UNIVERSITY OF WISCONSIN-LA CROSSE

Graduate Studies

THE EFFECT OF WORDS THEIR WAY ON THE WORD IDENTIFICATION SKILLS OF SECOND-GRADE STUDENTS

A Chapter Style Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Master of Science in Education- Reading Teacher/Reading Specialist

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December, 2018

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We recommend acceptance of this thesis in partial fulfillment of the candidate's requirements for the degree of Master of Science in Education-Reading

The candidate has completed the oral defense of the thesis.

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ABSTRACT

Kaschub, M.A. The effect of words their way on the word identification skills of second-grade students. MS in Education-Reading Teacher/Reading Specialist, December 2018, 145pp. (G, Willhite)

Over the course of a thirteen-week period, a quasi-experimental study was conducted in a second-grade classroom at a private international school in South Korea, which was considered an ESL setting. The purpose of the study was to determine the effectiveness of the implementation of the word study program, *Words Their Way*, on student word identification skills. Data were collected and analyzed in order to conclude whether the program was effective in helping students to transfer their knowledge of word patterns and features to their reading. Students received explicit, differentiated instruction in a small group setting within their developmental spelling level. Word study routines were established through which students were given a variety of opportunities to work with and manipulate words in order to deepen their knowledge and understanding of their orthographic features and patterns. Data collection included weekly oral pre-assessments during which students read aloud the list of words they would be working with prior to instruction, daily observations during explicit instruction and independent work, weekly spelling assessments, and weekly analysis of running records. Statistical data analysis indicated that *Words Their Way* supported consistent student growth in target word identification skills between pre and post assessments.

ACKNOWLEDGEMENTS

First and foremost, I would like to acknowledge my 2017-2018 students at Daegu International School. They were the driving force behind my research, data collection, and the writing of my thesis. This endeavor was one rooted in love and care for my students, and ultimately, it was all for them.

I would also like to thank my colleagues, Sarah and Nicole. Sarah, thank you for being my cheerleader and for always being there to just listen throughout the process of writing my thesis and during my entire time in the graduate program. Your constant encouragement pushed me to finish strong! Nicole, your expertise in the field of statistics and your willingness to guide me in successfully analyzing, interpreting, and displaying the results of this study is beyond appreciated.

Lastly, I would like to acknowledge my husband, Nick, who was there to support me every step of the way. Countless hours and a great deal of energy were dedicated to my work, and I could not have done it without his love, kindness, and encouragement throughout the entire process. Nick, I cannot begin to thank you enough for your endless support and for believing in me in my (many) times of self-doubt. I love you and appreciate you more than you know.

TABLE OF CONTENTS

PAGE

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

CHAPTER 1

INTRODUCTION

Statement of the Problem

I was nearing the end of the school year with my second-grade students in the year 2017. I was wrapping up my third-year teaching, but my first year as a teacher at Daegu International School (DIS) in South Korea. As I reflected on the progress that my students had made throughout the year, I could say without a doubt that my students grew as readers, writers, mathematicians and scientists; however, I knew there was more growth that could have been made, particularly in the area of spelling. I simply wasn't content with the current approach to spelling instruction, and I had come to the realization that I was teaching spelling the same way that I, and many generations before me, had been taught. A new list of words was given out on Monday and there was a test on Friday. I can still vividly remember spending time as an elementary student looking at my list of words and memorizing them for the test that was awaiting me at the end of the week. I didn't truly *learn* these words. I didn't know why they were spelled the way they were, nor gain any deeper understanding of their meanings; rather, I simply worked hard to memorize them and spell them all correctly on my test week after week and year after year. Just like for me, this traditional practice wasn't engaging for my students; frankly, it wasn't effective. My students tested well, generally producing near perfect scores each week, but I didn't see their knowledge and understanding of the words transferring to their reading and writing. Instead, my students were simply *memorizing* the list of words for their test, a common practice especially amongst my predominately Korean students.

Memorization was an issue I addressed in math almost immediately at the start of the school year. I found that my students were able to solve math problems with ease, but they were not able to explain their thinking nor the process they used. Thus, number talks became a big focus of our math block, which turned out to be extremely beneficial for all of my students. Number talks took place at the very start of our math block as a warm-up and lasted around ten minutes. During this time, I would display a math problem of some sort. Students had access to a variety of manipulatives and individual white boards to use as they solved the problem in any way that made sense to them. After students solved the problem, they discussed their process and strategy with a partner before we reconvened for a whole-group discussion. Number talks served as a way for students to start thinking deeper about the *how* and the *why* behind math problems. They were given opportunities to share and explain their thinking with each other, and through these discussions, my students discovered that there were many different strategies and approaches to solving math problems. As a result of these number talks, I was blown away by the amount of growth my students made simply by thinking about the *process* of solving a math problem. They were beginning to really *understand* how they were arriving at their answers, and they were able to justify and defend those answers with confidence.

As I continued to reflect on the 2016-2017 school year and the success I found with number talks, I couldn't help but ask myself, "*why didn't I think to do something like this with spelling?*" Perhaps it was the voice in the back of my mind telling me to stick to the basal series and do what all the other teachers were doing, or the fact that I was new to my school and didn't want to overstep in any way. Ultimately, I decided that

as a teacher I *must* do what's best for my students, even if that means abandoning the curriculum that was in front of me in order to do so.

For the 2017-2018 school year, I decided that I was going to ditch the word lists found in my basal series (in fact, I decided to abandon the basal series entirely), and try a different approach. I had heard the term *word study* but had never looked into it deeply. As I began to research what word study looked like, my interest peeked almost immediately. "Word study is an approach to spelling instruction that moves away from a focus on memorization" (Williams, Phillips-Birdsong, Hufnagel, Hungler, & Lundstrom, 2009). This is exactly the direction I knew I needed to head. I began looking further into word study and different programs that followed the word study approach to spelling instruction. Not only did I learn that word study was a process that gave students an opportunity to engage with and manipulate their words rather than memorize them, I learned that students would be able to work with words at their developmental level. Furthermore, students would work in a small-group, student-centered setting, which I personally have found to be more effective than a whole-group, one-size-fits all-approach.

When exploring different spelling instruction programs, I came across *Words Their Way: 6th Edition* by Donald Bear, Marcia Invernizzi, Shane Templeton, and Francine Johnston (2016). As I was reading, two sentences jumped out at me and caught my attention.

> "Word study is not a one-size-fits-all program of instruction that begins in the same place for all students within a grade-level. One unique quality of word

> study, as we describe it, lies in the critical role of differentiating instruction for different levels of word knowledge." (Bear, Invernizzi, Templeton, and Johnston, 2016, p.10)

Combined with further reading and the discussions I had about *Words Their Way* with other teachers, these two sentences sealed the deal for me. With an eagerness for improving my approach to spelling instruction, I settled on *Words Their Way* as my word study program of choice for the 2017-2018 school year.

Words Their Way is a program developed based on the principals of word study. The program follows routines that use hands-on activities through which students manipulate and sort words into categories based on word features such as spelling patterns, sounds, and meaning (Bear et al., 2016). According to the authors of the program, the purpose of word study is for students to acquire an understanding of English spelling by learning the rules, patterns, and conventions of English Orthography as well as increase their understanding of the spellings and meanings of words (Bear et al., 2016).

Purpose of the Study

For as long as I can remember, literacy has always played a significant role in my life. As a child, I thoroughly enjoyed reading and writing. I was a child who would stay up past her bed time hiding under the covers with a flashlight in one hand and a book in the other. I kept diaries in which I wrote my deepest childhood secrets, my dreams, and the tiny details of my day. I loved the places books could take me, and the freedom I felt when I expressed my thoughts through writing. Equally important, I felt *successful* as a

reader and writer. I can recall the moment I completed my first chapter book in one sitting. I was on a bus ride with my grandmother, who was an avid reader herself, and I was reading voraciously to get to the end of *The Case of the Missing Mummy* (1998), a book in the *New Adventures of Mary-Kate and Ashley* series. There was just something about mystery books that drew me in, and I didn't put this one down until I finished it cover to cover. Upon completion, I snapped the book closed with a grin on my face as I turned to my grandma to exclaim that I did it—I finished the *whole* book on that one bus ride. I couldn't hide how proud of myself I was. I don't think that grin left my face until I fell asleep that night. Today as an educator, I strive to help all of my students in achieving those same feelings of enjoyment, pride, and success as readers and writers. I hope to instill a love for reading in each of my students and guide them to become lifelong readers; a common goal for many teachers of reading.

With the big-picture goal in mind of establishing a love for reading—a true love in which students are able to understand and interact with their books in a meaningful way—I knew I had to start with the very basics with my young learners. This is where word study came into play. By employing word study as my new approach to spelling instruction, I would be able to help my students develop mastery with word recognition by teaching them word features such as spelling patterns, sounds, and meaning. This knowledge of word features would lead to a greater proficiency in word recognition, and ultimately, comprehension. In their revolutionary book, *The Continuum of Literacy Learning* (2011), Irene Fountas and Gay Su Pinnell state this idea so clearly. "Word solving is basic to the complex act of reading. When readers can employ a flexible range of strategies for solving words rapidly and efficiently, attention is freed for

comprehension. Word solving is fundamental to fluent, phrased reading" (Fountas & Pinnell, 2011, p. 216). If I could teach my students effective word-solving strategies through the use of *Words Their Way*, I would undoubtedly aid them in finding greater success as readers.

Drawing on my own experience of feeling successful as a reader certainly inspired this study; however, I had to step back and consider what a successful reader really looked like. How would I be able to measure my students' success as readers? I turned to the Common Core State Standards (CCSS) for guidance as I set out to answer this question. When looking closely at the CCSS, the importance of comprehension as a fundamental skill is highlighted. The CCSS describe college and career ready students as ones who are able to "read and comprehend complex literary and informational texts independently and proficiently" and "read closely to determine what the text says explicitly and to make logical inferences from it; cite specific textual evidence when writing or speaking to support conclusions drawn from the text" (CCSS, 2010). Because DIS follows the Common Core State Standards in English Language Arts, it is imperative that I take these descriptors of college and career ready students into consideration when planning and delivering instruction; therefore, the purpose of this study became even more clear. Not only do I hope to instill a love for reading within my students, but I must teach them to make meaning from the texts they read so that they are able to achieve such a love for reading.

As Ann Goudvis and Stephanie Harvey discuss in their book, *Strategies That Work: Teaching Comprehension Understanding*, comprehension is the most important thing when it comes to reading. The authors go on to state, "If the purpose for reading is

anything other than understanding, why read at all?" (Goudvis & Harvey, 2007). If a child cannot comprehend the text they read, they will not have the opportunity truly dive in and get lost in their books. They won't have the pleasure of connecting to the characters or feeling the emotions that the author intends for their reader to feel. They simply won't experience the pure joy of reading that I hope for them to enjoy. In brief, the purpose of the study is to determine whether the use of *Words Their Way* as a word study program is an effective approach to developing successful readers—ones who are able to independently make meaning from text through the application of word-solving strategies; thus, affording them the opportunity to truly enjoy the books they read.

Research Question

To determine the effectiveness of *Words Their Way* as the word study instructional program in my own second-grade classroom, I chose to conduct a study which allowed me to explore the effect of the program on student achievement and reading proficiency. When considering the specific aspect of word study as an approach to spelling instruction that I wanted to focus on, I kept in mind the importance of comprehension in reading. Comprehension of text cannot be attained without the ability to accurately decode words; therefore, I aimed to discover the degree to which my students were able to recognize the words and patterns they had studied throughout the week in context rather than just isolation. From here, my research question was born.

Research Question: *What effect does the implementation of* Words Their Way *have on the word identification skills of second-grade students?*

CHAPTER 2

LITERATURE REVIEW

As reading is one of the most emphasized subject areas in education today, teachers of reading must provide their students with the tools they need to be successful as readers. The National Reading Panel Report (National Institute of Child Health and Human Development [NICHD], 2000) addressed five essential reading components in the summary of its decades-long scientific research on reading. Those five components were identified as phonemic awareness, phonics, fluency, vocabulary, and comprehension. According to the panel, these five areas are critical to effective reading instruction. The implementation of *Words Their Way* as a word study program encompasses all five of these essential areas; therefore, review of relevant literature as it pertains to these five components of reading was necessary to complete my study. This literature review will also discuss my findings on the origins of English Orthography, a variety of instructional strategies, and assessment practices as they relate to *Words Their Way*.

Components of Reading

Phonemic Awareness

Phonemic Awareness is "the ability to focus on and manipulate phonemes in spoken words" (National Reading Panel, 2000, p.2-1). In the English language, there are 41 phonemes, the smallest unit of sound. When phonemes are combined, they form syllables and words. For example, in the word *book* there are three phonemes (b-oo-k), and in the word *reader*, there are four phonemes (r-ea-d-er) Phonemes are different than graphemes, which are the units of written language that represent the phonemes in words.

Phonemic awareness is entirely auditory. Although it has no connection to written language, it is considered to be an essential component of reading. Phonemic awareness aids in decoding as well as comprehension. The National Reading Panel found in its study (2000) that phonemic awareness "is a key component that can contribute significantly to the effectiveness of beginning reading and spelling instruction" (National Reading Panel, 2000, p. 2-6-7). Due to the correlation between phonemic awareness and future reading and spelling abilities, it is essential that phonemic awareness is taught to all students. "A certain level of phonemic awareness is a prerequisite to successful phonics and spelling instruction" (McKenna & Stahl, 2015, p.84). All students will vary in their phonemic awareness abilities, but it is important to note that all students *can* be taught. Two studies, conducted by Lundberg et al. (1988) and Bradley and Bryant (1983) (as cited in Yopp, 1992), demonstrated positive effects of phonemic awareness on reading and spelling achievement. Both studies confirmed that offering specific language experiences to young children will "significantly affect their progress in phonemic awareness and their subsequent reading and spelling achievement" (Yopp, 1992, p. 698). It is vital to assess students to find where they are developmentally in order to design instruction to meet their needs as emerging readers.

To determine whether or not a child is phonemically aware, a variety of tasks, which are administered as auditory-only tasks that are typically completed along a continuum of increasing difficulty, can be administered (Yopp, 1992). Such tasks include phoneme isolation, phoneme identification, phoneme categorization, phoneme blending, phoneme segmentation, and phoneme deletion. Phoneme isolation involves asking a student to identify a sound they hear in a given word. For example, a student may be

asked to tell the first sound they hear in the word, *book*. Phoneme identification asks students to identify the common sound heard in different words. For example, the student may be asked to identify the common sound heard in *red, rabbit,* and *rent.* A phoneme categorization task may ask students to identify the word that does not belong in a series of words. For example, the student may be asked, "which word does not belong: *goat, grape, sun"*. Phoneme blending involves students listening to a spoken word broken up into separate sounds, and putting those sounds together to form a word. For example, the teacher may orally spell out "*c-a-t*" and the student would respond with "*cat*". Phoneme segmentation involves students breaking down a spoken word into its individual sounds, or phonemes. For example, the teacher may ask "what sounds do you hear in the word, *nap*?" and the student would respond with "*n-a-p*" while either tapping out or marking each sound. Finally, the most advanced phonemic awareness task, phoneme deletion, is a task that asks students to recognize which sounds remain after taking one sound, or phoneme, away. For example, the teacher may ask, "what is the word *stack* without the *s*? The student would respond by saying, "*tack*". By asking students to complete each of these phonemic awareness tasks, the teacher is able to gain a clearer understanding of where the child is developmentally. From there, explicit instruction can be planned in order to meet the needs of the child.

To further demonstrate the effect of phonemic awareness on reading achievement, a longitudinal was conducted by Snider in 1997. The study examined phonemic awareness in kindergarten and later reading achievement in second-grade. Participants of this study were seventy-three kindergarten students ranging in age from five to seven in a small, rural community. A test of phonemic awareness was administered to each

participant individually over two consecutive days. Five subtests with ten items each, consisting of tasks with varying difficulty levels, made up the test of phonemic awareness. Of the seventy-three original participants, fifty participated in the school district's standardized testing at the end of the school year as as second-grade students. This test was administered to second-graders as a whole by the classroom teacher. This test contained two subtests: Word Analysis and Reading Comprehension, which were used as the dependent variables.

Results of the study show that three of the five subtests from the original test of phonemic awareness served as reliable predictors of reading achievement, while the other two subtests did not. The subtests that were predictive of later reading achievement were Phoneme Segmentation, Strip Initial Consonant, and Substitute Initial Consonant. Additionally, the total score on the phonemic awareness test also proved to be predictive of reading achievement. High and average performers on these three tasks on the phonemic awareness test also performed well on the posttest in second-grade, while many students who did not perform well on the phonemic awareness test demonstrated low achievement on the posttest. It is important to note, however, that not *all* students who performed low on the test of phonemic awareness performed low on the posttest in second-grade. In fact, some of the low-achievers on the test of phonemic awareness became average readers or above-average readers in second-grade. This study suggests that using screening measures such as the ones used in the test of phonemic awareness can be useful for identifying students who are at-risk for poor achievement in reading (Snider, 1997, p. 206); however poor performance on a screening measure such as the test of phonemic awareness alone does not necessarily *always* point to later reading

disability. Instead, poor performance should be used as a motivator to provide adequate explicit instruction of phonemic awareness tasks and exposure to such activities.

The study examined highlights the importance of explicit phonemic awareness instruction and demonstrates the significant connection between phonemic awareness and reading proficiency. Through *Words Their Way* students develop phonemic awareness as they progress through the different stages of spelling. During the emergent stage, students develop partial phonemic awareness as they learn to isolate consonant sounds at syllables and at the beginnings and endings of words; while full development of phonemic awareness is achieved during the letter name-alphabetic stage as students learn to separate all the sounds in words (Bear et. al, 2016, p. 106). When students are able to understand that words are made up of sounds, the foundation is set for them to begin learning phonics.

Phonics

Phonics is another key component of reading and is fundamental to successful reading. Phonics is the study of the relationship between letters (graphemes) and sounds (phonemes). Using this letter-sound relationship, students are able to decode words in order to read (pronounce) or spell them. Differing from phonemic awareness instruction, through which the goal is for children to understand that spoken words are made up of individual sounds or phonemes (Heggerty, 2013), phonics instruction teaches children the alphabetic writing system which they use to sound out, decode, and segment words in order to spell and read them once they have acquired phonemic awareness (Ehri, 2001, 2017).

Ongoing controversy over phonics versus whole-language, known as "The Great Debate" (Chall, 1967), involves the disagreement surrounding whether children should be taught to read through phonics instruction or whether they should be taught to read words as wholes (Baumann, Hoffman, Moon, Duffy-Hester, 1998). This debate has been ongoing throughout the century and the pendulum has swung back and forth with convincing arguments for both sides. The two approaches differ quite significantly. Whole language follows a top-down approach that focuses on meaning through contextual and holistic reading and writing, while phonics follows a bottom-up approach that focuses on word-analysis through explicit and systematic instruction (Feng and Maddox, 2013). A survey (1998) of teacher beliefs about reading instruction, results showed that "a majority of teachers embrace a balanced, eclectic approach to elementary reading instruction, blending phonics and holistic principles and practices in compatible ways" (Baumann, Hoffman, Moon, Duffy-Hester, 1998, p. 640).

Further research supports a balanced approach that incorporates phonics instruction within the context of reading and writing. Dahl and Scharer (2000) found in their study that instruction through which teachers addressed individual students' needs as identified through individual reading and writing conferences, taught phonics skills through meaningful reading activities, and provided opportunities for students to participate in a variety of writing activities was an effective approach to phonics instruction.

While there continue to be arguments supporting both sides of the phonics versus whole language debate, support for explicit, systematic phonics instruction is clear. "Virtually all K-2 teachers in the United States regard phonics instruction as essential

or important" (Baumann, Hoffman, Moon, & Duffy-Hester, 1998 as cited in White, 2005). The National Reading Panel's meta-analysis (2000) found that systematic phonics instruction is effective in producing gains in reading and spelling for students who demonstrate difficulty in learning to read, as well as both lower and upper grades.

To better understand what systematic phonics instruction entails, the National Reading Panel describes its focus as "helping children acquire knowledge of the alphabetic system and its use to decode new words, and to recognize familiar words accurately and automatically" (National Reading Panel, 2000, p.2-90). Explicit and systematic phonics instruction can be carried out in a variety of ways. Examples of explicit and systematic phonics instruction include synthetic phonics, analogy phonics, analytic phonics, embedded phonics, onset-rime phonics, and phonics through spelling (National Reading Panel, 2000, p. 2-89). *Words Their Way* provides a systematic approach to phonics that incorporates analogy-based phonics instruction. Analogy-based phonics instruction involves sequential teaching through which students learn to decode unknown words by using known words. For example, a student can be taught to decode the word "bent" by using their knowledge of the word "rent". Through *Words Their Way*, students are provided with word sorts that follow a pattern. In order to decode unknown words, students are taught to use their knowledge of the patterns and known words that follow those patterns. Through the addition of the passages that students read for each sort, students are given further opportunity to practice and apply their phonics knowledge to the words in the context of reading.

Fluency

During kindergarten and first grade, students acquire foundational knowledge and decoding skills, and upon mastery of these skills by second and third grade, the central focus shifts to fluency (Chall, 1983 as cited in Ehri and Flugman, 2017). According to the National Reading Panel (2000), students who achieve fluency in reading are able to read with speed, accuracy, and proper expression. After considering a variety of proposed definitions for fluency, a more precise definition was developed by Kuhn, Schwanenflugel, Meisinger, Levy, & Rasinski (2010):

> "Fluency combines accuracy, automaticity, and oral reading prosody, which, taken together, facilitate the reader's construction of meaning. It is demonstrated during oral reading through ease of word recognition, appropriate pacing, phrasing, and intonation. It is a factor in both oral and silent reading that can limit or support comprehension" (p. 240).

Since the recognition of fluency as a critical component of reading as determined by the National Reading Panel in 2000, a bigger emphasis has been placed on fluency assessment and instruction within the literacy curriculum (Ehri and Flugman, 2017). A considerable amount of research has been conducted in order to determine the most effective ways to assist students with achieving automaticity and prosody, two key components that make up fluent reading. One effective method of improving reading fluency is through repeated readings. The repeated reading method consists of a child reading a short passage a number of times until a satisfactory level of fluency is achieved. In 2003, Kuhn and Stahl reviewed a total of 71 studies that addressed a variety of

fluency-based instructional methods and came to the conclusion that repeated reading activities were more successful in aiding students in attaining reading fluency and achievement than isolated word recognition activities (Kuhn and Stahl, 2003).

In his article, *How Reading Volume Affects both Reading Fluency and Reading Achievement* (2014), Richard Allington discusses that although repeated reading activities have proven to be more effective than word identification in isolation activities, increasing time for students to engage in wide reading is even more powerful than just offering opportunities for students to engage in repeated reading activities alone (Allington, 2014, p. 15).

The two elements of reading fluency that are most easily measured are rate and accuracy (Kuhn et. al, 2010). Rate refers to reading automaticity, or the ability to read words quickly with little or no effort, and reading speed. Reading automaticity and reading speed are both essential to fluent reading and comprehension. Rasinski (2000) points out that readers whose pace is reduced due to the amount of time spent decoding words could instead be using their cognitive resources to help them comprehend the text if they were reading at a satisfactory speed. Accuracy refers to to the ability to read or decode words in a text correctly. Both rate and accuracy are good predictors of reading comprehension. "As readers develop automaticity in decoding, they are able to devote greater amounts of attention to textual segmentation, meaning construction, and prosodic and meaningful oral renderings of the text" (Rasinski and Hoffman, 2003, p.513).

One way to assess these two elements of reading fluency is through curriculum based measures (CBM). One commonly used CBM is the assessment of oral reading fluency (ORF) (Hasbrouck and Tindal, 2006). Oral reading fluency is "the oral

translation of text with speed and accuracy" (Fuchs et al., 2001, p. 239 as cited in Kuhn et. al, 2010). During the administration of an ORF assessment, the teacher uses a timer and listens to an individual student read aloud an unfamiliar passage for one minute. The total number of errors is subtracted from the total number of words read in one minute in order to determine the words correct per minute (WCPM). In a review of the 2017 update to the ORF Norms, Hasbrouck and Tindal (2017) discuss the use of ORF as a screening and progress monitoring tool. They state that "decision-makers rely on ORF norms that identify performance benchmarks at the beginning (fall), middle (winter), and end (spring) of the year" (Hasbrouck and Tindal, 2017, p.2). The 2017 ORF Norms Chart can be found in the Appendix A. WCPM has been shown to be a reliable indicator of overall reading competence with a strong correlation between ORF and reading comprehension (Hasbrouck and Tindal, 2006).

Wise et. al (2010) conducted a study to examine whether a variety of oral reading fluency assessment measures related differently to reading comprehension performance in two samples of second-grade students who demonstrated different degrees of oral reading fluency skills. The study's assessment measures included nonsense-word oral reading fluency, real-word oral reading fluency, and oral reading fluency of connected text. With both samples of students, results showed a strong correlation between both real-word oral reading fluency and reading comprehension; however, the relationship between nonsense-word oral reading fluency and oral reading fluency of connected text, and reading comprehension were not as significant (Wise et. al, 2010). This research suggests that if a child performs poorly on an assessment measure of real-word oral reading fluency, that their reading comprehension should be assessed (Wise et. al, 2010).

Vocabulary

Vocabulary is considered an essential component of reading (National Reading Panel, 2000). Vocabulary has been linked to reading comprehension. In its findings, the National Reading Panel (2000) found that "vocabulary instruction leads to gains in comprehension" (p. 4-4). In fact, the National Reading Panel includes vocabulary as a component of reading *within* the chapter on comprehension rather than a stand-alone chapter, which highlights the important relationship between the two components. Rupley et al. explain that as a student's vocabulary grows, so does their comprehension, and that as a student's ability to comprehend text grows, their ability to learn the meaning of new words from context, or build vocabulary, grows (Rupley et. al, 2012).

To dig deeper into the relationship between vocabulary and reading comprehension, Grabe, Jiang, and Schmitt (2011) conducted a study that explored the relationship of the percentage of vocabulary words known to the degree of reading comprehension. The study involved 661 participants from eight different countries ranging in age from sixteen to thirty-three. The participants first completed a checklist vocabulary assessment, then read two texts containing the same vocabulary words. After reading, participants took a reading comprehension test. Results of the study showed that relationship between the percentage of vocabulary coverage and the percentage of reading comprehension is linear (Grabe, Jiang, and Schmitt, 2011).

Understanding that there is a significant relationship between vocabulary and reading comprehension leads to the importance of providing quality vocabulary instruction. "The ultimate goal of teaching vocabulary is for the students to expand, refine, and add to their existing conceptual knowledge and enhance their comprehension

and understanding of what they read" (Baumann, Font, Edwards, & Boland, 2005; Stahl & Fairbanks, 1986 as cited in Rupley et. al, 2012). The National Reading Panel (2000) suggest that "vocabulary learning is effective when it entails active engagement in learning tasks" (p.4-4). *Words Their Way* is a hands-on, engaging approach to spelling instruction. Through the use of direct instruction and manipulation of words, students are actively engaged in the learning process. Through *Words Their Way*, students are exposed to multiple opportunities to work with their words in order to build their vocabularies. As they progress through the different spelling stages, students make meaning of the words they learn in a variety of ways. In earlier stages, students learn to decode words by looking for familiar word parts or patterns. This learning is extended as students begin to learn about word roots such as prefixes, suffixes, and base words. According to Rasinski et al. (2011), one efficient approach to vocabulary instruction is teaching students to use Latin and Greek roots. They state that students "learn to look for roots and to think about how the different parts of a word (beginning, middle, end—or prefix, base, suffix) all work together to generate meaning" (Rasinski et al., 2011, p. 136). *Words Their Way* approaches word study instruction through the progression through the three layers of English Orthography (Bear et al., 2016). As students work through the third layer, meaning, they are taught about morphemes, such as Latin and Greek roots. Bear et al. (2016) state that "Even more words can be learned when children explicitly examine printed words to discover consistencies among them and how consistent patterns relate to oral language—to speech sounds and to meaning" (p. 3). Students use the knowledge learned about the different meanings of morphemes studied and apply this knowledge to the unknown words they encounter in order to derive

meaning from them; thus, their vocabulary expands. Once this knowledge is developed, students are able to focus on comprehension when reading such words in connected text.

Comprehension

"The overarching goal of reading is to go beyond decoding words to actively extract, integrate, and construct meaning from complex text" (Tighe and Schatschneider, 2013). McLaughlin (2012) summarizes Harris and Hodges' (1995) definition of comprehension as constructing meaning through making connections between what the reader already knows (prior knowledge) and what they are reading (the text) (McLaughlin, 2012). Phonemic awareness, phonics, fluency, and vocabulary each contribute to reading comprehension; therefore, it can be said that reading achievement is more likely to be attained attained when all components of reading work together. When students are able to apply their knowledge of phonemic awareness and phonics in order to decode words, and can do so fluently (with accuracy and automaticity), they are able to focus their attention on the content of the text rather than on individual words; thus, allowing them the opportunity to construct meaning.

When all components of reading work together, a student is able to achieve reading success. *Words Their Way* is a systematic, developmental approach to spelling instruction which encompasses the essential components of reading. As children progress through the different stages of spelling, they develop achievement of phonemic awareness, phonics, fluency, and build vocabulary; all of which contribute to a students' comprehension of text.

English Orthography

Students who demonstrate orthographic knowledge are able to understand how letters and letter patterns in words represent sound and meaning. Bear et al. (2016) claim that orthographic knowledge plays an important role in a comprehensive language arts program that links reading and writing and argue that students accumulate word knowledge as their orthographic knowledge develops through the alphabetic, pattern, and meaning levels. In a systematic approach to word study instruction that carefully organizes phonics, spelling and vocabulary, such as *Words Their Way,* students are given the opportunity to integrate the three layers of English Orthography as they progress through each layer, which are built on each other.

Alphabet

The first layer of English Orthography is the alphabet layer. The alphabet layer represents the relationship between letters and the sounds they make. In the word *map,* each sound is represented by a single letter: m-a-p. In the word *chip,* however, we still only hear three sounds even though there are four letters. The *ch* represents one single sound. When students work through the alphabet layer, they match the sounds they hear to the letters they represent. Beginning readers and writers often rely heavily on this first layer. They use their knowledge of the alphabet and letter names in order to make close approximations in spelling, and they often use this knowledge quite literally (Bear et al., 2016).

Pattern

Following the alphabet layer is the second layer of English Orthography, the pattern layer. While there are only 26 letters in the English alphabet, those letters represent 42-44 different sounds; therefore, patterns, such as groupings of letters like

vowel teams, are formed to represent all of those sounds. Students who are working within the pattern layer are working with words that contain patterns that represent a single sound. According to Bear et al. (2016), “knowledge about orthographic patterns within words is considerably valuable to students in both their reading and their spelling”.

Meaning

The last layer of English Orthography is the meaning layer, which focuses on how meaning functions in spelling. Students working in this layer are better able to understand *why* words are spelled the way they are by learning that certain groups of letters carry meaning. Small groups of letters, or units, that carry meaning are called *morphemes*. Morphemes include prefixes, suffixes, and Greek and Latin roots. By making the connection between spelling and meaning, students working in this level are able to build their vocabularies and further develop their understanding of the meanings of related words. When students encounter unknown words, they can use their knowledge of morphemes to assist them with decoding or to determine the meaning of unfamiliar words. For example, students may learn that the word *sign* is spelled with a silent g because it is related to the word *signature*, in which the *g* is pronounced. The letters *s-i-g-n* are in both words in order to preserve meaning (Bear et. al, 2016, p.8).

Instructional Strategies

Developmental Word Study

The construction of meaning is the ultimate goal of reading. In order to achieve reading success through comprehension, the reader must first develop the phonemic awareness, phonics, fluency, and vocabulary skills that contribute to reading comprehension. Developmental word study integrates each of these skills systematically

through explicit instruction and by providing students with repeated opportunities to engage in meaningful, hands-on practice and application. “Word study teaches students how to look at and analyze words so that they can construct an ever-deepening understanding of how spelling works to represent sound and meaning” (Bear et al., 2016, p.5).

Throughout word study, students move along a continuum, progressing through the different stages of spelling based on where they are developmentally. “Word study begins with finding out what each child already knows and starting instruction there” (Bear et al., 2016, p.10). Spelling inventories are used to determine a students’ developmental spelling stage. This determination is not used to label students; rather, it serves as a starting point to plan instruction (Bear & Templeton, 1998). The five stages of spelling, as described by Bear et. al (2016), and spelling inventories will be discussed in more detail in the following section. After determining the developmental spelling levels of students, they are grouped accordingly and instruction can begin.

Word study is teacher-directed through its emphasis on explicit instruction; however, it is also student-centered. According to Bear et al. (2016), students must be afforded opportunities to manipulate words and features. Rather than engaging in activities through which the sole purpose is to *memorize* words, students engage in active exploration of the words they are studying within their developmental spelling level stage. “Word study is active, and by making judgments about words and sorting words according to similar features, students construct their own understandings about how the features work” (Bear et al., 2016, p. 18). According to Bear and Templeton (1998), long-term motivation and interest is sparked through an attitude of inquiry; therefore,

providing students with multiple opportunities to engage in learning through manipulation and active exploration of words is vital. One powerful way to engage students in the process of manipulation and active exploration is through a variety of word sorts (Bear and Templeton, 1998; Bear et al., 2016). Additionally, students can participate in word hunts, complete activities in a word study notebook, and play word games (Bear and Templeton, 1998; Bear et al., 2016). As students engage in these activities, teachers can observe in order to determine the degree of fluency at which the word sorting and spelling activities are completed. When students demonstrate fluency with these activities, it serves as an indication that they will begin to show mastery of the word patterns they are working with and instruction of the next feature can begin to be planned (Bear and Templeton, 1998).

Differentiated Small-Group Instruction

According to Bear and Templeton (1998), developmental spelling research suggests that students should be grouped appropriately for word study instruction (p. 229). After analyzing students' spelling inventories, their instructional levels can be determined by matching them to the appropriate spelling stage, and small groups for instruction can be formed. Grouping of students by ability understandably presents challenges, and it has been the source of controversy for many years. One argument against ability grouping is that labeling students as low-achievers deprives them of the opportunity to learn by example of high-achievers and that these groups often receive lower-quality instruction than groups of high-achievers (Hollifield, 1987).

Although there are stigmas associated with ability grouping, Bear et al. (2016) suggest that when students are learning a particular orthographic features, it is best if they

work in groups with students who are studying that same feature. They also suggest that students will make more progress when they are taught at their instructional level (Bear et al., 2016). Quality teachers strive for excellence in the area of differentiated instruction. When instruction is effectively differentiated, individual needs of students can be met. "One unique quality of word study…lies in the critical role of differentiating instruction for different levels of word knowledge (Bear et al., 2018, p.10). One way to ensure that instruction is differentiated to meet the diverse needs of learners is to group students according to where are developmentally in relation to their spelling abilities and understanding.

Consistent with the concept of differentiated instruction is the notion that students should be working within their zone of proximal development (Vygotsky, 1978), which refers to the distance between what a child can do independently and what they can do with support and guidance (Bear et al., 2016). To ensure that students are consistently learning within their zone of proximal development, it is vital that teachers are continually assessing and monitoring the progress of their students throughout word study instruction. By continually assessing and monitoring students' knowledge level, teachers can ensure that they are engaging students in learning by providing developmentally appropriate instruction. Because the rate at which students develop their orthographic knowledge will vary between individual students (Bear et al., 2016), it is important that groupings are not permanent; instead, groupings should be flexible, allowing teachers to regroup as necessary in order to meet the changing needs of their students (Invernizzi & Hayes, 2004). "Flexible student grouping involves grouping students, managing the groups, and continuously regrouping students to ensure they

receive instruction that is matched with their learning needs" (McCullough, 2011, p. 41). In *The Reading Teacher*'s column, *Critical Questions* (1996), readers responded to a question about the negative effects ability grouping can have on first grade students. One reader's response, "Flexibility is the key to making any grouping successful", echoes Invernizzi and Hayes' (2004) discussion of maintaining word study groups that are flexible.

Assessment Practices

Qualitative Spelling Inventories

Students who engage in developmental word study instruction work through the three layers of English Orthography: alphabet, pattern, and meaning. One way to assess which layer a student is working in, and therefore, determine their developmental spelling stage, is through the administration of a qualitative spelling inventory. "Qualitative spelling assessments and feature analyses assist teachers in determining the instructional levels of their students, and this information allows knowledgeable teachers to place their students within a developmental continuum of systematic instruction." (Invernizzi & Hayes, 2004, p. 223). A spelling inventory is a list of words that are chosen to represent different spelling features at increasing levels of difficulty (Bear et al., 2016). Spelling inventories are a valid and reliable measure of students' word knowledge, and the administration and scoring are quick and simple; therefore, they serve as an effective assessment practice (Bear et al., 2016).

Words Their Way provides teachers with three different spelling inventories to choose from, depending on the grade level of students. These options include the Primary Spelling Inventory (PSI), Elementary Spelling Inventory (ESI), and Upper-Level Spelling

Inventory (USI). The PSI consists of 26 words containing features that are focused on in the emergent stage through the within word pattern stage; therefore, is recommended for students in kindergarten through early 3rd grade (Bear et al., 2016). The PSI word list can be found in Appendix B. The ESI contains 25 words that increase in difficulty from the emergent stage to the derivational relations stage, and is recommended for students in grades 3-6, although it can be used to assess students in grades 1-6 (Bear et al., 2016). Lastly, the USI is a spelling inventory containing 31 words and is designed for upper elementary, middle school, and high school students. Each inventory serves as a reliable measure to screen students for developmental stages as well as monitor progress throughout the school year (Bear et al., 2016). Using a feature guide to score and analyze the spelling inventory provides teachers with qualitative data about a students' overall orthographic knowledge; thus leading the teacher to determine the appropriate developmental spelling stage in which to plan and deliver instruction. There are 5 developmental stages of spelling which are related to the three layers of English Orthography (alphabet, pattern, and meaning). Those stages are identified as *emergent*, *letter name – alphabetic*, *within word pattern*, *syllables and affixes*, and *derivational relations* (Bear et al., 2016).

Emergent Stage. This stage of development is reserved for children who are not yet reading conventionally and who typically have not yet been exposed to any formal reading instruction. In this stage, students move from drawing illegible scribbles to using letters as a representation for some of the sounds they hear in words as they develop phonemic awareness and learn the alphabetic principal (Bear et al., 2016).

Letter Name-Alphabetic Stage. The students working in this stage are typically kindergarteners through early first graders, or students who are beginning to receive formal reading instruction. These students rely heavily on the *names* of letters to represent the words they spell (Bear et al., 2016). For example, a student in the letter name-alphabetic stage might spell the word *wait* "YAT". In this example, the student is relating the sound "w" to the pronunciation of the letter "y", the sound "a" to the pronunciation of the letter "a", and the sound "t" heard when pronouncing the letter "t". As students progress through this stage, they learn how to segment the phonemes heard within words in order to match them to particular letters (Bear et al., 2016).

Within Word Pattern Stage. Students in the within word pattern stage have already developed an understanding of letter sounds and short-vowel patterns, and can therefore read and spell many words accurately (Bear et al., 2016). A student working in the within word stage is able to spell many high-frequency short-vowel words and common long-vowel words correctly, although they generally make errors when spelling words with long-vowel teams; therefore, the focus in this stage is on looking closely at vowel patterns within single-syllable words, including short-vowel, long-vowel (including vowel markers such as *silent-e*), and ambiguous vowel patterns (such as the *ou* pattern as found in the word *rough*) (Bear et al. 2016). Although the main focus is on vowel patterns, students in this stage scratch the surface of the meaning layer as they study homophones and use *meaning* to aid them in choosing the correct spelling (Bear et al., 2016).

Syllables and Affixes Stage. Students who work in the syllables and affixes stage experience of shift in instruction that shies away from the study of patterns in single-

syllable words and toward more complex, multisyllabic words. Students in this stage work to develop their knowledge of affixes such as inflectional endings, prefixes, and suffixes, and discover how the meanings of words are affected by the addition of affixes to base words. (Bear et al., 2016).

Derivational Relations Stage. In this final stage of spelling development, students' vocabularies are enriched as they focus on how words are derived from base words through the discovery of the relationship between meanings and spellings of meaningful word parts (Bear et al., 2016). Bear et al. (2016) consider this stage to be a lifelong stage that continues as individuals continue developing their knowledge of specific interests through reading and writing (Bear et al., 2016).

Running Records

A running record is one effective form on ongoing assessment used to monitor progress and make instructional decisions. During the administration of a running record, the teacher sits one-on-one with a student and listens in as they read aloud a text. As the student is reading, the teacher documents exactly what a child does by marking oral reading behaviors, such as substitutions, repetitions, errors, and self-corrections. Furthermore, the teacher will note observations and indications of fluency and comprehension. After the reading is finished, the students' accuracy rate, error rate, and self-correction rate is calculated. The accuracy rate is calculated by subtracting the total words read correctly from the total words read, and dividing that number by the total words read. The error rate is calculated by dividing the total words read in the text by the total number of errors made, and is expressed as a ratio. Lastly, the self-correction rate is calculated by adding the total number of errors with the total number of self-corrections

made, and dividing that total by the total number of self-corrections made. This number is also expressed as a ratio. For example, if a student read a total of 173 words in a passage, but made 12 errors and 5 self-corrections, the following calculations would be made:

Accuracy Rate	**Error Rate**	**Self-Correction Rate**
173-12=161 161/173=0.93	173/12=14.41	12+5=17 17/5=3.4
93%	**1:14**	**1:3**

Table 2.1 Sample Running Record Analysis

In this example, the student read the text with 93% accuracy. The error rate indicates that for every fourteen words read, the student made one error. The self-correction rate indicates that for every three errors made, the student made one self-correction.

Beyond determining the accuracy, error, and self-correction rates, running records serve as valuable assessments that inform teachers specifically of what students are doing when they encounter unknown words. The results of running records are used to gain a deeper understanding of the processes that students are utilizing. “Running records provide concrete evidence of students’ skills, reading levels, strategies, and progress as readers” (Ellingson and Gillett, 2017, p. 136). Through the use of miscue analysis, teachers are able to analyze the types of errors that a student makes in order to make instructional decisions based on what strategies the child *is* using, and what strategies or skills the student needs to develop in order to move them forward as readers. This notion is echoed in Hudson, Lane, and Pullen’s article, *Reading fluency assessment and instruction: What, why, and how?* (2005) when they state that “through careful examination of error patterns, a teacher can determine which strategies the student is using and which strategies the student is failing to use” (p. 705). By determining the

skills and strategies that need to be taught, teachers can support the student's word knowledge development during explicit word study instruction.

Summary

Through researching the relevant literature and studies as reviewed throughout this chapter, it is evident that the act of teaching successful reading is complex. When a deep understanding of the essential components of reading, English Orthography, effective instructional strategies, and effective assessment practices are combined, teachers are armed with the tools needed to provide their students with quality instruction that supports them as they develop as successful readers. The review of relevant literature has made it clear that word study is one effective instructional approach that encompasses all of the ingredients that make up the recipe for achievement in reading.

CHAPTER 3

METHODOLOGY

The purpose of this study was to evaluate the effectiveness of the word study program, *Words Their Way*. The researcher wanted to see whether or not the program had a positive effect on her students' word identification skills when reading the words studied through their weekly sorts in the context of reading. Over the course of 13 weeks, the following question guided the researcher's exploration: *What effect does the implementation of* Words Their Way *have on the word identification skills of second-grade students?*

Context of the Study

The study was conducted during the second semester of the 2017-2018 school year in a second-grade classroom at Daegu International School (DIS) in South Korea. DIS is a private international school located on the outskirts of the city in a newly developed business district. Currently, DIS has 302 students enrolled. 225 of those students are Korean, and the remaining 77 represent fifteen other countries; therefore, DIS can be described as an ESL setting. The participants of the study were twelve second-grade students who received word study instruction and practice for twenty minutes, five days per week. Students were placed in small groups of three to five based on their developmental level as determined by the qualitative spelling inventory that was taken at the start of the study.

Word study instruction took place as part of the one-hour and forty-minute literacy block. With accordance to the daily schedule, word study either took place in the morning or afternoon. The class followed a balanced-literacy framework that

incorporated reading workshop, writing workshop, word study, and literacy centers. Due to the time constraints presented within the daily schedule, writing workshop and literacy centers were alternated daily. During literacy centers, students had opportunities to participate in choice writing, partner reading, listen to reading, reading response, and guided reading. Word study took place consistently each day following either writing workshop or literacy centers.

During the twenty minutes of daily word study, students either worked directly with the teacher, together with their group members, or independently. When working directly with the teacher, students received teacher-directed explicit instruction of that week's sort. During group work or independent practice, students had opportunities to manipulate, examine, and sort their words into categories through a hands-on approach. By providing students with engaging routines and activities, students were able to shift their focus from memorization to developing their understanding of the words and their features. At the end of the thirteen-week research period, data that were collected weekly were analyzed to determine the effectiveness of the program on the word identification skills of the participants.

Role of the Researcher

At the time of the study, the researcher was a twenty-seven-year old white female who was a foreigner in her setting at an international school in Korea. The researcher lived on campus; therefore, she did not have to commute to the location of the research that was conducted. The researcher held a bachelor's degree in Elementary Education and Spanish through the University of Wisconsin-La Crosse and was working toward a Master's degree in Reading with the Reading Specialist certification, also through the

University of Wisconsin-La Crosse. The researcher was in her second year teaching second-grade at DIS, but in her fourth year of full-time teaching after teaching second-grade as a long-term substitute upon completion of her undergraduate degree in 2013. Prior to teaching in Korea, she taught first and second-grade at an international school in Casablanca, Morocco for two years.

The researcher's personal philosophy of education and beliefs about how children learn best aligned well with the purpose of the study, which was to determine the effectiveness of *Words Their Way* as a word study program. The researcher believed that all students were capable of becoming life-long learners. She believed that she held the power, as a teacher, to facilitate a love for reading through the delivery of quality instruction and by providing engaging and purposeful opportunities for students to learn, grow, and succeed as readers. The researcher was seeking a word study program that would better suit the needs of her young learners to aid them in developing as the lifelong, passionate readers she desired for them to become. The researcher was looking to improve her own instructional strategies by implementing a new program in order to meet those needs. She had concerns about the current approach to spelling instruction which focused heavily on memorization.

As she searched to find a suitable program, the researcher took into consideration her success with small-group instruction as well as a balanced-approach to literacy instruction. Within a small group setting, the researcher was able to differentiate her instruction and allow students to learn within their zone of proximal development (Vygotsky, 1978), which refers to distance between what a child can do independently and what they can do with support and guidance (Bear et al., 2016). By providing

students with instruction within their zone of proximal development, the researcher could engage her students in active learning through meeting their individual needs which, in turn, would maximize their learning potential.

This study called on the researcher to take on the roles of both teacher and researcher. As a teacher-researcher, her primary role was to facilitate the implementation of *Words Their Way* as the word study instructional program used in her classroom. As the classroom teacher, she delivered explicit instruction to small groups and thoughtfully crafted a schedule of activities and independent work to support this instruction. As a researcher, she made observations and collected data in various forms in order to evaluate the effectiveness of the program. As the researcher, she carefully designed assessments that would allow her to analyze data in a way that fit with the research question.

Description of Participants

Each student in the researcher's classroom at Daegu International School was invited to participate in the study on a voluntary basis. Along with their parents' understanding and consent, all students in her classroom chose to participate. The participants were twelve second-grade students; five males and seven females. All students were considered to be English Language Learners (ELLs), although the majority of students were on-level or above-level in terms of English proficiency due to the strict requirements for admission to Daegu International School. None of the students received ELL services during the 2017-2018 school year; however, one female student did repeat first grade the year before. These students came from a variety of nationalities; yet, the majority of students were Korean. Of the twelve students, eight were Korean, two were Korean-American, one was Korean-Australian, and one was Nepalese.

Research Design and Rationale

The research conducted followed a quasi-experimental design. This practical action-research took place within the researcher's own classroom with her own students. She chose to conduct her research in this way in order to evaluate her current practices with the new word study approach to spelling instruction that she facilitated with *Words Their Way* for the 2017-2018 school year. With this being a new program for herself as a teacher and for her students at Daegu International School, the researcher's overall goal with this investigation was to evaluate the effectiveness of the program and to further her understanding of how word study instruction could benefit students. As a teacher-researcher, she felt as though the best course of action would be to continue the current practices and routines that were set up for word study at the beginning of the school year. Doing so would allow the students to work comfortably and confidently within the word study routines that they already knew and followed.

Procedures and Data Collection Plan

This study followed a quasi-experimental design; therefore, all procedures and data collection took place within the researcher's own classroom. Word study routines were established in the beginning of the 2017-2018 school year, so by time the research began in January, students were already familiar with the format of the program and the procedures that accompanied it.

With a combination of the framework provided by the *Words Their Way* program and her consideration of the practices that best suited her instructional beliefs, the researcher carefully crafted the word study routines that her students would follow for the 2017-2018 school year. Before she could begin formal instruction; however, it was

necessary for the researcher to assess her students in order to gain a deeper understanding of their instructional needs. “Word study begins with finding out what each child already knows and starting instruction there” (Bear et al., 2016, p.10). One key element of *Words Their Way* is that instruction is differentiated so that students are instructed at their developmental spelling level. By providing instruction at a child’s developmental level, they are able to work in their zone of proximal development which Lev Vygotsky (1978) determined to be the distance between what a learner can do independently and what they can do with guidance and support (Bear et al., 2016).

In order to determine the students’ developmental spelling levels, the researcher administered the Primary Spelling Inventory (PSI) as recommended by the authors of *Words Their Way*. The PSI is a spelling inventory designed for students in kindergarten through grade two which “consists of lists of words specially chosen to represent of variety of spelling features at increasing levels of difficulty” (Bear et al., 2016, p. 25). The PSI was administered similarly to a traditional spelling test. As the classroom teacher and PSI administrator, the researcher read aloud the list of twenty-six words, one at a time. Each word was read aloud in isolation and then again used in a sentence. Once the PSI was completed, the researcher was able to score and analyze them using a feature guide that was utilized to identify which specific orthographic features students already knew well, and which features they needed to work on. The analysis of the PSI helped her to determine the developmental spelling stage that each child was working within, and from there, she was able to form the developmental groups to which she would deliver instruction. At the end of the research period, the researcher re-administered the

PSI to all students as a means of showing individual students' overall growth in each orthographic feature assessed on the inventory.

The authors of *Words Their Way* suggest that students move through five different stages of spelling and reading development. Those stages include the *Emergent Stage, Letter-Name-Alphabetic Stage, Within Word Pattern Stage, Syllables and Affixes Stage,* and *Derivational Relations Stage (*Bear et al., 2016, p. 11). By using the feature guide when analyzing the PSI, teachers are able to place their students in the appropriate stage through which instruction will be delivered.

With a small class size of twelve students, the researcher decided to form three instructional groups. One group was placed in the *Within Word Pattern Stage* (late), and two groups were placed in the *Syllables and Affixes Stage* (one group was in the early stage and the other in the middle). The researcher designed a six-day rotation schedule during which she met with two of the three groups twice per week, and the third group, containing students at the highest developmental spelling level of the three groups, just once per week. The researcher incorporated many of the suggested word study sorts and activities that the program recommended as well as others that she decided upon on her own. Activities and sorts recommended by *Words Their Way* that were utilized included Closed Sorts, Speed Sorts, Written Sorts, and Glued Sorts. A description of each of these sorts can be found in Appendix C. Closed Sorts involve the students setting up the category headings, and sorting their words under the correct category. In a Speed Sort, the student sets up the category headings, places all of the words in a pile upside down, and then times them self as they sort the words as quickly as possible. A Written Sort is an activity in which the student writes down the word in categories. Lastly, a Glued Sort

is an activity in which students glue their words under the correct category in their word study notebook. The first and sixth day in the rotation fell on the same day, but presented two different purposes. The activity on day six was to to take a test on the words studied throughout the week as a summative assessment of the learning that took place throughout the rotation, and the activity on day one was to receive the next list of words. An example of a rotation schedule can be found in Appendix E.

Word Study Notebooks

Each student was given their own word study notebook that organized all of their work completed throughout the week. Inside their notebooks was a weekly schedule of activities to be completed on each day; a definition list for each of the types of sorts students would be completing; and a word study notebook choices menu which contained a variety of different activities that students could choose from to practice their words further. By placing these resources in each notebook, students were able to independently answer questions such as, “what am I supposed to do today?”, which allowed the researcher the opportunity to give all of her attention to the group she was working with each day.

As students rotated through their schedule of word study activities, much of their work was documented in their notebooks. Although many of the activities that students were asked to complete were sorts that only required manipulation of their individual word cards, the word study notebook choices menu offered students the opportunity to choose different activities that they would record in their notebooks. The word study notebook choices menu served two purposes. The first purpose was to provide students with flexibility in how to work with their words. By allowing them the opportunity to

choose, the researcher was giving them a sense of ownership over their learning. The second purpose of the word study notebook choices menu was that it served as another way to collect data. By checking student notebooks weekly, the researcher was able to note which activities students were choosing to complete (or not complete) and check their work for errors. Doing these notebook checks served as a way for the researcher to inform her small-group instruction.

Weekly Passage and Running Records.

The researcher needed to answer the question, *what effect does the implementation of* Words Their Way *have on the word identification skills of second-grade students?* The sorts along with activities that were designed for students were good sources of practice, no doubt; however, those activities alone were not going to assist in answering the research question. The researcher had to come up with another way to collect data that would allow the students to demonstrate their ability to identify the words they studied in context. *Words Their Way* did not have an assessment in place that the researcher felt would help in answering the research question thoroughly, so her solution was to create her own. She decided to create short passages for each sort that the students completed over the course of the thirteen-week research period. Each week, the researcher looked at the list of words that students would be working with. She came up with a short story imbedded with a minimum of ten words from the sort. She also included at least one additional word that followed one of the patterns from that week, but students did not work with directly. *Words Their Way* included a list of additional words for each sort, and this is where the researcher selected the additional word(s) from for the passage.

On Day 5 of the weekly rotation schedule, students were asked to read their weekly passage aloud. The researcher uploaded each passage to the digital portfolio app, Seesaw. Students would use a classroom iPad to locate their weekly passage, and record themselves reading the passage aloud. When they completed their oral reading, students were asked to locate at least five words from that week's sort and circle them in the text. The researcher took a running record of each student's recording of their passage. The researcher calculated the accuracy rate, self-correction ratio, and fluency, but the most valuable information collected from each running record was the Target Words Read Correctly (TWRC). The TWRC was calculated by noting the number of words imbedded from each sort, including the additional word that was added, that were read correctly in the passage.

Weekly Spelling Tests

Bear et al. (2016) recommend weekly spelling tests as a way to monitor mastery of the words and features studied, as well as to hold students accountable for their learning; therefore, the final activity of each weekly word study rotation was to take a spelling test. Each group met with the teacher on Day 6 of their rotation to take their test. They received a sheet of paper with ten spaces as well as one bonus space. The researcher chose ten words from their sort and one bonus word which came from the additional words listed in *Words Their Way*. The additional words were words that followed the same pattern, but were not included in the students' list of words that they worked with throughout the week. The researcher administered the spelling test in a traditional way in which she called each word individually, read the word in a sentence, and repeated the word individually once more. The researcher repeated this process for each of the ten

words and the bonus word. The researcher collected the completed spelling tests prior to students receiving their new word list as part of their Day 1 activity, which began immediately following their Day 6 activity of taking the spelling test. Each test received a score out of a total of eleven points.

Oral Pre-assessments

About five weeks into the data collection period, the researcher felt that she was missing a piece of data that would further support the research question. The data she was collecting through observations, running records, and spelling tests were providing the researcher with insightful information; however, she felt as though she needed to look at the students' ability to identify the words they would be working with *prior* to instruction. The researcher made the decision to administer an oral pre-assessment to each of the students prior to meeting with them on Day 1 of their rotation when they received their new word lists. During the oral pre-assessment, the researcher called students individually and presented them with the list of the roughly twenty-four words that they would working with that week. The researcher asked the students to read down the list, one word at a time, and she simply marked whether or not they read the word accurately. This process was quick, but the researcher felt as though it added a valuable set of data to the collection. By having students orally read aloud the list prior to receiving any instruction, the researcher was able to compare what they were able to do prior to instruction with what they were able to do after instruction. Comparing these two sets of data painted a better picture of how word study instruction affected student word-identification skills by the end of each weekly rotation through direct instruction and independent practice and manipulation of words. Though this data set was not added until

after the researcher had already begun the research, she felt as though it was valuable, and she is satisfied that she added this piece to the overall data collection.

Procedures

The process of collecting data took approximately thirteen weeks, during which a routine was set and concrete schedules were put in place. With the exception of adding in the the oral pre-assessment to the data collection during week six, the schedule remained the same for the entire research period. The following is an outline of the six-day rotation schedule that was put in place and adhered to each week:

Day 1

Students met with the researcher on an individual basis as they arrived to school in the morning to read aloud the list of words that they would receive later that day during the word study portion of the literacy block. As students read the words aloud, the researcher marked whether they were read correctly. This oral reading served as their pre-assessment. Note that this data collection was not added to the schedule until week six. Samples of oral pre-assessments can be found in Appendix C. During the word study portion of the literacy block, students reported to the meeting area with their word pouch, scissors, and a pencil. Each student received their new list of words, which they cut out and numbered the backs of. Upon completion of cutting and numbering the word cards, the researcher delivered explicit instruction of the focus pattern. Students practiced reading the words aloud to ensure accurate pronunciation, discussed the meanings, and the researcher assisted students with completing a Closed Sort of their words. A description of Closed Sorts can be found in Appendix D and samples of weekly sort lists can be found in Appendix F.

Day 2

Students worked independently with their words to complete a Written Sort in their notebook. The description of the Written Sort can be found in Appendix D. Upon completion of the Written Sort, students would engage in a hands-on game with their words by choosing a word study game from the game choice tub. Samples of word study games can be found in Appendix G.

Day 3

Students engaged in a Speed Sort which they completed a total of three times. Speed Sorts are described in Appendix D. After completing their Speed Sorts, students made a word study notebook choice. A list of these choices can be found in Appendix H and student samples of word study notebook choices can be found in Appendix I.

Day 4

Students in the lower and middle-leveled groups brought their word pouches to the meeting area where the researcher delivered explicit instruction and offered guided practice with their words. During this time, misconceptions and challenges were addressed. The higher-leveled group did not meet with the researcher for a second time during the weekly rotation; rather, they were given an additional day to practice with their words by making a game choice or activity choice to complete in their word study notebook.

Day 5

Students did a final sort of their words and glued them into their word study notebooks. After completing their Glued Sort, which is described in Appendix D, students located their weekly word study passage on an app called Seesaw. After locating

the passage, they recorded themselves reading the passage aloud and then circled a minimum of five words that fit that week's pattern. At the end of the day, the researcher listened to each oral reading of the passage, and completed a running record. Samples of word study passages and accompanying running records can be found in Appendix J.

Day 6

The activities for Day 6 and Day 1 were completed on the same day; however, the Day 6 activity was completed prior to students receiving their new words as part of the Day 1 activity. The Day 6 activity was a word study spelling test which the researcher administered at the meeting area. The researcher chose a total of ten words from the sort that students worked with along with one "bonus" or "challenge" word, which was a word that students did not directly work with, but that followed the same pattern they worked with. The researcher chose the bonus word from the list of *additional words* which Bear et. al (2016) created for each sort. Samples of word study spelling tests can be found in Appendix K.

Limitations of the Study

As to be expected with most research that is conducted, this research was accompanied by some limitations. The first limitation was that this was the researcher's very first year implementing the word study program, *Words Their Way*. The researcher implemented this program independently, without any professional training or guidance provided by administration. The researcher used a combination of what she learned by reading the program's book, *Words Their Way: Word Study for Phonics, Vocabulary, and Spelling Instruction, 6th Edition (2016),* ideas gathered through reading numerous blog posts and articles, and her own professional judgement in order to design the instructional

plan for the word study block. The instructional plan that she designed was modified and tweaked during the first semester of the school year prior to conducting the research, and solidified and strictly adhered to during the data collection period.

A second limitation is the sample of students used in the study. The sample size was small, consisting of only twelve students. Not only was the sample size small, but it was not randomized; rather, participants were students from the researcher's own second-grade class. Furthermore, all participants were ELL students from an ESL setting; therefore, the research and data obtained is only relevant to a similar setting and student population.

The third limitation was that the word study passages written for each weekly sort were not written at student's specific reading levels, nor were they written at specific readability grade levels. The researcher wrote them independently, using the words presented in each weekly sort. Because the researcher did not do so intentionally, it is possible that some of the passages were not written at an appropriate readability level for each child; therefore, the accuracy rates calculated through the running record may not paint a precise picture of the students' reading ability. Due to this limitation, the researcher tried to focus her data analysis on the target words read correctly rather than the overall accuracy rate. This will be discussed further in Chapter 4.

A fourth limitation is that the researcher added an additional form of data collection after the research period had already begun. In week six, the researcher chose to introduce an oral pre-assessment to the data-collection process. Using the data obtained from each student, the researcher informed her instruction in order to meet the individual needs of students as discovered directly through the results of the oral pre-

assessment administered. It is possible that the change in the researcher's approach to instruction that was carried out as a result of the oral pre-assessments had an effect on the students' overall success with target word identification.

Summary

Throughout the research period, the researcher delivered explicit instruction to small groups of students working at their developmental spelling stage and designed a schedule which granted multiple opportunities for students to put their knowledge to practice through hands-on, engaging activities. The researcher collected data in a variety of ways through a qualitative spelling inventory, oral pre-assessments, observations, conducting running records, and administering spelling tests. During this study, the researcher determined the degree to which the implementation of *Words Their Way* impacted students' ability to identify the words they studied through weekly sorts in the context of reading.

CHAPTER 4

RESULTS

The purpose of this study was to determine the effectiveness of *Words Their Way* as the word study instructional program in relation to the word identification skills of second-grade students. *Words Their Way* was implemented with students in the researcher's second-grade classroom of twelve, all of whom voluntarily participated in the study. At the start of the study, each student was administered the Primary Spelling Inventory (Bear et. al, 2016) in order to determine their developmental spelling level. Based on the analysis of the spelling inventories, three instructional groups were formed.

Throughout the research period, data were collected to examine the effectiveness of the program on student word identification skills in the context of reading. As described in chapter three, data-collection took place in a variety of formats, including oral pre-assessments, observations, running records, and spelling tests. This chapter will present the research question investigated, followed by a general description of each instructional group. The results obtained throughout the data-collection period will be presented and organized by each instructional group. Finally, findings will be presented through a comparison analysis between each of the three instructional groups.

Research Question

The research question that guided the investigation and data-collection was as follows:

What effect does the implementation of Words Their Way *have on the word identification skills of second-grade students?*

To answer this question, data were collected through a variety of assessments. The comparison between the oral pre-assessment scores and target words read correctly (TWRC) scores gathered from weekly running records serve as the data point that is related most specifically to the word identification skills of second-grade students; however, additional data obtained through the running records, such as the accuracy rate and weekly spelling test scores, also paint a picture of the overall effectiveness of *Words Their Way*. The results of the aforementioned assessments will be presented in this chapter.

Description of Instructional Groups

At the beginning of the study, the Primary Spelling Inventory (PSI) was administered to all students. The PSI served as the tool to determine the developmental spelling stage through which the researcher would deliver instruction. Based on the analysis of the feature guides and professional judgement established through the researcher's relationship to the students and her knowledge about their academic abilities, three instructional groups were formed. Each group was delivered instruction from a different starting point depending on the developmental spelling stage that was assigned.

Group 1 consisted of two males and one female, and was the smallest of the three groups. Table 4.1 shows the Beginning of Study (BOS) scores students received for each of the eight orthographic features assessed on the PSI.

	Orthographic Features								
Student	Initial Consonants	Final Consonants	Short Vowels	Digraphs	Blends	Common Long Vowels	Other Vowels	Inflected Endings	Total Feature Points
1.1	7/7	7/7	6/7	7/7	7/7	4/7	2/7	4/7	44/56

1.2	7/7	6/7	7/7	1/7	7/7	3/7	2/7	4/7	37/56
1.3	7/7	7/7	7/7	7/7	6/7	6/7	7/7	5/7	52/56

Table 4.1 Group 1 BOS PSI Orthographic Features Scores

Two of the three participants in this group were below-benchmark readers, and the third participant was on benchmark. Student 1.2 demonstrated a significantly lower level of achievement on the PSI compared to their peers. The scores represented in Table 4.1 demonstrate the varying developmental spelling abilities amongst each individual. Instruction for Group 1 began in the late *Within Word Pattern* stage. A combination of professional judgement based on the researcher's own knowledge of the students and the estimated spelling stage determined by the feature analysis of the PSI aided in the grouping decision.

Group 2 was made up of four students; one male and three females. Table 4.2 shows the BOS scores students received for each of the orthographic features assessed on the PSI.

Student	Orthographic Features								
	Initial Consonants	Final Consonants	Short Vowels	Digraphs	Blends	Common Long Vowels	Other Vowels	Inflected Endings	Total Feature Points
2.1	7/7	7/7	7/7	7/7	7/7	6/7	6/7	4/7	51/56
2.2	7/7	7/7	7/7	7/7	7/7	7/7	7/7	6/7	55/56
2.3	7/7	7/7	7/7	7/7	7/7	6/7	7/7	5/7	53/56
2.4	7/7	7/7	7/7	7/7	6/7	7/7	7/7	7/7	55/56

Table 4.2 Group 2 BOS PSI Orthographic Features Scores

Feature scores were rather consistent amongst this group of students. At this point in the school year, each student in this group was reading at benchmark. Analysis of the PSI and the use of professional judgement based on knowledge and experience with these

individual students resulted in the decision to begin instruction at the middle of the *Syllables and Affixes* stage.

Group 3 was the largest group, made up of five students. This group consisted of four males and one female. Table 4.3 shows the BOS scores students received for each of the eight orthographic features assessed on the PSI.

Student	Orthographic Features								
	Initial Consonants	Final Consonants	Short Vowels	Digraphs	Blends	Common Long Vowels	Other Vowels	Inflected Endings	Total Feature Points
3.1	7/7	7/7	7/7	7/7	7/7	7/7	7/7	6/7	55/56
3.2	7/7	7/7	7/7	7/7	7/7	7/7	7/7	7/7	56/56
3.3	7/7	7/7	7/7	7/7	7/7	6/7	7/7	7/7	55/56
3.4	7/7	7/7	7/7	6/7	7/7	7/7	7/7	7/7	55/56
3.5	7/7	7/7	7/7	7/7	7/7	6/7	6/7	7/7	54/56

Table 4.3 Group 3 BOS PSI Orthographic Features Scores

Consistency amongst student feature scores is displayed in the above table. Analysis of these students' spelling inventories placed all students in the middle to late stage of the *Syllables and Affixes* spelling stage; however, one female students' estimated stage fell in the early to middle *Syllables and Affixes* spelling stage. All students in this group demonstrated either on-level and above-level reading behaviors; therefore, in conjunction with the feature analysis of the PSI, professional judgement led to the decision of beginning instruction in the later part of the middle *Syllables & Affixes* stage.

Findings

Data obtained from the oral pre-assessment scores were compared with the results of the target words read correctly (TWRC) from running records of passages written for each weekly sort that students worked with. Data-collection for oral pre-assessments did

not begin until week 6 of the research period, while data for the TWRC were collected throughout the entire 13-weeks. A target score of 80% was established for the oral pre-assessments and TWRC and is shown in each corresponding figure as a point of reference.

Group 1

Figure 4.1 shows the Group 1 results of student oral pre-assessments for weeks 6-13. Figure 4.2 shows the Group 1 results of the TWRC for weeks 1-13. These two data points are compared on an individual-student basis in Figures 4.3, 4.4, and 4.5.

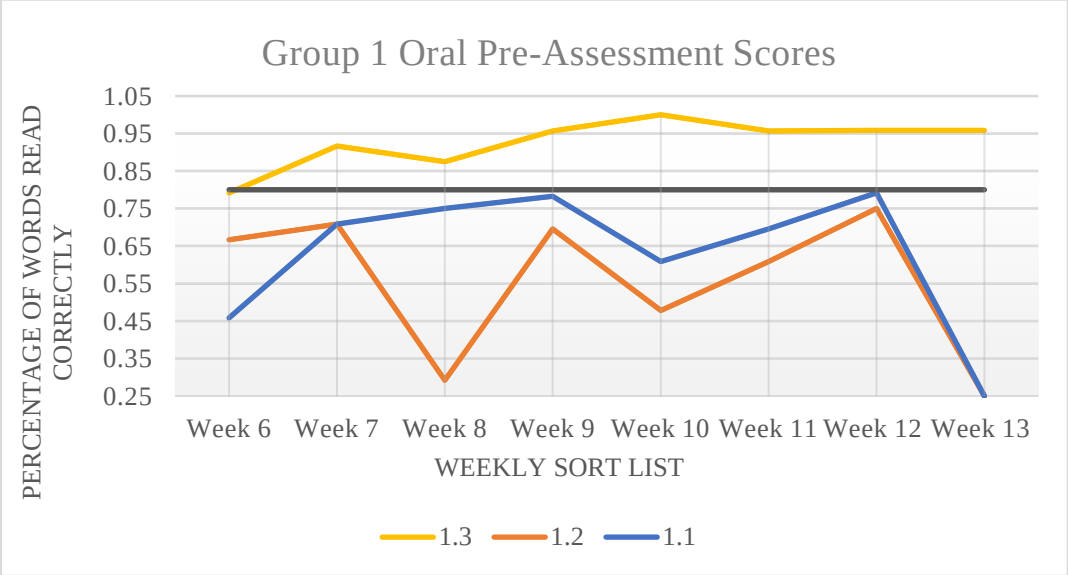

Figure 4.1 Group 1 oral pre-assessment data collected in weeks 6-13

Prior to receiving word study instruction, students read aloud the list of words they would be working with as a pre-assessment. A target score of 80% of words read correctly was established as a baseline. The data shows that two of the three students in Group 1, Student 1.1 and Student 1.2, consistently read the list of words below 80% proficiency prior to receiving instruction each week. On the other hand, Student 1.3 consistently read the words at or above the 80% proficiency mark.

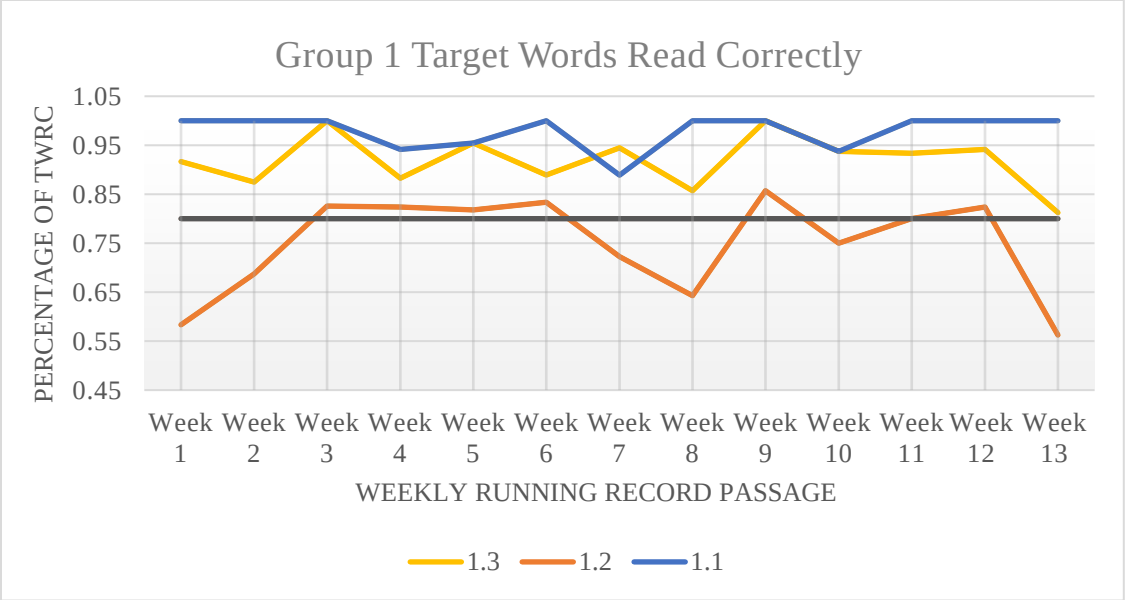

Figure 4.2 Group 1 TWRC scores collected through running records during weeks 1-13

Upon completion of the weekly rotation of instruction and practice with each word list, students read aloud a passage containing target words. A baseline of 80% of TWRC was established. This data reveals that two of the three students were able to read the target words with greater than 80% proficiency each week, while one student (Student 1.1) showed inconsistent performance. During the 13-week research period, Student 1.1 was able to read the target words with at least 80% proficiency just under half of the time (46%).

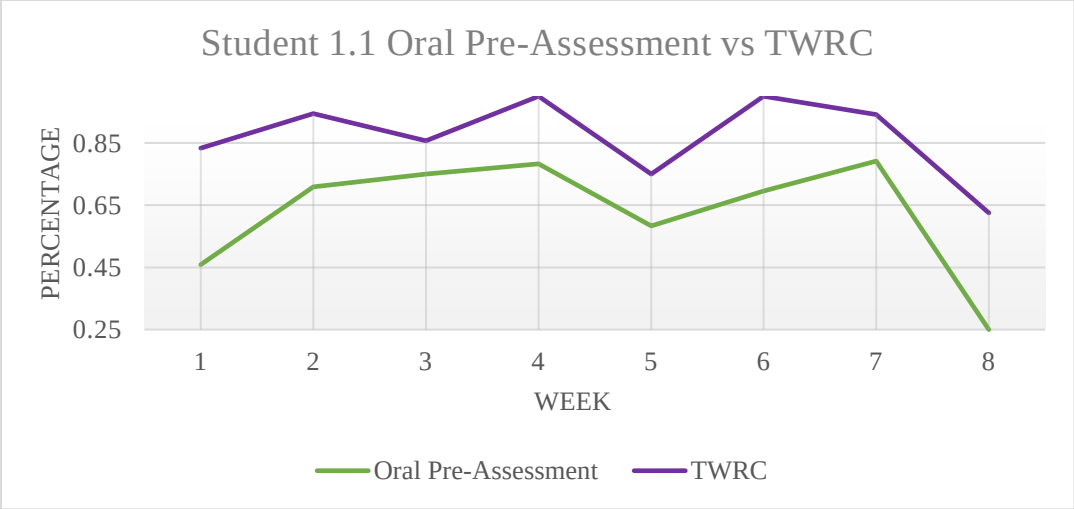

Figure 4.3 Student 1.1 comparison of oral pre-assessment scores and TWRC scores during weeks 6-13

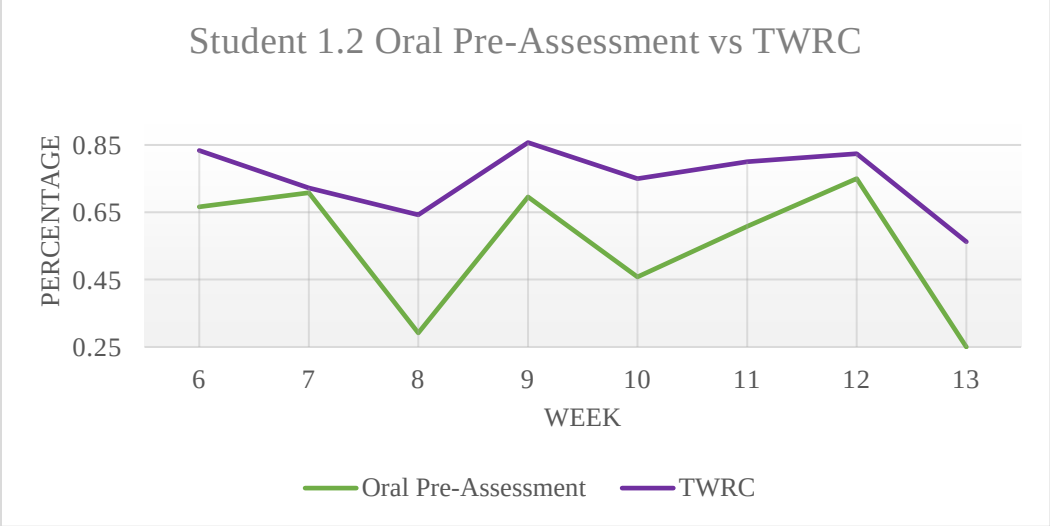

Figure 4.4 Student 1.2 comparison of oral pre-assessment scores and TWRC scores during weeks 6-13

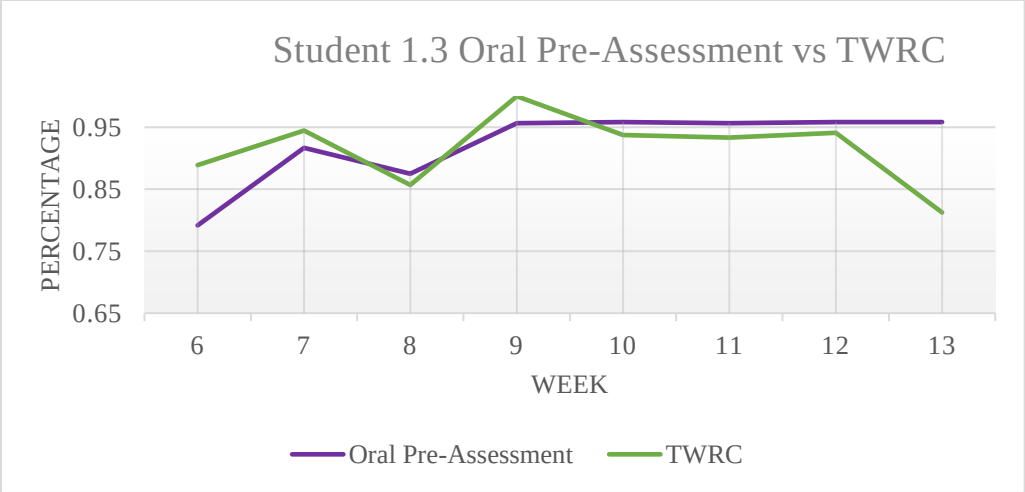

Figure 4.5 Student 1.3 comparison of oral pre-assessment scores and TWRC scores during weeks 6-13

Analysis of this comparison data between oral pre-assessment scores and TWRC reveals that two of the three students in Group 1 made overall growth in target word identification from the oral pre-assessment to the running record taken at the end of the rotation. Students 1.1 and 1.2 improved their word identification on each week; however, student 1.3 showed an inconsistent pattern. Student 1.3 improved word identification in 3 of the 8 weeks or 38%, but demonstrated a decline in word identification in the final four weeks of the study.

Table 4.4 shows the results of a paired-samples t-test which was run in order to compare the results of oral pre-assessment and TWRC for Group 1.

	Oral Pre-assessment	**TWRC**
Mean	0.700860507	0.844069503
Variance	0.049990158	0.014568125
Observations	24	24
Pearson Correlation	0.806749176	
Hypothesized Mean Difference	0	
df	23	
t Stat	-4.839520745	
P(T<=t) one-tail	0.00003474	
t Critical one-tail	1.713871528	

P(T<=t) two-tail	6.94752E-05
t Critical two-tail	2.06865761

Table 4.4 Group 1 Oral pre-assessment and TWRC paired samples t-test results

The mean score for the oral pre-assessment was 70%. The mean score for the TWRC was 84%. This data shows significant growth from the oral pre-assessment to the post-assessment (TWRC), displaying an overall growth percentage of 14%. Table 4.4 shows a variance of roughly 5% between oral pre-assessment scores and 1.5% for TWRC scores. This demonstrates that students in Group 1 did not show a considerable amount of fluctuation in their scores, though there was slightly more fluctuation between oral pre-assessments scores compared to TWRC scores. The t-test results provide a t value (t Stat) of -4.84, which indicates that a difference of 14.32 points (oral pre-assessment minus TWRC) is almost 5 standard deviations below the mean difference of 0 that one would expect if there was no improvement of word identification from the pre-assessment to post-assessment. The p value (P(T<=t) one-tail) shows the probability of obtaining a difference of scores of 14.32 points or more. With a p value of .00003%, nearly 0%, there is statistical evidence that *Words Their Way* aided in the improvement target word identification from pre-test (oral pre-assessment) to post-test (TWRC).

Group 2

Figure 4.6 shows the Group 2 results of student oral pre-assessments for weeks 6-13. Figure 4.7 shows the Group 2 results of the TWRC for weeks 1-13. These two data points are compared on an individual-student basis in Figures 4.8, 4.9, 4.10 and 4.11.

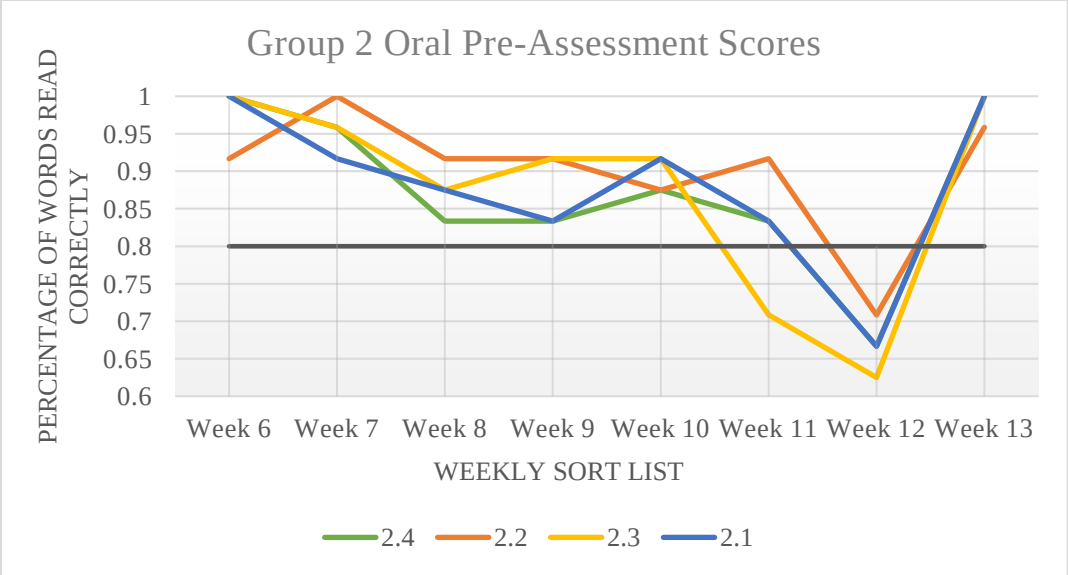

Figure 4.6 Group 2 oral pre-assessment data collected in weeks 6-13

Students read aloud the list of words they would be working with each week prior to receiving formal instruction. A baseline score of 80% accuracy was established. This data reveals that in weeks 6-10 and week 13, all students identified target words with at least 80% accuracy; however, weeks 11 and 12 show lower scores. Student 2.3 identified words below the 80% accuracy target score in both weeks 11 and 12, while all students identified target words with below 75% accuracy in week 12.

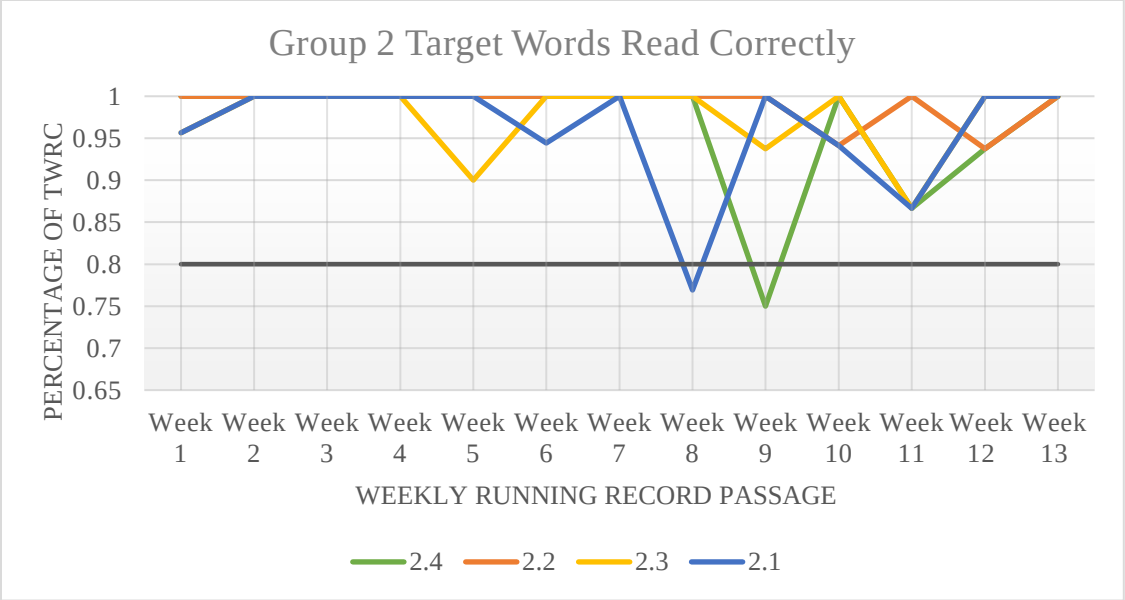

Figure 4.7 Group 2 TWRC scores collected through running records during weeks 1-13

At the end of each weekly rotation, students read aloud a passage containing a set of the target words they worked with throughout the week. A running record was taken in order to determine the number of target words read correctly within the passage. A baseline score of 80% TWRC was set. Analysis of this data shows a pattern of general accuracy in target word identification amongst all students in Group 2. Student 2.2 consistently read words above 90% accuracy over the entire 13-week period. Student 2.3 also demonstrated a regular pattern of reading target words with at least 90% accuracy, though week 11 scores show an accuracy rate of 87%. Students 2.1 and 2.4 identified target words with a minimum of 85% accuracy in 11 out of 13 weeks, or 86% of the time. On two occasions, each student identified target words below the 80% target score. Student 2.1 read with 77% accuracy in week 8, and Student 2.4 read with 75% accuracy in week 9.

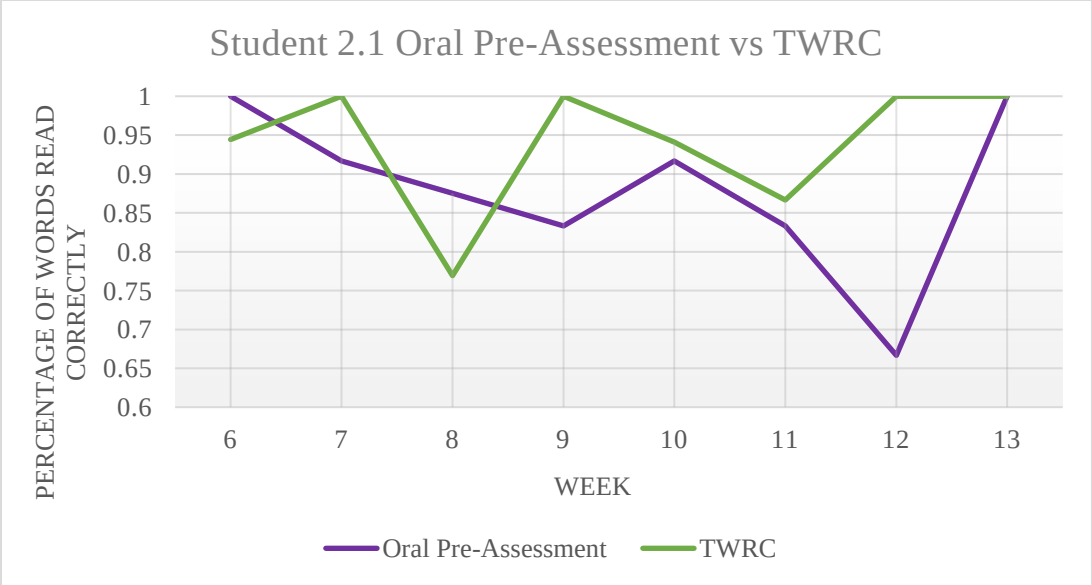

Figure 4.8 Student 2.1 comparison of oral pre-assessment scores and TWRC scores during weeks 6-13

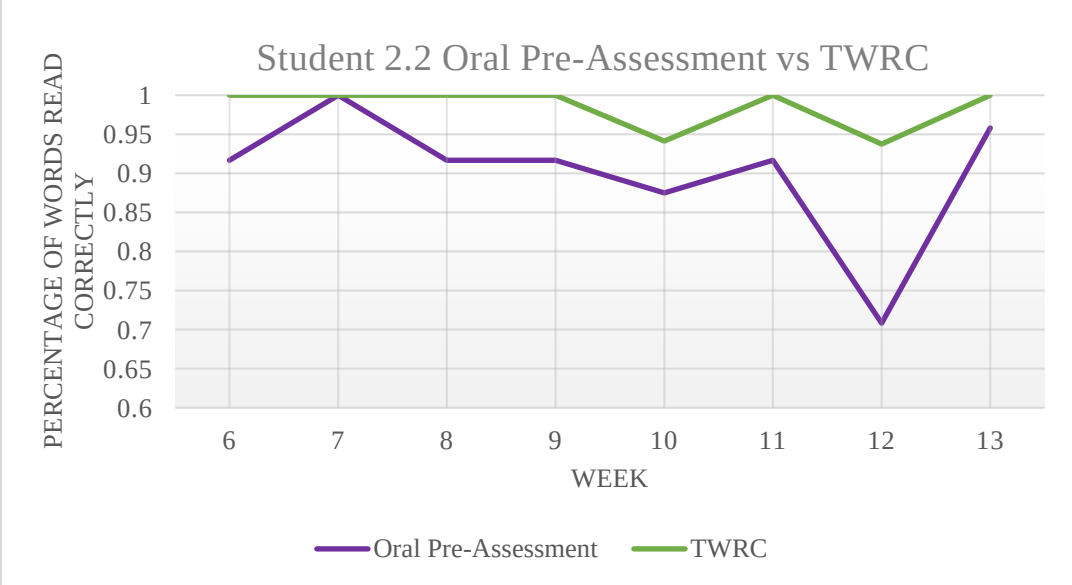

Figure 4.9 Student 2.2 comparison of oral pre-assessment scores and TWRC scores during weeks 6-13

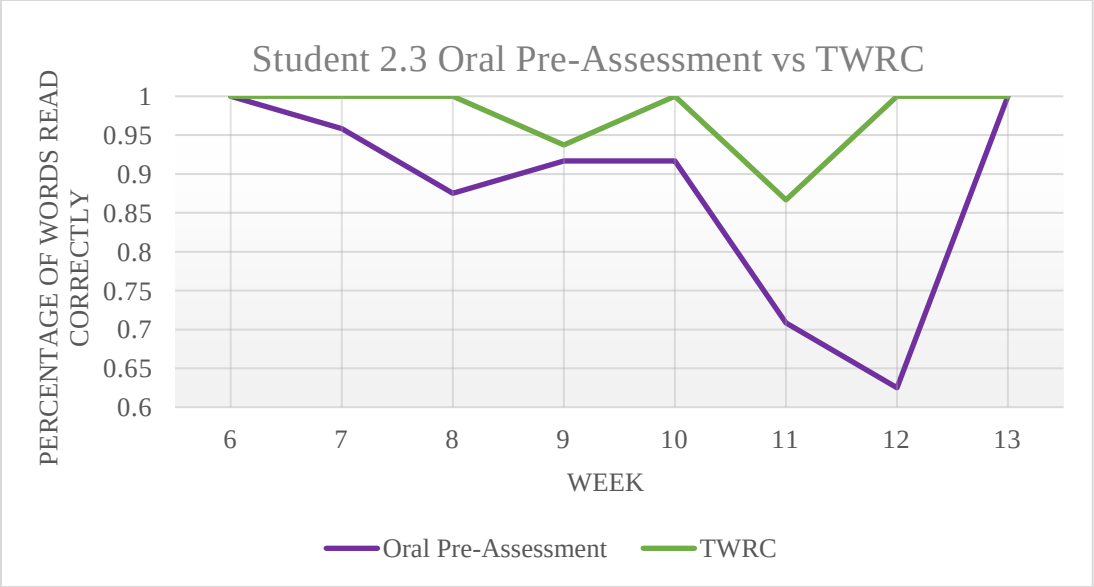

Figure 4.10 Student 2.3 comparison of oral pre-assessment scores and TWRC scores during weeks 6-13

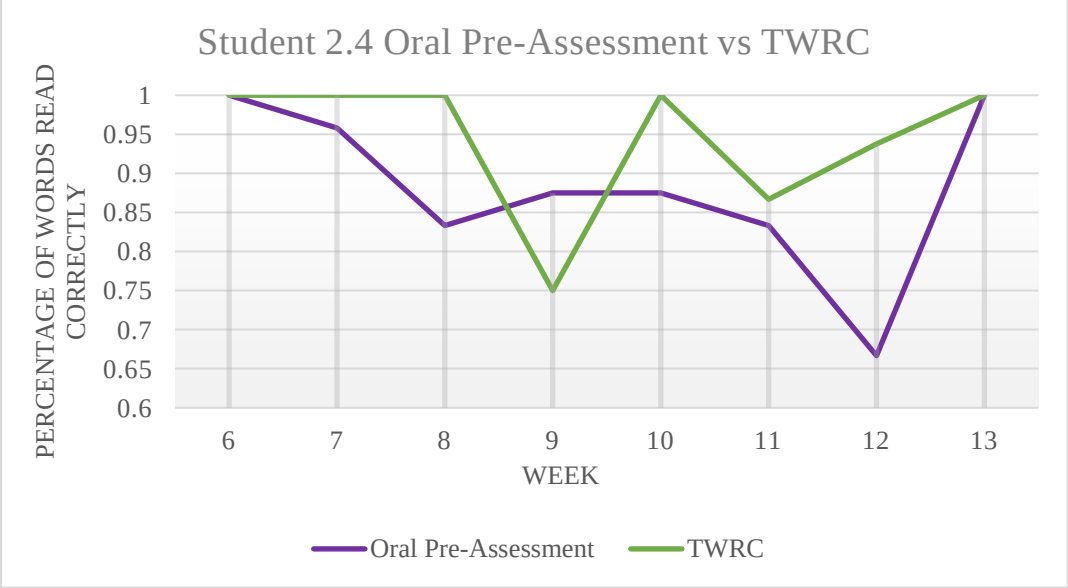

Figure 4.11 Student 2.4 comparison of oral pre-assessment scores and TWRC scores during weeks 6-13

Results of this comparison data shows patterns of overall growth in target word identification from the oral pre-assessment to the running record taken at the end of each weekly rotation. Students 2.2 and 2.3 correctly identified the same or a greater number of

target words from the oral pre-assessment to the running record, while students 2.1 and 2.4 demonstrated a decrease in word identification. Student 2.1 decreased their word identification score in weeks 6 and 8. Student 2.4 showed a decrease in word identification on one occasion during week 9. Instances during which students did not show growth in target word identification occurred in cases where students read with one hundred percent accuracy, thus not allowing any room for growth. Students in Group 2 demonstrated growth a minimum of 75% of the time over the course of the 8-week data collection period.

Comparison data between the oral pre-assessment and post-assessment (TWRC) for Group 2 was run in the form of a paired-samples t-test. Data is displayed in Table 4.5.

	Oral Pre-assessment	**TWRC**
Mean	0.884114583	0.961204005
Variance	0.011394979	0.004601588
Observations	32	32
Pearson Correlation	0.249854907	
Hypothesized Mean Difference	0	
df	31	
t Stat	-3.919614447	
P(T<=t) one-tail	0.000228267	
t Critical one-tail	1.695518783	
P(T<=t) two-tail	0.000456534	
t Critical two-tail	2.039513446	

Table 4.5 Group 2 Oral pre-assessment and TWRC paired samples t-test results

The mean score for the oral pre-assessment was 88%. The mean score for the TWRC was 96%. This data demonstrates significant progress from the oral pre-assessment to the post-assessment (TWRC), showing an overall growth percentage of 8%. Table 4.5 illustrates that the variance between scores was very small (approximately 1% for both data sets), indicating that students in Group 2 did not show a significant amount of fluctuation in their scores. The t-test results provide a t value (t Stat) of -3.92,

which indicates that a difference of 7.71 points (Oral-pre-assessment minus TWRC) is nearly 4 standard deviations below the mean difference of 0, which one would expect if *Words Their Way* was ineffective. The p value (P(T<=t) one-tail) shows the probability of obtaining a difference of scores of 7.71 points or more. The p value of .0000228%, nearly 0%, demonstrates statistical evidence that *Words Their Way* facilitated the improvement of target word identification from pre-test (oral pre-assessment) to post-test (TWRC).

Group 3

Figure 4.12 shows the Group 2 results of student oral pre-assessments for weeks 6-13. Figure 4.13 shows the Group 2 results of the TWRC for weeks 1-13. These two data points are compared on an individual-student basis in Figures 4.14, 4.15, 4.16, 4.17, and 4.18.

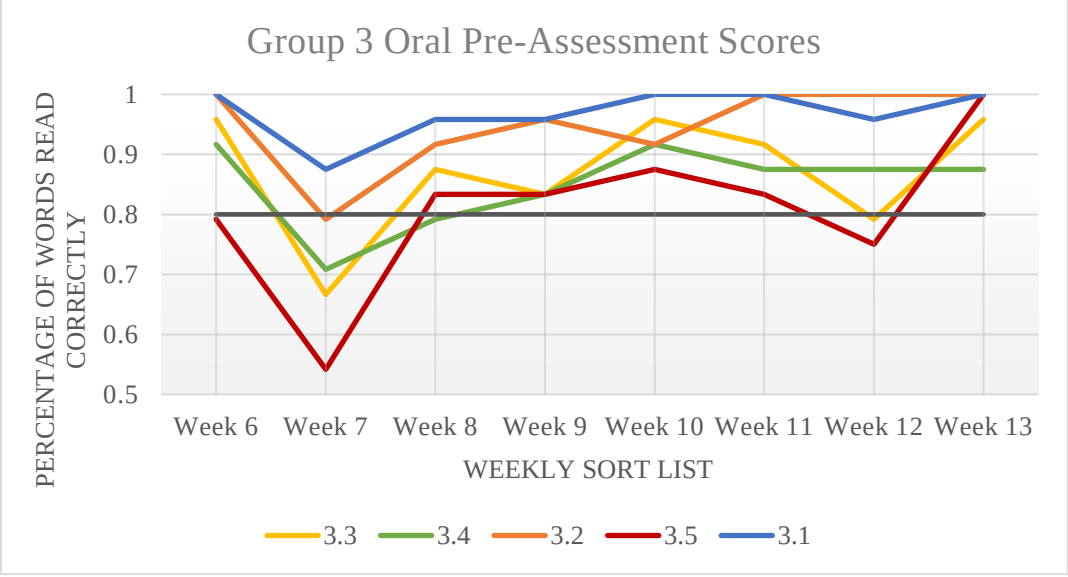

Figure 4.12 Group 3 oral pre-assessment data collected in weeks 6-13

Students read aloud the list of words that they would be receiving instruction with at the start of each weekly rotation, prior to delivery of that instruction. A baseline score

of 80% accuracy was established. Analysis of the results show that 2 out of 5 students, Students 3.1 and 3.2, read at or above the 80% accuracy target throughout the entire data collection period. Students 3.3 and 3.4 identified words at or above the 80% accuracy target 7 out of 8 weeks, or 88% of the time; however, Student 3.5 showed varying TWRC scores. Student 3.5 read below the 80% target accuracy score 3 out of 8 weeks, or 38% of the time. Student 3.5 only reached above 90% accuracy in week 13 during which they correctly identified words with 100% accuracy.

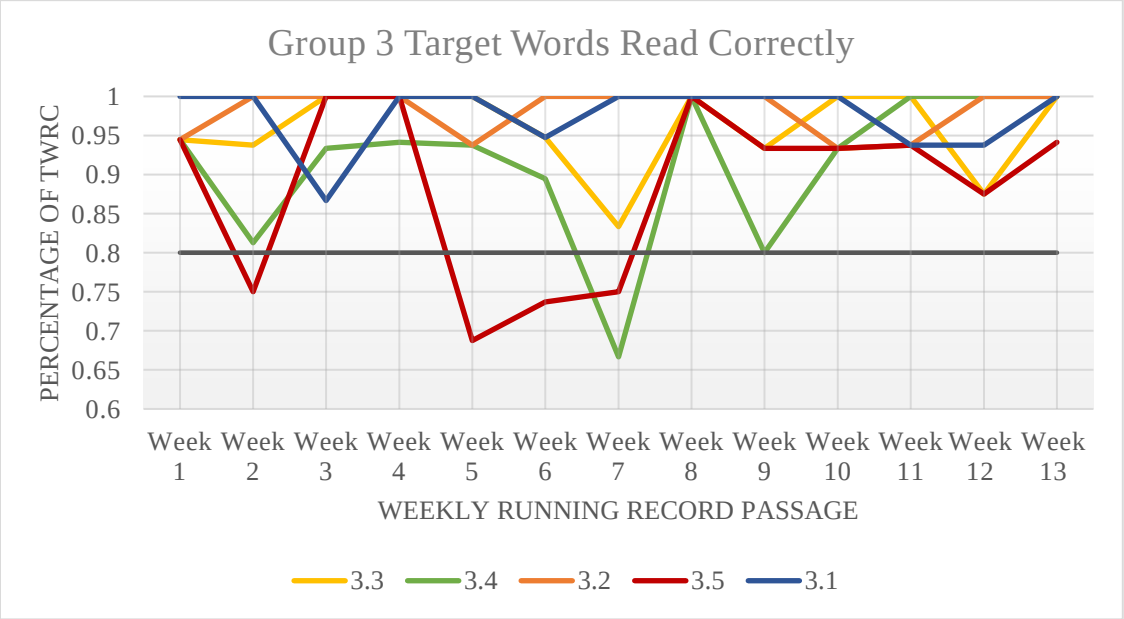

Figure 4.13 Group 3 TWRC scores collected through running records during weeks 1-13

As a conclusion to each week's instruction and practice, students read aloud a passage that included a set of target words from the list they worked with. A running record was taken each week in order to determine the TWRC score. 80% accuracy was set as a baseline target score. The data presented in Figure 4.13 demonstrates general accuracy of target word identification. Students 3.1, 3.2, and 3.3 read above the 80% target score throughout the entire 13-week research period. Students 3.4 and 3.5 show more fluctuation with their scores, though Student 3.4 fell below the 80% target accuracy

score just once during week 7. Student 3.5, on the other hand, fell below the 80% target accuracy score in 4 out of 13 weeks, or 31% of the time.

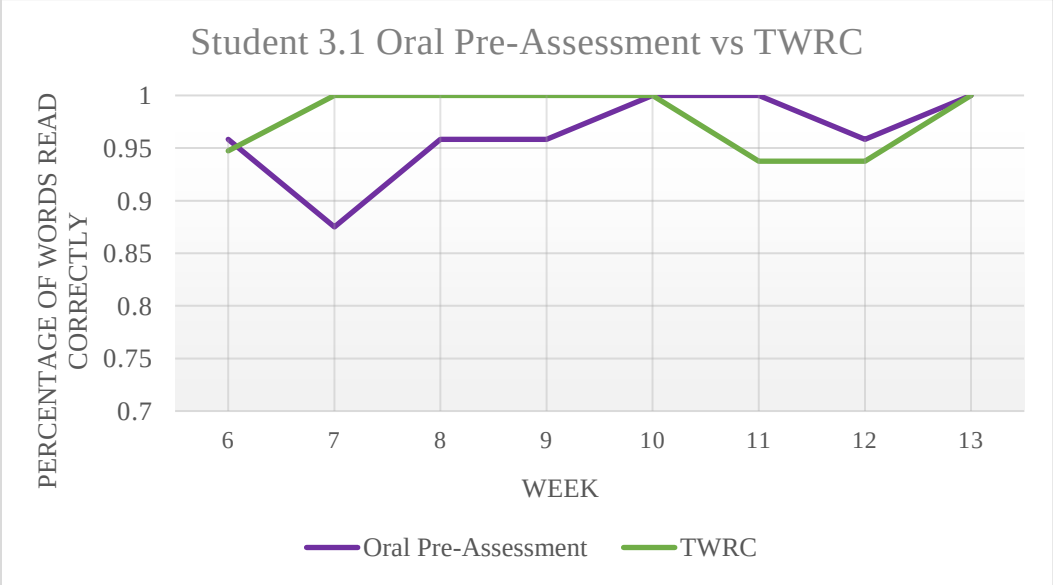

Figure 4.14 Student 3.1 comparison of oral pre-assessment scores and TWRC scores during weeks 6-13

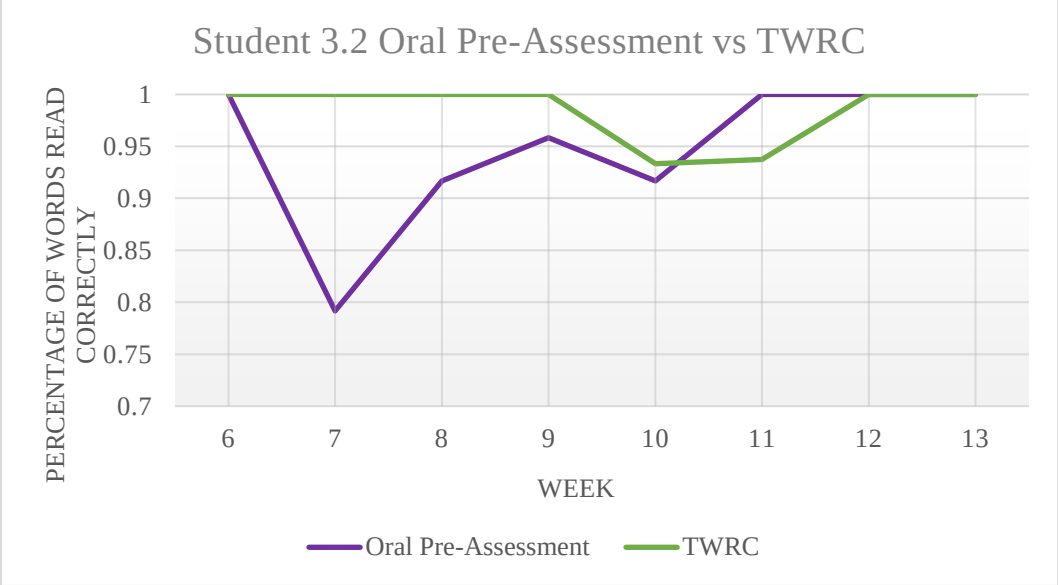

Figure 4.15 Student 3.2 comparison of oral pre-assessment scores and TWRC scores during weeks 6-13

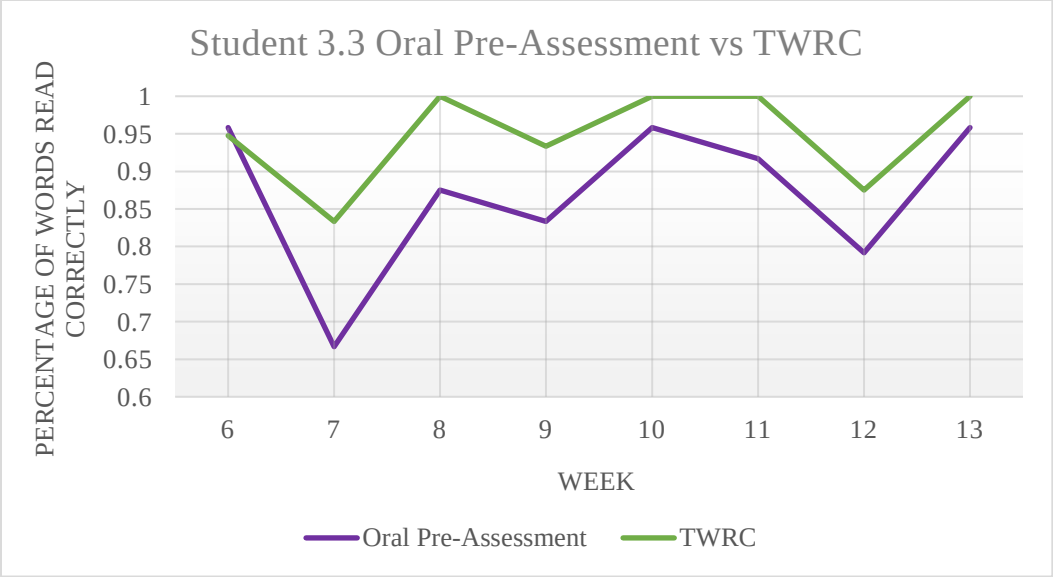

Figure 4.16 Student 3.3 comparison of oral pre-assessment scores and TWRC scores during weeks 6-13

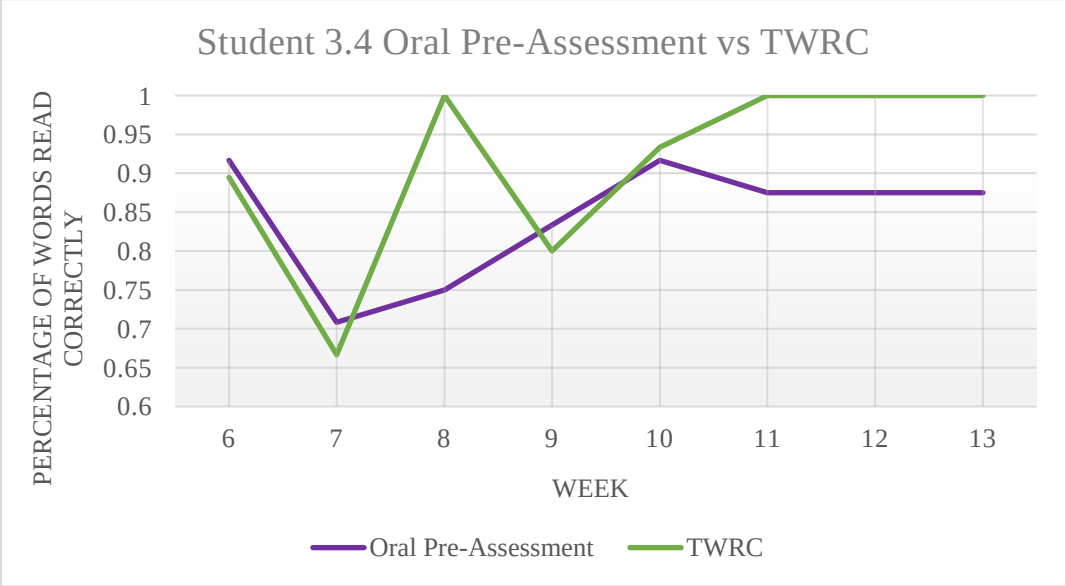

Figure 4.17 Student 3.4 comparison of oral pre-assessment scores and TWRC scores during weeks 6-13

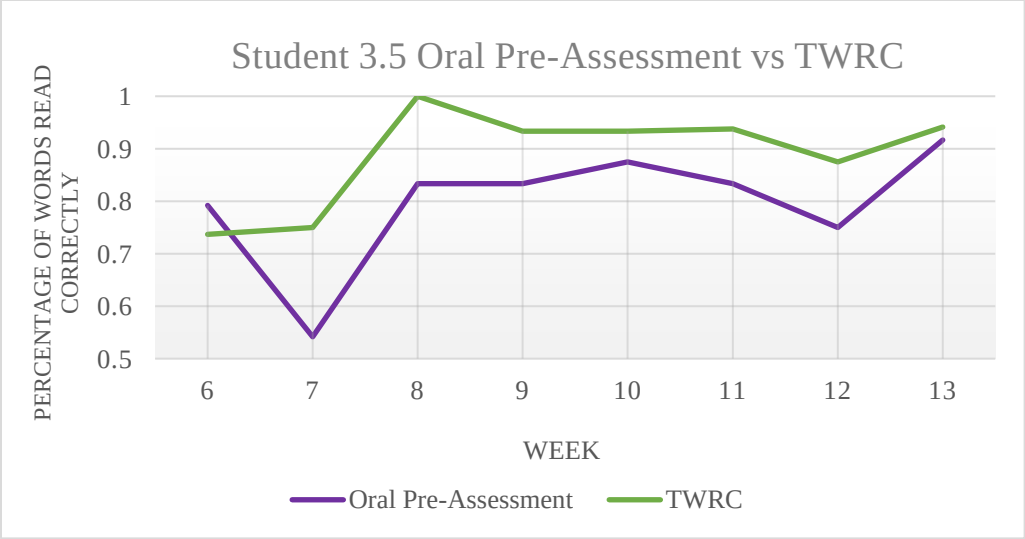

Figure 4.18 Student 3.5 comparison of oral pre-assessment scores and TWRC scores during weeks 6-13

The comparison data between oral pre-assessment and TWRC scores shows that students in Group 3 generally made growth between the two assessments, although there were no students that showed showed growth during each of the 8 weeks. Overall, students in Group 3 showed growth between oral pre-assessment ant TWRC scores 63% of the time over the 8-week data collection period. Students 3.2, 3.3, and 3.5 scored lower on TWRC just one time in that period, while Students 3.1 and 3.3 scored lower two and three times, respectively. Student 3.5 showed growth each week with the exception of week 6 during which this student identified target words with 74% accuracy on the running record, slightly lower than the oral pre-assessment score of 79%. Students 3.3 also demonstrates a very minor decrease in word identification accuracy between the oral pre-assessment and running record. This student scored 96% on the oral pre-assessment and 95% on the running record, and this is the only time they did not show growth between the two assessments over the course of the data-collection period. Student 3.4, on the other hand, demonstrated lower scores on the running record than on the oral pre-

assessment in 3 of the 8 weeks, or 38% of the time. Two of those scores, however, show very small differences of 3% in weeks 6 and 9.

Table 4.6 presents the results of a paired-sample t-test which was run in order to calculate the mean scores of the oral pre-assessment and TWRC.

	Oral Pre-assessment	**TWRC**
Mean	0.884375	0.942103973
Variance	0.010638132	0.006813869
Observations	40	40
Pearson Correlation	0.655905929	
Hypothesized Mean Difference	0	
df	39	
t Stat	-4.606049101	
P(T<=t) one-tail	0.000021518	
t Critical one-tail	1.684875122	
P(T<=t) two-tail	4.30364E-05	
t Critical two-tail	2.02269092	

Table 4.6 Group 3 Oral pre-assessment and TWRC paired samples t-test results

The mean score for the oral pre-assessment was 88%. The mean score for the TWRC was 94%. This data shows that students in Group 3 made progress from the oral pre-assessment to the post-assessment (TWRC), indicating an overall growth percentage of 6%. As shown in Table 4.6, the variance between scores was miniscule (roughly 1% for both the oral pre-assessment and the TWRC). This demonstrates that students in Group 3 did not show a significant amount of fluctuation in their scores. The t-test results provide a t value (t Stat) of -4.61, which indicates that a difference of 5.77 points (Oral pre-assessment minus TWRC) is almost 6 standard deviations below the mean difference of 0, which is the mean difference that one would expect if *Words Their Way* was ineffective. The p value (P(T<=t) one-tail) shows the probability of obtaining a difference of scores of 5.77 points or more. The p value of .0000215%, nearly 0%, provides

statistical evidence that *Words Their Way* facilitated the improvement target word identification from pre-test (oral pre-assessment) to post-test (TWRC).

Comparison Analysis

Additional data were collected and analyzed as a means of further examining the effectiveness of *Words Their Way* as a word study instructional program. Scores on weekly spelling tests were compared with TWRC data collected through running records. Furthermore, overall accuracy rates as determined by weekly running records were compared with TWRC also provided by running records. The findings of these data points are presented in Figures 4.19 and 4.20.

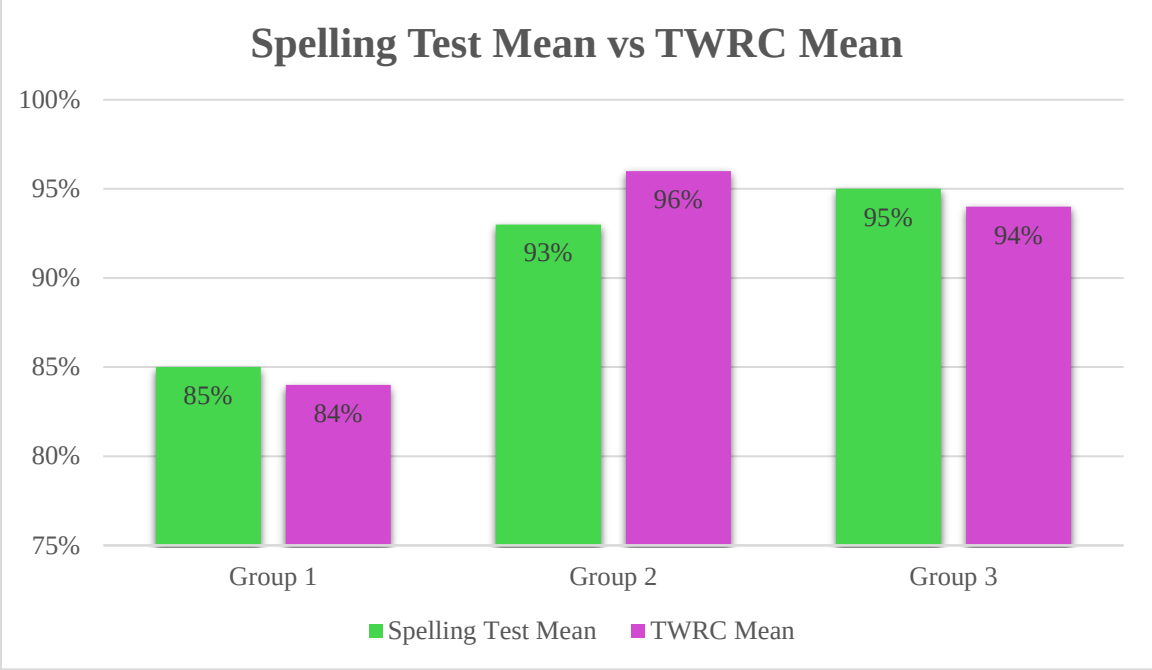

Figure 4.19 Spelling test score means compared with TWRC means for each instructional group

This data shows that mean scores for the spelling test and TWRC for each group are very close together, displaying a 1% difference in scores for Groups 1 and 2, and a 3% difference in scores for Group 3. The mean for spelling test scores for Group 1 is

85%, and the mean for TWRC is 84%., indicating target-word identification is slightly lower than the mean spelling test score. Group 3 also shows a slightly lower TWRC score compared to spelling test scores, although this difference, like with Group 1, is miniscule (1%). For Group 3, the mean score for the spelling test is 95% and the mean score for TWRC is 94%. Group 2, on the other hand, shows a higher mean score for TWRC compared to the mean spelling test score. The mean spelling test score for Group 2 is 93%, while the mean TWRC score is 96%. This data displays spelling test and TWRC mean scores greater than 92% for both Groups 2 and 3; however, mean scores for Group 1 are significantly lower. Spelling test and TWRC mean scores are 85% or below, which is a 7% difference compared to Groups 2 and 3.

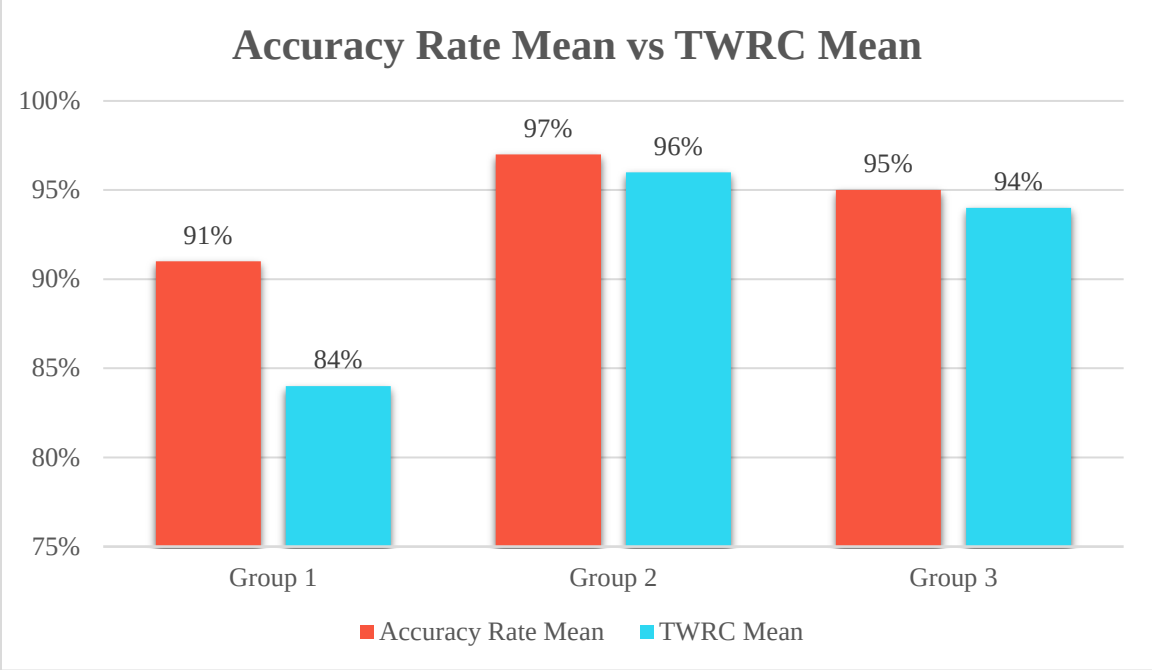

Figure 4.20 Accuracy rate means compared with TWRC means for each instructional group

The results of this data shows that all three groups had a greater mean score for the accuracy rate compared to the TWRC. The mean score for accuracy rate was 91% and the mean score for TWRC was 84% for Group 1. This data shows a difference of 7% between mean scores for accuracy rate and TWRC. Of the three groups, Group 2 shows the highest mean scores for accuracy rate and TWRC, which are 97% and 96% respectively. There is a very insignificant difference of 1% between these two scores. Group 3 also shows a very small difference in mean scores of 1%. The mean score for accuracy rate is 95% and the mean score for TWRC is 94% for Group 3. Mean scores for Groups 2 and 4 indicate that target word identification and overall accuracy are very close together. Data for Group 1 demonstrates that on average, students are able to read the entire passage with 91% accuracy; however, students exhibit a lesser amount of success with accurate target-word identification.

The PSI was administered to students at the end of the 13-week data collection period. Table 4.7 compares the BOS results of the PSI with the EOS (End of Study) results of the PSI by showing the amount of growth that students made in each orthographic feature category.

Student	Orthographic Features								
	Initial Consonants	Final Consonants	Short Vowels	Digraphs	Blends	Common Long Vowels	Other Vowels	Inflected Endings	Total Feature Points
1.1	*0	*0	+1	*0	*0	+2	+1	+1	+5
1.2	*0	+1	-1	+5	*0	+2	+1	0	+8
1.3	*0	*0	*0	*0	+1	+1	-1	-1	-1
2.1	*0	*0	*0	*0	*0	-1	0	+2	+1
2.2	*0	*0	*0	*0	*0	*0	-1	+1	0

2.3	*0	*0	*0	*0	*0	+1	-1	+1	0
2.4	*0	*0	*0	*0	+1	0	0	0	+1
3.1	*0	*0	*0	*0	*0	*0	*0	+1	+1
3.2	*0	*0	*0	*0	*0	*0	*0	*0	*0
3.3	*0	*0	*0	*0	*0	+1	-1	-1	-1
3.4	*0	*0	*0	0	*0	*0	-1	-2	-3
3.5	*0	*0	*0	*0	*0	0	-1	*0	-1

Table 4.7 BOS and EOS PSI Orthographic Features Score Growth
*=no growth possible

4 students or 33% demonstrated regression in the total feature points, with 3 of those students being from Group 3. 5 students or 42% made overall growth as displayed by the total feature points. Students 1.1 and 1.2 showed the greatest amount of overall growth with a total of 5 growth points and 8 growth points respectively. 4 students or 33% showed growth in 2 or more orthographic feature categories, and 5 students or 42% showed growth in a single category. Student 3.2 did not have any opportunity for growth because they received the highest possible score on their BOS inventory; however, it is worth noting that this student did not show regression in any of the orthographic features, unlike 3 of their peers in Group 3. 2 students or 17% showed regression only, with zero positive growth made in any of the orthographic feature categories. 6 students or 50% showed a combination of growth and regression across orthographic feature categories.

Summary

Results obtained through oral pre-assessments, running records, and spelling tests were presented in this chapter. Due to the difference in developmental spelling levels and instructional starting points based on the developmental spelling levels, results were first presented by each instructional group. Data provided in this first section were collected over 8 weeks of the 13-week research period. Statistical analysis of all three instructional

groups was conducted through paired-samples t-tests. These results showed that each group made growth from the oral pre-assessment to the TWRC, which served as the post-assessment. This growth indicates that for each instructional group, *Words Their Way* served as an effective word study program to improve target word identification.

Next, a comparison of results for all three instructional groups was analyzed. Mean spelling test scores were compared with mean TWRC for each instruction group. Results showed that mean scores were very close between the two assessments; however, only Group 2 showed a higher mean score for TWRC compared to the spelling test. Groups 1 and 3 showed slightly higher mean scores for the spelling test compared to the TWRC, although the difference was miniscule between these two scores. This data demonstrates a close link between target word identification and spelling.

Accuracy rate and TWRC data were collected through weekly running records for each group. Mean scores for overall accuracy rate and TWRC were compared and analyzed for all three groups. Results of this data showed that the mean overall accuracy rate was greater than the mean TWRC for all three groups. Group 1 showed a more significant difference between mean scores compared to Groups 2 and 3, whose mean score differences were just 1%. The results of this data indicate that although the overall accuracy rate is slightly higher than the mean TWRC, the majority of students are identifying target words with a similar amount of accuracy compared to the overall accuracy of the entire passage read.

Primary Spelling Inventory (PSI) data were analyzed to compare orthographic feature scores from the beginning of study (BOS) to the end of study (EOS). Results of the EOS PSI data showed fluctuation in growth amongst participants as a whole. 50% of

students showed a combination of growth and regression of individual orthographic features. 33% of students showed overall regression in total feature points, and 42% of students showed overall growth in total feature points. One student, who scored with complete accuracy on the BOS PSI, did not make any growth nor regression. This data demonstrates that overall growth spelling of orthographic features was inconsistent for the participants as a whole.

CHAPTER 5

DISCUSSION

Many teachers of reading share a common goal of helping their students find and grow their passion for reading. Fostering lifelong reading habits stems from the ability to facilitate successful reading. One element of successful reading is the ability to read with accuracy. The purpose of this study was to determine the effectiveness of *Words Their Way* as a word study instructional program as it relates to word identification skills. The study took place in a second-grade classroom of twelve students at a private international school in South Korea, which is considered an ESL setting. Participants of the study were placed in three instructional groups based on their developmental spelling abilities as determined through analysis of a qualitative spelling inventory. The question that guided this research was: *What effect does the implementation of* Words Their Way *have on the word identification skills of second-grade students?* This chapter will review the methods used for conducting research and a discussion of limitations that should be taken into account when interpreting the results. Next, interpretation of the results obtained through data analysis will be discussed. The chapter will continue with implications for future research and end with a conclusion.

Research and Methods

The research conducted followed a quasi-experimental design and took place within my own classroom. Participants of the study were twelve second-grade students, all of whom were English Language Learners in an ESL setting. The research period lasted thirteen weeks during which data were collected and analyzed. Students were

placed into three instructional groups based upon the analysis of the Primary Spelling Inventory which was administered at the start of the study.

Prior to instruction, students read aloud the list of words that they would be working with, which served as a pre-assessment. Each group received explicit instruction based on their developmental spelling level and participated in a variety of word sorts and activities throughout the instructional rotation to support their learning and understanding of the spelling patterns of focus each week.

At the end of each instructional rotation, students read aloud a passage that contained words from their weekly sort in the context of a story. By conducting a running record of each passage read, the number of target words read correctly (TWRC) was determined and compared to the number of words read accurately on the oral pre-assessment. The comparison data collected served as a way to show the amount of progress made from the oral pre-assessment to the post-assessment, which aided in the determination of the overall effectiveness of *Words Their Way* as a word study instructional program. Accuracy rate data obtained from each running record were also compared with TWRC.

Students were given a spelling test at the end of each instructional rotation. This test consisted of ten words from the sort that students worked with and one challenge word that followed the same pattern. The spelling test scores were compared to TWRC in order to serve as another data point.

At the conclusion of the study, the Primary Spelling Inventory (PSI) was re-administered to all students. A growth comparison of the orthographic features assessed

on the PSI between the beginning of study (BOS) and end of study (EOS) served as an additional data point.

Limitations

Prior to interpreting the results obtained, it is important to understand and take into consideration the limitations of the study. The first limitation is that as the teacher-researcher, I had no prior experience working with *Words Their Way* as an instructional program for word study. Other than my own personal interest and research into the program, I had no formal training, professional development, or guidance from administration to aid in the implementation of the program. I facilitated the implementation independently, drawing on my own understanding of what I read and my professional judgement as to how to design a plan and schedule for instruction that would best meet my students' needs.

A second limitation to consider has to do with the sample of students. The participants of this study were a group of twelve second-grade students who were members of my own classroom; therefore, it was not a randomized selection of students. Furthermore, the sample size of twelve students is small, and all students were ELL students who attended school at an ESL setting; therefore, the research and data obtained is only relevant to a similar setting and student population.

The third limitation is that the passages used for data collection through running records were not written at students' specific reading levels, nor were they written at specific readability grade levels. Instead, the passages were written independently by myself as the teacher-researcher, and they did not go through a process to ensure appropriate readability levels for each student. Due to this limitation, overall accuracy

rate scores as calculated through the running records may not be representative of each individual students' reading ability.

Lastly, a fourth limitation is that in week six, after the research period had already begun, the researcher chose to introduce an additional form of data collection. The researcher added an oral pre-assessment to the data collection process. The results obtained through the oral pre-assessments were used to inform the researcher's instruction in order to meet the individual needs of students. This change in the researcher's approach to instruction based on the oral pre-assessment results presents the possibility that students' overall success with target word identification was affected by this decision.

Interpretation of the Results

Second-grade students participated in a thirteen-week study that investigated the effectiveness of *Words Their Way* as a word study instructional program on their word identification skills. A comparison of results obtained through weekly oral pre-assessments and TWRC calculated through weekly running records was conducted. This comparison data was collected over eight weeks during the research period. These results were compared on an individual group basis due to the varied developmental spelling levels each group was working at. The comparison data was used to determine the amount growth in target word identification made from the start of each instructional rotation to the end. Analysis of this data showed that each instructional group made growth from pre-assessment to post-assessment, indicating that *Words Their Way* was effective in improving target word identification skills of second-grade students. While the participants as a whole demonstrated patterns of growth, each group varied in its

amount of growth. Group 1 showed a mean growth percentage of 14%, illustrating a significant increase in target word identification from pre to post assessment. While not as significant an amount of growth as demonstrated by Group 1, Group 2 showed a mean growth percentage of 8%, and Group 3 showed a mean growth percentage of 6%. Although the growth percentages are varied between groups, all groups demonstrate overall growth in target word identification from pre-assessment to post-assessment. Of all participants in the study, participants in Group 1 were placed in the lowest developmental spelling stage and participants in Group 3 were placed in the highest developmental spelling stage. The amount of growth made between pre and post assessment for each group is reflective of how much growth potential each group had. In other words, it is logical that the group in the lowest developmental spelling stage made the most growth, and the group with the highest developmental spelling ability made the least.

Additional data were collected to explore further the effect of *Words Their Way* on overall student growth and achievement. Weekly spelling test scores were examined and compared with TWRC scores gathered from weekly running records. Results of this data shows a difference of 1%- 3% for each group between mean spelling test scores and mean TWRC scores, indicating a close relationship between spelling and word identification ability. Furthermore, mean accuracy rates calculated through running records were compared with mean TWRC scores for each group. Much like the spelling test and TWRC comparison showed, analysis of this data demonstrated a small difference in mean scores between accuracy rate and TWRC. Group 1 showed a greater difference between scores compared to Groups 2 and 3; however, as a whole, students read target

words with a similar level of accuracy compared to the level of accuracy the entire passage was read. Lastly, the PSI was administered at the beginning of study (BOS) and end of study (EOS) in order to show the amount of growth made in the orthographic features assessed. The results of this data showed inconsistent amounts of growth amongst students. Half of the students showed a combination of growth and regression in a variety of individual orthographic features. As this data shows such wide fluctuation in orthographic feature scores from BOY to EOY, it does not reveal a reliable indication about the effectiveness of *Words Their Way* on overall student growth achievement.

The data that provided the most relevance to the research question came from the comparison of oral pre-assessment scores and TWRC scores. Participants of the study as a whole made improvements from the pre-assessment to post-assessment as a result of receiving instruction through *Words Their Way*. While the additional data collected and analyzed does not necessarily reveal a direct correlation between *Words Their Way* and word identification ability, improvement in scores from pre to post-assessment demonstrates that *Words Their Way* had a positive overall effect on second-grade word identification skills.

Implications for Student Learning

Students need instruction to be delivered at their developmental spelling level. Students learn best when they work within their zone of proximal development (Vygotsky, 1978), which refers to the distance between what a child can do independently and what they need support and guidance to accomplish. It is imperative that students receive developmentally appropriate instruction in order to engage them in successful learning experiences; therefore, it is necessary to determine a child's

developmental spelling stage so that instruction can be designed to meet students where they are developmentally. Qualitative spelling inventories such as the Primary Spelling Inventory (PSI) serve as a useful tool in determining a child's developmental spelling stage and can also be used to monitor progress throughout the year.

Bear et al. (2016) argue that students make greater progress when working at the appropriate instructional level, and that students should work in groups with students who are learning and studying similar orthographic features. By grouping students at similar stages of spelling development together, teachers are able to differentiate instruction in order to best meet their needs. Differentiated instruction is more effective than a one-size-fits all approach (Bear et al.,2016; Walpole & McKenna, 2007). In my own experience, students working in small, differentiated groups based on their instructional level has proven to be an effective strategy. Students who receive developmentally appropriate instruction are able to have their individual needs met without facing frustration due to working beyond their instructional level. When students work within their zone of proximal development, they are able to feel successful, and grow as learners as a result.

Students need to learn spelling sounds, patterns, and meanings rather than memorize the spellings of words. My research was borne from my desire to leave behind the traditional approach to spelling instruction which focuses greatly on rote memorization of words. My experience with this approach to spelling instruction was that it was not an effective way to help my students grow in their spelling abilities. Furthermore, I did not see my students effectively transferring their spelling knowledge into their reading and writing. According to Bear et al. (2016), word study is an approach to spelling instruction that moves away from memorization; rather, it focuses on teaching

sounds, patterns, and meanings of words as students work through the three layers of English Orthography. By teaching students through this approach, they learn how to analyze words which leads to a deeper understanding of the sounds and meanings that spelling represents (Bear et al., 2016). Participants of this study worked with lists of words that were related through sound, orthographic patterns, or meaning rather than lists of unrelated words. These lists were based on the developmental spelling level that students were currently working at. When working with lists of related words, students are able to form generalizations about spelling; thus allowing them to form connections between the spelling of words of the similar orthographic features (Bear and Templeton, 1998). This understanding aids in the transfer of spelling knowledge to authentic reading and writing.

Students need to be given opportunities to engage in a variety of activities. In addition to explicit instruction, developmental word study provides students with multiple opportunities to engage in hands-on, active practice with the spelling patterns they are learning. Students benefit from student-centered application of word knowledge through engaging in active exploration of the words and patterns they are learning. The implementation of *Words Their Way* involved the design of a carefully-crafted schedule that included a wide variety of activities for students to engage in. Activities that students participated in included an assortment different word sorts, through which students engaged in the manipulation of words. According to Bear and Templeton (1998), word sorts have proven to be a powerful way to explore words because they allow for students to actively think about how words are alike and different through comparing and contrasting their features. Invernizzi & Hayes (2004) claim that word sorts "require

students to examine the orthographic properties of words in relation to the orthographic characteristics of other words they already know" (p.224). Through the manipulation of words facilitated through different word sorts, students are encouraged to think actively which helps to develop a real sense of understanding of the sounds, patterns, and meanings characterized by the words they are working with.

The activities that the participants engaged in throughout the study included a combination of independent, partner, and small-group practice which supported a social component to learning. While most word sorts were completed individually, others were completed with partners. Additionally, students participated in a number of word study games that were played within small groups. The social aspect of these activities served as a motivator for students to learn. During the study, observation of my students revealed their eagerness to practice and work with their words when the practice took place in a social setting with a partner or small-group. Working with partners allows students to engage in meaningful exploration and discussion of word patterns as well as collaborative thinking and problem-solving. Providing students with a variety of activities to engage in individually and cooperatively with others supports them in developing a deeper understanding of spelling sounds, patterns, and meanings.

Implications for Teachers

Teachers need to use multiple forms of assessment. "Assessment informs you of what your students already know and don't yet know, which guides your instruction" (Williams et al., 2009, p. 572). In order to provide effective spelling instruction, it is imperative for teachers to assess students to determine their developmental spelling level. By doing so, teachers can plan instruction that meets the needs of individual students.

Words Their Way uses qualitative spelling inventories to assess student word knowledge in order to determine the developmental spelling stage that students need instruction in. Qualitative spelling inventories serve as a reliable measure of student word knowledge through the analysis of orthographic features. Participants in this study completed a Primary Spelling Inventory (PSI) at the beginning and end of the study. The PSI was used as a tool to group students according to their developmental spelling stage as determined by the feature analysis of the results obtained. Participants were placed into three instructional groups based on alike developmental spelling abilities. Differentiated instruction based on the needs of each group was designed and carried out.

While the PSI served as one form of assessment to help determine where students were at developmentally in terms of spelling ability and aided in the process of forming groups for instruction, ongoing assessment is necessary in order to effectively monitor progress and determine student's knowledge level as they progress through the spelling stages. Because students progress at different rates along the continuum of spelling stages, regular assessment is essential in order to ensure that students are continuously receiving the appropriate instruction that meets their changing needs (Invernizzi & Hayes, 2004). When necessary, groups should be rearranged, and therefore, flexible, in order to meet the changing needs of students as they develop their word knowledge.

Although participants in this study did not require a change in grouping during the research period, frequent and varied assessments were carried out throughout the research period. Daily observations were made during direct instruction as well as during student independent, partner, and small group work. Weekly running records were conducted as a means of determining the growth made in target-word identification, and weekly spelling

tests were administered to monitor student understanding of the spelling patterns being taught. These frequent assessments allowed me to monitor student progress and address any needs through differentiated instruction in the small groups that were formed with the help of the PSI results. Students continually received appropriate instruction that aligned with their developmental spelling level throughout the research period.

Teachers need to teach word *knowledge* rather than just words. Students need to develop an understanding of spelling sounds, patterns, and meanings in order to effectively apply word knowledge to different literacy activities such as authentic reading and writing (Invernizzi & Hayes, 2004). This requires teachers to design instruction that demonstrates a variety of strategies to support student learning. When students learn word *knowledge* they are able to form generalizations about the English language that will aid them in the transfer of their word knowledge to spelling and identifying words in the context of reading. Teachers can encourage word knowledge development through explicit instruction of a variety of strategies. Strategic instruction in how to analyze word parts, examine and break apart words to discover patterns, and look for known parts of words helps students to independent word-solvers who can transfer their word knowledge into their reading and writing through decoding and encoding (Williams & Lundstrom, 2007).

Implications for Future Research

Future research could explore the impact of target-word accuracy on reading comprehension. Comprehension is the ultimate goal of reading, but it is contingent on the ability to read words accurately. Rasinksi & Hoffman (2003) suggest that when students are able to read fluently and with accuracy, they can devote their time and attention to constructing meaning. This study aimed to determine the effectiveness of *Words Their*

Way on the word identification skills of second-grade students. The degree to which students were able to identify words correctly was determined through a comparison of oral pre-assessment scores with the number of target-words read correctly in weekly running record passages. While this study showed that *Words Their Way* had a positive impact on student target-word identification, it did not explore the degree to which accuracy in target-word identification affected reading comprehension. By adding a comprehension component to the running record passage, teachers would be able to determine the impact of *Words Their Way* as it relates to reading comprehension skills.

Future research could compare word identification accuracy between ELL and non-ELL students. One identified limitation to this study was that the results of the research conducted is only relevant to a similar student sample from a comparable setting. Participants of this study were ELL students at a private international school in South Korea which is considered an ESL setting. Future research could investigate the effectiveness of *Words Their Way* on the word identification skills of second-grade students by comparing results obtained from a variety of participants including ELL and non-ELL students.

Future research could include a larger sample of students. Another limitation of this study was that the student sample was small, consisting of only twelve students. Participants were all my own students; therefore, the sample was not randomized. A larger, randomized sample of students would provide data that is representative of the greater student population. Future research could also include multiple groups of participants who work within the same developmental spelling level rather than groups working in different developmental spelling levels.

Conclusion

The results of this study indicate that *Words Their Way* is effective in the development of word identification skill achievement of second-grade students. Statistical data obtained through the assessments administered demonstrate overall student improvement of target-word identification from pre-assessment to post-assessment. *Words their Way* as a developmental approach to word study instruction proved to be an effective instructional method for teaching spelling. Students received instruction based on their developmental spelling level and were able to grow their word knowledge efficiently through differentiated instruction that met their individual needs. By carefully designing instruction and implementing word study routines that encouraged active, hands-on practice and application, students engaged in meaningful learning experiences.

As a reading teacher, my goal is to instill a love and passion for reading within each of my students. The first step in achieving this goal is helping my students find success and confidence as independent readers. Students find this success and confidence when they are able to decode words and read with accuracy, which leads them construct meaning, thus presenting them with the opportunity to experience the joy of reading.

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APPENDIX A

2017 ORF NORMS CHART

COMPILED ORF NORMS

Hasbrouck & Tindal (2017)

From Hasbrouck, J. & Tindal, G. (2017). *An update to compiled ORF norms* (Technical Report No. 1702). Eugene, OR. Behavioral Research and Teaching, University of Oregon.

Grade	Percentile	Fall WCPM*	Winter WCPM*	Spring WCPM*
1	90		97	116
	75		59	91
	50		29	60
	25		16	34
	10		9	18
2	90	111	131	148
	75	84	109	124
	50	50	84	100
	25	36	59	72
	10	23	35	43
3	90	134	161	166
	75	104	137	139
	50	83	97	112
	25	59	79	91
	10	40	62	63

Grade	Percentile	Fall WCPM*	Winter WCPM*	Spring WCPM*
4	90	153	168	184
	75	125	143	160
	50	94	120	133
	25	75	95	105
	10	60	71	83
5	90	179	183	195
	75	153	160	169
	50	121	133	146
	25	87	109	119
	10	64	84	102
6	90	185	195	204
	75	159	166	173
	50	132	145	146
	25	112	116	122
	10	89	91	91

*WCPM = Words Correct Per Minute

APPENDIX B

PRIMARY SPELLING INVENTORY

Primary Spelling Inventory (PSI)

The Primary Spelling Inventory (PSI) is used in kindergarten through third grade. The 26 words are ordered by difficulty to sample features of the letter name–alphabetic to within word pattern stages. Call out enough words so that you have at least five or six misspelled words to analyze. For kindergarten or other emergent readers, you may only need to call out the first five words. In late kindergarten and early first grade classrooms, call out at least 15 words so that you sample digraphs and blends; use the entire list for late first, second, and third grades. If any students spell more than 20 words correctly, you may want to use the Elementary Spelling Inventory.

1.	fan	I could use a fan on a hot day. *fan*
2.	pet	I have a pet cat who likes to play. *pet*
3.	dig	He will dig a hole in the sand. *dig*
4.	rob	A raccoon will rob a bird's nest for eggs. *rob*
5.	hope	I hope you will do well on this test. *hope*
6.	wait	You will need to wait for the letter. *wait*
7.	gum	I stepped on some bubble gum. *gum*
8.	sled	The dog sled was pulled by huskies. *sled*
9.	stick	I used a stick to poke in the hole. *stick*
10.	shine	He rubbed the coin to make it shine. *shine*
11.	dream	I had a funny dream last night. *dream*
12.	blade	The blade of the knife was very sharp. *blade*
13.	coach	The coach called the team off the field. *coach*
14.	fright	She was a fright in her Halloween costume. *fright*
15.	chewed	The dog chewed on the bone until it was gone. *chewed*
16.	crawl	You will get dirty if you crawl under the bed. *crawl*
17.	wishes	In fairy tales wishes often come true. *wishes*
18.	thorn	The thorn from the rosebush stuck me. *thorn*
19.	shouted	They shouted at the barking dog. *shouted*
20.	spoil	The food will spoil if it sits out too long. *spoil*
21.	growl	The dog will growl if you bother him. *growl*
22.	third	I was the third person in line. *third*
23.	camped	We camped down by the river last weekend. *camped*
24.	tries	He tries hard every day to finish his work. *tries*
25.	clapping	The audience was clapping after the program. *clapping*
26.	riding	They are riding their bikes to the park today. *riding*

APPENDIX C

ORAL PRE-ASSESSMENT SAMPLES

Name: [redacted]

S&A 21		S&A 22		S&A 23		S&A 24		S&A 25	
4-24-2018		5-1-2018		5-8-2018		5-15-2018			
needle	✓	voyage	—	saucer	—	garden	✓	morning	
season	✓	destroy	✓	always	✓	careful	✓	record	
compete	✓	coward	—	August	✓	carpet	✓	forest	
feature	✓	avoid	✓	although	—	toward	✓	reward	
pleasant	—	noisy	✓	laundry	—	marble	✓	forty	
extreme	✓	allow	—	gnawed	—	fairy	✓	explore	
eastern	✓	county	—	faucet	✓	partner	✓	corncob	
people	✓	appoint	✓	gawking	—	barber	✓	adore	
feather	✓	about	✓	awful	✓	airplane	✓	before	
increase	✓	country	✓	author	✓	market	✓	shorter	
repeat	✓	amount	✓	all right	✓	despair	✓	sorry	
heavy	✓	poison	✓	awkward	✓	haircut	✓	corner	
meaning	✓	annoy	✓	laughed	✓	repair	✓	report	
fifteen	✓	double	✓	caution	✓	hardly	✓	border	
steady	✓	around	✓	already	✓	beware	✓	chorus	
reader	✓	counter	✓	sausage	✓	barely	✓	florist	
succeed	—	drowsy	✓	also	✓	compare	✓	order	
leather	—	moisture	✓	almost	✓	aware	✓	perform	
defeat	✓	thousand	✓	lawyer	—	parents	✓	normal	
freedom	✓	trouble	✓	autumn	✓	harvest	✓	ashore	
indeed	✓	employ	✓	awesome	✓	carry	✓	northern	
sweater	✓	loyal	✓	flawless	✓	declare	✓	stormy	
healthy	✓	powder	✓	auction	—	pardon	✓	ignore	
thirteen	✓	southern	✓	haunted	—	dairy	✓	inform	
Total 21/24		Total 20/24		Total 16/24		Total 24/24		Total ___/___	

Name: [redacted]

WW 36	WW 37	WW 38	WW 39	WW 40
4-9-2018	4-16-2018	4-23-2018	4-30-2018	5-7-2018
knife —	screen ✓	three —	giant —	chance —
rap ✓	strange ✓	shrink —	guilt —	freeze ✓
known —	sprain ✓	squint ✓	gym ✓	glove —
gnaw —	stress —	through	cart ✓	fence ✓
knob —	sprout ✓	squash ✓	cub ✓	glance ✓
wrong ✓	stripe ✓	thrill —	cent ✓	peace ✓
kneel —	scratch ✓	squeak —	gist ✓	bounce ✓
wreath —	stretch —	shrub ✓	city ✓	snooze ✓
write ✓	strong ✓	shred ✓	gave ✓	move ✓
knack —	spray ✓	throw ✓	code ✓	tease ✓
wrist ✓	strap —	threw ✓	golf —	choose ✓
ring ✓	scream ✓	squish ✓	guess —	shove —
knit —	scrape ✓	shriek —	germ —	piece —
knight —	struck ✓	shrimp —	calf —	prince ✓
knelt —	stream ✓	threat —	circle ✓	prove ✓
wring —	strength —	squawk —	card ✓	twelve ✓
gnat —	spring ✓	square ✓	cease ✓	please —
wreck —	scram ✓	throne ✓	gem —	leave ✓
knot —	strict —	shrank —	goose ✓	dance ✓
wrap ✓	scrap —	thrown ✓	cell —	loose ✓
wren ✓	string ✓	squeeze —	guest —	cheese ✓
knead —	spread ✓	squirt —	guide ✓	solve ✓
knee —	straight —	squirm —	center ✓	house ✓
gnome —		shrunk —		seize —
Total 7/24	Total 16/23	Total 11/24	Total 14/23	Total 18/24

Name: [redacted]									
S&A 31		**S&A 32**		**S&A 33**		**S&A 34**		**S&A 35**	
4-25-2018		5-2-2018		5-9-2018		5-16-2018			
other	✓	dancer	✓	catcher	✓	broken	✓	jacket	
doctor	✓	beggar	✓	figure	✓	cousin	✓	secret	
rather	✓	longer	✓	pressure	✓	gallon —		ballet	
solar	✓	farmer	✓	future	✓	heaven	✓	pirate	
weather	✓	fresher	✓	teacher	✓	bargain	✓	senate	
flower	✓	writer	✓	pleasure	✓	mission	✓	habit	
under	✓	smoother	✓	pasture	✓	stolen	✓	summit	
tractor	✓	tutor —		injure	✓	prison —		orbit	
color	✓	bigger	✓	picture	✓	dragon	✓	edit	
spider	✓	dreamer	✓	danger	✓	eleven	✓	private	
dollar	✓	smaller	✓	rancher	✓	captain	✓	target	
cover	✓	burglar	✓	nature	✓	cabin	✓	racket	
flavor	✓	jogger	✓	mixture	✓	chosen	✓	buffet	
father	✓	older	✓	creature	✓	muffin	✓	comet	
rumor —		swimmer	✓	leisure —		bacon	✓	closet	
grammar	✓	shopper	✓	torture	✓	curtain		magnet	
collar	✓	actor	✓	measure	✓	mountain	✓	climate	
sugar	✓	sooner	✓	failure —		cotton	✓	unit	
favor	✓	driver	✓	capture		hidden	✓	credit	
silver	✓	traitor —		treasure	✓	ribbon	✓	limit	
mother	✓	younger	✓	senior	✓	napkin	✓	quiet	
mirror	✓	sailor —		culture	✓	fountain	✓	rocket	
motor —		brighter	✓	pitcher	✓	mitten	✓	bandit	
harbor	✓	voter	✓	poster	✓	penguin	✓	merit	
Total 22/24		Total 21/24		Total 21/24		Total 21/24		Total ___/___	

APPENDIX D

DESCRIPTION OF SORTS

Description of SORTS

Closed Sort	Sort the words into categories by placing the words under the correct heading. Read aloud each word as you sort. Explain why the words are sorted that way.
Written Sort	Write down the headings/categories on the top of your paper. List all the words under the correct heading/category.
Speed Sort	Set up the headers and place all of the words upside down in a pile. Set a timer as you sort the words into the correct category as fast as you can. Repeat this 3 times, recording the time after each speed sort. Try to beat your first time!
Glued Sort	Glue the headers in a row along the top of your notebook page. Glue all of the words down under the correct heading/category

APPENDIX E

WORD STUDY WEEKLY ROTATION SCHEDULES

Word Study Weekly Plan

Team 1

Day 1/Day 6	Monday	✓ Meet with Mrs. Kaschub with word pouch, scissors and pencil ✓ Spelling assessment on last week's words ✓ Get the new sort to cut out and number the back ✓ Do a closed sort at the table
Day 2	Tuesday	✓ Written Sort ✓ Game Choice from the game drawers
Day 3	Wednesday	✓ Speed Sort (3 Times) ✓ Word Study Notebook Choice
Day 4	Thursday	✓ Word Study Notebook Choice ✓ Game Choice from the game drawers
Day 5	Friday	✓ Glued Sort in Notebook ✓ Read this week's passage on Seesaw

Word Study Weekly Plan

Team 2

Day 1/Day 6	Tuesday	✓ Meet with Mrs. Kaschub with word pouch, scissors and pencil ✓ Spelling assessment on last week's words ✓ Get the new sort to cut out and number the back ✓ Do a closed sort at the table
Day 2	Wednesday	✓ Written Sort ✓ Game Choice from the game drawers
Day 3	Thursday	✓ Speed Sort (3 Times) ✓ Word Study Notebook Choice
Day 4	Friday	✓ Word Study Notebook Choice ✓ Game Choice from the game drawers
Day 5	Monday	✓ Glued Sort in Notebook ✓ Read this week's passage on Seesaw

Word Study Weekly Plan

Team 3

Day 1/Day 6	Wednesday	✓ Meet with Mrs. Kaschub with word pouch, scissors and pencil ✓ Spelling assessment on last week's words ✓ Get the new sort to cut out and number the back ✓ Do a closed sort at the table
Day 2	Thursday	✓ Written Sort ✓ Game Choice from the game drawers
Day 3	Friday	✓ Speed Sort (3 Times) ✓ Word Study Notebook Choice
Day 4	Monday	✓ Word Study Notebook Choice ✓ Game Choice from the game drawers
Day 5	Tuesday	✓ Glued Sort in Notebook ✓ Read this week's passage on Seesaw

APPENDIX F

WEEKLY SORT LIST SAMPLES

SORT 32 o͞o, o͝o

o͞o	o͝o	soon
good	cool	crook
fool	wood	could
noon	groom	hood
root	stood	tool
hook	troop	route
hoop	should	brook
stool	proof	wool
would	soot	roost

SORT 23 More Ambiguous Vowels in Accented Syllables (*au, aw, al*)

au	*aw*	*al*
saucer	awful	also
always	author	almost
August	all right	lawyer
although	awkward	autumn
laundry	laughed	awesome
gnawed	caution	flawless
faucet	already	auction
gawking	sausage	haunted

SORT 33 Unaccented Final Syllables (/chur/zhur/yur/)

-cher = /chur/	*-ture* = /chur/	*-sure* = /zhur/	*-ure* = /yur/
catcher	picture	measure	
figure	danger	failure	
pressure	rancher	capture	
future	nature	treasure	
teacher	mixture	senior	
pleasure	creature	culture	
pasture	leisure	pitcher	
injure	torture	posture	

APPENDIX G

WORD STUDY GAME SAMPLES

How to Play

MATERIALS NEEDED:

game board
word sort words
one die or a spinner
pawns or game pieces

SETUP:

Players should place ONE set of word sort words face down next to the game board. Players should place pawns or game pieces in the START box.

TO PLAY:

The game board is divided into four different levels. Each level has a different task. Each game space is located in one of four levels.

- Level 1: Use your word in a sentence.
- Level 2: Is your word a noun, verb, or adjective?
- Level 3: In your own words, explain what your word means.
- Level 4: Give a synonym or antonym for your word.

The player rolls or spins a number then moves forward that many spaces. The player draws one word card and reads it out loud. The player must correctly complete the task for that level.

TO WIN:

The first player to reach the FINISH box wins!


BEAT ME TO THE PEAK!
FINISH
Level 4: Give a synonym or antonym for your word.
Level 3: In your own words, explain what your word means.
Level 2: Is your word a noun, verb, or adjective?
START
Level 1: Use your word in a sentence.

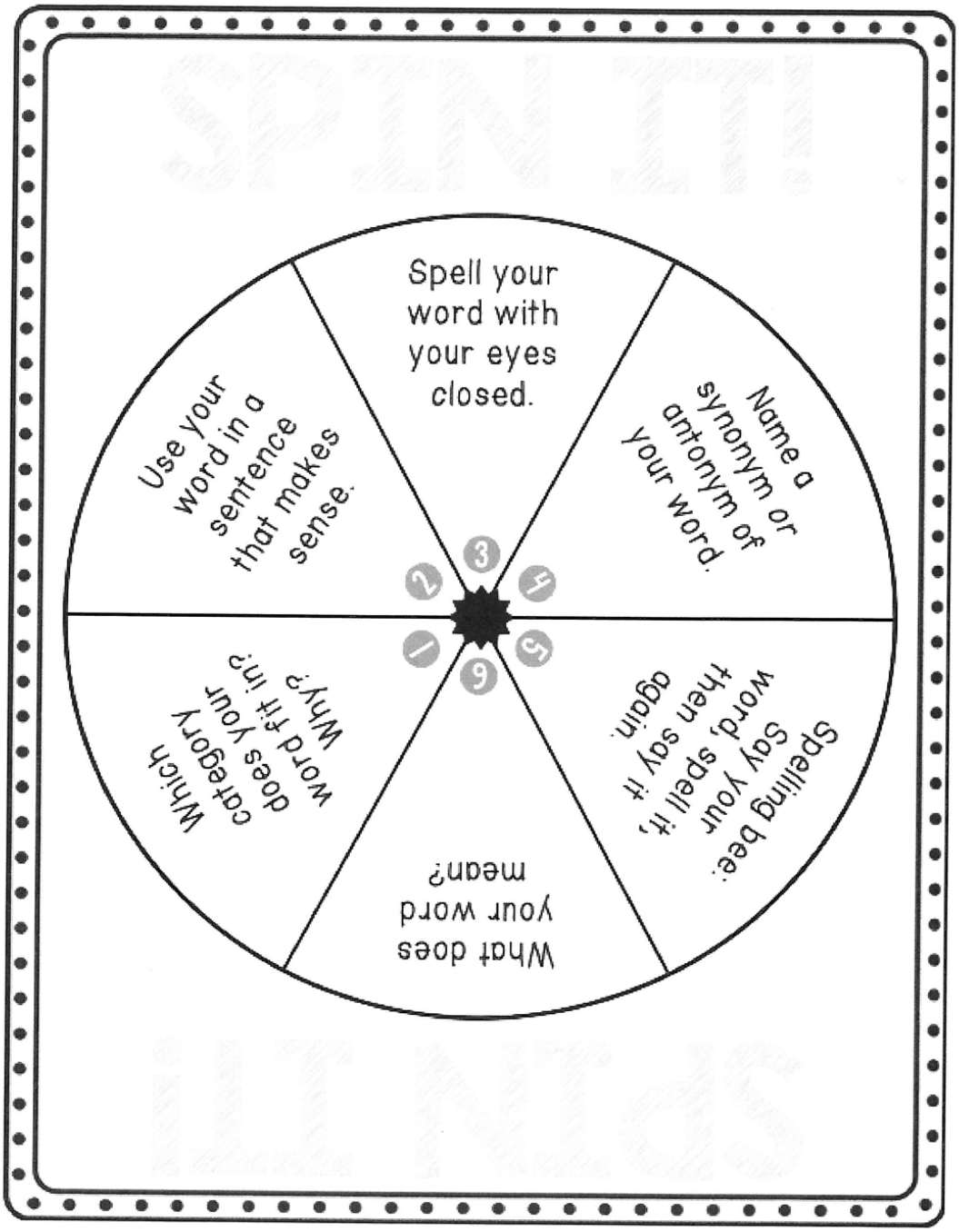
How to Play

MATERIALS NEEDED:
game board
pencil(s)
paperclip(s)
Word study words
Paper (only some games)

SETUP
Players should place ONE set of word sort words face down in a pile next to the game board

TO PLAY
Players take turns using a pencil and a paperclip to create a spinner on the game board. Players should follow the directions given in the space that the spinner lands. If the player completes the task correctly, he/she gets to keep the word. If the task is completed incorrectly, the word goes back in the pile. Play should continue until all of the words are gone.

TO WIN The player with the most words wins!


Spell your word with your eyes closed.
Name a synonym or antonym of your word.
Spelling bee: Say your word, spell it, then say it again.
What does your word mean?
Which category does your word fit in? Why?
Use your word in a sentence that makes sense.
1
2
3
4
5
6

MATERIALS NEEDED:
- game board
- one set of words

How to Play

SETUP:
Players should place one word **face down** in each box on the Memory Mat. The words should all be from the same sort and should be shuffled so that the words are all mixed around.

TO PLAY:
The first player will choose any two words to flip over on the board. The player will then see if the two words "match," meaning they have the same spelling pattern or are in the same category. For example, **r<u>ai</u>n** and **br<u>ai</u>n** are a match because they both have long a spelled with "ai." **R<u>ai</u>n** and **s<u>a</u>m<u>e</u>** are not a match because **r<u>ai</u>n** has a long a with "ai," while **s<u>a</u>m<u>e</u>** has a silent e causing the long a.

If it's a match, the player gets to keep the words. If it's not a match, the words should be flipped back over, face down in their boxes. Try to remember where to words are to help you make matches later on in the game!

TO WIN: When there are no words left on the board, or if the last 2 words are not a match, the game is over. Each player will count their matches. The player with the most words wins!

Word Study
MEMORY MAT

APPENDIX H

WORD STUDY NOTEBOOK CHOICES

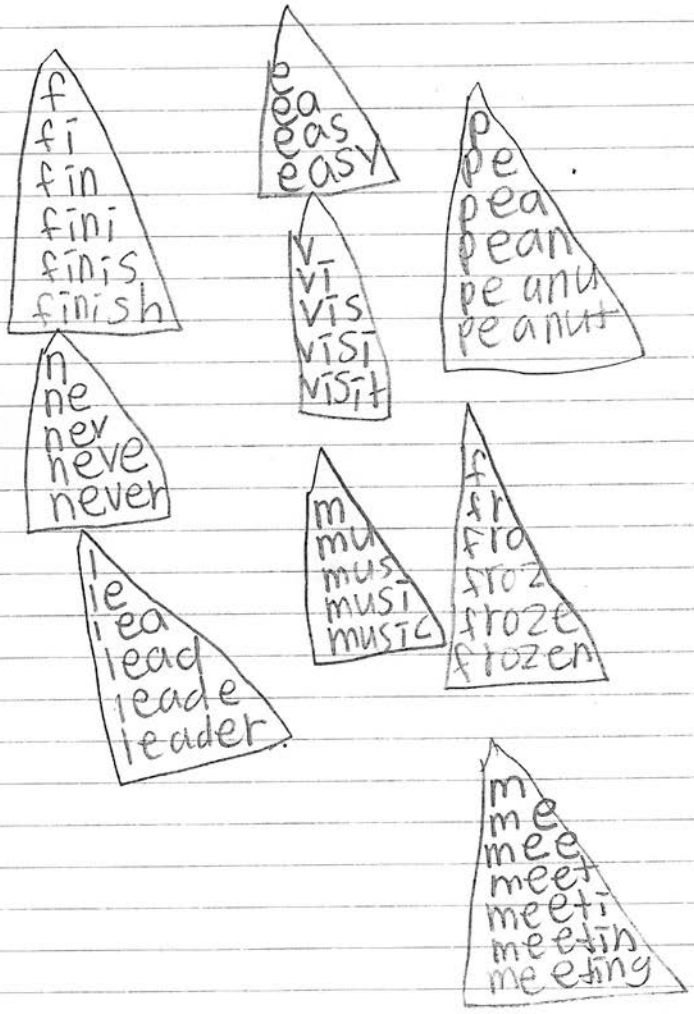
Word Study Notebook Choices

Ask a Question Write a question using 12 of your words. Don't forget the question mark!	**ABC Order** Write your spelling words in ABC order.	**Bubble Letters** Write your spelling words in bubble letters. Example: hello
Pattern Party Highlight the weekly pattern in each of your spelling words.	**Silly Sentences** Write silly sentences using 12 of your spelling words.	**Triangle Words** b be bes best
Magnet Letters Use magnet letters to spell your spelling words on your desk.	**Ghost Words** Write your spelling words with a white crayon and then trace them with a marker.	**Spell and Tell** Write your spelling words 3 times each and whisper them as you write.
Hidden Words Write your spelling words and then draw a picture around each word to hide them.	**Rainbow Words** Write your spelling words in rainbow colors!	**Vowels and Consonants** Write your spelling words with blue consonants and red vowels.

APPENDIX I

WORD STUDY NOTEBOOK CHOICE SAMPLES

2/11/2018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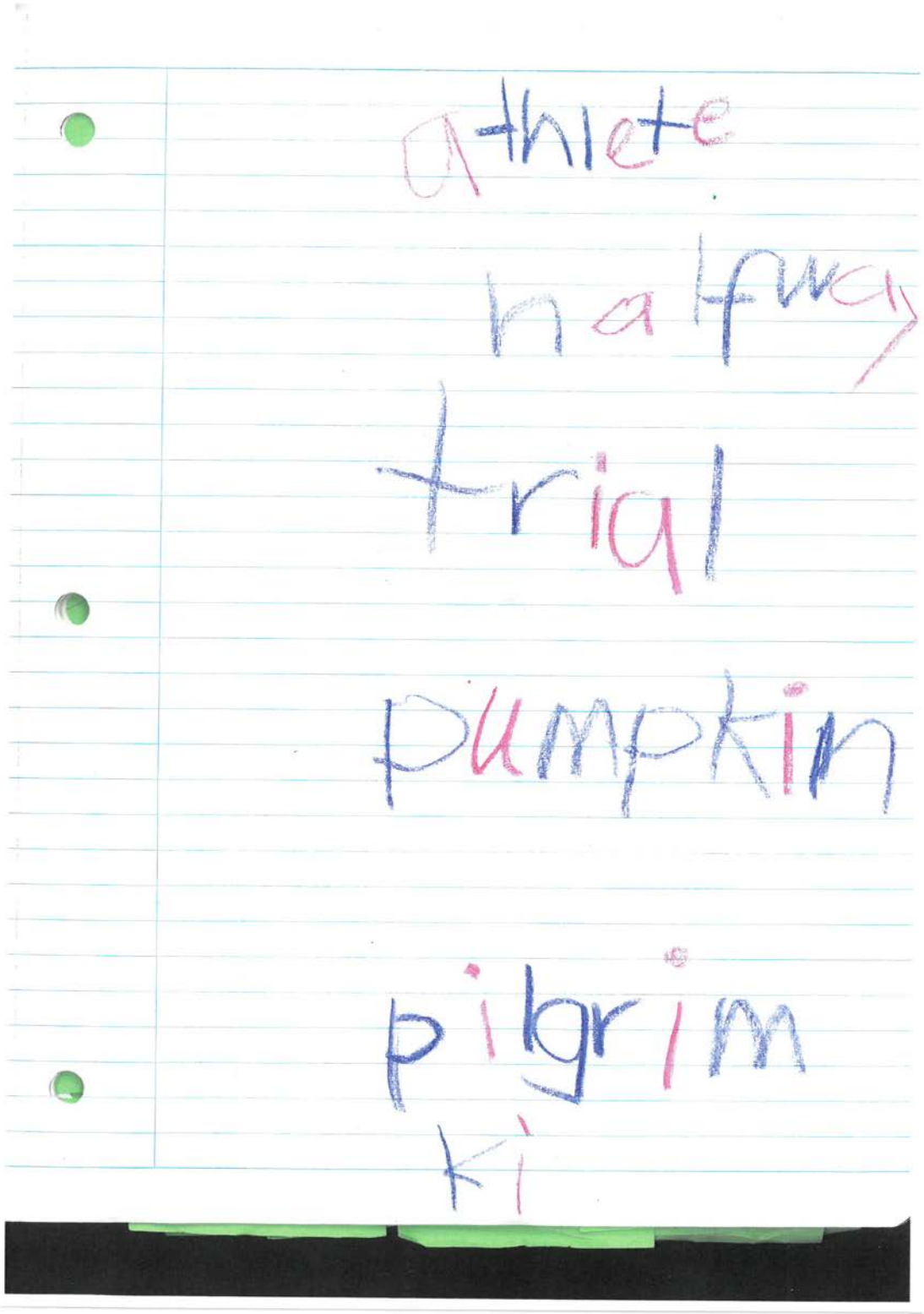
meeting


athlete
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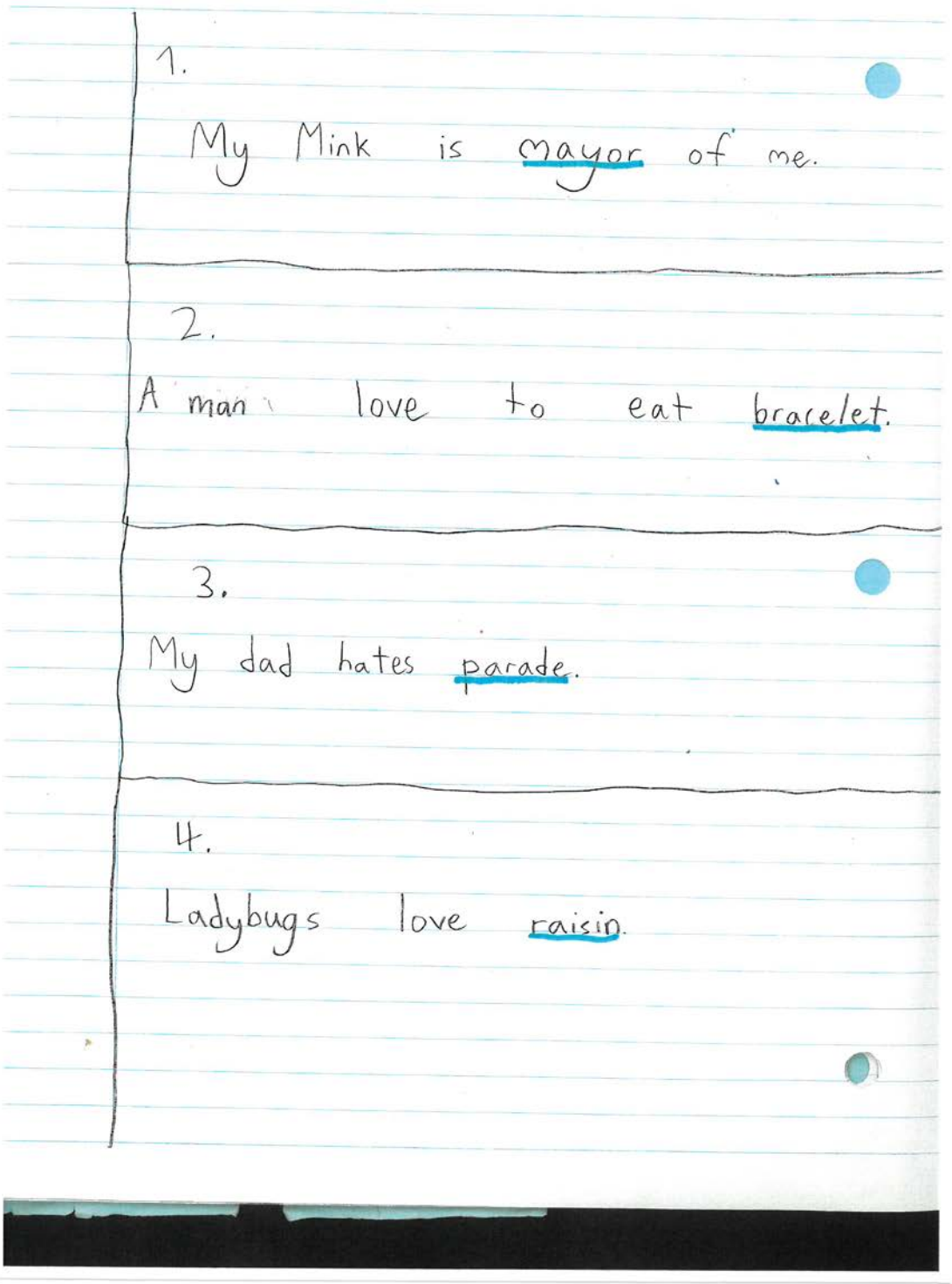
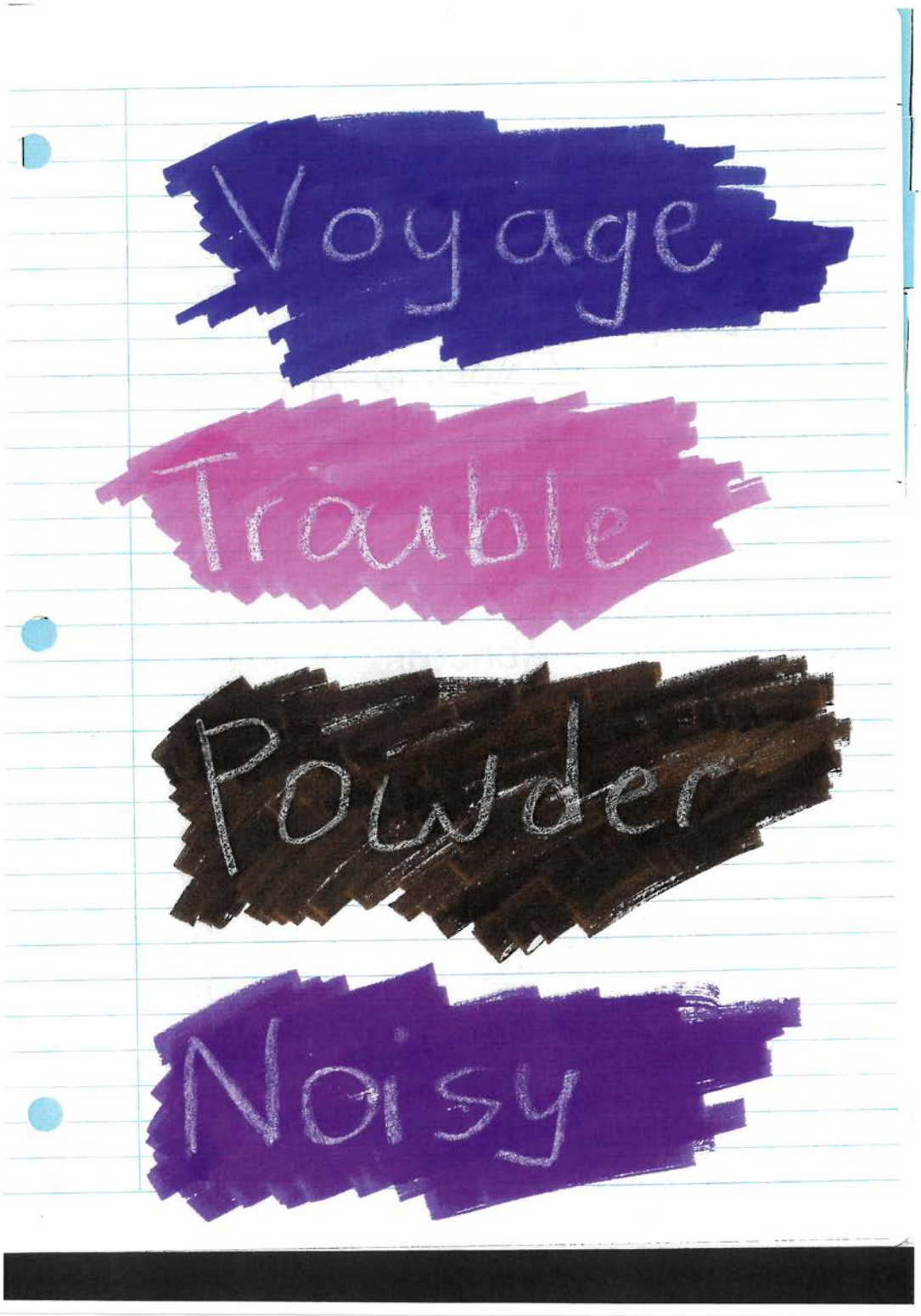
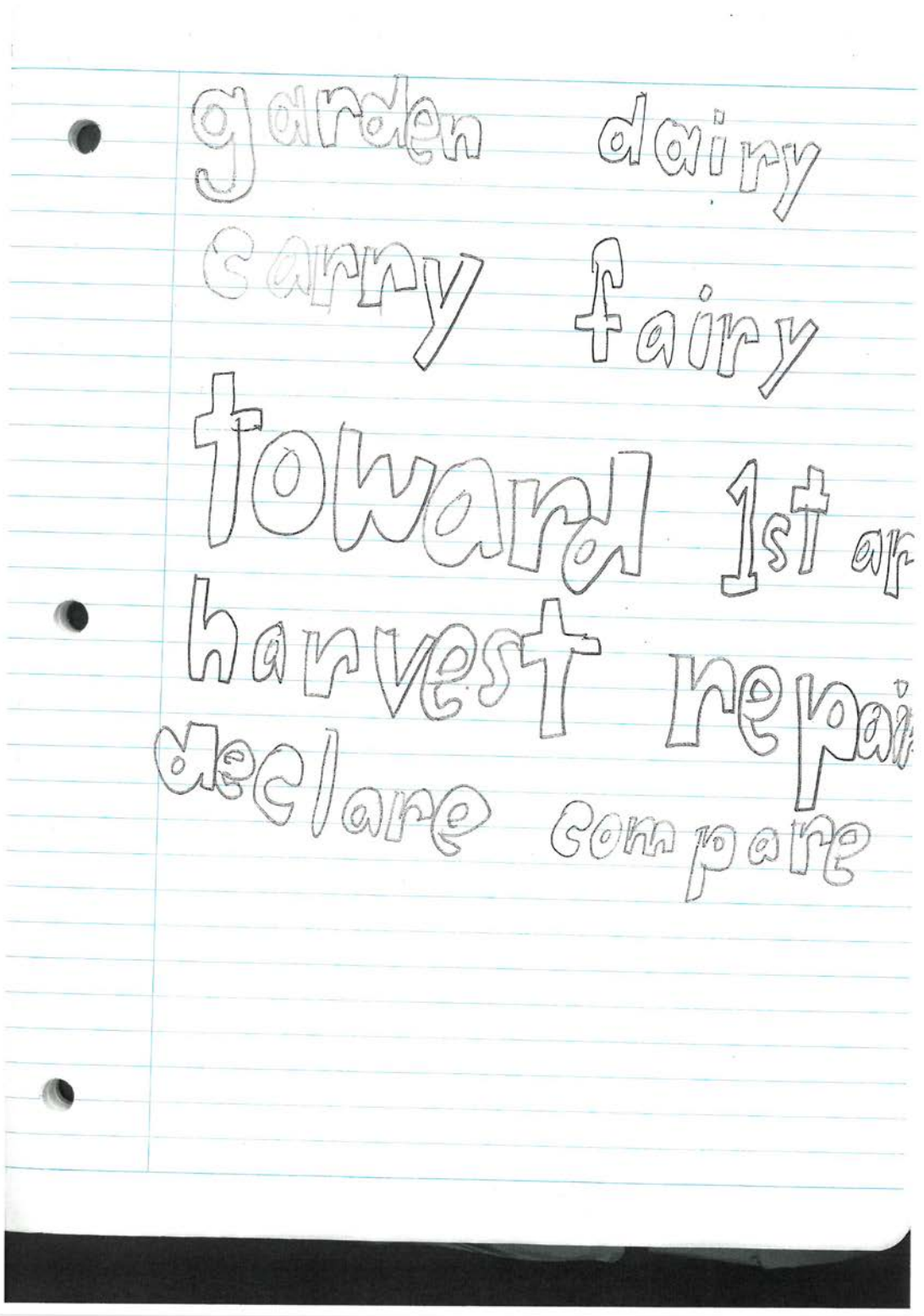

1.
My Mink is mayor of me.
2.
A man love to eat bracelet.
3.
My dad hates parade.
4.
Ladybugs love raisin.


Voyage
Trouble
Powder
Noisy


garden dairy
carry fairy
toward 1st ar
harvest repai
declare compare

APPENDIX J

WEEKLY PASSAGE AND RUNNING RECORD SAMPLES

I looked at my watch and ran out the door. It was almost time for school, and I couldn't wait for our field trip. "Make sure you walk!" called Mom. "I know I ought to walk, but I'm not calm enough. I am too excited", I thought. When I got to school, my teacher told us all to go to the bathroom and get a drink of water. She said to hurry up and not stall, because we didn't want to be late for the bus! I almost forgot to wash my hands because I was so excited! We were going to the bee farm to learn about wasps! Our teacher reminded us not to swat at them. Even though they are small, they could sting us if we bother them. When we arrived, the owner of the bee farm came over to talk to us. He told us all about the different kinds of bees and how they make honey! At the end of the day, the farmer brought over some honey for us to try. I also bought some for my family to eat at home! It was a great day.

Within Word: Sort 34

Running Record

Word Study Weekly Passage

Student [redacted]
Date 3-16-2018
Word Study Book Within Word
Sort Number 34 **Total Words** 193

Student's Reading	E	SC
I looked at my watch and ran out the door. It was almost time for school, and I couldn't wait for our field trip. "Make sure you walk!" called Mom. "I know I ought to walk, but I'm not calm enough. I am too excited", I thought. When I got to school, my teacher told us all to go to the bathroom and get a drink of water. She said to hurry up and not stall, because we didn't want to be late for the bus! I almost forgot to wash my hands because I was so excited! We were going to the bee farm to learn about wasps! Our teacher reminded us not to swat at them. Even though they are small, they could sting us if we bother them. When we arrived, the owner of the bee farm came over to talk to us. He told us all about the different kinds of bees and how they make honey! At the end of the day, the farmer brought over some honey for us to try. I also bought some for my family to eat at home! It was a great day.	2 1 2 1 1 1 1	1 1 1 1 1 1

s-/SC; clam; hun/SC; a/SC; thought; s-sighting; brother/SC; event; From; farm/SC; brought; so/SC

WC 185 Total #E 8 Total #SC 6
Accuracy Rate (WC/TW) x 100= 96 % SC Ratio (E+SC)/SC=1: 2

Fluency 1 (2) 3

Correctly Circled/Identified Words

1 2 3 4 5 11

Notes: Choppy, but expression was attempted

TWRC: 15/18

The citizens of Parktown were not very happy. They thought their city was too boring, and they always complained. They wanted something exciting to happen for a change. They explained this to the mayor, and he came up with an idea. "What if we have a parade?" he suggested. "That's a great idea!" they cheered. That next Saturday, all the citizens of Parktown sat along the pavement to watch the parade. The marching band played music, the dentist passed out flyers about tooth decay, the cheerleaders threw chocolate, the firefighters tossed raisins, and the policemen handed out bracelets. There was even a face painter! At the end of the parade, all of the citizens helped to clean up. "We don't want any wrappers to remain on the street. We must obey the rules and keep our city clean," they reminded each other. The mayor walked over and said, "Maybe we should have a parade again soon." "Really? We would love that!" the people shouted.

Syllables and Affixes: Sort 17

Running Record

Word Study Weekly Passage

Student [redacted]

Date 3-19-2018

Word Study Book Syllables & Affixes

Sort Number 17 **Total Words** 164

Student's Reading	E	SC
The citizens of Parktown were not very happy. They thought their city was too boring, and they always complained. They wanted something exciting to happen for a change. They explained this to the mayor, and he came up with an idea. "What if we have a parade?" he suggested. "That's a great idea!" they cheered. That next Saturday, all the citizens of Parktown sat along the pavement to watch the parade. The marching band played music, the dentist passed out flyers about tooth decay, the cheerleaders threw chocolate, the firefighters tossed raisins, and the policemen handed out bracelets. There was even a face painter! At the end of the parade, all of the citizens helped to clean up. "We don't want any wrappers to remain on the street. We must obey the rules and keep our city clean," they reminded each other. The mayor walked over and said, "Maybe we should have a parade again soon." "Really? We would love that!" the people shouted.	1 2 1	1 1 1

suggested; payment/SC; Fly-/SC; the; In; the/SC

WC 160 Total #E 4 Total #SC 3

Accuracy Rate (WC/TW) x 100= 98 % SC Ratio (E+SC)/SC=1: 2

Fluency 1 (2) 3

Correctly Circled/Identified Words

1 2 3 4 (5) ____

Notes: Good expression but a bit choppy

TWRC: 18 / 18

A boy named Brian was going to battle the evil giant gorilla in the middle of the jungle. "Are you sure you can handle it?" his brother asked. "Of course! It will be simple," Brian replied. Brian's brother began to tease, "But your muscles are so little!" "Hey! Be nice!" Brian shouted. He walked over to the table and grabbed an apple. Then he took a bottle of water from the refrigerator. "Alright! I'm off. Wish me luck!" Brian said. "Good luck," his brother called out. Brian hopped in his canoe and began to paddle down the river into the jungle. A rattle snake slithered by and Brian began to tremble. He felt like someone was following him! Brian took a deep breath, a bite of his apple, a drink of his water, and decided to turn around. He paddled as fast as he could out of the jungle and ran back to his house. "You're back already?" his brother asked. "Well...maybe I'll try to battle the gorillas in a couple years—after all, I'm only eight years old!" he replied. Brian smiled and his brother giggled.

Syllables and Affixes: Sort 29

Running Record

Word Study Weekly Passage

Student [redacted]
Date 4-17-2018
Word Study Book Syllables & Affixes
Sort Number 29 **Total Words** 187

Student's Reading	E	SC
A boy named Brian was going to battle the evil giant gorilla in the middle of the jungle. "Are you sure you can handle it?" his brother asked. "Of course! It will be simple," Brian replied. Brian's brother began to tease, "But your muscles are so little!" "Hey! Be nice!" Brian shouted. He walked over to the table and grabbed an apple. Then he took a bottle of water from the refrigerator. "Alright! I'm off. Wish me luck!" Brian said. "Good luck," his brother called out. Brian hopped in his canoe and began to paddle down the river into the jungle. A rattle snake slithered by and Brian began to tremble. He felt like someone was following him! Brian took a deep breath, a bite of his apple, a drink of his water, and decided to turn around. He paddled as fast as he could out of the jungle and ran back to his house. "You're back already?" his brother asked. "Well...maybe I'll try to battle the gorillas in a couple years—after all, I'm only eight years old!" he replied. Brian smiled and his brother giggled.	1 1 3 1 2 3	1 1 1 1

WC 176 Total #E 11 Total #SC 5
Accuracy Rate (WC/TW) x 100= 94 % SC Ratio (E+SC)/SC=1: 3

Fluency 1 (2) 3

Correctly Circled/Identified Words

1 2 3 4 (5) ____

Notes: Excellent expression
A bit too fast + choppy at the end

TWRC: 15 / 15

APPENDIX K

WEEKLY SPELLING TEST SAMPLES

Name [redacted] Date: 4-9-18

Word Study Test

Group: 35

Sort: Straw

10/11

1. ~~O~~ount
2. Clown
3. tough
4. South
5. frown
6. mouth
7. go wn
8. shout
9. thourgh through
10. round

BONUS:
prow

Name: [redacted] Date: 1-30-18

Word Study Test

Group: Blue

Sort: 3

9/10

1. Fallow follow
2. Fever
3. Finger
4. Moment
5. Chaper chapter
6. Problem
7. Blanket
8. Pattern
9. Bottom
10. Silent

BONUS:
Trumpet

Name [redacted] Date: 1/24/2018/Wed

Word Study Test

Group: Grapes

Sort: ZZ

10/11

1. thousand
2. allow
3. southern
4. double
5. powder
6. noisy
7. avoid
8. loyal
9. voyage
10. moisture

Bonus sround
surround