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**AN INVESTIGATION OF THE IMPACT OF MULTIPLE EXPOSURES TO NEW  
VOCABULARY WORDS HAVE ON STUDENTS WITH LANGUAGE  
PROCESSING DISORDERS**

by

Erin Elizabeth Higgins

A Thesis

Submitted to the  
Department of Language, Literacy, and Sociocultural Education  
College of Education  
In partial fulfillment of the requirement  
For the degree of  
Master of Arts in Reading Education  
at  
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December 18, 2015

Thesis Chair: Stephanie Abraham, Ph.D.

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## **Dedication**

I would like to dedicate my work to my fifth-grade “rock stars.” They inspire me to continue to learn and think outside of the box in order to better myself, even when a situation seems impossible. They are the reason I come to work every day.

## **Acknowledgements**

My research project would not have been possible without the support of many people. I would like to thank my co-teacher, Wendy Bosco, who allowed me to take as much time as I need to complete my study and was supportive throughout this process, especially during data collection. Without her, I may not have been able to learn as much as I had hoped about my students and myself.

I would also like to thank the administration in my district. In a time when every minute of instruction is crucial to student and district success, they proved that they trust my instincts and support my never-ending inquiries.

Thanks to my husband for his encouragement and endless Amazon credit line to stock my classroom and teaching libraries that were used to foster a love of reading. In addition, I appreciate my family for teaching me the value of hard work and persistence.

Finally, I would not have been able to complete this degree without my classmates. These women motivate me to work harder, push the boundaries, and make the impossible possible. You will always be an integral part of my teaching journey.

## **Abstract**

Erin E. Higgins

### **AN INVESTIGATION OF THE IMPACT MULTIPLE EXPOSURES TO NEW VOCABULARY WORDS HAVE ON STUDENTS WITH LANGUAGE PROCESSING DISORDERS**

2015-2016

Stephanie Abraham, Ph.D

Master of Arts in Reading Education

The purpose of this research aimed to investigate how fifth-grade students diagnosed with processing disorders best-learned new vocabulary and the role motivation played in success. The district, school, and students were given pseudonyms in order to maintain anonymity. Over the course of three, one-week instructional periods, four students participated in six different oral and written vocabulary activities. They completed an assessment immediately following four days of instruction and again at the end of the study to measure growth in their ability to identify and use the word using a four-point scale. Based on the results of the assessments, they showed that, overall, students made gains in their ability to recall the meaning of words and to use the words appropriately in context. Motivation was measured through observations and a rating system. In the final week, when students were familiar with the expectations of the activities, motivation was at its peak and so was quality of work and assessment scores. These findings support the use of explicit vocabulary instruction with the use of various multi-modal activities in order to improve recall, long-term memory, and word retrieval for students with language processing disorders and that motivation does play a role in success.

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## Chapter 1

### Introduction

“Words are the voice of the heart.”

-Confucius

What if those words escaped you when you needed them to express yourself? Imagine your ten-year-old self, sitting in a bustling classroom, brimming with conversations, questions, and enthusiasm. It is like a Ping-Pong match, story read by your teacher, question, hands, answer, and follow-up from your teacher. Information is volleyed between teacher and student, teacher and student. The classroom is an exciting place, as you begin reading the introduction to the new class novel, *Because of Winn-Dixie*. Who would not love going into a grocery store for macaroni and cheese and two tomatoes and coming out with a dog like Opal did (DiCamillo, 2000)? As you are slowly imagining the scenario playing out in the grocery store, your teacher goes off on a tangent about character traits and then discusses a challenging new word that you had never heard of. From there, she jumps back into the story, while you are still trying to figure out the term character trait and what that even means. You know you have heard that term before, you know by fifth-grade you should be able to recall what that means, but you can't put your finger on it. *Character traits, character traits... ugh, this is so frustrating.* You give up on the term and begin thinking about what it would be like to find a dog and before you know it, your teacher is calling your name from a far off place. You snap back into reality, as your teacher is standing over your desk with those expectant eyes. She must have asked you something. Quickly, you fill the air with “uhhs” and “umms” to buy some time, but you truly have no idea where you are in the book, never mind what

she asked. You look down and you are still on page one, while your next-door neighbor is on five. Your face turns red, your stomach is in your throat, and you finally have to ask your teacher to repeat the question. She huffs, her eyebrows furrow, and she repeats a question about why a certain line is funny. Your classmates are now looking at you, they give you about 15 seconds to sweat before every hand goes up because they know what you do not. You wrack your brain for something, anything, but the words are not there. You have nothing to grasp onto and you start to sink into your seat in hopes that if you get low enough, the Earth may gobble you up and save you from the embarrassment. Your teacher moves on and calls on your neighbor and you are off the hook. Relief. Disappointment. Dread. Why is everything so hard? Welcome to the life of a student with a language processing disorder.

### **Purpose Statement**

Guthrie and Wigfield (2000) theorized that engagement and motivation are the two most potent variables in learning and when they are present, they may substantially compensate for other weaknesses. Combining Guthrie and Wigfield's Engagement Theory with Stanovich's (1980) Interactive Compensatory Model, which explains that text processing is interactive (not linear) and compensatory (one processor compensating for insufficient data or ineffective functioning), I hoped to find the best ways to instruct students with processing disorders in the area of vocabulary.

Students with processing disorders have a difficult time attaching meaning to auditory signals as they enter the cortex of the brain. If information that enters the brain does not engage the reticular activating system, the secretary of the brain, the signals will not make it to the cortex. If the message does manage to filter to the cortex, the new

information needs to be organized based on the way in which it was received. For example, information received through sight would be processed and stored in the occipital lobe for future retrieval. Some parts of the brain, however, function more efficiently than other parts. For this reason, students with language processing disorders require several different opportunities to attach meaning to incoming signals through many different modalities. The more parts of the brain that are involved in learning, the stronger the connections, the deeper the learning, and the easier it is to retrieve the information when the time comes (Richard, 2001).

The signals in the case of this study were new vocabulary words. Students with processing disorders tended to struggle with learning new words and retrieving newly learned words because of the way in which information was presented and their inability to organize and store new words in an effective and easily accessible way. When students were not able to easily access Tier II, or frequently encountered, words, comprehension during reading was compromised. Teaching vocabulary deeply and effectively included repeated exposure, beyond a single class period, with significant discussions, and constant practice using the words. By combining vocabulary instruction with best-practice for instructing students with processing disorders, I hoped to identify the most effective vocabulary experiences for engagement, word mastery, and word retrieval for students with language processing challenges. Which holds more weight in vocabulary development, the discussion of words or written experiences with words?

Current research showed that there was a strong correlation between vocabulary knowledge and comprehension ability (Beck, Perfetti, & McKeown, 1982; Graves, 2000). Without recognizing and recalling the meaning for 90 and 95 percent of the words

in a text, comprehension was compromised (as cited in Sedita, 2009). Beck, McKeown, and Kucan (2002) found that the average reader gleans an accurate meaning of an unfamiliar word from the context between 5 and 15 percent of the time. When combining these facts, experts found that explicit and extended instruction in the area of vocabulary was more beneficial for literacy growth than incidental or embedded instruction (Coyne, McCoach, & Kapp, 2007).

Over the years, several studies have explored best-practice concerning vocabulary instruction. In 2000, Graves suggested that teachers set aside time for wide reading, teaching of word learning strategies, direct and explicit teaching of important, academic words, and creating an environment that fosters word consciousness. McKeown and Beck (2004) went on to suggest that teachers choose their words to teach explicitly based on certain criteria. The words should appear frequently across many domains of learning, provide the key to learning a general concept, or offer a variety of contexts or layers of meaning to explore. Best-practice also suggested giving students the opportunity to reflect on their learning through by assessing their perceived knowledge of the words (Goodman, 2001; Beck, McKeown, & Kucan, 2013), exploring synonyms and antonyms of words to create stronger semantic networks (Feldman & Kinsella, 2005; Phillips, Foote, & Harper, 2008), and engaging in discussions about vocabulary (Beck et. al, 2013).

The focus of vocabulary in research has ebbed and flowed throughout time, swinging in and out of the educational spotlight. Experts explored and synthesized best-practice for typical language developing students, special education students, and students with language processing disorders. I, however, measured whether instructional

activities or oral discussions led to deeper learning and stronger retention of new vocabulary words. This study aimed to discover the most effective vocabulary experiences for engagement, word mastery, and word retrieval for students with language processing challenges.

### **Statement of Research Problem and Question**

The research question I planned to investigate was: What happens to word retrieval and long-term memory for new vocabulary words for fifth-grade students with processing disorders when they are exposed to a new term through multiple experiences? I planned to find out which vocabulary activities are most engaging for students with processing disorders and if engagement was related to word learning success. If students were engaged in their learning and were exposed to the new words several times, in various ways, I wondered if word mastery would be achieved. For students with language processing disorders, learning new words is challenging and recalling them appropriately seems impossible. With deeper learning of a variety of words, I hoped that students would begin to grow a stronger vocabulary-base to help them comprehend texts and express their thoughts and ideas.

### **Story of the Question**

Seven years ago, when I was still new to the profession, looking for ways to improve my teaching, I attended a professional development that changed my view on instruction. The workshop focused on vocabulary and its role in literacy and learning for all students. My colleagues and I engaged in and created activities for our classroom that would help content-area and Language Arts instruction. The presenter introduced us to word games and wordbooks and explained the importance of creating a word-conscious



classroom that embraced the intricacies of the English language. Her enthusiasm for words rubbed off on me that day.

Two years later, I was hired in a different district. Soon, I learned that this new district had just purchased a commercial vocabulary program and I was disappointed. I was worried that this commercial program would stifle my love of words and would deter my students from enjoying language. I shoved the box in the corner for the first two months of school, in hopes that it would just disappear. Unfortunately, my mentor was a curriculum rule-follower and suggested that we spend a session of our mentoring time looking at the curriculum. I opened the box and soon realized that the program incorporated the research-based activities that I had used in the past. I fell in love with the program and incorporated it with fidelity and passion that rubbed off on my students. My colleagues noticed that my students were using interesting word choices in district writing assessments and that they were incorporating their vocabulary in discussions with their peers. I was proud.

When you fast-forward to my eighth year of teaching, and my sixth new district, I was hired as a special education teacher in an inclusion classroom. I was in charge of instructing students that had difficulty processing the language that I learned to love. I observed their frustrations when they were asked questions during whole group lessons, their hesitation when asked to put their ideas on paper, and their exhaustion by the end of the day when it came to absorbing any more learning. When my co-teacher and I used lecture-style instruction, my special education students were disengaged five minutes into the lesson because they could not follow all of that language. By mid-year, I had eight, very defeated young learners that became accustomed to failure. That was when I

decided to push for small group instruction and experiment with some vocabulary lessons. My special education students were discovering the nuances of these words along with their classmates. They were experiencing success and they were beginning to engage in their own learning again.

January rolled around and the Director of Special Education was coming in to observe and I thought, “What a perfect time to show off the success of my students?” I invited her to observe an introductory lesson to the new vocabulary unit. All of the students were engaged, discussing with their partners about what thought the words meant. I could not be more proud of their success and was sure that my supervisor would be impressed, considering vocabulary was not taught in any other room. However, when I got my observation results back, I received very low scores. She felt that instruction should not include discussion and discovery of words, but revolve around dictionary searches and context clues. She disregarded the fact that my students who struggle so much with language were engaging in meaningful conversations about words. I was discouraged and confused about what to do.

Luckily, I have the opportunity to work with my special education students for two consecutive years. I had the opportunity to take the summer to reflect on what worked and what did not, and how I would adjust my teaching to best support their needs. I was obsessed with finding out how to help my students with language processing issues and read several speech and language pathology and brain books over the summer in preparation. I decided to use my research study as a way of combining what I learned several years ago about vocabulary instruction, with what I learned about the disorder, and the feedback that I received from the observation to discover for myself what works

for my students. I hoped to use these results to inspire other teachers in the district to incorporate vocabulary instruction into their literacy block.

### **Organization of the Paper**

Chapter two provides a review of the literature surrounding best-practice in vocabulary instruction, facts to consider about learners with language processing disorders, and the role of engagement and motivation in learning. Chapter three describes the design and context of the study, including my plan for implementing various written and oral vocabulary activities, as well as vital facts about the students that participated in the study. Chapter four reviews and analyzes the data and research and discusses the findings of the study. Chapter five presents the conclusions of this study and suggestions for further research regarding the vocabulary instruction.

## **Chapter 2**

### **Review of the Literature**

According to Taylor, Mraz, Nichols, Rickelman, and Wood (2009), vocabulary instruction has been overshadowed by the importance of decoding and reading comprehension skills, but research supports the belief that inadequate vocabulary knowledge exacerbates learning difficulties faced by already disadvantaged students (Manzo, Manzo, & Thomas, 2006). Students with language processing disorders are amongst those students who struggle the most with learning new words and retrieving newly learned words. The way information is presented and their inability to organize and store new words in an effective and easily accessible way are challenges. Chapter two presents a review of the literature in the areas of existing vocabulary instruction research, the implications of language processing disorders on learning, and the role of engagement and motivation in language learning. The first section defends the need for vocabulary learning in everyday instruction. It is followed by a discussion about how language processing disorders influences a student's ability to master new vocabulary. The next section outlines several research-based instructional models and interventions. The final section discusses the role motivation plays in a student's level of participation, attitude, and ultimate mastery of new target words. This chapter concludes with an overview of the literature and the ways this study aimed to identify the most effective vocabulary experiences for engagement, word mastery, and word retrieval for students with language processing challenges.

## **Why Teach Vocabulary?**

Ludwig Wittgenstein once said that, “the limits of my language are the limits of my mind. All I know is what I have words for” (as cited in “Words at Play: Favorite Quotations about Words, Vol. 1,” n.d.). A strong vocabulary supports how one views, learns, and discusses the beauty of everyday life and their surrounding world. It facilitates new learning and plays a pivotal role in academic growth and competence. For the past few decades, researchers have found a strong correlation between vocabulary knowledge and reading comprehension ability (Beck et. al, 1982; Graves, 2000). In 2000, the National Reading Panel recognized vocabulary as an integral part of the reading process. In 2009, the Common Core State Standards reiterated the importance of vocabulary in a balanced reading program. They called for teachers to explicitly teach word learning skills and academic vocabulary to support learners and the demands of college and their careers.

Teachers and researchers, alike, realized that without understanding the meaning of words in a text, reading became a fruitless process. Despite this hard truth, vocabulary can be the easiest component to leave out of a literacy block. In 2001, Biemiller concluded that there appeared to be relatively little explicit vocabulary teaching in the elementary grades. Consequently, those teachers who were observed attempting to address vocabulary concepts failed to stimulate and engage students, resorting to copying definitions, which resulted in a vague understanding of the target word (Phillips et. al, 2008). Because of Anderson and Nagy’s research (1993) that claimed “the average student learns from 2,000 to 3,000 words per year,” most teachers become overwhelmed

by the alarming number of words that students need to learn every year and resort to just incidental learning of words, however, explicit vocabulary instruction must also be included. For developing readers, strictly using context in order to guess at a word is unproductive and unsuccessful. Students are only about 5%-15% accurate when guessing at words (Beck et. al, 2002). The above statistic supports the argument for explicit instruction of important vocabulary and concept words instead of utilizing contextual analysis and incidental learning as the primary and exclusive instructional strategies for comprehension and long-term vocabulary acquisition. Additional support was gleaned from Coyne et. al's research (2007), that showed that students benefited from extended, explicit instruction of vocabulary words over embedded or incidental instruction because it "produced more complete word knowledge." With that being said, approximately 400 words should be directly taught through extended and explicit exposure during the course of a school year (Blachowicz & Fisher, 2002), which positively impacts word learning and comprehension (Beck et. al, 2013). A student's understanding of the word is deeper, and connections among words that are explicitly taught are stronger, which bolsters comprehension of text.

### **How Does a Language Processing Disorder Affect Learning?**

Students with processing disorders have a difficult time attaching meaning to auditory signals as they enter the cortex of the brain (Richard, 2001). Several factors may contribute to ineffective word learning, but the engagement of the reticular activating system and the processing of incoming information at the secondary zones in the parietal, occipital, and temporal lobes are the two primary causes for a breakdown in meaning. The reticular activating system is like the secretary for the brain. It awakens

the brain and keeps it engaged by sorting through incoming signals, deciding which are most important to send to the cortex. Without the engagement portion of a learning experience, the brain will not attend to new information. At the secondary zones in the cortex of the brain, meaning is attached to input and is organized and stored with previously learned information. Because information is stored based on the way in which sensory input is received, information is stored in many different parts of the brain. Those different parts function at different levels, some better than others, meaning that input should be presented using multiple modalities to allow for compensation, with several opportunities to attach deeper meaning to incoming signals.

The signals in the case of this study were new vocabulary words. Students with language processing disorders tend to suffer from poor phonological memory skills or semantic/conceptual analysis skills. Gathercole and Baddeley (1993) found that poor phonological working memory skills negatively affected a person's ability to adequately create a phonological representation of the new word in long-term memory. Without a secure phonological form to latch onto, semantic representations were compromised. In 2002, McGregor, Newman, Reilly, and Capone posited that students had difficulty storing and remembering the content of word meanings because of missing or partial syntactic representations. They could not grasp the necessary details to learn the word deeply.

Because vocabulary acquisition is more challenging for students with language processing disorders, certain aspects of instruction need to be considered. This population of students struggles to understand and utilize new words after limited, incidental exposures. In contrast, word learning improves with increased exposure to the

vocabulary target word (Rice, Oetting, Marquis, Bode, & Pae, 1994; Nash & Donaldson, 2005), over the course of many days (Riches, Tomasello, & Conti-Ramsden, 2005). Exposure should include explicit instruction of definitions according to Nash and Donaldson (2005). They found that students with language processing weaknesses gained a deeper understanding of the word meaning with explicit instruction than when a word was taught through story context. The final consideration for acquisition includes continuous review to maintain mastery. Riches et. al (2005) determined that a setting that included rich discussions about vocabulary helped students to retain comprehension. In order to make learning and reading more accessible to students with language processing disorders, combining vocabulary instruction with best-practice for instructing students with processing disorders is imperative.

### **What is Best-Practice for Vocabulary Instruction?**

In 2000, Graves found that a balanced or comprehensive model for vocabulary development was most effective. He felt that instruction must include time for wide reading, teaching of word learning strategies, direct and explicit teaching of important, academic words, and an environment that fosters word consciousness. Unfortunately, students with disabilities, like language processing, struggle with reading. As a result, they fail to engage in the amount of independent reading that is necessary for adequate vocabulary growth. In addition, these students tend to have ineffective word learning strategies while reading, making deciphering the accurate definition of new words through context improbable (Jitendra, Edwards, Sacks, & Jacobson, 2004). As a result, direct, explicit, research-based instruction of vocabulary is imperative for students with disabilities.



Instruction begins with choosing appropriate words to focus on. Beck et. al (2013) suggested that teachers consider words that would be used in both comprehension and composition. The words appeared frequently across many domains of learning, provided the key to learning a general concept, or offered a variety of contexts or layers of meaning to explore. McKeown and Beck (2004) termed them Tier II words and suggested that they should be taught in depth through extended, robust vocabulary instruction.

Manyak, Von Gunten, Autenrieth, Gillis, Mastre-O'Farrel, and McDermott (2014) produced several guidelines to aid teachers in effectively introducing new target words through their Multi-Faceted, Comprehensive Vocabulary Instruction Program (MCVIP). First, they suggested that teachers establish efficient and rich routines. Taking from Beck et. al (2013) text talk approach, the group created a VP Model (Vocabulary Preview Model) that was a fast-paced and varied for initial word exposure. They presented the word in context, provided a kid-friendly definition, multiple examples of its use, set aside time for student-use, showed and discussed a visual representation, and concluded with a thought question using the word. The routine was conducted using three PowerPoint slides per word to foster discussions. The researchers found that diversifying the instructional approach kept students engaged. They also realized that mastery would not occur in the introduction lesson. Finally, they found that providing multiple contexts for word learning allowed for active processing of new meanings.

Another approach used to introduce new vocabulary words was the self-awareness chart (Goodman, 2001), also known as a word knowledge checklist or scale (Beck et. al, 2013). This previewing activity served as an informal pre-assessment that

allowed teachers to measure the range of word understanding in the classroom prior to instruction and encouraged students to reflect on their word knowledge, as well. Students were given a list of words with the scale reflecting familiarity along the top. Students worked in groups or independently, reading the words and identifying their degree of familiarity with the word. Working in groups promoted discussions that would allow students to add and delete details about the word and to gain a deeper understanding of the word.

During extended, explicit instruction of new vocabulary words, many researchers suggested activities that engaged the students in different ways, with the common goal of deep learning of the word through phonological and semantic connections. Feldman and Kinsella (2005), for example, created key steps for vocabulary instruction. When introducing words, they described the importance of pronunciation, explanation, and providing examples. They observed that teachers tended to do most of the talking during instruction, but students needed to connect auditory stimuli with muscle memory. Students needed to pronounce the words at least two to three times before learning the meaning in order to create the phonological and orthographic connection. This primed the child for learning the semantics of the word. Next, the teacher explained the meaning of the word clearly, using the prior knowledge of the student, so that connections and associations could be made. By providing examples of different contexts that the word could be used in, the teacher built “students’ semantic network so that they could incorporate the term into their lexicon beyond surface understanding” (p. 6). The elaboration phase is the final stage before assessment. Here, students were given the chance to generate their own examples, visual representations, and connections to the

words. Finally, Feldman and Kinsella emphasized the importance of ongoing assessment throughout the learning process using informal check-ins after each lesson and summative evaluations to conclude the extended instruction to gauge future instruction.

Hiebert and Pearson (n.d.), on the other hand, suggested the generative approach to vocabulary instruction, which “aims to make visible to students critical features and functions of words and connections among words” (p. 4). Rather than just engaging in several isolated activities, the generative approach suggested that teachers choose words based on their centrality to the text and their morphological and semantic richness. Target words for instruction were taught in clusters of ideas so that students learned many words, made connections to known words, and interacted with words that had different degrees of meaning or nuances for a common concept.

In their second edition of *Bringing Words to Life: Robust Vocabulary Instruction*, Beck et. al (2013) highlighted the importance of frequent and varied encounters with new words. In a five-day cycle, they suggested introducing about ten words and presenting daily follow-up activities with the intention of showing the words in different contexts. Engaging students in conversations using the words appropriately was the cornerstone of the daily activities. Beck et. al (2013) warned teachers that students could develop a narrow definition of the word, only honing in on certain aspects of the definition. In order to foster a deeper understanding of the words, they recommended pairing words and distinguishing relationships between the words. Relationships were important “because of the way individuals’ word knowledge are stored in networks of connected ideas...the more connections, the more opportunities there are for an individual to ‘get to’ the knowledge of the word” (Beck et. al, 2013, p. 85). They found that with more

frequent and robust instruction, “word ownership” became more common.

Finally, because the majority of teacher failed to stimulate and engage students when addressing vocabulary concepts, Phillips et. al (2008) synthesized five research- and theory-based, student-centered strategies for improving vocabulary development. The authors explained that using dictionary definitions and context clues as the primary source of instruction were ineffective because students either struggled to interpret the meaning or guessed at the meaning. In order to engage students at a higher cognitive processing level, they needed to receive instruction that promoted deep processing of words. The student-centered activities included the use of graphic organizers, a logic and prediction activity, synonyms and antonyms, and classification. Graphic organizers in the form of word maps “facilitated higher level thinking [and] they serves as retrieval cues to promote learning” (Phillips et. al, 2008, p.64). Logic and prediction activities called for students to predict the meaning of a word in isolation and then required students to modify the definition after using logical problem solving while reading the word in context. “This allowed students to ask questions, clarify thoughts, and use vocabulary in conversation” (p. 65). Identifying synonyms and antonyms helped students to create stronger connections between known words and other unknown words. It fostered a deeper understanding of concepts and helped students to place the words on a continuum to show shades of meaning and nuances between word choices. Finally, classifying words asked students to group words based on commonalities, this helped to build connections. The authors cautioned teachers to use the strategies mindfully, matching the word with the appropriate activity, to promote deeper learning.

There are some differences between all of the research, some focused on the importance of connected vocabulary experiences, while others supported individualized vocabulary experiences, and still others focused on written reflections, while others support oral discussions. All avenues of research reached the same conclusion, students needed to be taught words explicitly, using instructional strategies that promoted deeper thinking through building connections and associations. Research also supported the idea that students must be active participants in vocabulary instruction in order to own these new words.

### **The Role of Engagement and Motivation in Learning**

Researchers explained that vocabulary instruction was generally unsuccessful because of the level of student engagement. “A factor in students’ willingness to allocate their time and effort is their interest and motivation. Therefore, targeting motivation, as well as reading skills, is important when designing vocabulary instruction for students” (Narkon & Wells, 2013). When teachers provide the definition of the word or the word in context for students to figure out, students are less likely to internalize the word or own it. According to Guthrie’s Engagement Theory, engaged learners are mentally active, frequently social, talking with others about their learning, and participating in constructing their own knowledge.

In *Lenses on Reading* (2012), Tracey and Morrow highlighted an investigation conducted by Aria and Tracey (2003) that researched the effects of humor-laced vocabulary instruction versus standard textbook instruction. Analysis of the post-assessment scores showed that over the course of four weeks, “students receiving the humor-laced instruction significantly outperformed students receiving the traditional

instruction” (Tracey & Morrow, 2012, p. 86). The teacher-researchers observed that students eagerly awaited the vocabulary instruction and discussed their new words enthusiastically when humor was involved.

When considering Gambrell’s *Seven Rules of Engagement* (2011), instructors must remember that students are more motivated when students find value, meaning, and relevance in the activities. Connections between the material and their out-of-school life cause students to invest time and energy into the instruction. Beck et. al (2013) sought to extend word-use beyond the classroom by encouraging students to notice the words in environments beyond the classroom. By using the Word Wizard, students earned points when they brought evidence of hearing, seeing, or using a word outside of the classroom. This device helped students to see that the words that they were learning were “real” and useful outside of vocabulary instruction and helped students to find other contexts to use the words. The pride the students felt when they were able to correctly apply new learning fosters the intrinsic motivation to want to continue to learn.

Gambrell also highlighted that “students are more motivated when they are given opportunities to socially interact with others about the text” (2011, p. 175). Social interactions piqued interest, increased confidence in ability to succeed, and served as a model for future success. According to Vygotsky (1978), in the Schneider and Watkins article (1996), “social interaction with others [is] essential for the development of independent cognitive and linguistic functioning” (p.157). Socializing is essential for development because it provides peer-adult stimulation and feedback. Through conversations and discussions, children who are less capable eventually internalize observed processes and, eventually, carry out the process individually. Beck et al. (2013)

marked oral discussions of the words as the lynchpin for learning. Discussion fueled experimentation, fostered feedback, and promoted word ownership.

## **Conclusion**

Upon reviewing the literature, it was clear that vocabulary instruction significantly affected a student's performance across several academic realms. Students are expected to gain an inordinate number of new words each year through both incidental exposure and explicit instruction in order to continue to succeed academically and in future careers. Because students with language processing disorders tend to struggle with inferring new word meaning from context, comprehension is compromised and incidental word learning experiences are futile. Instead, these students benefit from explicit instruction, multiple exposures, and deep word learning experiences to support their limited vocabulary bank. To bolster word retrieval and long-term memory of new vocabulary, creating opportunities to make connections, form associations, and experience the word in several different contexts is imperative.

While there are some studies that have explored and synthesized best-practice for typical language developing students, special education students, and students, specifically, with language processing disorders, few aim to measure whether instructional activities or oral discussions lead to deeper learning and stronger retention of new vocabulary words. This study aimed to discover the most effective vocabulary experiences for engagement, word mastery, and word retrieval for students with language processing challenges.

## Chapter 3

### Research Design/Methodology

This study was framed using the qualitative research paradigm. In this paradigm, the teacher researcher, “examines her own assumptions, develops local knowledge by posing questions and gathering data, and... works for social justice by using inquiry to ensure educational opportunity, access, and equity for all students” (Cochran-Smith & Lytle, p. 40). The participants’ views were critical to the study, as well as the context in which these views were collected. Contrary to quantitative research that conducts the study in an artificial setting that does not parallel the social contexts of learning in a classroom; qualitative research embraced the natural setting as an integral component of meaningful data collection. In addition, rather than relying heavily on numbers to represent “data, knowledge, evidence, and effectiveness” (Cochran-Smith & Lytle, 2009, p.46), qualitative research suggested that with “narrative inquiry, validity rested on concrete examples of actual practices presented in enough detail that the relevant community can judge trustworthiness and usefulness” (Lyons & LaBoskey, 2002, found in Cochran-Smith & Lytle, 2009, p. 42). Data was collected in the form of field notes, observations, interviews, and artifacts from the participants. When considering teacher research and its context, the classroom, one must consider that students bring different views and needs. Objectivity was not practical when analyzing data. All data, by nature, was filtered through the participant observer’s perspectives and biases (Browne & Madden, 2014). In all, the purpose of this paradigm was to observe behaviors and actions that occurred in the social context of education and situations that reflected the natural learning setting, in hopes that researchers “could gain control of [their] world” (Shagoury



&Miller, 2012, p. 2). The goal was to create the best learning environment for all learners.

As mentioned above, teacher research is “research that is initiated and carried out by teachers in their classroom and schools” (Shagoury & Miller, 2012, p. 2). K-12 teachers or prospective teachers work to change educational practice through inquiry, gathering data, and evaluating results. Narratives found in qualitative teacher research highlight key findings and are meant to illuminate “the deeper theories or rules governing the way a classroom community works” (Shagoury & Miller, 2012, p.2). Teacher researchers aim to uncover issues that hinder learning in their own natural, professional setting so that changing practices could positively affect student learning. This study aligns with the qualitative design of research because the goal of this study is to explore the nature of a pressing need in the classroom and, through examination of practice, improve student learning.

This study analyzed the results of using various oral and written activities to support vocabulary development in students with language processing disorders. The purpose of this study was to identify which activities had the greatest impact on word “ownership” and whether motivation played a key role in word learning. In order to gather and analyze data, the teacher research method was used as the framework. Teacher research had a “primary purpose of helping the teacher-researcher understand her students and improve her practice in specific and concrete ways” (Shagoury & Miller, 2012, p. 4) so that she could better understand the needs of her students. The teacher research method was used for the purpose of this study because I looked at the particular

needs of the participant students and considered how their engagement in and motivation for certain activities helped to develop word ownership and mastery over time.

### **Procedure of Study**

Before I began collecting data, I analyzed the participant-students' Individualized Education Plans and the results of their speech and language testing during the referral and special education determination process. I noted the weaknesses of the students on various assessments (example: Clinical Evaluation of Language Fundamentals) as a way of determining the specific language processing weaknesses--receptive and/or expressive. I also conducted informal "book talks" with the students, in which I asked individual students to use trait labels to describe the characters in the class novel. These conversations were first conducted without a word bank to gain understanding about how each individual student was able to retrieve appropriate words to label a common character. Then the students used a list of common and familiar character traits to assist in the retrieval process. This provided a baseline of their ability to label characters appropriately when word choices were given.

After observing the strategies that each student used to retrieve common vocabulary to describe a character, I found that they all had similar results, when visual support, modeling, and discussions took place, students were able to readily target appropriate vocabulary with meaningful support. From there, I chose six oral and written activities that would best foster word mastery and stimulate motivation. The activities focused on using words in various contexts (written, discussions, books, visuals) that engaged multiple modalities of learning, while connecting familiar words with new words. The activities also aimed to show associations between seemingly disconnected

vocabulary with the hopes of strengthening word connections and retrieval pathways in the brain. The instruction lasted for five days for each set of words, beginning with an initial self-assessment about their knowledge of the words, continuing with constant self-evaluation throughout the learning activities, and concluding with a multi-faceted assessment. The daily instruction remained consistent for three instructional weeks, in order to collect three different data points for each activity. On three consecutive days, the students participated in written activities for six of the eight words, focusing on two words each day. The oral discussions, however, included all eight words. This determined if there was a difference between learning the words through discussion and learning the words through discussion in conjunction written tasks. The assessment included a cloze-type narrative, where students needed to use context clues in order to determine which word best fit, and a sentence-starter, where the student needed to use the word appropriately in context and include information to prove ownership of the word.

Each week, the students suggested eight vocabulary words from the class novels, *Because of Winn Dixie* and *Stone Fox* (see Appendix A). The final list of words were chosen based on their frequency and utility across a range of contexts, also referred to as “tier two” words by Beck and her colleagues (2013). These words appeared frequently, were unfamiliar to the students, had high utility in comprehension and composition, or were integral in understanding more abstract concepts or situations in the novel. Selecting the words for the study was based on a combination of the criteria mentioned above and judgment, based on my knowledge of the students.

On the first day, students completed a self-awareness survey. They rated their familiarity with each new word before instruction (see Appendix B). If they indicate that

they were familiar with the word, they were asked to note synonyms, examples, or a sample sentence that contained the word. The purpose of the notes in the pre-assessment portion was to judge how close they were to understanding the intended meaning of the word. This survey served as a pre-instruction reference point. Students were introduced to the part of speech of the word, the meaning of the word, the word used in context, and a visual representation of the word. The students discussed the context clues that were used within the sentence and how the word was used in the sentence. With regards to the visual representation, the students analyzed the picture and explained why the picture was chosen to represent the word and how it related to its meaning (see Appendix C). At the end of instruction, students revisited their self-awareness survey and noted how familiar they were with the word after the vocabulary introduction and then noted, in a different color, what they thought the word meant. Additional notes that students made to their self-awareness chart indicated how much closer the student was to word mastery. Mastery of the word is not the goal of the introduction, though.

On the second day, the students completed Frayer boxes with two teacher-chosen words. The students analyzed and discussed the key attributes and generated examples (synonyms) and non-examples (antonyms) of the target word, along with a sentence that included the word and a visual representation. Students completed these boxes with a partner in order to encourage discussion. I also intervened and questioned different choices in order to provide on-the-spot intervention if the word was being misrepresented. The purpose was for the student to be able to process the meaning of the word in a deep and thoughtful way. The second half of the lesson included an association discussion of all eight words. I created a question for each word that began with, “Which

word is associated with...?” The students decided which word was associated with the comment and explained how they were associated (see Appendix D). Generating a discussion around all eight words helped students to practice using the words in various contexts. At the conclusion of the lesson, the students added newly learned information to their self-awareness chart and rated how their familiarity with the target words changed. Then, students completed an engagement survey using Google Forms. They used a five-point scale to determine how much they enjoyed each portion of the lesson.

The third day consisted of a scaling or “shades of meaning” activity for two teacher-chosen words. The purpose of the activity was to help students make connections between known words and unknown words and provide an opportunity for rich discussion. Related words (synonyms and antonyms) along with the target vocabulary word were written on one side of an index card. On the back of each index card, I wrote the definition of the word and a sentence that contained the word (see Appendix E). The students worked in partnerships in order to place the words on a continuum appropriately. They were encouraged to discuss the relationship between the words before meeting with a teacher. When they were ready to check in with the teacher, the students were asked questions that related to their scaling choices—how did they organize the words, where did they identify controversy, and which words were new to their vocabulary. The second half of the lesson included a discussion of examples and non-examples of all eight words. I created similar situations that differed in one key way. Students discussed which scenario was the example of the word and why (see Appendix F). At the completion of the day, they added to their self-awareness survey and submitted the engagement survey on Google Forms.

The fourth day also consisted of a written and oral activity for the vocabulary words. First, students created visual representations of two more teacher-chosen vocabulary words. On the poster, students wrote the word, included a description of the target word in their own words, a picture that could be associated with the word, and a detailed sentence that included the word and described the illustration. Students presented their visuals to their classmates. Then, students participated in a “Which would you rather...?” activity that was created by Beck et. al (2013). In this activity, questions were formed around the target words (see Appendix G). The questions presented alternatives and asked which the students preferred and why (example: Which would you rather anticipate--your birthday or a dentist appointment? Why?). The lesson concluded in the same way as the previous three with the self-awareness and engagement surveys.

On the final day, students engaged in a match game that was modeled after the game Kaboom. Words and definitions, synonyms, and examples were placed in a container. Students pulled out a card, read it aloud, and then decided which word was associated with the clue. Then, students completed the two-part assessment. On the first part, the students filled vocabulary words into sentences using context clues and what they knew about the word. On the second part, they completed sentence frames that included the word that provided enough details to prove that they understood the answer (see Appendix H). Assessments were graded on accuracy of the cloze activity and how detailed their sentences were in reflecting the meaning of the word using a four-point scale (see Appendix I).

After the three sets of words were introduced and the students engaged in several activities that aimed at creating a deeper understanding of the word, a cumulative

assessment was administered. During this assessment, students filled in sentences that contained context clues and completed sentences that contained the vocabulary words. The cumulative assessment resembled the weekly assessments, but it included all of the target words. This assessment measured if the students committed the words to their long-term memory and if they were able to retrieve them accurately.

### **Data Sources**

To establish several data points for this research study, I used a few different qualitative techniques. To begin each week, I collected preliminary data about each student's familiarity with the vocabulary words using a self-awareness survey. Using a four-point scale, I determined their initial control over the word. I charted the data for each word. After each activity, I charted how accurate the student used the word in written and oral contexts using the same scale and my observations. I collected and analyzed artifacts daily. In addition, throughout the study, I used audio-recordings to document discussions between students and transcribed them for analysis, determining ownership of the word and engagement in the activities. I recorded my own thoughts about the data collected that day and my own behavior throughout the course of the instruction in my teacher reflection journal. I monitored myself for the amount of support I provided the students during the activities. The final source of data was the immediate and cumulative assessments. The assessments were used to analyze mastery of the word in conversation and in writing.

### **Data Analysis**

The data collected throughout the study was used to draw conclusions about which activities had the greatest impact on word "ownership" in students with language

processing disorders, and whether motivation played a key role in word learning. I used self-awareness surveys in order to gauge initial familiarity with the word and student artifacts and recorded conversations to judge the depth of knowledge each student had for each word after each lesson. By charting the data from the artifacts and the engagement survey, I was able to see which activities were most impactful and engaging for each student. I analyzed whether there was a pattern in the results that indicated that one particular activity was more effective for this population of students or whether they varied based on motivation. My research journal allowed me to find trends among my reflections with regard to discussions and engagement and success levels on particular activities. I was also able to gain insight from performances on both assessments. They displayed whether a particular activity related to success with word mastery and whether written activities were imperative to word mastery, or if oral discussions were sufficient. The cumulative assessment helped to measure whether the activities also influenced long-term memory of particular words.

### **Context**

**Community.** Glona Elementary School is the sole elementary school in the Glona Township School District. It is located in the same building as the Glona Middle School, which eventually filters into a Regional High School. As of 2014, there are 5,971 people in Glona Township, which is located in Gloucester County, New Jersey. Five areas make up this 22.8 square mile township. These areas include a unique mixture of residential, farmland, commercial, industrial, and retail areas. There are 2,172 housing units, with 94.3% of the units occupied by the owner.



The racial makeup of the township is 81.5% white or Caucasian, 12.5% black or African American, 2.5% Asian, 4.0% Hispanic or Latino, and 2.1% two or more races. About 5% of the population is foreign born. Only 27.1% of the population is under the age of 18 years old and 6.8% are 65 years or older. Of the 27.1% under 18 years old, 6.3% is 5 years old or less. Glona Township has a median income of \$85,379 per household. The per capita income in 12 months in 2013 was \$33,392. In 2010, about 6.3% of the population was considered living in poverty. Of the persons 25 years or older, 92.2% graduated from high school and 32.0% earned a Bachelor's degree or higher. Finally, about 76.2% of the population over the age of 16 years old contributes to the civilian labor force.

**School.** Glona Elementary School currently serves 343 students ranging from second grade to fifth grade, with approximately 114 staff members. The teacher-to-student ratio is 1 to 14. The ethnic makeup of the student population is 73.8% white, 9.6% black, 7.6% two or more races, 5.5% Hispanic, and 3.5% Asian. About 23% of the population is considered economically disadvantaged and 11% of the students are labeled as students with disabilities. As of the 2013-2014 state testing results, 63% of the population is proficient or above in reading and 82% of the population is proficient or better in mathematics.

**Classroom.** The study was conducted using a sampling of students from my fifth-grade inclusion classroom. The classroom contains 13 students, four of which are considered special education students. There are seven females and six males. The class is quite homogenous, with two black students, two Hispanic students, and nine white students. This inclusion classroom has two teacher that service the students for the entire

2 ½ hour Language Arts block and a paraprofessional that works in the classroom for 45-minutes during writing.

**Students.** Of the 13 students in the class, four of the students participated in the study. There was a sense of familiarity and trust already established because these students looped for a second year with me as their teacher. All of the participating students have Individualized Education Plans for a language processing disorder diagnosis.

Al is a ten-year-old, African American male who lives with his grandparents and his older brother. He was initially referred for special education in 2013. Upon evaluation, he was diagnosed with the classification of communication impaired. He has received in-class reading and mathematics support everyday and speech-language therapy in a separate setting two times a week for 25-minutes. In 2013, on the Wechsler Intelligence Scale for Children-Fourth Edition, Al's overall intellectual ability placed him in the Average range (Full Scale IQ: 95). Al's cognitive profile revealed average scores in all areas assessed.

When assessed using the Fountas and Pinnell Benchmarking Assessment in the spring of 2015, it was determined that Al was reading at an instructional level R (End of Fourth Grade goal: Level S). He was able to answer basic comprehension questions, but struggled to use his background knowledge in order to analyze connections within the text and make inferences about the text. He would get discouraged if he did not experience success at some level and would disengage from the conversation, claiming he does not know any answers. Although Al has demonstrated the ability to relate and categorize details, his speech-language therapist reported that his receptive and

expressive language weaknesses affect his classroom performance in all academic areas. It affects his ability to understand and organize taught information and recall and explain concepts, both verbally and in writing. She explained that Al also has trouble focusing on auditory information and can be slow responding to questions presented orally.

Jay is a ten-year-old, Caucasian male who lives with his parents and older sister. He was initially referred for special education in 2007. Upon evaluation, he was diagnosed with the classification of communication impaired. He has received in-class reading and mathematics support everyday and speech-language therapy in a separate setting two times a week for 25-minutes. In 2015, on the Wechsler Intelligence Scale for Children-Fourth Edition, Jay's overall intellectual ability placed him in the Low Average range (Full Scale IQ: 81). His cognitive profile revealed non-verbal, problem solving as an area of strength and working memory as a weakness.

When assessed using the Fountas and Pinnell Benchmarking Assessment in the spring of 2015, it was determined that Jay was reading at an instructional level S (End of Fourth Grade goal: Level S). He was able to read fluently and decode challenging multi-syllabic words; however, his comprehension and vocabulary knowledge influenced his ability progress in the assessment. Using his schema to make connections and inferences were challenging. When reading informational texts, he required vocabulary words and concepts to be pre-taught using several examples, demonstrations, or visuals. Despite challenges, though, Jay is a hard-worker and is intrinsically motivated to do well.

When consulting his speech-language therapist, she expressed that Jay actively participates in his learning, however testing, using the CELF-5, revealed weaknesses with vocabulary and understanding relationships between words. He also demonstrated

weaknesses with formulating sentences and reasoning and critical thinking skills. She explained that Jay needs to improve his reasoning skills so that he can make connections, relate information, make predictions, and infer meaning from his experiences.

Lee is a ten-year-old, African American female who lives with her father and older sister. She was initially referred for special education in 2011. Upon evaluation, she was diagnosed with the primary classification of Autistic. She has received in-class reading and mathematics support everyday, speech-language therapy in a separate setting two times a week for 25-minutes, occupational therapy in a separate setting onetime a week for 30-minutes, and counseling services out of the classroom one time a week for 25-minutes. In 2014, on the Wechsler Intelligence Scale for Children-Fourth Edition, Lee's overall intellectual ability placed her in the Average range (Full Scale IQ: 90). Her cognitive profile revealed average scores in all areas assessed, with a relative strength in her processing speed.

When assessed using the Fountas and Pinnell Benchmarking Assessment in the spring of 2015, it was determined that Lee was reading at an instructional level S (End of Fourth Grade goal: Level S). She was able to read fluently and decode challenging multi-syllabic words, however, she struggled to answer the question being asked accurately. She had a tendency to misinterpret the question word, resulting in an answer that did not make sense. However, when she was focused, she was cable of using her schema to make inferences and connecting what she was reading to other stories, vocabulary, or personal experiences.

When consulting her speech-language therapist, she expressed that Lee presents weaknesses within her expressive language skills, especially with grammatical structures

of language. Using the CELF-4, Lee attained an overall core language score of 84, placing her in the 14<sup>th</sup> percentile. Lee needs to improve her word and sentence structure, along with her ability to describe relationships between and words.

Zane is an 11-year-old, Caucasian male who splits time between his mother and his father. Both, he and his twin brother were retained in first-grade. He was initially referred for special education in 2010. Upon evaluation, he was diagnosed with the classification of communication impaired. He has received in-class reading and mathematics support everyday, speech-language therapy in a separate setting two times a week for 25-minutes, occupational theory in a separate setting onetime a week for 30-minutes, and counseling services out of the classroom one time a week for 25-minutes. In 2014, on the Wechsler Intelligence Scale for Children-Fourth Edition, Zane's overall intellectual ability placed him in the Low Average range (Full Scale IQ: 84). Zane's cognitive profile revealed a weakness in verbal comprehension.

When assessed using the Fountas and Pinnell Benchmarking Assessment in the spring of 2015, it was determined that AI was reading at an instructional level R (End of Fourth Grade goal: Level S). He was able to answer basic comprehension questions, but struggled to use his background knowledge in order to analyze connections within the text and make inferences about the text. Zane preferred informational texts to fictional texts because he enjoys learning new facts. Over the course of his fourth-grade year, I learned that Zane's success hinged on his level of comfort in a particular environment. If he was familiar with the adult and his peers, he would participate, but if there was a new member in the group or an observer, he refused to contribute to the discussion and often hid his head in his arms.

When using the CELF-4 as a barometer for speech-language needs, Zane is the most impaired. He recorded an overall core language score of 60, placing him in the 0.4<sup>th</sup> percentile. Expressive language, expressive language, and language memory scores are all in the Low Average to Low range. When consulting her speech-language therapist, she expressed that Zane needs to develop his ability to compare and contrast information and follow multiple step directions. She explained that his weaknesses in expressive and receptive language skills require small group instruction and repeated exposure to the curriculum. He requires multiple opportunities and modalities in order to show his learning. She adds that because of his weakness in language memory, Zane works best when given a word bank or many opportunities to learn new and important vocabulary. Visual representations, real-life examples of its use, and multiple exposures in connected text are important activities that may contribute to his success.

Chapter four of this thesis discusses the results of daily auto-recordings of student responses, student artifacts, weekly and cumulative assessments, and my personal teacher research journal. Chapter five presents the conclusions and implications of the study as well as recommendations for further topics of study.

## Chapter 4

### Data Analysis

Before the start of this study, the participating students studied eight vocabulary words that pertain to the current Social Studies unit on Colonial America. The students evaluated their familiarity with the words based on a four- point scale. Of the eight words, the students did not recognize any. Next, they received the definitions and shown pictures that reflected the meaning of the word in some way. For instance, the picture that represented the word *encounter* was of a Native American and settler shaking hands in the New World. The class orally discussed how the picture related to the word and its definition. Each night the students studied the definitions of the vocabulary words using flashcards and read them over each morning before class started. During the assessment at the end of the week, students looked for keywords in each sentence and filled in the missing vocabulary word so that the sentence made sense. On this assessment, the students had to recall the word and its definition and apply its meaning in context. As an accommodation, the students were allowed to use the pictures to jog their memory of its meaning. Of the four participating students, only one student passed with a perfect score. Two of the students correctly identified six of the eight words, while the final student filled in only half of the words accurately. This unintended experiment validated the need for more intense instruction of new vocabulary for these students and, thus, a new question arose. What would work best for the students who struggle daily with memory, word retrieval, and comprehension?

This study examined the impact that multiple exposures to new vocabulary had on long-term memory and word retrieval in fifth-grade students with language processing

disorders. I also investigated the effects of motivation on word learning and identifying which activities were most effective for word. Data was collected over the course of four instructional weeks, in a separate setting, during the Language Arts block. Student artifacts, transcribed conversations from lessons, and a teacher reflection journal compiled data used in order to determine the level of mastery of each word for each student. Using a four-point scale to evaluate the level mastery of the word, weekly charts tabulated the results for each student in order to track their growth as they participated in daily written and oral activities (Appendices J-L). In addition to word mastery, students rated how motivating an activity was using Google Forms. The rating system ranged from one, being that the activity was “very boring and unhelpful,” to five, indicating that the activity was “very interesting and fun to complete.” The rating of each activity for each student was indicated on the weekly results charts by color-coding each heading. The second data table contained calculated averages of post-assessment scores based on the four-point scale for each activity. The average was found using the students’ post-assessment scores of words that were taught using that particular activity. Table 1 highlighted the activity or activities that yielded the most success with relation to word mastery on the immediate assessment, while table 2 shows the scores on the delayed assessment.



Table 1

*Average Word Scores on Immediate Post-Assessment*

	<b>Frayer Boxes</b>	<b>Scaling</b>	<b>Visuals</b>	<b>Oral Only</b>
<b>Week 1</b>	3.38	2.75	3.38	3.25
<b>Week 2</b>	3.13	3.5	3.25	3
<b>Week 3</b>	3.38	3.13	3.34	3.6
<b>Overall Average</b>	3.13	3.13	3.32	3.28

\*\*Using the four-point scale

Table 2

*Average Word Scores on Delayed Post-Assessment*

**Average Word Scores on Delayed Post-Assessment**

	<b>Frayer Boxes</b>	<b>Scaling</b>	<b>Visuals</b>	<b>Oral Only</b>
<b>Week 1</b>	3.63	3	3.25	3
<b>Week 2</b>	3.63	3.63	2.88	3
<b>Week 3</b>	3.63	3.25	4	3.9
<b>Overall Average</b>	3.63	3.29	3.38	3.3

\*\*Using the four-point scale

**Results by Activity**

The following sections will be broken down based on activity. Each section will include a discussion of the modifications made to instruction based on student-needs, the relationship between the motivation score and student qualitative success, and individual student progress. An additional section will examine the quantitative effects of the activities on the immediate assessment and on the delayed assessment.

**Framer boxes.** The Framer box contains four different boxes of information for each vocabulary word: synonyms, antonyms, a sentence containing the word, and an illustration of the sentence. During the first week, students collaborated and completed Framer boxes for two words. They were encouraged to discuss each box for their words before jotting ideas down. For the most part, the students worked independently, just sharing markers, not ideas. Jay, Al, and Zane were unable to generate any synonyms or antonyms independently. Lee, on the other hand, was able to identify two synonyms for each word. Because the students did not work together when given individual Framer box papers to work on, in Week 2 and Week 3, partnerships were only given one box per word. Additionally, since the students were unable to independently complete this task, a supplementary matching activity was used to support the students' abilities to make connections between their vocabulary words and known synonyms, in the weeks to follow. At least three synonyms for each word were written on index cards. Before the Framer boxes activity, students worked together to match the synonyms with each vocabulary word on the classroom floor. The synonyms were discussed and left on display. The students were able to use them if they could not generate their own synonyms during the activity. This simple addition resulted in an increased motivation rating from a score of a four out of five to a five out of five for all students except Al during the third week. It also helped to generate conversations between the partnerships. The conversation excerpt below took place during the Framer box activity in the third week. Al and Zane worked together to generate synonyms for the word mend. The first three synonyms that Zane suggested were word that he remembered from the matching activity.

Zane: Synonyms for *mend* are *fix*, *repair*, and *rebuild*.

Al: I'm thinking of the picture of Horton's foot from the first day and I think a synonym could be *cure*.

Zane: Yea, and *heal* is one, too!

After then completed the synonyms box, this is how the conversation for the antonyms box ensued.

Zane: If we look at the synonyms, what is the opposite of *heal*?

Al: *To get worse*, we could put that in the box. And when Horton's foot doesn't get better...

Zane: It means it is still broken. So *broken* must be an antonym.

Al: A synonym for *mend* means to *repair*

Zane: If I don't repair something, I wreck it. Let's write that.

When looking at the scores on the weekly results chart (see Appendix J), Al moved from scoring a pair of twos on the activity in Week 1, showing passive control of the word and requiring assistance to generate synonyms and antonyms, to a pair of threes in Week 3, which indicates partially active control of the word. He was able to remember previously introduced synonyms, generate his own antonyms, and create coherent sentences without assistance. Jay also showed a similar growth pattern from a pair of twos with help from a teacher in Week 1, to a pair of threes in Week 3. Lee was consistently able to generate her own synonyms throughout the three weeks, but her growth lie in her ability to collaborate with her partner. In the third week, when working with Jay on the Frayer box for *proceeded*, she was able to give hints to help him retrieve the word he was looking for and was also able to contribute to his other antonym suggestions.

Jay: The opposite of *healing* is *not healing*.

Lee: A word starts with “B” (made a gesture with her hands, like she was breaking something).

Jay: *Break!* We can also add the word *fracture*.

Lee: What is the opposite of *repair*?

Jay: To *demolish*.

Lee: ... and to *destroy*.

Finally, Zane improved from a score of a one and two on the first week’s Frayer box (see Figure 1) to a pair of threes in Week 3 (see Figure 2). He was more vocal when discussing the word with his partner and was an active participant as the weeks progressed. The overall average score on the immediate post-assessments for words that were taught using the Frayer box was 3.13, indicating that the students were able to identify situations in which the word could be used, could retrieve the word for appropriate situations, and attempted to use the word appropriate in context.

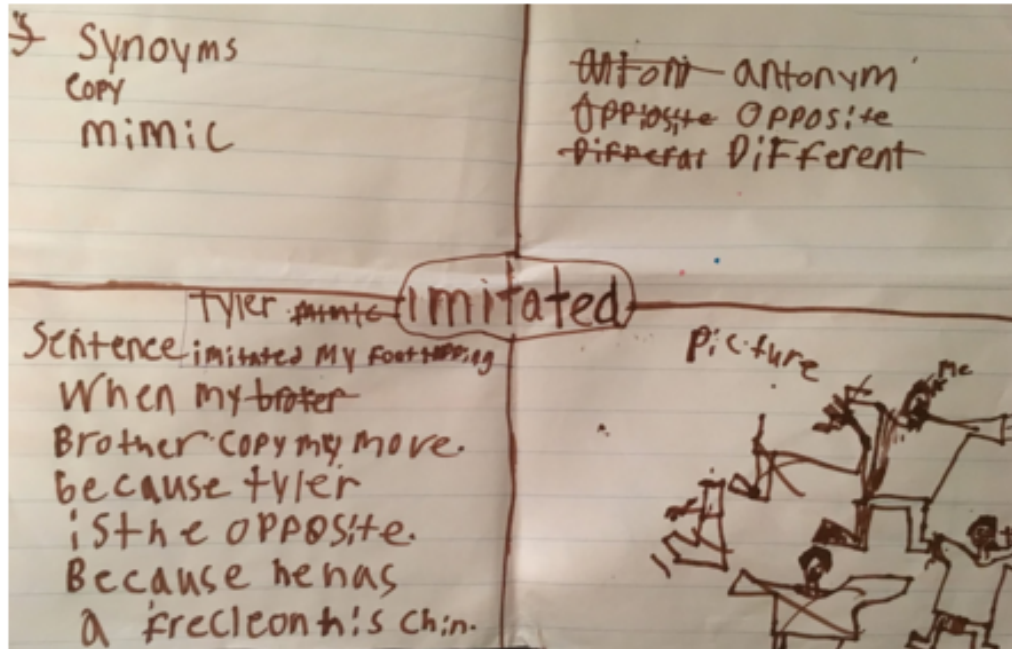


Figure 1. Zane's Frayer box from Week 1

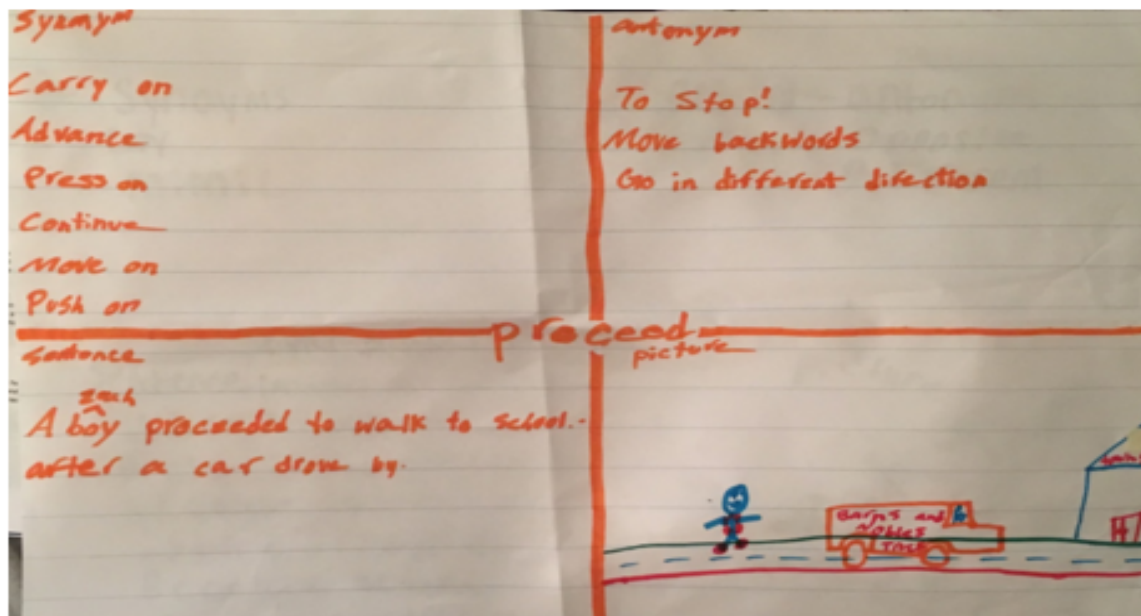


Figure 2. Zane and Al's Frayer box from Week 3

**Scaling.** When scaling words for “shades of meaning,” students were given a set of cards that contained a vocabulary word and words that reflected different degrees of meaning in relation to the vocabulary word, like synonyms and antonyms. Each set of cards contained at least five different words. The word was written on the front of the index card and the meaning and the word in a sentence were written on the back (see Appendix E). The students read each card and decided how to arrange the cards along a continuum. The key component of this activity was discussing how the word related to each other and using the words in conversation.

This was a new activity to students in the first week, so the activity was completed as a group with prompting questions to model thinking and how to go about working together. The scaling categories were also given during the first week (example: for the above set of words, students were told to organize the words according to speed of movement, from fastest to slowest). The following conversation is an excerpt from the first attempt at scaling as a whole group for Week 1.

Jay: So which one would you do first? Trudge.

Lee: We should probably start with halt.

Teacher: Why do you think that Lee?

Lee: Because it isn't really a movement, it's another word to mean stop.

Teacher: So can you go any slower than stop?

Jay: No, and then it goes trudge?

Teacher: Okay, why trudge?

Jay: Because it says...

Zane: To walk in deep snow.

Teacher: I think to myself, can I walk quickly through deep snow?

Jay: No

Al: Unless you try to run, but that would be very challenging.

Jay: Jog. Do you want to check the definition real quick?

Al: (Read the definition out loud)

Zane: Yup, that is pretty slow.

During the conversation, the students did not really work together to discuss which word belonged where; they just accepted what the other person was saying or doing. The prompting questions were meant to make the thought process visible to the other group members in hopes of increased participation and to model how to use the definitions to compare two words and their meanings. Because four students at one set of cards did not allow for all of the students to become active participants, in the following weeks, the students were partnered up instead.

In Week 2 and Week 3, the students read the cards aloud to one another and discussing what they thought each word meant. As a result, they generated and described the categories of the words that they were scaling without assistance and make decisions about the placement of the words along the continuum. During Week 3, Zane and Al decided to sort the cards into two categories before scaling them based on degree of strength. The following conversation transpired between Zane and Al during the scaling portion.

Al: Let's read feeble again.

Zane: The dog is weak.

Al: Yes, because homeless means weak.

Zane: We need to move that

Al: Do we move it below wobbly?

Zane: Wobbly says that it will fall

Al: Yes, if you shake it, it will fall, but if you don't, it won't fall yet. So, feeble is the weakest.

When comparing this conversation to the guided one from Week 1, it showed that Al was taking more initiative for his learning and was demonstrating turn-taking and collaboration during the conversation. The conversation also captures the beginning of students comparing and analyzing the shades of meaning that words carry. Because of increased participation and deeper thinking, motivation ratings transformed from all fours in Week 1 (see Appendix J), indicating that they liked the activity to all fives in Week 3 (see Appendix L), marking an increase in motivation.

**Visual representation.** Students with language processing disorders are most successful when information is paired with illustrated support, so this, naturally, was the participants' favorite activity throughout the study. They looked forward to this activity and rated it with fives on the motivation scale, indicating that they loved the activity. The students were given two words to create a miniature poster of. On the poster, the students need to include the word, a description of the word, the word in a sentence, and an illustration that represented the meaning of the word (see Figure 3 and Figure 4). At the end of the illustrating period, students presented their posters to the group, in hopes of creating more visual connections to the word's meaning. From this activity emerged some unintended consequences. Students learned how to constructively criticize their classmates by complimenting one portion of the poster and making a suggestion for a



different portion. Students also created connections between the pictures and the way their peer used the word.

When reviewing the weekly results and the student posters, it seems that the students that spent the most time creating an interesting representation of the word through their sentence or through pictures independently performed best on the post-assessments. In the first week, Al required help when creating his poster for the word *enlisted*. Although his picture included several details that illustrate the meaning of the word, he still struggled to realize that enlisting refers to signing up for the military, which was a theme that he misunderstood when completing the sentences for the delayed post-assessment questions. On the other hand, in Week 3, he created an inventive picture of a farmer *harvesting* pumpkins and, in turn, demonstrated mastery of the word on the immediate post-assessment and the delayed post-assessment. Jay and Lee were both independent from the first week when creating their visuals and averaged an overall score of 3.75 out of four for words taught through visual means on the immediate post-assessments (Table 1) and the delayed post-assessment (Table 2). Finally, Zane was willing to create his visuals, but his ability to recall the words taught through this means was inconsistent, ranging from “no control over the word” on the delayed post-assessment to “active control.”

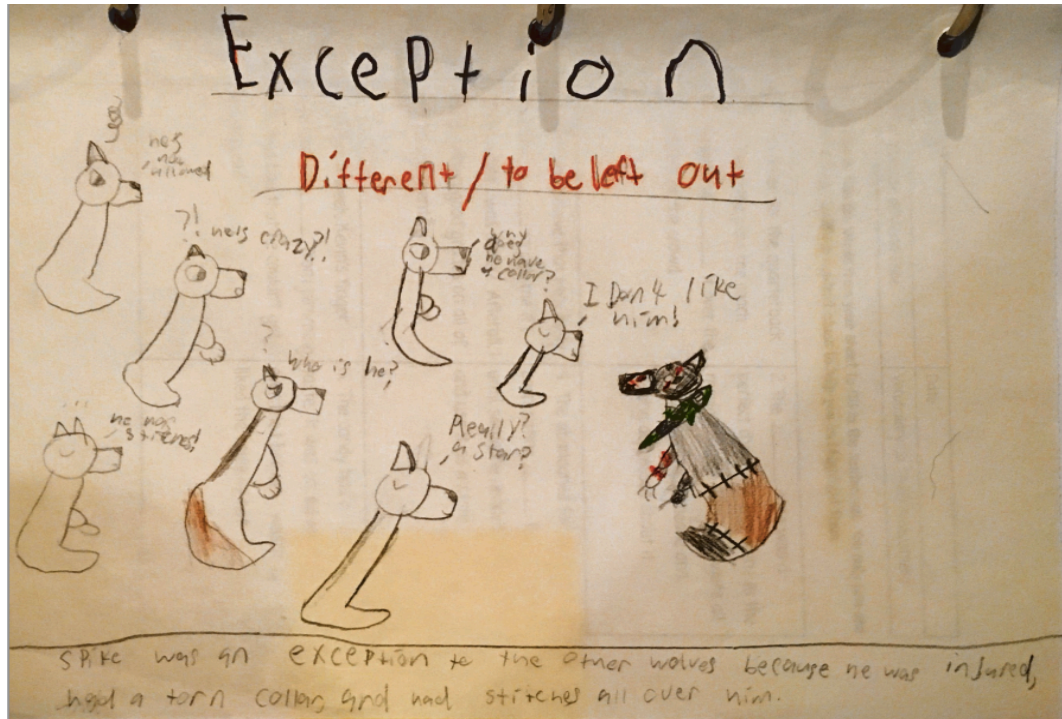


Figure 3. Lee's visual representation in Week 2

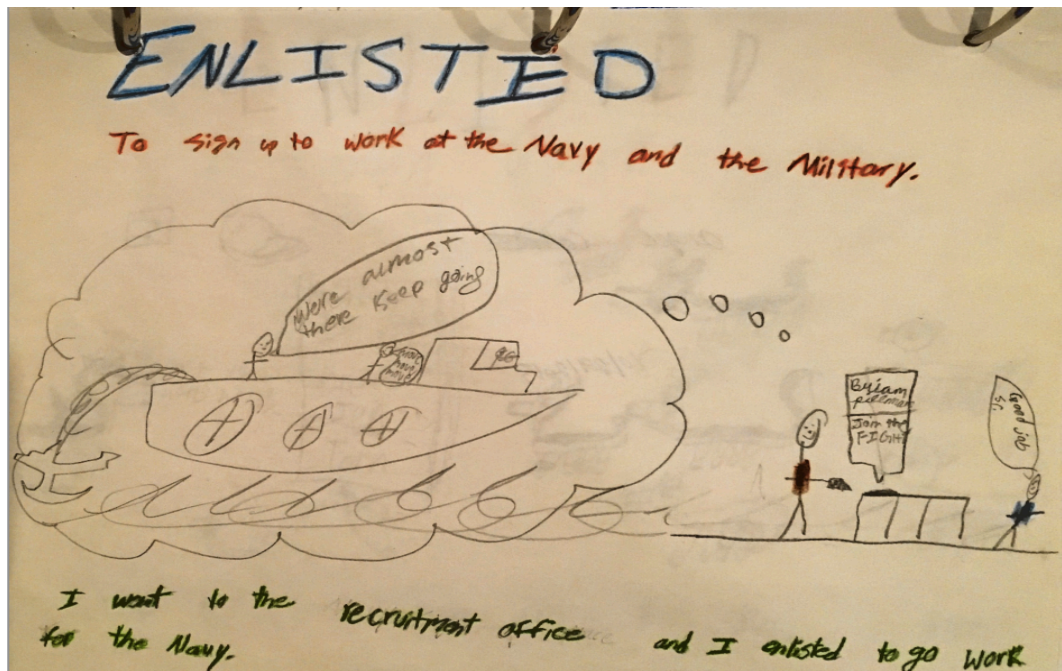


Figure 4. Jay's visual representation in Week 1

**Oral discussions.** Oral discussions were conducted everyday in a variety of ways. I asked the students how words related to other words or situations, which scenario was an example of the word, and opinion questions that contained the vocabulary word. Before every discussion, students received a sentence frame to help them organize their thoughts when answering. Knowing that during discussions students with language processing disorders tend to struggle to remember the oral question, process it, formulate an answer internally, and explain it, while listening to what their classmates think. With those components in mind and the fact that the purpose of this segment was to generate a conversation about vocabulary, the modification was made and the activities were presented using Google Slides. Each slide exhibited one question or scenario and the students were given one to two minutes to use the comment feature to organize their answers. All answers were displayed on the SMART board and presented and explained by the individual students.

The students exhibited the most growth during the discussion portion over the course of the instructional weeks. In the beginning, Jay was the primary voice that was heard during discussions. Lee would comment on other answers under her breath, Al struggled to keep up and would get tongue-tied when answering, and Zane resorted to silence, repeating a previous answer, or using “I don’t know” when he was asked to elaborate on his answers. Below is an excerpt from an oral discussion in Week 1.

Teacher: When might you be harsh to a friend? When would be a time when you may make harsh comments to a friend?

Zane: Ummmm... being rude.

Teacher: Put it in a sentence. I would be harsh to a friend...

Zane: I would be harsh because being mean to people.

Teacher: I would be harsh to a friend when they are...

Zane: (15 seconds of silence and he puts his head on the desk, refusing to answer)

With these initial struggles, Zane scored two of the three oral discussions in the first week with a three on the motivation scale out of five (see Appendix J), suggesting that he did not enjoy the activities nearly as much as the others. By the third week, after adding the slide support and practicing how to participate in the discussions, Zane was quite active, volunteering to answer first, creating clear explanations for many of the questions, and commenting on other students' answers.

Teacher: Which would you rather hitch to your cart a wolf or a lion?

Zane: I would rather hitch a wolf to my cart because it can run fast.

Lee: I would rather hitch a lion to my cart because it kind of has the same speed as wolf, but it is a more stronger animal.

Al: I would rather hitch a lion to my cart because, like what Al said, lions have the same speed as wolves, but it also can scare away people that may want to steal from your cart.

Zane: Well, in order to hitch the cart, maybe I should get five wolves. I could put them in a harness and they would be able to move as fast as lightning.

Despite the fact that the students required extra accommodations in order to use the vocabulary words appropriately, the discussion portion of instruction capitalized on

so many of their needs. Primarily, in relation to the study, when they practiced using the words in context, it created a real-life scenario that could translate to out-of-the-classroom conversations. The students also gained confidence in their ability to express their thoughts clearly, recognizing that their ideas contributed to the discussion. Finally, one of the most challenging lessons that they learned was the art of an academic exchange. Each student was able to listen to the question, generate and express a thought, and build on peer's idea to enrich the conversation.

### **Pre-Instruction Survey Versus Post-Assessments Results**

Throughout the course of the study, Al either moved closer to mastery of a word because of the instruction or remained equally knowledgeable of the word. On the pre-instruction survey, Al demonstrated “no control” over 18 of the 24 vocabulary words. Conversely, on the immediate and delayed post-assessments, he exhibited “partially active control” to “active control” over 21 of the 24 words and 20 of the 24 words, respectively. These results also showed that the meanings of the words were being retained over time. On the post-assessment, Al produced the following sentence for the word *looming*, which exhibits a deep understanding of the word's meaning. “I knew a fight was looming between John and David because they both had their hands balled up into fists ready to fight.” The context was appropriate and the sentence was grammatically correct. At times, he still struggles to use the word in appropriate contexts. An example of this is during the delayed post-assessment when he was asked to complete the sentence using *manufacture*, he wrote, “We rented a car in order to manufacture the tire from the tire company.” He understood that *manufacture* meant to make something and had to do with companies, but failed to realize that an important

component of manufacturing items was that it was completed in a factory in large amounts. The activity that yielded the most success for AI was the Frayer box (average delayed post-assessment score: 3.67), followed by oral discussions (3.5), scaling (3.33), and visuals (2.83), respectively. This is interesting because AI gave the highest and most consistent motivation rating to the visual representation activity and the lowest to the Frayer box and oral discussions. The oral discussion section of instruction was very challenging for AI at first, but perhaps because of his struggle, it produced a deeper learning of the words.

Like AI, Jay either moved closer to mastery of a word because of the instruction or remained equally knowledgeable of the word. On the pre-instruction survey, Jay demonstrated “no control” over 16 of the 24 vocabulary words. Later, on the immediate and delayed post-assessments, he exhibited “partially active control” to “active control” over 23 of the 24 words and 20 of the 24 words, respectively. In the past, Jay has found recalling previously learned material more challenging with the passage of time. Based on the results of the assessments, it appears that Jay may be retaining the meaning of the words over longer periods of time, accurately using six out of the eight words that were introduced in Week 1. The other challenge that Jay faced was producing synonyms and antonyms during the Frayer box activities. In Week 1, he was only able to repeat what others already said, while in Weeks 2 and 3, he was able to recall synonyms from the matching game, which he would use to create antonyms for the target word. The activity that yielded the most success for Jay was the visual representation (average delayed post-assessment score: 4), followed by Frayer boxes (3.67), scaling (3.33), and oral discussions (3.17), respectively. These results are consistent with his motivation scale

ratings, scoring visuals as his consistent favorite. It is important to note that although oral discussions activities received the lowest average on the assessments, performance improved after slides were implemented, indicating that he learns best from visuals.

Lee entered the study with the strongest vocabulary. On the pre-instruction survey, Lee demonstrated “no control” over 15 of the 24 vocabulary words. Later, on the immediate and delayed post-assessments, she exhibited “partially active control” to “active control” over 23 of the 24 words. Ignorant was the only word that she struggled to explain, claiming that it meant to be disrespectful. Although disrespect can be the result of ignorance, it is not the central idea. A key component to Lee’s success was her drive to use the new words in her daily conversations. One day she asked, “Are you concerned that my Google Classroom Response won’t work?” and stated, “Look! Al is the exception in this group because he decided to illustrate *signaled*, while we all chose *harvested*.” She also participated in the majority of the discussions, rating oral discussions as her second favorite activity on the motivation scale. Visual representations received the highest motivation score. The activity that yielded the most success for Lee however was the Frayer box (average delayed post-assessment score: 4), followed by a tie between oral discussions, scaling and visual representations with of 3.5.

While Lee was the strongest performer, Zane made the most growth concerning participation, which yielded stronger delayed post-assessment scores than expected. On the pre-instruction survey, Zane demonstrated “no control” over 22 of the 24 vocabulary words. Later, on the immediate and delayed post-assessments, he exhibited “partially active control” to “active control” over 16 out of 24 words and 17 out of 24 word, respectively. In the first week of the study, Zane’s participation was limited and he

required daily assistance expressing his thoughts and prompting to make his thinking visible to the other students. Even with help, Zane became overwhelmed on a daily basis, resorting to long pauses or saying, “I don’t know,” when asked to explain his thinking. As he became more familiar with the expectations of each activity and as more group-wide modifications were made to support the students’ learning, his participation levels also increased. He was willing to express his opinion when working a partner and volunteered to provide his answer first, which is a rarity in other school environments. When reviewing the weekly results, the activity that yielded the most success for Zane was the Frayer box (average delayed post-assessment score: 3.17), followed by scaling (3), visuals (2.83), and oral discussions (2.67), respectively. Zane’s motivation ratings were indicative of his participation growth and post-assessment scores. Prior to the third week, Zane only received a score of four for one word out of 16. On the final assessment, Zane demonstrated “active control” for three of the eight words.



## Chapter 5

### Conclusion

At the conclusion of the study, I found that all students demonstrated growth in several areas related to vocabulary knowledge and benefited from exposure to new vocabulary multiple times through a variety of activities. Although deciphering how well a student truly knows the word is nearly impossible to determine quantitatively, through observations and use of the scale, it appeared that all of the students gained “control” of the appropriate use of the target words and created connections to other related words. Because they were given multiple opportunities to explore the meaning of the words, the situations in which the words could be used, and the opportunity to practice using the words in context, the students were able to at least identify the meaning of all of the words except for *ignorant*, *abiding*, and *idle*. In addition to recalling the definition, students began using many of the words in conversation within the classroom and to label situations in their reading and other subject areas. When considering the three words that were most challenging to remember and use, after reflection, I realized that these words were the most challenging to explain during instruction and had multiple meanings. When creating questions and examples, they were the least concrete and most complicated to formulate. Aside from how the words were utilized in the novel, additional examples posed problems for me and the students and should be considered outliers.

In addition to the illustrated gains that the students made in word knowledge, motivation and engagement also improved. After the first week, where students were introduced to the activities and accommodations were put into place to support their

needs, participation increased and motivation ratings grew. Discussions between students about the meaning and use of the words were frequent and during each activity, the students were determined to share their thoughts. The quality of the answers also improved as participation increased. Rather than just answering the question, students got into the habit of justifying their thoughts by elaborating on their answers. They also began to question one another, while in the first week, they were agreeable, a sign of apathy or uncertainty toward their learning. The students looked forward to the various activities and cheered especially when activities that included Google Slides or creating visuals were on the docket for the day. Enthusiasm, elaboration, and deeper discussions led to stronger assessment scores and more frequent usage of the words outside of the vocabulary block.

At the start of the study, I hoped for the outcomes described above, but after reviewing my teacher reflection journal and student artifacts, there were also some unintended results. Al, Lee, and Jay got into the habit of checking their work for more than just blank spaces. Because assessments were reviewed with students after they were scored, the students were able to analyze the mistakes they made and determine how they would have corrected them. On subsequent assessments, these three students meticulously inspected their work for grammatical issues, adding or deleting suffixes, and to ensure that their sentences proved that they understood the meaning of the word. Furthermore, all students learned a new test-taking strategy. When completing a fill-in-the-blank vocabulary assessment, the students learned to write down what they know prior to beginning the test. This helped to alleviate the brain from having to sift through the definition of each word, while reading the sentence, identifying context clues,

and determining which word makes most sense. The students were also able to use the word bank for the “process of elimination” strategy. On the final assessment, Al had two words left and neither word fit into the sentence correctly, so he was able to determine that he made a mistake along the way and was able to catch it and correct it prior to handing his test in. Finally, the students learned to work together on a common task. In the beginning of the study, the students talked over one another or split the work so they would not have to have a conversation with one another. By the third week, they questioned one another by asking, “What do you think?” or, “Why did you put that word there?” or, “What do you think is the opposite of...?” and were actually interested in their partner’s response. Based on the observed behaviors, completed surveys, and student artifacts, incorporating a variety oral and written activities that provide daily exposure and discussions in my classroom fostered a deeper understanding of the target words.

### **Conclusions**

After analyzing the results of the study, I found that students exhibited a deeper understanding of a word when they were exposed to the word multiple times using a variety of interactive activities. As mentioned before, students with language processing disorders have a difficult time attaching meaning to unfamiliar vocabulary words, especially those presented orally. In order for students to easily access their new learning, instruction spanned multiple modalities with visual representations, manipulation of synonyms, and discussions. Visuals, like Google Slides, were particularly effective in order to support the oral questions and discussions throughout each lesson. When the activities were varied and promoted discussion and analysis, the students created connections between the new word and their established background

knowledge. Guthrie and Wigfield (2000) cited research on the value of “real-world interactions” to help stimulate students’ motivation and engagement (p. 410). In this case, the “real-world interactions” were discussions about how the word could be used in various situations. These contexts were experiences that they could draw on in order to retrieve the word from their memory. There were no significant differences between the scores on the post-assessments for words taught through written activities versus oral activities. A varied approach benefited all learners.

As I attempted to analyze the data, I realized that it was more challenging to rate than I had anticipated. Since reasoning and word retrieval are internal processes, it is nearly impossible to judge the degree of mastery. I created a scale in order to quantify their performance during the lessons and on the assessments. These ratings came from observations and interpreting conversations, which were filtered through the eyes of the observer and are inherently biased. The observations, however, indicated that the students were able to recall almost all of the definitions for the vocabulary words, describe instances where the word could be used appropriately in conversation, and use them in conversation and writing tasks.

Perhaps the most impactful conclusion was the influence that choice, engagement, and goal setting had on motivation. After the first week of vocabulary instruction, students were able to suggest vocabulary words that were unfamiliar or interesting from the chapters they were reading. When the list of words were introduced at the beginning of each week, the students were excited to claim the words that they had suggested and became personally invested in seeking deeper understanding of the words. These results supported what Allington (2006) argued, that “choice is important because it seems

largely related to interest and to control” (p. 62). As students were given more control over their learning and over the discussions, participation increased. Guthrie and Wigfield (2000) envisioned engaged students as those who are eager to pursue the task at hand, actively involved in their work, and enjoy what they are doing. Based on teacher observations, quality of work, and the motivation ratings that the students completed, these findings were validated in my study. After introducing the activities in Week 1, the students took their learning into their own hands. They were excited to get started each morning and they were disappointed when the instructional period was ending. Finally, although goal setting was not an intended area of focus, because the students aimed to improve their knowledge of each vocabulary word each week, it became an integral part of every lesson. Prior to instruction, students rated how familiar they were with each word and at the conclusion of every lesson they reflected on the new knowledge that they gained and how close they felt they were to mastering the word. Conversations emerged each day as students stated that they felt they were still “acquaintances” with a particular word and that they needed to study it further or they were really confident that they were “best friends” and had mastered the meaning and could use it appropriately. “Best friend” words became a part of their conversations in class and “acquaintance” words became their instructional quest. The intrinsic motivation to monitor their learning and set personal goals to master and use new words, fueled “curiosity, social interchange, emotional satisfaction, and self-efficacy” (Anderson & Guthrie, 1996, p. 1). As a result, students experienced success during language activities, on assessments, and in the classroom with their general education peers and appeared to yearn for more learning opportunities.

## **Limitations**

A major limitation that affected my study was the time constraint. Because of pending district and board approval, I was unable to begin my study until the end of October and throughout the month of November and December. However, during the month of November, there were only nine full, instructional days and three half-days due to holidays and conferences. In order to keep instructional weeks intact, I was only able to conduct three full weeks for my data with one week breaks between the first and second week and another break between the second and third. Although the lessons were not compromised because of these breaks, the timing did interfere with the consistency of my study. The study would have generated stronger data points if there was a longer period and the first week could have been used as an introduction to the activities.

Another limitation that affected my study was the subjectivity involved with determining word mastery. The ability to determine how well someone knows a word is challenging to quantify for data collection purposes. The scale that I created to judge word knowledge was based on qualitative observations, like the ability to recall the meaning of the word, relate the target word to other words, and to use the word in the correct context orally and in writing. I found it challenging to balance what I read in their writing with what I heard in recorded conversations to make a sound judgment about their progress.

## **Implications in the Field**

After analyzing the artifacts and data collected throughout the study, I found certain areas that could be further investigated. One area would be analyzing the how retrieval and memory for the word would have changed over a longer period. Extending

the length of the study would allow the teacher researcher to track changes in recall and motivation. Students would have a longer time to apply the new words in context; however, they would also have a longer period to judge whether they internalized the meaning of the words and created connections that would allow for easy word retrieval. The more time that has passed, the stronger the data would be for proving the effectiveness of each activity.

Another implication to consider is the size and composition of the instructional group. The activities were instructed in a separate setting with a small group of students that had language processing disorders. It would be interesting to consider the impact of conducting the study in a whole group setting in an inclusion classroom. If these students were asked to collaborate with average to above-average students who are avid readers, would their understanding of the word deepen or would their voice get lost in the conversation. Would it limit their participation and decrease their motivation? Future teacher researchers should consider analyzing the effects multiple exposures to words through various oral and written activities for students with language processing disorders when instruction is conducted in the classroom with the general education population. Since many classrooms contain students with various learning styles and abilities, conducting vocabulary lessons in the classroom is a more realistic scenario.

The final recommendation for future teacher researchers would be to evaluate the role that the computer played in motivation and learning. Since my district has a one-to-one, computer to student ratio, the use of technology in learning is commonplace. Using Google Classroom and the accompanying applications and the SMART board promotes collaboration and peer-learning opportunities. When beginning this study, using the

computer as the vehicle in which many of the activities would be filtered through seemed like an obvious choice. Upon looking back at the excitement that the computer generated for the participants, it would be interesting to explore if motivation and engagement would be impacted when technology was taken out of the equation.

In summary, the implementation of a variety of written and oral vocabulary activities can help increase motivation, strengthen word knowledge and long-term memory of a word, and make word-retrieval easier. The study suggests that teachers should provide students with opportunities to make connections between new vocabulary and known vocabulary and to discuss and practice using the words in appropriate contexts. As students work with the new words, connections are made, discussions are fueled, and knowledge of the word deepens. Vocabulary is an important part of expressing thoughts and ideas and comprehending texts. As educators, it is our duty to foster a love for interesting vocabulary through engaging activities. This can be accomplished by considering the diverse population of learners in a room, the multiple learning modalities, and creating opportunities to explore the interesting nuances of the English language.



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## Appendix A

### List of Vocabulary Words

<b>Vocabulary Words</b>	
<i>Week 1: <u>Because of Winn-Dixie</u></i>	
ignorant	notion
harsh	enlisted
imitated	shrugged
abiding	trotted
<i>Week 2: <u>Because of Winn-Dixie</u></i>	
idle	swollen
melancholy	nerve
manufactured	exception
holler	peculiar
<i>Week 3: <u>Stone Fox</u></i>	
hitch	mend
proceed	signaled
concerned	sturdy
harvest	loomed

(from DiCamillo, 2000; Gardiner & Hargreaves, 2003)

## Appendix B

### Sample Self-Awareness Survey

Name: \_\_\_\_\_

#### Self-Awareness Survey

## Stone Fox: Chapters 1-3

I can rate how familiar I am with a word and provide proof.

Directions: Before we practice, rate how familiar you are with these words before the lesson. Then, after the lesson, you will rate yourself again. If you are a BFF or an acquaintance with the word, you must give an example, a sentence, or definition.

Use the first letter to show your rating. Here is the key:

- B--BFF: you know the word well, inside and out, and you can use it
- F--Friend: you know the word and can give some examples
- A--Acquaintance: you have met this word, but not sure much about it
- S--Stranger: you have never met this word before

Before	Word	Day 2	Day 3	Day 4	Notes
	hitch				
	proceed				
	concerned				
	harvested				
	mend				

## Appendix C

### Sample Introduction Slide



# mend

verb

*to repair or make better or heal*

I asked my mother to mend my pants, they had a hole in the knee. She added a patch to fix them.

Surgery was needed to mend the broken bone in his arm. Then he was put in a cast.

## Appendix D

### Sample Associations Slide

9:24 AM Dec 1

Resolve

Mended: It means that you need to heal something that is broken. Like that heart, is broken. It can be healed with love, and happiness!

WHICH WORD GOES  
WITH...  
a broken heart?

hitched  
concerned  
mended  
sturdy

proceeded  
harvest  
signaled  
loomed

---



## Appendix E

### Information for Scaling Cards


Word Cards		
Word	Definition	Sentence
sprint	to move as quickly as possible, at full speed, for a short distance	With just a few feet left, the runners gave everything they had and sprinted to the finish line.
scamper	run with quick, light steps to get away because you are afraid or excited.	The mouse scampered into his hole when he saw the cat coming for him.
run	someone or something moving with long, quick strides to get somewhere quickly by foot.	The bus was about to leave, so I had to run to catch it.
trudge	to move slowly with heavy steps. You do this when you are really tired, if it was really hot or you were trying to walk through something.	The boy trudged slowly through a foot of snow to his friend's house.
halt	to stop moving suddenly	The ride came to a halt when a squirrel landed on the tracks. The ride could not begin again until it was gone.
jog	a steady, continuous pace that you can keep for a while.	Before the game, we took a slow jog around the track to warm up our muscles.
trot	moving at a pace that is a bit faster than a walk.	I was not in a rush, but I did want to get my recess lap done, so I trotted around the field.

## Appendix F

### Sample Example/Non-Example Slide

Resolve

9:40 AM Dec 2



1 because it says the teacher shut off the lights and the students knew that the have to get quiet.

### What is an example of “signal”?

The teacher turned off all the lights and the students knew to get silent and listen for the next directions.

The teacher turned off all the lights and the students looked around confused about why the classroom was so dark.

## Appendix G

### Sample “Would You Rather...?” Questions

Question	Response
<b>Which would you rather hitch to your cart a wolf or a lion?</b>	
<b>Which would you rather proceed through a ring of fire or a down runway of hot coals with bare feet?</b>	
<b>Which would you be more concerned about getting a good grade on a test or getting to practice on time?</b>	
<b>Which would you rather harvest apples or potatoes?</b>	
<b>Do you think it would be easier to mend a broken heart or a broken bone?</b>	
<b>Which signal is more important the one asking to get a drink or the one asking to go to the bathroom?</b>	
<b>Would you rather have a team of sturdy, slow football players or tiny, fast football players?</b>	
<b>Which would be scary to have looming over you, a storm cloud or a bad grade?</b>	

## Appendix H

### Excerpt from Part 1 and Part 2 of Post-Assessment

<p>7. Mrs. Higgins was <u>concerned</u> that Rooney was sick after she had given him the wrong <b>amount of medicine</b> and he wouldn't <b>stop shaking</b>.</p>	<p>8. We needed to <u>mend</u> the hole that the bird <b>ripped</b> in the ship's sail in order to help us continue to move.</p>
---	--

#### Part 2:

Complete each sentence so that it shows that you know what the word means and make your words blue.

<p>1. The family <b>harvested</b> <b>crops</b> for their farmstand by <b>picking them up, and cleaning off the dirt</b></p>
---

## Appendix I

### Vocabulary Mastery Scale

1	2	3	4
<b>No control over the word</b>	<b>Passive Control</b>	<b>Passive/Active Control</b>	<b>Active Control</b>
<ul style="list-style-type: none"> <li>• never seen or heard the word before</li> <li>• uses the word completely out of context or inappropriately</li> </ul>	<ul style="list-style-type: none"> <li>• context-bound understanding</li> <li>• can relate the word to a category of use (example: trot means a movement of some kind)</li> <li>• knows a simple definition of the word for one context</li> </ul>	<ul style="list-style-type: none"> <li>• having knowledge of the word</li> <li>• trouble readily recalling it to use appropriately</li> <li>• can identify situations where the word could be used</li> <li>• explanation is limited or not completely clear.</li> </ul>	<ul style="list-style-type: none"> <li>• decontextualized knowledge</li> <li>• can recall more than one meaning or more than one situation where the word could be used</li> <li>• can relate/explain relations to other words clearly (synonyms and antonyms; degree of meaning)</li> <li>• use in oral and written communication naturally</li> </ul>

## Appendix J

### Vocabulary Results for Week 1

Key	
*	Indicates help was given
NA	Indicates that no help was given
...	Indicates that the student felt that this activity was mediocre (okay).
...	Indicates that the student liked this activity and that it would help them remember the word.
...	Indicates that the student loved this activity and that it would definitely help them to remember the word.

**Student: AI**

WORDS	pre-assess	Frayer	Oral: Associations	Scaling	Oral: Examples/ Non-examples	Visuals	Oral: Questions	Post assess	Delayed
ignorant	1		NA	2*	1		2	3	3
harsh	2	2	2		3		3	3	3
imitated	1	2	1		1		3	4	4
abiding	1		2		1		3*	4	4
notion	1		2		3	2	3	3	3
enlisted	1		2		3	2*	3	4	2
shrugged	1		2		3		3	4	4
trotted	1		3	2*	3		3	2	4

**Student: Jay**

WORDS	pre-assess	Frayer	Oral: Associations	Scaling	Oral: Examples/ Non-examples	Visuals	Oral: Questions	Post assess	Delayed
ignorant	2		NA	2*	1		2	1	2
harsh	3	2	3		3		3	3	3
imitated	3	2	3		3		3	4	4
abiding	1		2		3		3	3	1
notion	1		1		3	3	3	4	4
enlisted	1		2		3	2*	3	3	4
shrugged	2		2		3		3	4	4
trotted	2		NA	2*	3		3	4	4

Student: Lee

WORDS	pre-assess	Frayer	Oral: Associations	Scaling	Oral: Examples/ Non-examples	Visuals	Oral: Questions	Post assess	Delayed
ignorant	1		3	2*	3		2	2	2
harsh	3	3	2		3		3	4	4
imitated	3	3	2		3		3	4	4
abiding	1		2		3		3	3	3
notion	1		2		3	2	3	4	4
enlisted	2		3		3	3	3	4	4
shrugged	2		2		3		3	4	4
trotted	2		2	2*	3		2	4	4

Student: Zane

WORDS	pre-assess	Frayer	Oral: Associations	Scaling	Oral: Examples/ Non-examples	Visuals	Oral: Questions	Post assess	Delayed
ignorant	1		NA	1*	1		2	3	2
harsh	1	2*	3		3		2	1	4
imitated	1	1*	2		1		3	4	3
abiding	1		3		1		3	2	1
notion	1		NA		3	2	3	2	1
enlisted	1		3		3	3	3	3	4
shrugged	1		2		3		3	2	3
trotted	1		2	2*	3		3	3	3

## Appendix K

### Vocabulary Results for Week 2

Key	
*	Indicates help was given
NA	Indicates that no help was given
...	Indicates that the student felt that this activity was mediocre (okay).
...	Indicates that the student liked this activity and that it would help them remember the word.
...	Indicates that the student loved this activity and that it would definitely help them to remember the word.

#### Student: Al

WORDS	pre-assess	Frayer	Oral: Associations	Scaling	Oral: Examples/ Non-examples	Visuals	Oral: Questions	Post assess	Delayed
idle	1		1		2		3	4	2
melancholy	1		1	2	2		3	4	4
manufactured	1		NA		3	4	3	3	2
holler	3		NA	3	3		4	4	3
swollen	2	2	NA		3		3	3	3
nerve	2		2		3		2	3	4
exception	1		1		2	2	3	4	2
peculiar	1	3	3		3		3	3	4

#### Student: Jay

WORDS	pre-assess	Frayer	Oral: Associations	Scaling	Oral: Examples/ Non-examples	Visuals	Oral: Questions	Post assess	Delayed
idle	1		3		3		3	4	2
melancholy	1		NA	3	3		3	4	4
manufactured	1		3		3	3	2	3	4
holler	1		3	3	3		3	4	3
swollen	1	2	NA		2		3	3	4
nerve	1		3		3		4	3	4
exception	1		NA		2	2	3	4	4
peculiar	1	3	3		3		3	3	3



Student: Lee

WORDS	pre-assess	Frayer	Oral: Associations	Scaling	Oral: Examples/ Non-examples	Visuals	Oral: Questions	Post assess	Delayed
idle	1		3		3		3	4	4
melancholy	3		1	4	4		4	3	4
manufactured	1		3		3	4	3	3	4
holler	3		NA	4	3		3	4	4
swollen	1	4	3		3		4	4	4
nerve	1		3		3		4	4	4
exception	1		3		3	3	4	4	3
peculiar	1	3	NA		3		3	3	4

Student: Zane

WORDS	pre-assess	Frayer	Oral: Associations	Scaling	Oral: Examples/ Non-examples	Visuals	Oral: Questions	Post assess	Delayed
idle	1		2		2		2	3	1
melancholy	1		NA	3	3		3	3	4
manufactured	1		3		3	3	3	2	2
holler	2		3	3	3		3	3	3
swollen	2	2	NA		3		3	2	4
nerve	1		1		2		2	2	3
exception	1		2		1	2	2	3	2
peculiar	1	3	1		2		2	3	3

## Appendix L

### Vocabulary Results for Week 3

Key	
*	Indicates help was given
NA	Indicates that no help was given
...	Indicates that the student felt that this activity was mediocre (okay).
...	Indicates that the student liked this activity and that it would help them remember the word.
...	Indicates that the student loved this activity and that it would definitely help them to remember the word.
**Jay was absent on Day 1 and Day 4 of this week's instruction. He completed Day 1 individually, but was unable to make up Day 4.	

#### Student: Al

WORDS	pre-assess	Frayer	Oral: Associations	Scaling	Oral: Examples/ Non-examples	Visuals	Oral: Questions	Post assess	Delayed
hitch	1		NA		2		4	3	3
proceed	1	3	NA		1		4	2	4
concerned	3		3	2	3		4	2	3
harvested	1		2		1	3	3	4	4
mend	1	3	3		4		4	4	4
signaled	2		1		3	3	3	3	4
sturdy	1		3	2	3		3	3	3
loomed	1		1		3		4	3	4

#### Student: Jay

WORDS	pre-assess	Frayer	Oral: Associations	Scaling	Oral: Examples/ Non-examples	Visuals	Oral: Questions	Post assess	Delayed
hitch	1		NA		3			4	4
proceed	3	3	4		1			3	4
concerned	3		2	2	4			4	4
harvested	1		4		3			3	4
mend	1	3	3		4			4	4
signaled	1		3	2	4			3	3
sturdy	3		3		3			4	4
loomed	1		NA		4			4	4

Student: Lee

WORDS	pre-assess	Frayer	Oral: Associations	Scaling	Oral: Examples/ Non-examples	Visuals	Oral: Questions	Post assess	Delayed
hitch	1		4		4		4	4	4
proceed	1	3	4		3		4	4	4
concerned	1		1	3	3		3	3	3
harvested	1	3	2		3	4	3	3	4
mend	1		4		4		4	4	4
signaled	2		4		3	3	3	4	4
sturdy	3		3	3	3		4	3	4
loomed	1		3		3		4	4	4

Student: Zane

WORDS	pre-assess	Frayer	Oral: Associations	Scaling	Oral: Examples/ Non-examples	Visuals	Oral: Questions	Post assess	Delayed
hitch	1		4		3		4	4	4
proceed	1	3	NA		1		3	2	2
concerned	1		3	2*	3		3	3	3
harvested	1		4		3	3	4	3	4
mend	1	3	3		2		3	4	3
signaled	1		3		3	2	3	3	4
sturdy	1		3	3*	3		3	4	3
loomed	1		1		3		3	3	4