies for engaging learners. These include using culturally relevant books to keep student interest, pairing native speakers with non-native speakers, planning curriculum around student backgrounds, and engaging students in both reading and writing workshops in the classroom. Even teaching the meanings of affixes can aid students in deciphering vocabulary and contextual meaning (Stahl & Nagy, 2006). These strategies help focus vocabulary growth in the core areas so that students do not fall behind in a variety of learning subjects just because of a language barrier.

There are several teaching methods that have produced measurable increases in reading ability. One of these is called “echo reading” (Stahl & Nagy, 2006, p. 106). Basically, the teacher reads first and then the student repeats and follows what they have just heard. This might sound like cheating, but it has actually helped students to understand challenging material. This is because, “...listening comprehension exceeds...reading comprehension” (Stahl & Nagy, 2006, p. 52) in most learners. This is not surprising when compared to another study that found “...reading while-listening is generally superior to reading-only in promoting vocabulary learning” (Schmitt, 2008, p. 349). Stahl and Nagy (2006) wrote that having an effective reading program in a classroom involves both volume of reading and level of comprehension. Each student must first be matched to the correct level of text, the entire class must be given time to read, and comprehension skills should be taught to all students in the classroom. Matching

students to their level of comprehension is where this becomes difficult, but not impossible. No large group class is going to have an entire group of students who will all understand the same level of text. While it is impossible to assign a teacher to every reading level in the room (in some rooms, there might be a dozen different levels), the task of monitoring becomes even more difficult when the teacher realizes that they need to monitor each individual student. Although un-monitored reading has proved less effective than directly monitored reading (Stahl & Nagy, 2006), a classroom teacher is left with no other choice than to allow students to read while they circulate the room and check-in with individual students. This divided reading time is just as necessary for L2 readers as L1 readers. Verhoeven (2000) recommends that reading be used at all levels of the L2 learning process, from New-to-Country students all the way up to advanced learners. While Stahl and Nagy (2006) found that it was very problematic for most beginning L2 learners to learn words from context, it was programs that focused mostly on reading that showed the most benefit for these learners. They wrote, "...Getting students to read as much and as widely as possible is essential to their continued vocabulary growth" (Stahl & Nagy, 2006, p. 53). Talking about the words in a story and discussing their meanings with students also "...enables the child to make connections to past experiences to analyze information or draw inferences..." (Stahl & Nagy, 2006, p. 116). Stahl and Nagy did warn, however, that teachers who have beginning level learners need to be careful to stay as close to the main topic as possible when introducing new material, and Bowey (2005) urges teachers to monitor students who are falling behind as closely as possible to correct instruction as soon as difficulties appear. Veering too far onto side topics can make comprehension too difficult for the lowest level learners in a group.

Once learners discover that reading can be fun and not just an assignment, they usually begin to advance more quickly. In a study done by Anderson et al. (1988), it was found that out-of-school reading proved to have the largest link to reading proficiency. Unfortunately, the same study also showed that almost none of the children took the time to read in their free time at all. Guthrie et al. (1999) found similar results when some students had increased reading time, while other students did not increase their reading time. The students who read more also showed improvement in text comprehension. Additionally, Guthrie et al. discovered that the amount of reading time outside of class affected scores as well. Students who read for pleasure for at least 20 minutes out-of-school were in the top third of the class. So, how do teachers encourage students to read more for enjoyment? According to Hammond and Danaher (2011), students who claimed they had no time to read found time when they were given the opportunity to read for pleasure and the text of their choosing. They also reported that students were more interested in reading when they knew the words in the text. So, teachers need to provide students with time to read topics of their choosing at a level they can easily understand.

The Use of Images

Astorga (1999) found that images were extremely important for beginning learners. These images can be divided into two categories. The first is a conceptual image, which represents a physical or tangible meaning to the learner. The second is a presentational image, which gives the learner a sense of the events and actions happening in a story.

Written stories that are used in second language learning have the undeniable value of providing the context through which children can acquire the new language by being exposed to the sentence patterns, collocations, and rhythms of the target language. But at

the same time, the second language can be a barrier that prevents the young second language learners from getting into the world of a story. (Astorga, 1999, p. 213)

The study done by Astorga also found that children's books using images to show the actions of the characters were better for learning word comprehension. "When text and image are simultaneous input, the image will surely first engage their attention. The challenge lies in finding a pedagogic approach that encourages children to attend to the written text as well" (Astorga, 1999, p. 214). Astorga recommended reading comprehension questions that contained images in the questions, but unfortunately found that only three out of twenty picture books for L2 learners that were reviewed used pictures in the post reading tasks. Akamatsu (2008) additionally found that images helped because it was more difficult for learners to decipher text when the visual images they were given did not match what they were reading.

The use of sound recording to accompany illustrations was also found to make reading more enjoyable and easier for readers to understand (Hammond & Danaher, 2011). Another method that was used is called a "picture walk" (Stahl & Nagy, 2006, p. 112). This walks the student through the pictures to understand what the story might be about before they begin to read.

Writing

Pichette et al. (2012) found that written activities combined with reading showed more growth than reading alone. This study was based on the hypothesis that production tasks ensure the learner is using all of the skills at their disposal and building by experience. While it can be said that you can read without writing, it is not possible to write without reading. Unfortunately, there is not much research done on "phrasal vocabulary" learning (or teaching vocabulary as a

group of words rather than individually), but Schmitt (2008) feels that it is another area worth focus when teaching vocabulary to students.

Correlations Between Lexical Knowledge and Comprehension

The challenge then becomes reading comprehension for longer texts and not just short phrases. Additionally, while multiple studies agree that lexical knowledge affects reading comprehension (Stahl & Nagy, 2006), it must also be questioned if the skill hindering the production is the question itself or formulating the answer (Verhoeven, 2000). “There is...ample evidence showing children’s word recognition ability to be strongly related to their reading comprehension during the initial stages of learning to read...” (Droop & Verhoeven, 2003, p. 81). Schmitt (2008) warns that poor readers are those who understand less than 80 percent of the text. This puts them into the poor reading category, and simply reading a text over and over will not help them learn what the text means without specific vocabulary help. However, according to Droop and Verhoeven (2003), that percentage only needs to be raised to 90 percent to make them average readers. In other words, if 90 percent of the words are familiar to the learner, they can usually figure out the remaining text. Also according to Droop and Verhoeven (2003), these findings agree with a previous study done on L1 and L2 learners in the Netherlands. So, if 90 percent of the words cannot be easily recalled by the student, then learning the unknown words becomes a much more difficult task. “If sub tasks, such as word meaning retrieval, do not take place ‘automatically,’ they may therefore call for attentional capacity to the detriment of the higher – order comprehension task” (Fukkink et al., 2005, p. 54). This again means that teachers really need to match each student to the reading tasks they are given for the sake of comprehension, and not assume that the classes can be easily divided into larger groups. Some students may not fit into any of the assigned groups and either feel as if they are being pulled

back or forced to excel faster than they can produce results. This is again why monitoring comprehension and talking to students becomes increasingly important.

Summary

All of this research combined can seem a lot to take in at one time, but it is not impossible to create an effective teaching plan using almost all of these techniques. Increasing vocabulary and reading exposure so that students can build the ability to speak, read and write more clearly should help them in all parts of their education. Most of these areas such as sight words, vocabulary growth and exposure to rich language do require a very hands-on approach to classroom teaching that will probably be shaped differently depending on the strengths of each teacher. There are multiple sources that teachers can also find to organize these areas of study. Therefore, there are numerous ways in which this research could be applied to both L1 and L2 learners. And, according to the research, the increased exposure to extensive learning should improve student performance.

III: Method

This study focused on how a reading instruction program using leveled readers, visual images, and word play compared to the use of basal readers will affect reading scores.

Participants

The participants in this study were 41 second grade students divided into two separate groups. All but two of the student participants were considered to be English language learners and qualified for ESL services from the level of New-to-Country all the way to Advanced. The economic backgrounds of these students varied greatly in both groups. All of the students lived in a large city or the surrounding suburbs.

During the 2010 – 2011 school year, 16 of the participants were taught by an ESL teacher, the second grade teacher, and a Title 1 reading teacher (This is a federally funded reading program for students who have been identified as needing extra help in reading at schools that qualify for this particular program.) who pulled five students out for the second half of the period for extra reading help. The ESL teacher for the first year of the study changed in January because a new teacher was hired.

During the 2011 – 2012 school year, 25 participants were taught by an ESL teacher, the second grade reading teacher, a teaching assistant who was there for the first half of the class daily, and a Title 1 reading teacher who pulled out a small group of five students for the second half of the class period.

For the purpose of simplifying the information being presented in this study, the 16 students who participated in the 2010-2011 school year will be referred to as the control group. This is because they were taught using a method that is very common in many classrooms. The 25 students who participated in the 2011-2012 school year will be referred to as the study group.

Materials

Basal Reader. The basal reader used by the control group in this study was a book published by Houghton Mifflin Harcourt in Geneva, IL titled *Trophies: just for you*. The specific book was the grade 2, 2005 edition. It was published as two halves labeled 2-1 and 2-2. The first half of the basal reader, 2-1, was completed by the control group. The second half of the basal reader, 2-2, was started by the control group, but not completed.

Grammar Book. The more advanced students in the study group and all but five of the students in the control group (those 5 students were removed for Title 1 reading at the time when the grammar lesson was given) were taught from the same second grade grammar workbook with exercises and worksheets. Unfortunately, the specific detailed information of which series was used as a grammar workbook was not retained.

Leveled Readers. Leveled readers from Scholastic were used in the study group. These books covered a large variety of topics and were available for reading levels kindergarten through sixth grade. The books used in this study did not exceed the fourth grade reading level.

Vocabulary. Students in the study group were presented with new vocabulary on a weekly or bi-weekly basis. This vocabulary was theme based and presented in multiple formats simultaneously. These groups of vocabulary word units each followed a theme that could either be found in the leveled readers or a theme that could expand their understanding of topics in the world around them. Because students' needs varied, these word lists were determined as the class progressed. Topics that were covered included the circus, street signs, and farms.

Sight Words. A list of sight words taken from the Internet for kindergarten through grade three was used in the study group to help with fluency. These words were used often on flashcards, in books and in word play.

Teacher Written Books. ESL Teacher-written books were used in the study group to focus on and use vocabulary at levels lower than the beginning readers for New-to-Country students. These books included the sight words, which had been previously learned, and the vocabulary that was being used by the rest of the class.

Teacher Written Worksheets. In the study group, mind maps and reading questions were written by the teachers and used to get students to think about what they read. Worksheets also encouraged students to go back and re-read parts of the text.

Measures of Academic Progress Assessment. At the beginning and end of each school year, all of the student participants were given the Northwest Evaluation Association (NWEA) Measures of Academic Progress Interim Assessment (MAP assessment). This test is scored using Rasch Units, also known as a RIT score.

Procedure

Because this study compared the improvement in RIT reading scores between two different groups, the teaching methods used on each group were very different.

Control Group Procedure. The control group was taught from the grade 2 basal reading textbook with little variation from the prescribed teaching plans and texts. They were occasionally given craft projects to do, which were non-related to the reading text, just because both teacher and students found the textbook to be uninteresting at times. All spelling and vocabulary words were taken from the textbook. The teacher attempted to modify the grammar workbook to the best of his ability so that most of the students could follow along during class.

This was a required action because of the range of reading abilities in the classroom. The only ESL support offered during this reading program was a 60-minute pullout for new-to-country students at a time that did not even match with the reading instruction period. Homework was occasionally assigned, but the students often lost or did not complete the assignments. This class was used as the control group, because it was an example of most reading and vocabulary programs in public schools. This is not a reflection in any way on the ability of the teacher who was doing the best he could with both the materials and available assistance he had been given that year.

Study Group Procedure. The study group had a much more structured schedule. During a 95-minute block class, the first 45-minutes of instruction on Monday, Wednesday, and Friday were spent by dividing the students into reading levels and allowing them time to read individually. This is when the leveled readers were used. More advanced readers were given the freedom to find a comfortable spot to read, while struggling students were kept inside the classroom. The classroom teacher and the teaching assistant circulated the room and asked different students to read aloud to them. They also asked students comprehension questions about each of the different texts. The lowest level ESL new-to-country students were pulled aside in the classroom for the first part of the year, but later integrated into the reading program with the other students once they reached a kindergarten reading level. At that point, the ESL teacher also circulated the classroom to help with reading and comprehension.

In the study group, the second 45-minutes of Monday, Wednesday, and Friday were spent dividing the class into 3 groups. The new-to-country students had a pull-out class that involved word-play for work on sight words, phonics and vocabulary comprehension. Five other students

from the study group went to Title 1 reading instruction, and the remaining students worked on grammar with the second grade teacher.

Tuesdays for the study group were spelling, vocabulary, and library days. The class always began with the weekly spelling pre-test. There were four different pre-tests to give, because the class was divided according to their reading levels into different spelling groups. Lower level groups would get words more easily spelled by using phonics and sight words, while higher level groups would get words from the vocabulary list for that week. The final test was given every Friday before reading began. The spelling pre-test on Tuesdays was followed by either the introduction of new vocabulary or the review of last week's vocabulary. Reviews were done in an interactive activity, such as a game, that varied from week to week. All of the vocabulary words were given an image that was shown on the projector as the word was introduced. These images were accompanied by discussions about how all of the words were related to each other. Then, the words were written on the board and the students were asked to copy it into their notebooks. The length of time spent on each topic was determined by the difficulty of the words, required school breaks, and how much processing time was needed for students to show comprehension. Additionally, some words were added to the vocabulary to match the words students were showing the most difficulty understanding in their readers. The second 45-minutes of the Tuesday class were spent divided into the three different reading groups until students were called to the library.

Thursday was an instruction day in the study group. Students would be challenged with problem solving, taught how to correctly answer questions on a worksheet, and shown how to do whatever had shown a need for improvement over the course of the previous week. The first 45-minutes of Thursdays were never the same as any other day because they were based on student

needs and task completion. For the second 45-minutes of Thursday, the class was divided into the three different groups for specialized vocabulary or grammar instruction just as they did on Monday, Wednesday and Friday.

Although the days when written activities occurred in the study group varied from week to week, all of the students in this group were expected to participate in any written activities done in the classroom. This included all levels of learners, even if that meant drawing a picture rather than writing words.

Homework was never assigned to the study group. This was done partly because of the varied nature of the class periods. It was also done because of the variety of home environments in which some of the students were living. Parents were not always available to help at home and in some families, basic needs were understandably a higher priority than school.

Assessment. Both the control group and the study group were assessed using the MAP Reading assessment in the fall and spring of the corresponding school years. According to NWEA - Measures of Academic Progress Interim Assessments for Grades K-12 (2015), the MAP assessment uses a process called Item Response Theory. Item Response Theory means that students are tested to see at what level of learning they are able to answer questions correctly about 50 percent of the time. This way of testing is independent of any grade level markers and is intended to identify the strengths and weaknesses of the students individually. NWEA (2016) also states that the MAP assessment is adaptive to each student, so that the test changes based on the individual student answers. This means that each student answers their own set of unique questions while taking the test. NWEA (2016) also maintains that this is an interim assessment that is given at more than one time each year to chart student growth over time. A series of units called Rasch Units (also called a RIT score), are used to record and measure progress. RIT can

be thought of as a scale of measurement that is similar to an inch or a foot. The growth of each student is based on the RIT progress between assessments. NWEA (2013) breaks the RIT score up into seven parts: Overall RIT score, Phonological Awareness, Phonics, Concepts of Print, Vocabulary and Word Structure, Comprehension, and Writing. This breakdown is examined in more detail in the results.

The RIT reading scores and charted improvement from the control group were compared to the RIT reading scores and charted improvement from the study group. The results of these tests showed the difference in growth between the two classes.

Analysis

This study would be considered action research. This is because the research is addressing a problem in the classroom by attempting to improve teaching methods. Because it took a total of two years to collect the data used for this study, it would be difficult to gather another round of data for a result comparison. Because of this, the study may not give solid quantitative data, but it will give some insight into student learning. This is, therefore, a qualitative study that shows how theory can be put into practice. It would, however, be educational to see a similar study done at a later time to compare and contrast the results.

Before the scores could be used for comparison, students who had only been in the class for part of the year, and therefore only had one set of scores, had to be removed. In doing this, the data became a better reflection of the growth shown by students who had been present in the classroom for the entire school year. A total of four students were removed from the original 20 students in the control group. This resulted in 16 students remaining in the study for the control group results. Five of those remaining students in the control group were new-to-country English language learners. In the study group, a total of three students were removed from the original

28. Two students were removed because they only attended the second half of the school year. The other student was later removed because for unknown reasons he had attained two scores of zero in the fall. This caused false readings in the overall mean and median measurements for the entire class. These two measurements of zero also affected the individual measurements of student growth in the spring, because it appeared that the student had grown from a score of zero to a very high score in the spring. These removals resulted in 25 students remaining in the study group results. Four of those students in the study group were also new-to-country English language learners.

Individual, mean and median scores for both Fall (pre-study) and Spring (post-study) are given for both groups in the results. In addition, each student's change in score over the study period was calculated (measured score at the end of the study (spring) minus measured score at the beginning of the study(fall)). Statistical tests take into consideration that the number of students in the control group are different than the study group. The changes in growth of the control group versus the study group were compared statistically using a two tailed, two-sample t-test assuming unequal variances to determine if the observed changes were statistically relevant.

Finally, because NWEA presents all their normative data using the mean results from their testing scores, those reported numbers were used to compare the students in the groups to other students around the United States who take the same test.

IV:Results

In order to discuss what these results actually represent, it is important to first understand how NWEA breaks down their average growth measurements. This explanation and number reference was taken from the 2015 NWEA Measures of Academic Progress Normative Data (2015) document that can be found on their website. Because this study focused on second grade students, the information presented here will be about that age group. All of the data is presented in a range with an expected amount of growth per year at the national level, so the results will also be compared to that range. The expected score for second graders taking the MAP assessment nation-wide in the fall ranges from 159.18 – 190.22 RIT. The expected score for second graders taking the MAP assessment nation-wide in the spring ranges from 173.49 – 203.91 RIT. The average growth expected for each student at the national level is 14 RIT, but the range of that expected growth can be between 5.8 – 22.2 RIT. The 2015 NWEA Measures of Academic Progress Normative Data (2015) states that this mean measurement is based on the total number of assessments that are given to all of their testing groups. To show where the students in this study fall, compared to other students around the United States, colors have been used in the tables. Pink indicates students who fall below the standard national second grade level. Yellow indicates students who fall above the standard national second grade level.

The first recorded results are in the area of phonological awareness. NWEA (2013) states that this part of the test covers blending, phoneme identification, phonemic manipulation of sounds and syllabication, and rhyming.

Table 1: Individual Gains in Phonological Awareness

pink = below national average

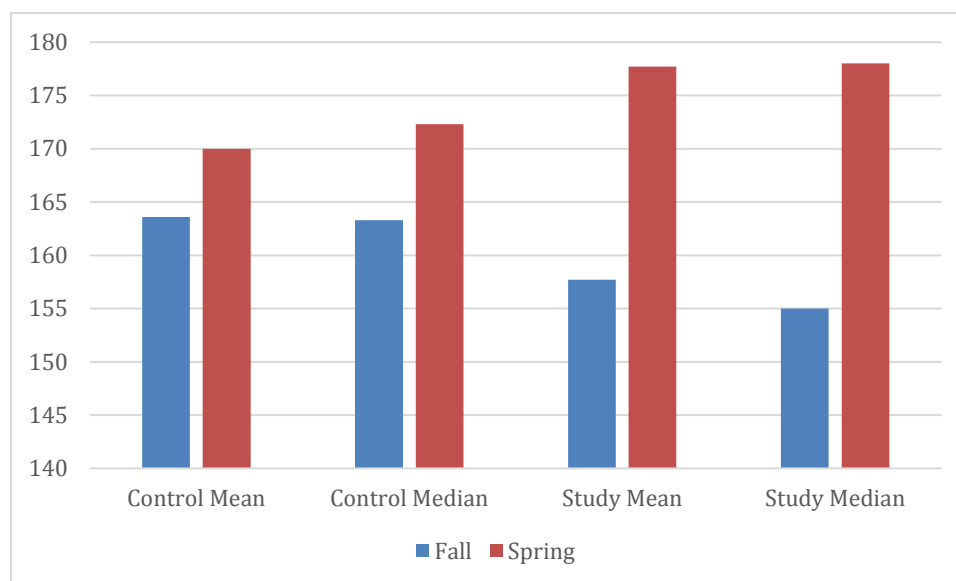
yellow = above national average

Stu.	Fall	Spring	Dif.	Stu.	Fall	Spring	Dif
C1*	122	125.5	3.5	S1	161	199	38
C2*	128	137	9	S2	155	192	37
C3*	134	150	16	S3	184	207	23
C4*	160.5	150.5	-10	S4	150	172	22
C5	145	148.5	3.5	S5*	141	152	11
C6	148.5	158.5	10	S6	191	205	14
C7*	166	171	5	S7*	149	152	3
C8	150	173.5	23.5	S9	147	187	40
C9	157	155	-2	S10*	150	171	21
C10	168.5	197.5	29	S11	158	178	20
C11	176.5	177.5	1	S12*	140	148	8
C12	177.5	189	11.5	S13	156	178	22
C13	176.5	185	8.5	S14	159	183	24
C14	176	193	17	S15	163	188	25
C15	221.5	193	-28.5	S16	168	170	2
C16	210.5	215.5	5	S17	150	161	11
		Mean	6.375	S18	177	158	-19
		Variance	166.578125	S19	155	174	19
		SD	12.90651483	S20	159	185	26
				S21	140	179	39
				S22	175	181	6
				S23	162	193	31
				S24	151	172	21
				S25	155	197	42
				S26	147	161	14
						Mean	20
						Variance	191.36
						SD	13.83329317

(*denotes New-to-Country)

Table 1 presents the individual student test scores in the area of phonological awareness for both the fall and the spring. It can be seen in Table 1 that in the control group, 43.8% of students started the year with a score below the national average (NA) for fall of 159.18 – 190.22 RIT (pink scores) and 12.5% of students started the year with a score above the NA (yellow scores). In the study group, 64% of students started the year with a score below the NA (pink scores) and 4% of students started the year with a score above the NA (yellow scores). When the year finished, the number of students below the NA for spring of 173.49 – 203.91 RIT in the control group had risen to 50% (pink scores) and the number of students above the NA had fallen to 6.3% (yellow scores). However, in the study group, the number of students below the NA had fallen to 40% (pink scores) and the number of students above the NA had risen to 8% (yellow scores). The table shows that one student in the control group and eight students in the study group caught up to the average score of other second graders at the national level.

An independent sample t-test done on the individual gains of each group showed a statistically significant difference ($df=33$, $t=3.12$, $p<0.01$) in the direction of the study group ($M=20$, $SD=13.83$) outperforming the control group ($M=6.38$, $SD=12.91$) in phonological awareness.



	Fall	Spring	Growth
Control Mean	163.6	170	6.4
Control Median	163.3	172.3	9
Study Mean	157.7	177.7	20
Study Median	155	178	23

Figure 1: Mean and Median Growth in Phonological Awareness

Figure 1 presents the mean and median growth in the area of phonological awareness for both groups. Mean growth in the control group showed an increase of 6.4 RIT, and mean growth in the study group showed an increase of 20 RIT. Although both of these results are within the NA range of 5.8 – 22.2 RIT for second grade growth, there is a 13.6 RIT increase in the study group scores. Median growth in the control group showed an increase of 9 RIT, and median growth in the study group showed an increase of 23 RIT. The results for the control group are again within the NA for second grade growth, but the results for the study group surpass the NA. There is a 14 RIT increase in the study group scores beyond those of the control group. Based on

these results and the NWEA average annual growth of 14 RIT, the overall growth in phonological awareness in the study group was a full year higher than the control group.

The second recorded results are in the area of phonics. NWEA (2013) states that this part of the test covers consonants, sound manipulation and syllabication, spelling patterns and rhyming, and vowel patterns.

Table 2: Individual Gains in Phonics

pink = below national average

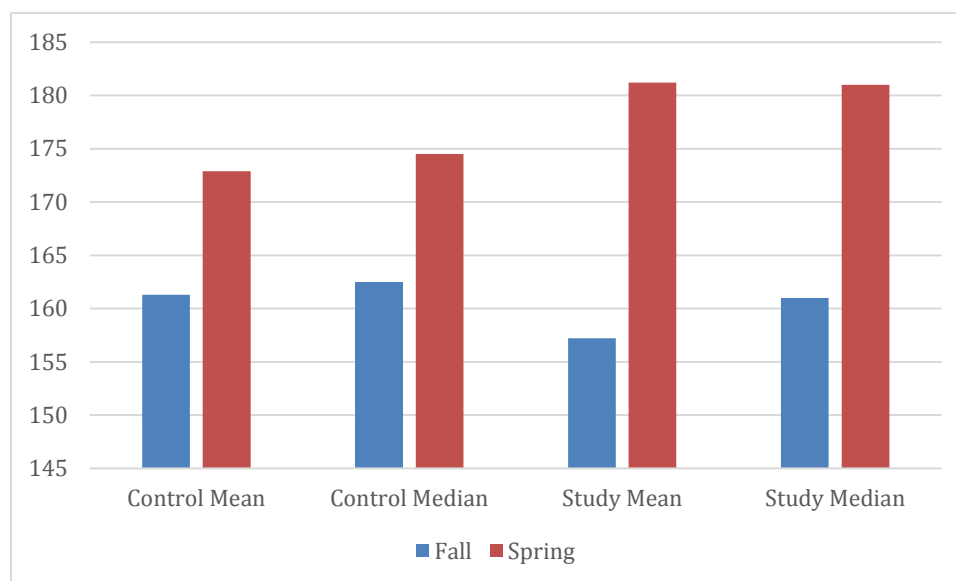
yellow = above national average

Stu.	Fall	Spring	Dif.	Stu.	Fall	Spring	Dif
C1*	123	102.5	-20.5	S1	186	193	7
C2*	117.5	156	38.5	S2	163	197	34
C3*	132	151	19	S3	193	201	8
C4*	143.5	147	3.5	S4	161	166	5
C5	156.5	169.5	13	S5*	141	161	20
C6	147	172	25	S6	182	206	24
C7*	161	175	14	S7*	129	152	23
C8	168	178	10	S9	150	195	45
C9	142.5	152	9.5	S10*	130	176	46
C10	175.5	174	-1.5	S11	158	178	20
C11	176.5	189.5	13	S12*	132	150	18
C12	164	192.5	28.5	S13	160	189	29
C13	173.5	189.5	16	S14	170	168	-2
C14	189.5	198	8.5	S15	153	181	28
C15	204	209	5	S16	147	187	40
C16	206.5	211	4.5	S17	153	191	38
		Mean	11.625	S18	161	187	26
		Variance	165.671875	S19	161	171	10
		SD	12.87135871	S20	162	175	13
				S21	163	193	30
				S22	154	180	26
				S23	176	199	23
				S24	163	174	11
				S25	170	211	41
				S26	111	148	37
		Mean	24				
		Variance	166.32				
		SD	12.89651116				

(*denotes New-to-Country)

Table 2 presents the individual student test scores in the area of phonics for both the fall and the spring. In the control group, 43.8% started the year with a score below the NA and 12.5% started the year with a score above the NA. In the study group, 44% started the year with a score below the NA and 4% started the year with a score above the NA. When the year finished, the number of students below the NA in the control group had remained unchanged at 43.8% and the number of students above the NA had also remained 12.5%. However, in the study group the number of students below the NA had fallen to 28% while the number of students above the NA had increased to 8%. The table shows that none of the control group students caught up to the average score of other second graders at the national level. However, seven students in the study group caught up to the average scores of other second graders at the national level.

An independent sample t-test comparing the gains in both groups showed a statistically significant difference ($df=31$, $t=2.92$, $p<0.01$) in the direction of the study group ($M=24$, $SD=12.90$) outperforming the control group ($M=11.63$, $SD=12.87$) in phonics.



	Fall	Spring	Growth
Control Mean	161.3	172.9	11.6
Control Median	162.5	174.5	12
Study Mean	157.2	181.2	24
Study Median	161	181	20

Figure 2: Mean and Median Growth in Phonics

Figure 2 presents mean and median growth in the area of phonics for both groups. Mean growth in the control group showed an increase of 11.6 RIT, and mean growth in the study group showed an increase of 24 RIT. The control group results are once again within the NA for second grade growth, and the study group results once again surpass the NA. This is an 12.4 RIT increase in the study group scores beyond those of the control group. Median growth in the control group showed an increase of 12 RIT, and median growth in the study group showed an increase of 20 RIT. This is an 8 RIT increase in the study group scores beyond those of the control group.

The third recorded results are in the area of concepts of print. NWEA (2013) states that this part of the test covers developmental reading skills, developmental writing skills, and environmental print.

Table 3: Individual Gains in Concepts of Print

pink = below national average

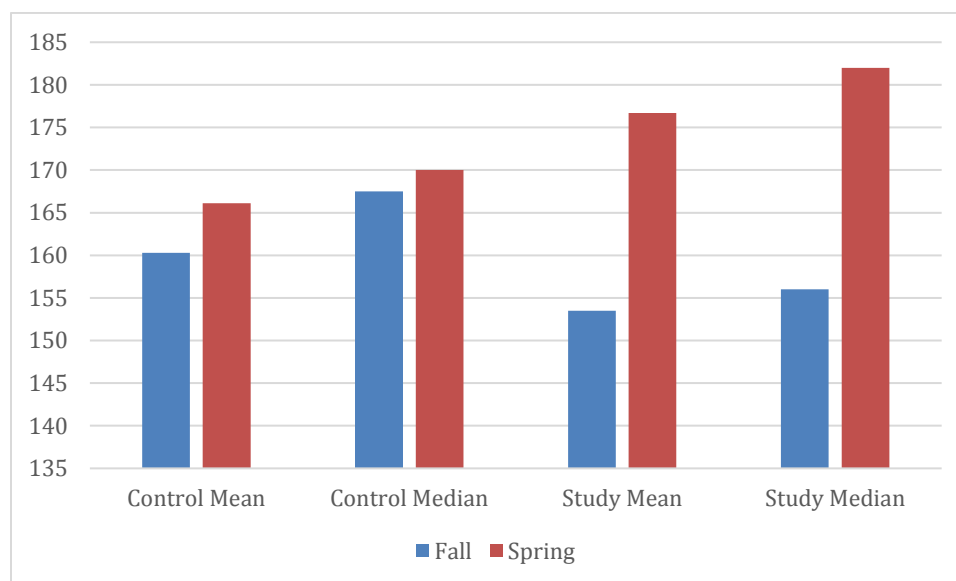
yellow = above national average

Stu.	Fall	Spring	Dif.	Stu.	Fall	Spring	Dif
C1*	118	104.5	-13.5	S1	146	192	46
C2*	125	142.5	17.5	S2	161	179	18
C3*	126.5	149.5	23	S3	153	191	38
C4*	141.5	153	11.5	S4	153	151	-2
C5	134.5	142.5	8	S5*	136	146	10
C6	139	185	46	S6	209	174	-35
C7*	168	163.5	-4.5	S7*	123	164	41
C8	167	184.5	17.5	S9	156	182	26
C9	165	168	3	S10*	146	189	43
C10	176	189.5	13.5	S11	159	184	25
C11	179	176.5	-2.5	S12*	124	155	31
C12	168.5	185	16.5	S13	153	194	41
C13	183.5	166	-17.5	S14	149	191	42
C14	200.5	172	-28.5	S15	156	177	21
C15	181	199.5	18.5	S16	170	190	20
C16	192	175.5	-16.5	S17	151	183	32
		Mean	5.75	S18	139	154	15
		Variance	333.125	S19	156	174	18
		SD	18.25171225	S20	158	178	20
				S21	158	175	17
				S22	160	184	24
				S23	161	182	21
				S24	170	182	12
				S25	166	193	27
				S26	125	154	29
		Mean	23.2				
		Variance	273.12				
		SD	16.52634261				

(*denotes New-to-Country)

Table 3 presents the individual test score results in the area of concepts of print. In the control group, 37.5% started the year with a score below the NA and 12.5% started the year with a score above the NA. In the study group, 72% started the year with a score below the NA and 4% started the year with a score above the NA. When the year finished, the number of students below the NA in the control group had increased to 56.3% and the number of students above the NA had fallen to 0%. In the study group, the number of students below the NA had fallen to 24%, but the number of students above the NA had also fallen to 0%. The table shows that 1 student in the control group and 12 students in the study group caught up to the average score of other second graders at the national level.

An independent sample t test comparing the gains in both groups showed a statistically significant difference ($df=29$, $t=3.01$, $p<0.01$) in the direction of the study group ($M=23.2$, $SD=16.53$) outperforming the control group ($M=5.75$, $SD=18.25$) in concepts of print.



	Fall	Spring	Growth
Control Mean	160.3	166.1	5.8
Control Median	167.5	170	2.5
Study Mean	153.5	176.7	23.2
Study Median	156	182	26

Figure 3: Mean and Median Growth in Concepts of Print

Figure 3 presents the mean and median growth in concepts of print for both groups. Mean growth in the control group showed an increase of 5.8 RIT, and mean growth in the study group showed an increase of 23.2 RIT. The control group growth is at the very bottom of the NA, but the study group growth exceeds the NA for growth by 1 RIT. This is also a 17.4 RIT increase in the study group scores beyond those of the control group. Median growth in the control group showed an increase of 2.5 RIT, and median growth in the study group showed an increase of 26 RIT. This score places the growth in the control group below the NA, while the study group exceeds the NA for growth by 3.8 RIT. This is also a 23.5 RIT increase in the study group.

Based on these results, the study group showed over a full year of growth beyond the control group in the area of concepts of print.

The fourth recorded results are in the area of vocabulary and word structure. NWEA (2013) states that this part of the test covers content vocabulary and context clues, base words, prefixes, suffixes, sight words, synonyms, antonyms, homonyms, homographs, homophones, compound words, and contractions.

Table 4: Individual Gains in Vocabulary and Word Structure

pink = below national average

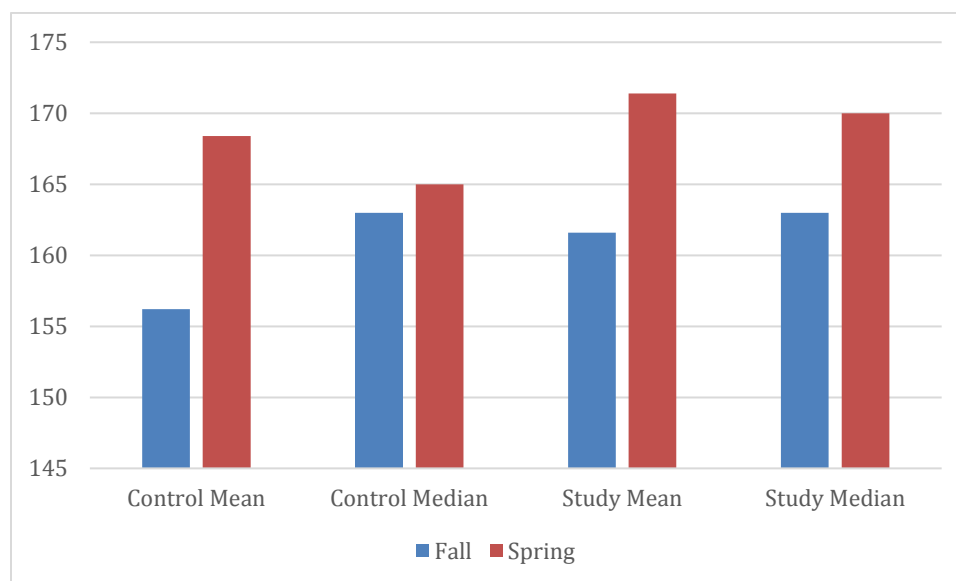
yellow = above national average

Stu.	Fall	Spring	Dif.	Stu.	Fall	Spring	Dif
C1*	108	116	8	S1	185	162	-23
C2*	120	155	35	S2	178	164	-14
C3*	130	159.5	29.5	S3	176	181	5
C4*	115.5	153	37.5	S4	153	162	9
C5	147.5	160.5	13	S5*	145	150	5
C6	164	149.5	-14.5	S6	159	185	26
C7*	159.5	161	1.5	S7*	136	161	25
C8	162	169	7	S9	175	166	-9
C9	170	160	-10	S10*	142	163	21
C10	167	172.5	5.5	S11	163	168	5
C11	169.5	180.5	11	S12*	136	150	14
C12	154.5	184.5	30	S13	175	181	6
C13	169.5	187	17.5	S14	161	194	33
C14	186.5	196	9.5	S15	152	169	17
C15	180	192.5	12.5	S16	167	178	11
C16	195	198.5	3.5	S17	162	183	21
		Mean	12.28125	S18	153	178	25
		Variance	206.1865234	S19	164	174	10
		SD	14.35919648	S20	177	184	7
				S21	166	175	9
				S22	161	180	19
				S23	178	185	7
				S24	166	170	4
				S25	172	165	-7
				S26	137	156	19
						Mean	9.8
						Variance	166.64
						SD	12.90891165

(*denotes New-to-Country)

Table 4 presents the individual test scores in the area of vocabulary and word structure. In the control group, 37.5% started the year with a score below the NA and 6.3% started the year with a score above the NA. In the study group, 36% started the year with a score below the NA and 0% started the year with a score above the NA. When the year finished, the number of students below the NA in the control group had increased to 62.5% and the number of students above the NA had fallen to 0%. In the study group, the number of students below the NA had increased to 52% while the number of students above the NA had remained 0%. This was not a good area of growth for either group. Both groups showed an increase in the number of students falling below the NA for vocabulary and word structure. However, the table does show that one student in the control group and two students in the study group caught up to the average score of other second graders at the national level.

An independent sample t test comparing the gains in each group showed no statistically significant difference ($df=29$, $t=-0.55$, $p>0.01$) between the study group ($M=9.8$, $SD=12.91$) and the control group ($M=12.28$, $SD=14.36$) in vocabulary and word structure.



	Fall	Spring	Growth
Control Mean	156.2	168.4	12.2
Control Median	163	165	2
Study Mean	161.6	171.4	9.8
Study Median	163	170	7

Figure 4: Mean and Median Growth in Vocabulary and Word Structure

Figure 4 presents the mean and median growth in vocabulary and word structure for both groups. Mean growth in the control group showed an increase of 12.2 RIT, and mean growth in the study group showed an increase of 9.8 RIT. This is a 2.4 RIT decrease in the study group. Although both of these results are within the NA, they are both on the low end of growth. Median growth in the control group showed an increase of 2 RIT, and median growth the study group showed an increase of 7 RIT. Again, these are low numbers for both groups. The control group fell below the NA by 3.8 RIT, while the study group also stayed on the low end of the NA. This is only a 5 RIT increase in the study group scores over the control group.

The fifth recorded results are in the area of comprehension. NWEA (2013) states that this part of the test covers literal comprehension, interpretive comprehension, and evaluative comprehension.

Table 5: Individual Gains in Comprehension

pink = below national average

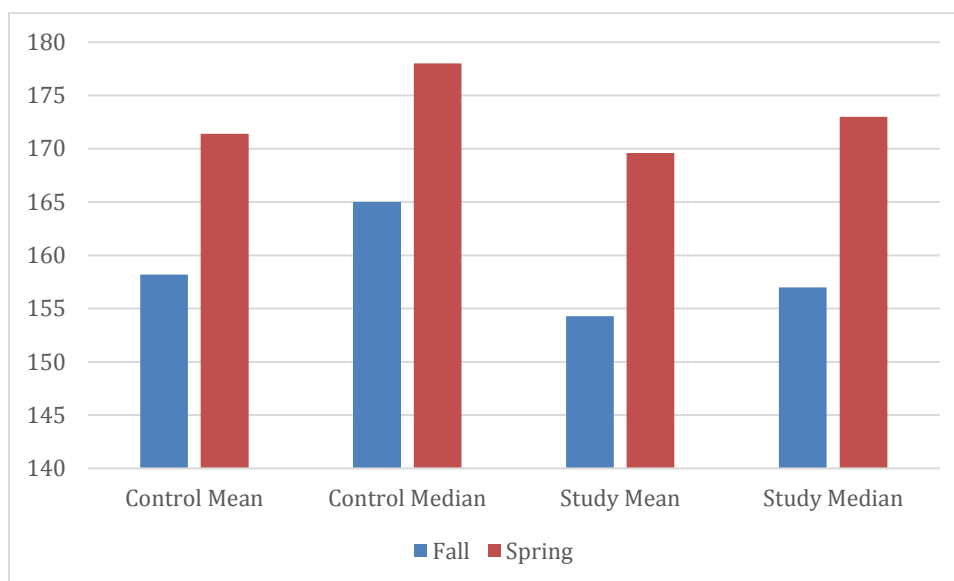
yellow = above national average

Stu.	Fall	Spring	Dif.	Stu.	Fall	Spring	Dif
C1*	124.5	120.5	-4	S1	181	183	2
C2*	130	132	2	S2	153	156	3
C3*	129.5	170.5	41	S3	161	178	17
C4*	128	153.5	25.5	S4	144	165	21
C5	133	149	16	S5*	116	159	43
C6	147.5	159	11.5	S6	175	199	24
C7*	153	162	9	S7*	129	155	26
C8	162	186.5	24.5	S9	136	177	41
C9	174.5	180	5.5	S10*	145	178	33
C10	168	186.5	18.5	S11	167	160	-7
C11	168	178.5	10.5	S12*	136	142	6
C12	183	177.5	-5.5	S13	175	176	1
C13	174.5	189.5	15	S14	172	180	8
C14	186.5	204.5	18	S15	146	165	19
C15	187	189.5	2.5	S16	162	174	12
C16	181.5	203	21.5	S17	127	163	36
		Mean	13.21875	S18	166	173	7
		Variance	134.717773	S19	155	176	21
		SD	11.6067985	S20	163	178	15
				S21	170	179	9
				S22	158	168	10
				S23	165	174	9
				S24	151	154	3
				S25	157	173	16
				S26	147	154	7
						Mean	15.28
						Variance	160.7616
						SD	12.6791797

(*denotes New-to-Country)

Table 5 presents the individual scores for both groups in comprehension. In the control group, 43.8% started the year with a score below the NA and 0% started the year with a score above the NA. In the study group, 56% started the year with a score below the NA and 0% started the year with a score above the NA. When the year finished, the number of students below the NA in the control group had remained unchanged at 43.8% and the number of students above the NA had increased to 6.3%. In the study group, the number of students below the NA had fallen to 52% while the number of students above the NA had remained 0%. The table shows that no students in the control group and three students in the study group caught up to the average score of other second graders at the national level.

An independent sample t test comparing the growth in both groups showed no statistically significant difference ($df=33$, $t=0.52$, $p>0.01$) between the study group ($M=15.28$, $SD=12.68$) and the control group ($M=13.22$, $SD=11.61$) in comprehension.



	Fall	Spring	Growth
Control Mean	158.2	171.4	13.2
Control Median	165	178	13
Study Mean	154.3	169.6	15.3
Study Median	157	173	16

Figure 5: Mean and Median Growth in Comprehension

Figure 5 presents the mean and median growth in the area of comprehension. Mean growth in the control group showed an increase of 13.2 RIT, and mean growth in the study group showed an increase of 15.3 RIT. Both of these scores fall within the average to high NA range. This is only a 2.1 RIT increase in the study group scores over the control group. Median growth in the control group showed an increase of 13 RIT, and median growth in the study group showed an increase of 16 RIT. These scores again fall into the average growth rate for the NA. This is also a 3 RIT increase in the study group beyond the control group. These results show the overall growth of both groups in comprehension were very similar.

The sixth recorded results are in the area of writing. NWEA (2013) states that this part of the test covers writing process, language structure (phrase, sentence, and paragraph), conventions of language, and grammatical patterns.

Table 6: Individual Gains in Writing

pink = below national average

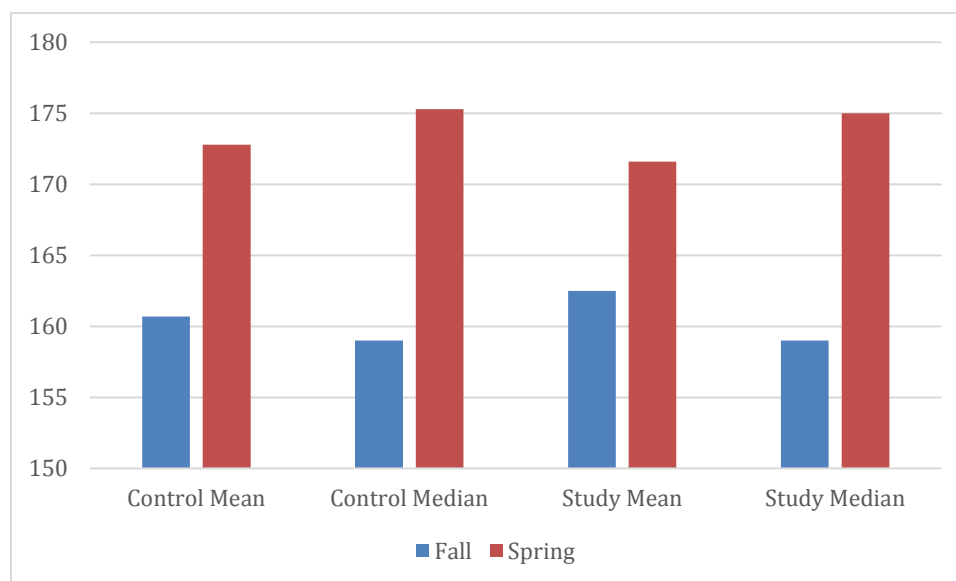
yellow = above national average

Stu.	Fall	Spring	Dif.	Stu.	Fall	Spring	Dif
C1*	119	128	9	S1	194	177	-17
C2*	139	161.5	22.5	S2	174	185	11
C3*	138	151	13	S3	158	185	27
C4*	136	152.5	16.5	S4	155	178	23
C5	138.5	139	0.5	S5*	159	167	8
C6	160.5	161	0.5	S6	189	197	8
C7*	155	168	13	S7*	158	145	-13
C8	158.5	185.5	27	S9	145	174	29
C9	157.5	207.5	50	S10*	151	163	12
C10	159.5	178	18.5	S11	179	164	-15
C11	170	172.5	2.5	S12*	144	141	-3
C12	191.5	183	-8.5	S13	184	182	-2
C13	182.5	193	10.5	S14	167	175	8
C14	189.5	196.5	7	S15	141	162	21
C15	192.5	187	-5.5	S16	156	169	13
C16	183	200	17	S17	148	167	19
		Mean	12.09375	S18	159	160	1
		Variance	186.631835	S19	174	180	6
		SD	13.6613262	S20	176	179	3
				S21	167	187	20
				S22	172	186	14
				S23	153	183	30
				S24	152	147	-5
				S25	161	181	20
				S26	146	155	9
						Mean	9.08
						Variance	168.3936
						SD	12.97665596

(*denotes New-to-Country)

Table 6 presents the individual scores for both groups in writing. In the control group, 50% started the year with a score below the NA and 12.5% started the year with a score above the NA. In the study group, 53.8% started the year with a score below the NA and 4% started the year with a score above the NA. When the year finished, the number of students below the NA in the control group had remained unchanged at 50% and the number of students above the NA had fallen to 6.3%. In the study group, the number of students below the NA had fallen to 44% while the number of students above the NA had fallen to 0%. The table shows that one student in the control group and four students in the study group caught up to the average score of other second graders at the national level.

An independent sample t test comparing the gains in both groups showed no statistically significant difference ($df=30$, $t=-0.68$, $p>0.01$) between the study group ($M=9.08$, $SD=12.98$) and the control group ($M=12.09$, $SD=13.66$) in writing.



	Fall	Spring	Growth
Control Mean	160.7	172.8	12.1
Control Median	159	175.3	16.3
Study Mean	162.5	171.6	9.1
Study Median	159	175	16

Figure 6: Mean and Median Growth in Writing

Figure 6 presents the mean and median growth for both groups in the area of writing. Mean growth in the control group showed an increase of 12.1 RIT, and mean growth in the study group showed an increase of 9.1 RIT. Again, both of these scores fall within the average range of the NA. This is a 3 RIT decrease in the study group below the control group. Although this is some growth, it is close enough that there is not a large difference in scores. Median growth in the control group showed an increase of 16.3 RIT, and median growth in the study group showed an increase of 16 RIT. This is also within the average growth rate for the NA. This is a 0.3 RIT decrease in the study group below the control group. When all of these scores are put together, the combined RIT reading scores show more growth in the study group.

Table 7: Individual Gains in Combined RIT Scores

pink = below national average

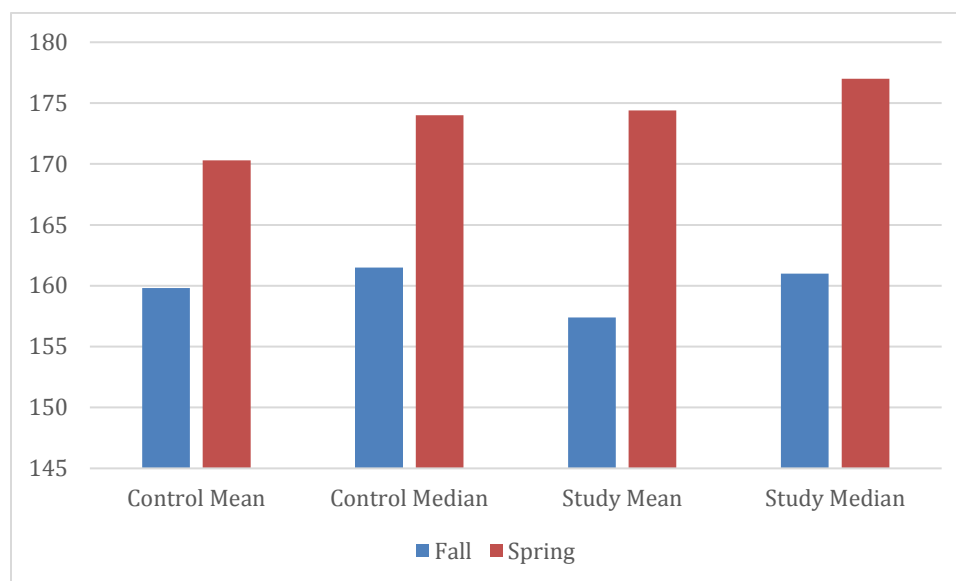
yellow = above national average

Stu.	Fall	Spring	Dif.	Stu.	Fall	Spring	Dif
C1*	118	115	-3	S1	175	183	8
C2*	127	147	20	S2	165	179	14
C3*	131	155	24	S3	170	190	20
C4*	134.5	152	17.5	S4	152	166	14
C5	142	152	10	S5*	137	156	19
C6	151	165	14	S6	182	196	14
C7*	160	167	7	S7*	134	155	21
C8	161	179	18	S9	151	179	28
C9	162	169	7	S10*	144	174	30
C10	169	183	14	S11	164	172	8
C11	173	179	6	S12*	135	148	13
C12	174	184	10	S13	167	183	16
C13	177	186	9	S14	164	181	17
C14	188	195	7	S15	153	174	21
C15	195	193	-2	S16	161	177	16
C16	195	203	8	S17	149	174	25
		Mean	10.41	S18	158	168	10
		Variance	50.41308594	S19	161	175	14
		SD	7.100217316	S20	166	180	14
				S21	161	181	20
				S22	164	180	16
				S23	165	186	21
				S24	158	166	8
				S25	163	183	20
				S26	137	155	18
						Mean	17
						Variance	31.6
						SD	5.621387729

(*denotes New-to-Country)

Table 7 presents the individual RIT scores of both groups in the combined MAP reading assessment. In the control group, 37.5% started the year with a score below the NA and 12.5% started the year with a score above the NA. In the study group, 44% started the year with a score below the NA and 0% started the year with a score above the NA. When the year finished, the number of students below the NA in the control group had increased to 50% and the number of students above the NA had fallen to 0%. In the study group, the number of students below the NA had fallen to 32% while the number of students above the NA had remained 0%. The table shows that no students in the control group and four students in the study group caught up to the average score of other second graders at the national level.

An independent t test comparing the individual gains of both groups showed a statistically significant difference ($df=26$, $t=3.05$, $p<0.01$) in the direction of the study group ($M=17$, $SD=5.62$) outperforming the control group ($M=10.41$, $SD=7.10$) in overall RIT scores.



	Fall	Spring	Growth
Control Mean	159.8	170.3	10.5
Control Median	161.5	174	12.5
Study Mean	157.4	174.4	17
Study Median	161	177	16

Figure 7: Mean and Median Growth in Overall RIT Scores

Figure 7 presents the mean and median growth for both groups in the combined RIT reading assessment scores. Mean growth in the control group showed an increase of 10.5 RIT, and mean growth in the study group showed an increase of 17 RIT. This is a 6.5 RIT increase in the study group beyond the control group. This is not a large difference based on the NA. Median growth in the control group showed an increase of 12.5 RIT, and median growth in the study group showed an increase of 16 RIT. This is a 3.5 RIT increase in the study group beyond the control group. This difference is within the NA.

V. Discussion

The overall results of changing the teaching method from intensive reading in a basal reader to extensive reading in leveled readers and context vocabulary in the classroom were mixed. The study group did show equal or better scores on most parts of the MAP assessment. Additionally, on those parts of the assessment where the study group did not surpass the control group, the scores were very close. It is interesting to examine why some parts of the assessment showed higher gains than other parts.

To understand the results, it is important to look back at what parts of the assessment were specifically addressed in the teaching methods used by both groups. To begin with, phonological awareness was the first area of growth comparison. The study group surpassed the control group scores in this area of the test by a full year of growth. Because the methods used to teach the control group did not involve any kind of phonological work, higher scores in the study group make perfect sense. Basal readers at the second-grade level do not usually teach phonics. It is assumed by most educators that L1 students have already learned the basic phonics at this level of their education. The study group, however, did receive some phonological work. Training was specifically given to those students who were pulled out for the smaller groups while the more advanced groups were working on grammar. These smaller groups within the study group made up almost half of the class. Additionally, large group activities covered topics such as syllables and rhyming. The amount of time given to sounds and sound manipulation in general would explain the statistically significant growth in the area of phonological awareness.

The second area of comparison was phonics. This area of the test also showed the study group gaining a half year of growth beyond the scores of the control group. This growth can equally be attributed to the amount of time the study group spent on learning phonics. Also, the

phonological focus of the spelling tests for the lower levels in the study group would explain the statistically significant growth in this area.

The next area of the test is concepts of print. As noted previously, this area covers developmental reading skills, developmental writing skills, and environmental print. This area also showed the study group shooting ahead of the control group with over a full year of growth in the results. This is also the area of the study where the study group showed the highest number of students returning to the national average of other second grade students who take the same test. This gain also makes sense. Students in the study group were each assigned books they could understand and read at their own developmental level. Therefore, they were developing their reading skills at the appropriate level and not being forced to attempt comprehension of a text that was more advanced. The control group students were all forced to read the same book and try to make sense of it. The growth in developmental writing skills can also be explained by the teaching method. In the study group, all the students at every level were part of any writing activity, even if it meant they were just going to draw a picture to show their understanding. Later, those students who had been drawing pictures began to use words, and eventually sentences, in their writing assignments. In the control group, only the more advanced students were expected to participate in the writing activities. Students who could not understand the writing assignments in the control group were given a different activity to complete that was not related to the story at all. The growth shown for the study group in environmental print makes sense too. Many of the pictures used for the study group were taken off the Internet to show things in the real world around them, things they would recognize. A unit on traffic signs and signs that could be seen on the street or in parks is a perfect example of this. The context vocabulary presented in the study group was aimed at addressing things they would understand

in the world around them. The control group, in contrast, was only exposed to the pictures selected by the company who assembled the reader. The students in the control group might have had a connection to some of the pictures and stories they read, but the lessons were not as tailored to the control group's needs.

The growth in the remaining three areas did not show a statistical difference, however. Growth for both groups in the area of vocabulary and word structure was actually quite surprising. This was mostly a surprise because the study group was exposed to huge amounts of vocabulary, and the control group was only exposed to vocabulary presented in the basal reader. Additionally, the study group was presented with sight words on a regular basis and practiced the use of affixes. In the control group, there was no sight word instruction and the introduction of affixes was reserved only for those children who were doing the grammar work. These differences in method but not in gains were actually the most unexpected results of this study.

There was also very little difference between the groups in the testing area of comprehension. The lack of gains in this area for both groups can possibly be explained. Because this part of the test focused on interpreting and evaluating, there are a couple of reasons this could have happened. The first reason is that most of the story questions that were used for reading comprehension in both groups did not ask for an interpretation of the story, but rather a literal example of what took place in the story. This means that the students in both classes were being tested in a way that made them more like a recording device for their memory than actually making them think about the implications those literal facts might hold and interpreting them. In retrospect, this should be changed for any future classes using this method if students are expected to make better gains in this area. The second reason the study group possibly has similar scores to the control group could be the reading level of the stories being used in the

study group. Many of the books were still at a phonetic level and, as any teacher can tell you, there is not a lot to interpret from a phonetically written story.

In the testing area of writing, there also seemed to be little difference in growth if the numbers are compared. The similarity of growth in this area could also be attributed to the way the method was taught. Even though all the students in the study group were participating in the written activities, those activities did not take up a large part of the class time. Also, half of the study group students were in the groups that were pulled out and did not experience any of the grammar lessons. The main focus of those pull-out groups was on building reading ability and phonics.

The similar results in these last three areas call a few questions to mind. The first question: Did the study group move too quickly to pick up all the information that was taught? In other words, did we give them so much information on this topic without the proper scaffolding that they did not retain the information? The second question: Were the students ready for that part of the test developmentally? Most readers at the second-grade level are reading to learn how to read. They are not reading to learn the content of the text. These last three testing areas might have been an unfair measurement for both groups. This may especially be true for the groups used in this study, because the majority of the classrooms were L2 students in both groups. Last: What external factors could have been unaccounted? The amount of difference between the groups is so small that it could have been caused by factors beyond the teaching method. It would be interesting to see if the results would vary if this method were to be done again on a different group of students.

Overall, however, according to the results in the combined RIT score, the method used in the study group was statistically successful. By presenting the vocabulary in context, increasing

the reading time of the students, selecting topics that corresponded with many of the stories they were reading in class, and setting up a structured schedule that the students could follow, the overall scores did improve. Although the amount of improvement in some areas was not as great as in other areas, the difference was large enough in the first three areas to cause the overall scores to be statistically noticeable.

If this method were to be replicated, it would be recommended that a few things could be changed to check for improvement. First, it might help to add additional time for written activities. This might help improve the writing scores. Second, the questions for the stories that are used in the classroom should include content that will make the students infer meaning if possible. This could help increase their comprehension skills. In addition, activities aimed at provoking independent thought and interpretation of the characters or stories would benefit students for future use, especially in more advanced reading classes. Third, the context vocabulary presented for each unit should be narrowed down so that not as much is being presented at once. If the students are given a smaller number of words to memorize and keep track of, they might remember the meanings more easily. This is not to say that the other words should not be introduced, it is only a suggestion that the group of words that are focused upon for that unit should be more specific and only include some of the extensive vocabulary in each of the topics.

Not all of the method needs improvement, however. The results show very clearly that focusing on phonics and phonological awareness is very important for L2 learners at this level. The use of basal readers in a traditional setting did not help these students excel in those areas at all. Similarly, the extensive reading helped the students become more comfortable with concepts of print. These things have proven to be beneficial to the L2 students in the study group.

Limitations of the Study

It is important to keep in mind while reviewing these results that because this is action research based on the application of methodology, there are far too many variables to consider all of them. Real life is never the same twice, especially when talking about a class of second graders. Many of these variables happen outside the classroom and are completely out of the teacher's control. Differences in previous instruction, home environment, illnesses contracted throughout the year, and texts chosen in part by the students both in and out of the classroom are only some of the variables that could alter the outcome of some of these results.

Things that happened in the classroom could also not always be accounted for. How well a student performs on tests can vary from one student to another. One student in the study group scored a 0 for both comprehension and writing in the fall assessment, but had otherwise scored above the national average on all other parts of the test. While it can be assumed the student was absent for that part of the assessment or had to leave for some unknown reason, it could be equally possible that the student simply stopped answering the assessment questions for those parts. Additional factors, such as discussions that happened in the classroom and outside of the reading lessons, could have played a part in these differences as well. There were simply too many variables to isolate.

However, the fact that the study group results show overall growth beyond that of the control group, there might be reasonable grounds to use the methodology that was used in the study group once again. The significant differences in phonological awareness, phonics and concepts of print could also guide teachers to improve their own methods and lessons. This is especially true for teachers with L2 students.

VI. Conclusion

This study does show that increased reading time with extensive reading and context vocabulary instruction does improve reading scores. This change is especially significant in the areas of phonological awareness, phonics and concepts of print. When the scores were broken down, they also showed that in the areas of Vocabulary and Word Structure, Comprehension, and Writing, where the study group did not do significantly better than the control group, the study group did at least stay at about the same level of growth as the control group. Because this was a qualitative study looking for overall results, the data included in this study cannot sufficiently explain why these differences occurred within the assessment. As hypothesized when this study was started, the methods that were used in the study group showed better results than the traditional teaching method used in the control group. It will be interesting to see where and if these results see further implementation and testing. It will also be educational to see what changes are made to the methods to improve on those areas that did not show as much growth, and how they might affect the results in future studies. Future studies might also determine if the areas of similar growth were due to method or developmental level, and help to answer some of the questions brought to light by this study.

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