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Crystal Placek

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The Impact of Vocabulary Intervention on the Receptive Vocabulary Comprehension of 8th Graders with Identified Disabilities

Crystal Placek

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Acknowledgement and Dedication

Thank you to my dear family for your support throughout my Masters journey and encouraging me to pursue my dreams. Mom and Dad, your encouragement feels never ending. To Heather, Michael and Dan: thank you for being ever supportive and being patient with me while I “made something of myself.” To the families and students who allowed me to share their experiences and celebrate their successes through this project, thank you. My appreciation to the many colleagues that spent hours collaborating, co-teaching and listening to my crazy ideas about vocabulary and pictures and allowing me to experiment with my teaching practice. Special thanks to Brandi Hussli for her input not only on this project but for her listening ear over the past 3 years.

This research is dedicated to every student I will ever teach who sees the world in pictures.
Abstract

The purpose of this action research study was to examine the relationship between content vocabulary instruction and student acquisition of that vocabulary. The research question for the study stated: “How does implementing a specific vocabulary intervention affect students’ understanding of academic content area vocabulary and influence global receptive vocabulary for 8th graders?” The design of this study is a quantitative research project and studied student results using a pretest and posttest of receptive vocabulary as well as an assessment in content specific vocabulary. The receptive vocabulary assessment from the Receptive One-Word Picture Vocabulary Test, 2nd edition by Academic Therapy Publications measured students’ overall receptive language, and the content vocabulary assessment, designed by the researcher, measured understanding of specific vocabulary taught in the intervention. Robert Marzano’s Vocabulary Intervention was used as the framework for the intervention (Marzano, 2004). The independent variable was identified as the Marzano vocabulary intervention and the dependent variable was results of the listed pre and post assessments. Students participated in a 6-week intervention which included 30 minutes of vocabulary instruction, 3 days per week, totaling 90 minutes per week. Data was analyzed using a two-tailed paired t-test to compare pre and post assessment data. The p value most commonly used in education research of p= <.05 was used to determine statistical difference and determine credibility of the null hypothesis. Results of the teacher created assessment reached statistical significance (p = 0.000044). The null hypothesis was not supported. Statistical analysis of The Receptive One-Word Picture Vocabulary (p = 0.47) supported the null hypothesis. Further research on the topic of vocabulary instruction should be conducted to foster further student success in this area.
Table of Contents

Page

Approval Page
Copyright Page
Acknowledgement and Dedication Page ..........................................................i
Abstract ...........................................................................................................ii
Table of Contents ..........................................................iii

CHAPTER ONE: INTRODUCTION .................................................. 1
  Introduction .......................................................... 1
  Background of the Study ....................................................... 1
  Overview of the Study and Timeline ............................................. 2
  Summary Conclusion ...................................................... 3
  Definitions .............................................................................. 4

CHAPTER TWO: LITERATURE REVIEW ........................................ 5
  Introduction that explains the organization of the review .................... 5
  Literature Review .......................................................... 6
  Summary Conclusion ...................................................... 20

CHAPTER THREE: METHODOLOGY ............................................. 21
  Introduction that summarizes the action research study ....................... 22
  Description of the Site and Sample ............................................. 23
  Description of the Procedure .................................................. 23
  Description of Data Collection .................................................. 26
  Description of Assessment Instruments ...................................... 26
  Data Analysis Plan ...................................................... 27
Summary of Methodology ................................................................. 27

CHAPTER FOUR: RESULTS ................................................................. 28

Introduction .................................................................................. 28
Presentation and Summary of Data ................................................ 29
Findings Related to Research Question ......................................... 32
Summary Conclusion of Results ..................................................... 32

CHAPTER FIVE: CONCLUSION AND DISCUSSION ............................. 33

Introduction and Overview of the Results ..................................... 33
Explanation for the Results ........................................................... 34
Discussion of the Connections between the Literature Review and Results ........................................... 34
Strengths and Limitations of the Study .......................................... 35
Recommendations for Future Research ......................................... 35
Conclusion: Implications for Personal Practice ............................. 36

References ................................................................................... 38

Appendix A .................................................................................. 40
Appendix B .................................................................................. 42
Appendix C .................................................................................. 43
Appendix D .................................................................................. 44
CHAPTER 1

Introduction

In my three years of teaching special education, I have monitored my students’ reading comprehension achievement closely, using formalized standardized assessments, informal assessments and my own observations. Most recently, at the beginning of the 2011-2012 school year, when I moved to teaching 8th grade special education, I immediately recognized my students’ deficit in the understanding and acquisition of content area vocabulary. I discussed the issue with my colleagues who echoed my concerns and emphasized their observations of students struggling to understand core academic content due to low vocabulary acquisition. I also heard from many parents who were concerned about their child’s low achievement on Science, Social Studies and Language Arts tests. I knew these students struggled to understand content vocabulary and it had been reflected on their chapter quizzes and tests. I could personally relate to these students as my most dreaded academic task in middle school was to look words up in the dictionary and develop my own sentences that used the word in context. For me, it wasn’t until years later, into my late teens and college years that I actually gained a true understanding of these words through life and contextual experience. To that end, I designed an action research study to analyze the relationship between an instructional strategy and student vocabulary comprehension in hopes that my students would gain strategies to learn vocabulary in a meaningful way.

Background of the Study

Arguably, students spend more time now engaged with television, computers and other technology than ever before. One wonders what influence this has on a students’ desire to learn
new vocabulary. After all, nearly any word can be “googled” and within a matter of seconds the definition and picture is returned. In October 2011, just weeks before formally designing this action research study, I was co-teaching in an 8th grade Communication Arts class and engaging students in a vocabulary activity. I asked the class, “What is kindling?” One bright, enthusiastic student in the front row shot her hand in the air and before I could call on her asked, “When you use your Kindle?” Classroom reality was that students have incredibly limited understanding of basic vocabulary, which is reflected on standardized tests scores, and classroom assessment. The issue of vocabulary acquisition was of such concern that the recently developed national Common Core Standards dedicate an academic standard specifically to this area. The Standard states that students should be able to, “Use precise language and domain-specific vocabulary to inform about or explain the topic” (Common Core State Standards Initiative, 2011). In fact, this issue was of such focus that myriads of research teams such as Vaughn et al. (2010) and Stoner et al. (2011) set out to publish research on this very issue. Their work on the use of pictures in vocabulary instruction, technology and vocabulary taught to specific demographics has opened the eyes of educators to not just best teaching practice but for the need for more research exploring the topic.

Overview of the Study and Timeline

The purpose of this action research study was to examine the relationship between content vocabulary instruction and student acquisition of that vocabulary. The research question for the study stated: “How does implementing a specific vocabulary intervention affect students’ understanding of academic content area vocabulary and influence global receptive vocabulary for 8th graders?” The design of this study is a quantitative research project and studied student results using a pretest and posttest of receptive vocabulary as well as an assessment in content
specific vocabulary. The receptive vocabulary assessment from the Receptive One-Word Picture Vocabulary Test, 2nd edition by Academic Therapy Publications measured students’ overall receptive language, and the content vocabulary assessment, designed by the researcher, measured understanding of specific vocabulary taught in the intervention. Robert Marzano’s Vocabulary Intervention was used as the framework for the intervention (Marzano, 2004). The independent variable was identified as the Marzano vocabulary intervention and the dependent variable was results of the listed pre and post assessments. Students participated in a 6-week intervention which included 30 minutes of vocabulary instruction, 3 days per week, totaling 90 minutes per week. Data was analyzed using a two-tailed paired t-test to compare pre and post assessment data. The p value most commonly used in education research of p= <.05 was used to determine statistical difference and determine credibility of the null hypothesis.

**Summary Conclusion**

The sample used in this study was five students from an eighth grade class in a suburban, public, middle school. The researcher was the eighth-grade Special Education teacher at this school and managed a caseload of twenty-one students identified with disabilities, which, in part were used, as the research sample. The five student sample consisted of three boys and two girls. The students ranged in age from 13-14, with an average age of 13.4 years old. All students in the sample group identify themselves as Caucasian. In the middle school as a whole, 9.1% of students receive free or reduced lunch.

Students participated in a six-week, small group, vocabulary intervention which replaced the traditional vocabulary activities they would regularly receive in their Communication Arts class. Students received intervention instruction from a certified teacher, licensed to teach both
regular and special education in 1st-8th grade. Two weeks prior to the start of the intervention, students were administered the Receptive One-Word Picture Vocabulary Test, 2nd edition published by Academic Therapy Publications and the researcher-created assessment (see Appendix A). Students were given intervention instruction, 30 minutes per day, 3 days per week totaling 90 minutes per week. Students learned three new vocabulary words during each intervention session and reviewed two previously learned words each day. Following the six-week intervention, students were administered a post assessment to determine growth in academic and receptive vocabulary. Pretest and posttest data was analyzed using a two-tailed paired t-test to determine the credibility of the null hypothesis.

**Definitions**

*Vocabulary instruction:* Marzano (2004) defines vocabulary instruction as a systematic instruction in important academic terms
CHAPTER 2

Literature Review

Study Overview

The purpose of this action research study was to examine the relationship between content vocabulary instruction and student acquisition of that vocabulary. The research question for the study stated: “How does implementing a specific vocabulary intervention affect students’ understanding of academic content area vocabulary and influence global receptive vocabulary for 8th graders with an identified disability?” The design of this study was a quantitative research which studied student results using a pretest and posttest of receptive vocabulary as well as a researcher-created assessment in content specific vocabulary. The receptive vocabulary assessment from the Receptive One-Word Picture Vocabulary Test, 2nd edition by Academic Therapy Publications measured students’ overall receptive language, and the content vocabulary assessment, designed by the researcher, measured understanding of specific vocabulary taught during the intervention. Robert Marzano’s Vocabulary Intervention was used as the framework for the intervention (Marzano, 2004). The independent variable was identified as the Marzano vocabulary intervention and the dependent variable was the results of the post assessments. Students participated in a 6-week intervention which included 30 minutes of vocabulary instruction, 3 days per week, totaling 90 minutes per week.

Chapter Organization

By conducting a thorough review of existing literature and studies focused on vocabulary instruction and achievement, a few predominant themes surfaced.
This chapter is written in three subsections to best organize the existing literature related to the researcher’s action research study. The three subsections are: Vocabulary and Pictures, Vocabulary and Technology and Vocabulary Instruction in Middle School.

**Vocabulary and Pictures**

If you engage students of any age in a learner profile test many will identify that they’re a “visual learner.” What does that actually mean in the day-to-day happenings of a classroom? The following body of literature examines studies where visual learning was a vital component to student success.

Kim and Gilman (2008) studied the impact of six different methods of instruction to increase English vocabulary in English as a Foreign Language (EFL) students studying in South Korea. They recognized that computer based instruction had become a viable teaching option and created a quantitative research study to determine the most effective mode of instruction for a computer based vocabulary program. The three research questions they developed were: What are the differences in original learning among students who are taught under six methods of instruction as measured by a raw score, mean degree of certainty estimate and an admissible probability scoring procedure? What are the differences in time to complete instruction among students who are taught under the six methods of instruction? What are the differences in students’ attitudes toward instruction among students who are taught under the six conditions as measured by their scores on an attitude inventory?

Kim and Gilman’s participants included a total of 172 middle school students studying the English language at Myungin Middle School in Seoul, South Korea. Students were placed randomly into six groups and each was given a pretest, posttest, retention test and an attitude
inventory. Students participated in computer based vocabulary lessons, for a maximum of 30 minutes each. The independent variable was the instructional method and the dependent variable was the post assessments. Each of the six groups was presented the same vocabulary through a different instructional method: (1) Visual text only; (2) Visual text and added spoken text; (3) Visual text and added graphics; (4) Visual text, added graphics and added spoken text; (5) Reduced visual text and added spoken text; (6) Reduced visual text, added graphics and added spoken text.

Following daily vocabulary lessons, multiple choice questions were used to check the student’s ability to recall information, interpret data and to evaluate material. Additionally, one week after being exposed to the given vocabulary, students were asked to rate their degree of certainty on the retention text with a number from 0 to 100. Students were also expected to answer 40 questions on the attitude inventory.

Kim and Gilman’s study yielded results that strongly support the use of pictures in vocabulary instruction. Raw scores were used to compare the achievement of the various research groups. The results stated that the students in the “visual text and added graphics” and “visual text, added graphics and added spoken text” learned and retained English vocabulary more than students who received the other instructional methods. The results support the dual coding theory, which Kim and Gilman quoted, stating that, “students are likely to build connections between verbal (visual text) and nonverbal (graphics) representations.” In the concluding discussion Kim and Gilman stated, “…providing both visual text and graphics help students to select relevant information, organizing it into coherent representations and integrate it with other knowledge” (p. 124).
Similarly, Cohen and Johnson (2010) created a quantitative study with the overall purpose to investigate the impact of imagery interventions on the vocabulary acquisition of second grade students. Their research rationale is supported by the Dual Coding method which uses a visual component, thus linking the verbal code to the visual code within the brain. They designed the study using 15 second grade students from private elementary schools on the East Coast of the United States. Students were given a researcher created pre-assessment with 30 total questions, 10 questions related to each of the following categories: animals, habitats and musical instruments. Students were also given The Peabody Picture Vocabulary Test-III Form B as a measure of receptive vocabulary. Vocabulary was presented in three ways; Word Only presentation, Dual Coding presentation and Image Creation presentation. The independent variable in the study was the three instructional methods and the dependent variable was the results from the post-test. Researchers hypothesized that vocabulary presented in the dually coded format would be the most effective, as a picture representing the vocabulary word was presented to the student.

In the Word Only presentation, students were given a word on an index card, provided the definition and the word used correctly in a sentence. In the Dual Coding Presentation, students were given the word, the definition, a sentence and provided a picture of the word. During the final intervention method, Imagine Creation Presentation, students were given the word, the definition, a sentence and were asked to create a mental image of the word and draw it on a sheet of 8.5 x 11.0 inch paper. Each group received the same words, definitions and sentences. Twenty-four hours after the instruction, students were administered a cloze format post-test to assess their acquisition of the vocabulary.
Cohen and Johnson did note that the students assigned to the Imagine Creation intervention group had difficulty focusing on their own pictures and attempted to compare their picture to those of the students sitting next to them. Additionally, students were concerned with the quality and accuracy of their pictures though, during group discussions they noted that, “…being able to visually see the word helped them remember the meanings” (p. 363). In the study no statistical difference was found between the interventions; however, the mean of the Dual Coding group was higher (M=4.00) than the Imagine Creation group (M=3.58) and the Word Only Group (M=3.50), though not high enough to be statistically significant. Cohen and Johnson urge future research studies on ways in which to organize instruction, specifically the presentation of vocabulary.

Through a yearlong inquiry project, Baumann, Ware and Edwards (2007) explored the impact of a vocabulary instructional program on student’s word knowledge and appreciation. This mixed method study set out to answer the question: “What is the impact of a yearlong instructional program that incorporates Graves’ (2000, 2006) four components on the vocabulary development and appreciation of fifth-grade students?” Their independent variable was the yearlong instructional program and the dependent variable was the post-test scores on the Expressive Vocabulary Test (Williams, 1997).

Baumann, et al. used a fifth grade class at a low income, diverse elementary school in a medium sized U.S. community. In August, they collected pretest data on twenty students, and from September through April they integrated vocabulary lessons into language arts and social studies classes.
The lessons were designed following Graves’ program: (1) providing rich and varied language experiences; (2) teaching individual words; (3) teaching word-learning strategies; and (4) fostering word consciousness. Students were provided rich and varied language experiences through activities like reading aloud regularly, conducting literature discussion groups, exploring word choice and usage through writing activities. Students were active participants in this process by keeping student notes of interesting words they encountered as they read books.

Students were taught individual words, the second of Graves’ components, through the word wall, acting out word meanings and the essential component of graphic organizers. The study focused on the importance of graphic organizers and semantic maps for both fiction and nonfiction texts. The third component, Teaching Word-Learning Strategies, was taught through explicit, direct instruction on “vocabulary rules” and “word-part clues.” Students explored context clues, root words, prefixes and suffix. Structure was provided to prefix and suffix concepts by displaying organized lists in the classroom and these concepts were taught repetitively throughout the intervention. The final component, Fostering Word Consciousness, was taught by teacher and students engaging in word play to promote cognitive knowledge.

Results of the study showed that students’ word knowledge grew. Pre and post test data from the *Expressive Vocabulary Test* (Williams, 1997) showed that students’ expressive vocabulary grew more than researchers had even expected. Additionally, the results from the *Peabody Picture Vocabulary Test* (Dunn & Dunn, 1997) showed that students who were below average benefited from the intervention more than students who were initially above average in vocabulary. Qualitative results of the study revealed that students used more sophisticated and challenging words, students’ interest in and attitude toward vocabulary increased, and students used learning tools and strategies independently following the intervention.
In the concluding discussion Baumann, et al, summarized by saying that immersing students in a vocabulary rich environment, which included picture concepts, developed greater vocabulary knowledge.

Loftus, Coyne, McCoach, Zipoli and Pullen (2010), all professors at East Coast universities, purposed to examine the effectiveness of a vocabulary intervention to supplement regular classroom instruction with students designated “at risk.” Specifically, their research set out to answer, “Do at-risk students learn target vocabulary that is taught through both classroom instruction and supplemental intervention to a greater extent than target vocabulary that is only taught during classroom instruction?” (p. 126). Their experimental, quantitative research design included a pretest, the *PPVT-III*, and a post-test for each student which measured word recognition, target word picture vocabulary, context questions, and expressive definitions. The independent variable was the supplemental vocabulary instruction and the dependent variable was the results of the four post-test measures.

Students enrolled in the study included 43 kindergarten in a PK-8 elementary school in the North East. A total of 23 males and 20 females participated. Approximately 73.2% of the school’s students qualified for free or reduced meals. All grade levels at the given school fell well below the state average on literacy assessments. Overall data indicated that the school served a large percentage of students who may be at risk for academic challenges.

Participants were involved in classroom-based vocabulary instruction as well as small-group supplemental intervention following the classroom instruction. The small-group intervention was designed with the rationale that students perform better with small group size, more time with instructional content, and a change in how instruction is designed and delivered.
The largest component of the supplemental intervention was the interactive dialogue and use of pictures between teacher and students. This provided feedback, prevented misunderstandings and modeled appropriate reading and comprehension strategies. Students participated in classroom instruction for 30 minutes each day in addition to a 30-minute supplemental instruction period following the large group activity. Students in the intervention received a total of two additional hours of vocabulary exposure and discussion than not-at-risk students who participated in classroom instruction only.

Results of the study strongly supported the importance of the supplementary intervention. Students who received the additional instruction, including the discussion and pictures, scored higher on three out of four measures on the post-test. However, on the Word Recognition measure the post-test showed there was no statistical difference between those that received only classroom instruction and those that had received additional supplementary instruction.

The researchers concluded by encouraging future research with at-risk pre-school children in an effort to increase their ability to communicate at home and school. Additionally, more research could lead to children who are at-risk entering the primary grades with an increased understanding of basic vocabulary.

**Vocabulary and Technology**

Many classrooms, especially in affluent school districts, are commonly equipped with technology which may include an interactive white board, document camera, webcam, testing remotes, among other technological equipment, like laptops, for student use. As the use of technology becomes more prevalent, the research that documents its impact has also become more common. This section outlines how technology has impacted vocabulary instruction and
student’s response, measured through achievement, to technology. In a previous section the researcher presented literature that showed the importance of using pictures in vocabulary instruction. This section differs because each study presented included not only use of pictures but moving animation or video clips.

Rezaee and Shoar (2010) designed an experimental, quantitative study to determine the preference for one of two different annotation modes. They formulated two research questions: (1) What is the attitude of learners toward presenting multimedia materials together with reading comprehension texts in a language arts classroom? (2) Which type of annotation, still images of video clips, contributes to better learning of vocabulary from reading comprehension texts? They solicited the help of 70 learners between the ages of 22 and 30 who were studying English at a foreign institute. Only 7 of the 70 participants were female, the rest male. Forty-two participants held a BA/BsC, 21 held MA/MSc and 7 held PhD’s. Researchers used a pre and post test to measure student growth during the course of the study. The independent variable was the intervention and the dependent variable was the results of the post-test. The students were divided into three groups, each exposed to the one multimedia mode: (1) reading passages without picture annotations, (2) reading passages with picture annotations and (3) reading passages with associated movies. The study lasted two months, or one semester. Students were given a survey to determine their attitude toward multimedia materials, the first research question. During that time ten reading comprehension texts were presented to each of the three sub groups.

Materials used in this study included ten reading comprehension texts, ten movie clips between 5 and 10 minutes in length taken from Interchange Video Activity books, and a 30
question multiple-choice vocabulary test which assessed specific vocabulary taught during the study.

Results of the study concluded that students who were exposed to dynamic movie clips were most satisfied with their vocabulary experience. The group that received only reading texts without accompanying video clips or picture annotations scored lowest of the three. A one-way ANOVA was run so that a comparison of the means could be generated. Researchers found that the significance p<.05 showed that the results reflect treatment rather than chance. In their conclusion, Rezaee and Shoar strongly suggested that all language classrooms be equipped with video projectors and computers so teachers can include dynamic video clips in vocabulary and comprehension instruction.

Stoner, Beck, Dennis and Parette (2011) designed a study to examine the effect of direct vocabulary instruction on preschool students designated “at risk” under two conditions. The first, traditionally presented static pictures and the second, the use of projection and animation. They asked, “Which instruction is more effective for teaching vocabulary skills to preschool students at-risk for academic and social-emotional failure: instruction utilizing static pictures in a book, or instruction utilizing animation presented via Intellitools projected on a screen?” (p. 37). Participants in the study included 34 children ages 3 and 4. Due to the transient rate at the preschool, only 30 children remained at the conclusion of the study. Students were identified “at risk” by federal guidelines. Students were pre-tested using the Receptive One Word Picture Vocabulary Test to test expressive and receptive language skills.

During the study, each student acted as his or her own control. During each instructional condition, static or animated, the student had a pre-test, intervention and post-test. Additionally,
12 weeks after the invention’s conclusion, a maintenance assessment was given. The independent variable in the study was the intervention while the dependent variable was the difference in scores between each child’s pre-test and post-test.

Thirty vocabulary words were chosen from two units of study: animals and transportation. Students were assigned to Classroom A or Classroom B for the duration of the study. Classroom A received instruction on one unit using animated pictures while Classroom B received instruction on the same unit using static pictures. During the second unit, Classrooms A and B switched instructional methods to static pictures and animations, respectively. Each instructional session lasted 20 minutes, twice a week for 4 weeks, totaling 8 sessions for each unit. The same books were presented differently under each condition. During the static picture condition the book was read from the front of the room, with the instructor holding the book. Under the animated method, the book was scanned into the computer and projected onto a screen. Additionally, the targeted vocabulary words were animated for students to discuss and see during the reading of the story.

Results were analyzed using paired t-tests. Additionally, one-way ANOVAs were calculated using pre-test, post-test and maintenance data. Results indicated that there was no difference between the two conditions because the difference was not significant (p> .05). Researchers also noted that the maintenance scores were lower than post-test scores. Discussion did suggest that students made progress using both methods during the duration of the study. Students performed better under the animation condition than when using static pictures. Stoner, et al. concluded by urging others to conduct more vocabulary research with students who are designated at risk.
Vocabulary Instruction in Middle School

During a student’s middle school years the content of the core curriculum becomes more difficult and often students are expected to complete more independent reading to acquire knowledge necessary for classroom success. Many middle school teachers expect that students have an understanding of written language and the ability to keep up with reading in class. Struggling readers often falter during the middle school years if not provided the necessary support in decoding, comprehension and vocabulary skills. The body of literature on middle school reading, namely vocabulary, is far less vast than that at the elementary level. The research that does exist suggests that middle school teachers are failing if they believe students have all the reading strategies and skills they need when they enter middle school.

Vaughn, Circino and Wexler (2010) examined the effectiveness of a yearlong tier two reading intervention with a group of sixth graders. The researchers shared a brief review of literature that related to intervention and subsequently found that little research had been conducted on the effective implementation of tiered intervention for older, in this case, middle school students. The research question they developed was: What are the effects of a secondary intervention (Tier 2) provided in relatively large groups (10-15 students) on the reading-related outcomes of individuals with reading difficulties? The researchers hypothesized that the Tier two intervention would result in improved outcomes for students relative to other students at risk for reading difficulties and that Tier 2 students would close the gap with typical readers over the course of the year. The research design was quantitative, specifically a pre and post assessment design with five subtests at set intervals throughout the year-long research.
The Researchers designed the study using a specific method which included: participants meeting a set of criteria, precise measures by which they assessed the participants, and a carefully planned and implemented intervention. The study was conducted in the Southwestern United States in two large urban cities and included sixth-graders from seven middle schools. Students involved in the study that qualified for reduced cost or free lunch ranged from 40%-86% in the various schools. Students within the schools had to meet criteria set by the research team to participate in the study. Participants included struggling readers, who scored below the cutoff of 2,100 as well a random sample of typical readers as determined by the Texas Assessment of Knowledge and Skills (TAKS). Also noted in the report was the inclusion of students with low reading achievement enrolled in Special Education who were exempted from the TAKS. The research team assessed decoding and spelling, fluency, and comprehension in the original group of 2,034 students and placed them, through random assignment, to a Tier 2 treatment intervention or a comparison control. For the purposes of this study the group of students receiving the Tier 2 intervention acted as the dependent variable and the comparison group represented the independent variable.

The intervention itself had multiple steps of implementation. The first included professional development and training to content area teachers of all sixth-grade students. The professional development occurred both before the start of the school year but also monthly as teachers met in small groups. Teachers were taught how to select appropriate academic vocabulary, and best practice for teaching that vocabulary. Additionally, teachers worked with a facilitator to increase their ability to use higher level comprehension strategies within the content area classroom. Following teacher training, the randomly selected students were placed in intervention groups and the three phase intervention began. The first phase consisted of 25
lessons that were taught for 7 to 8 weeks and focused on word study and fluency. The 17 and 18 weeks of phase II focused on vocabulary and comprehension strategies while still solidifying the concepts learned in phase I. The final phase continued to focus on vocabulary and comprehension; however this phase used novel units to study the concepts and pushed students toward independence in reading. Each phase was implemented in groups of 10 to 15 students for 50 minutes per school day, September through May.

Researchers used the following, norm referenced assessments to pre and post-test students in the various areas: Woodcock-Johnson III Tests of Achievement to assess decoding and spelling, Test of Word Reading Efficiency, AIMSweb Reading Maze, The Test Of Sentence Reading Efficiency, Passage Fluency and Word List Fluency to assess fluency, the TAKS to assess comprehension and the Kaufman Brief Intelligence Test-2 as an intellectual screening.

The results showed that those students who received the intervention made the most gains in the area of comprehension and fluency as measured by the TAKS and the TOWRE Sight Word Efficiency tests respectively. The post test gains in the sub tests were varied; however they were higher than the post test performances of typical readers, whose standard scores showed little change from pre-test to post-test. Researchers stated that they also considered the results in relation to the site (urban or comparably rural) as well as age of students though; weighing these factors did not change the interpretation of the results.

The researchers’ hypothesis was supported by the study results, as the students who received the Tier 2 intervention did outperform the students in the comparison group in word attack, spelling, comprehension and phonemic decoding. They did admit that it was difficult to attribute some of the specific gains directly to the intervention itself. Overall, their conclusion
outlined the difficulty in closing the gap in reading success for at-risk six-grade students between the beginning and end of the year.

Fore, Book and Lowrie (2007) developed a quantitative, six-week comparison study to investigate the effects of two types of instruction on the learning of content-area vocabulary. They defined the two types of instruction as definition and concept model. The independent variable was the vocabulary concept model instruction and the dependent variable was the percent of vocabulary questions answer correctly on the post assessments. The participants were six seventh-grade students with a learning disability as determined by their state criteria.

During the baseline condition students received the same instruction they had been receiving prior to the study. During the intervention condition the primary difference was the use of a concept diagram to learn and discuss the meaning of five vocabulary words each week. Teachers presented the vocabulary in a specific format to ensure study validity. During the intervention, students engaged in a structured, small group where they discussed the vocabulary words, saw pictures that represented the concept, discussed examples and non-examples and participated equally.

During both conditions, students were given a test with 10 matching questions to test their knowledge of the definitions of the five weekly vocabulary words. Results indicated an increase in both mean and median scores for all six students from the baseline to intervention. Pretest scores ranged from 0% correct to 8.89% correct and posttest scores ranged from 57.78% correct to 82.22% correct. The results of this study suggest that the concept model should be taught through direct instruction to students to facilitate independent word learning.
Literature Review Conclusion

Each study represented in this literature review directly relates to the action research study being presented. Pictures and animations were used as a primary instructional method to increase student understanding of vocabulary. Technology played a vital role in the creation and presentation of those pictures and videos and its inclusion in the classroom was essential to this study. Additionally, because the action research intervention occurred in a middle school, it was important to look at research that also studied that specific demographic group. Overall, the body of literature strongly supports the action research design and instructional methods.
CHAPTER 3

Methodology

Introduction

The purpose of this action research study was to examine the relationship between content vocabulary instruction and students’ acquisition of that vocabulary. Those that benefit from the results of this research include teachers, administrators and students. The research question was, “How does implementing a specific vocabulary intervention affect students’ understanding of academic content area vocabulary and influence global receptive vocabulary for 8th graders?” The researcher hypothesized that given methodical vocabulary instruction following Marzano’s method students would demonstrate an increased comprehension of the content area vocabulary studied as well as their overall receptive vocabulary following the intervention period.

This quantitative research project studied yielded results using a comparison of pretest and posttests of receptive vocabulary as well as an assessment in content specific vocabulary. The expressive vocabulary assessment from the Receptive One-Word Picture Vocabulary Test, 2nd edition by Academic Therapy Publications measured students’ overall receptive language, and the content vocabulary assessment, designed by the researcher, measured understanding of specific vocabulary taught in the intervention. Marzano’s Vocabulary Intervention was used as outlined in Building Background Knowledge for Academic Achievement: Research on what Works in Schools (2004) as the framework for the intervention. The independent variable was identified as the Marzano vocabulary intervention and the dependent variable was the results from the post assessments.
Description of the Site and Sample

The Southeastern Wisconsin middle school where the intervention was conducted had an enrollment of 712 students, including 35% at the 8th grade level. The percentage of students within the middle school that received free or reduced lunch is 9.1%. The diversity of the middle school included 92% Caucasian students, 2% Hispanic, 1% Black, 2% Asian and 2% of students who identify with 2 or more ethnic groups. On the 2010-2011 Wisconsin Knowledge and Concepts Examination (WKCE) 97% of students were either proficient or advanced in Reading and 80% were either proficient or advanced in Language Arts (WINSS, 2011).

The intervention was implemented at the 8th grade level, with students ages 13 and 14 with an average age of 13.4 years at the start of the intervention. Students participating in the intervention received Special Education services with primary disabilities of Specific Learning Disability (SLD). Each of the five students in the sample had an Individualized Education Plan and was a student on the researcher’s caseload. The students had been in the researchers’ guided study hall since the beginning of the 2011-2012 school year. The table below outlines each student’s demographic information including their identified disability area.

Table 3.1

Student Sample Demographic

<table>
<thead>
<tr>
<th>Student ID</th>
<th>Gender</th>
<th>Age</th>
<th>Disability Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>BB</td>
<td>M</td>
<td>14</td>
<td>Other Health Impaired</td>
</tr>
</tbody>
</table>
Description of Procedure

Students participated in a six-week, small group, vocabulary intervention which replaced the traditional vocabulary activities they would have regularly received in their Communication Arts class. Students received intervention instruction from a certified teacher, licensed to teach both regular and special education in 1st-8th grade. Two weeks prior to the start of the intervention, students were administered the Receptive One-Word Picture Vocabulary Test, 2nd edition published by Academic Therapy Publications and the researcher created assessment (see Appendix A). Students were provided intervention instruction, 30 minutes per day, 3 days per week totaling 90 minutes per week. The intervention lesson was taught during each session from a teacher created lesson plan listing the objective, materials, time needed, introduction, modeling, guided practice, review, assessment and conclusion (see Appendix B). Teaching the lesson from a standard lesson plan assured that students were presented with each vocabulary term in as similar a method as possible. Students learned three new vocabulary words during each intervention session and reviewed two previously learned words each day. The six-week
intervention outline below displays the vocabulary words students learned and reviewed during each week of the intervention.

Table 3.2

*Intervention Outline*

<table>
<thead>
<tr>
<th>Week</th>
<th>Lesson</th>
<th>New Vocabulary Words</th>
<th>Review Vocabulary Words</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>authentic, candid, explicit</td>
<td>-----</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>objective, profound, innovative</td>
<td>candid, authentic</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>relevant, ambiguous, redundant</td>
<td>objective, innovative</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>superficial, opaque, obscure</td>
<td>profound, relevant</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>advocate, endorse, lampoon</td>
<td>superficial, ambiguous</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>parody, provoke, disseminate</td>
<td>endorse, advocate</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>futile, lax, preclude</td>
<td>lampoon, opaque</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>arduous, atrophy, formidable</td>
<td>lax, futile</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>resilient, rigorous, stringent</td>
<td>preclude, formidable</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>acute, lucid, astute</td>
<td>rigorous, atrophy</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>discerning, perceptive, discordant</td>
<td>acute, resilient</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>strident, incongruous, anomaly</td>
<td>discerning, astute</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>articulate, circumspect, dynamic</td>
<td>anomaly, perceptive</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>meticulous, prudent, steadfast</td>
<td>articulate, dynamic</td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>cynical, gullible, vacuous</td>
<td>meticulous, steadfast</td>
</tr>
</tbody>
</table>
Students used a vocabulary notebook to track each new word learned during the intervention sessions. Vocabulary notebook pages were reproducible from *Building Academic Vocabulary Student Notebook: Revised Edition* (Marzano, 2010) (see Appendix C). As part of the intervention, students rated their continually changing understanding of new vocabulary words on a 1-4 rating scale (see Appendix D). The outline of the Marzano vocabulary intervention requires that the teacher teach vocabulary in a specific pattern, using specific methods. The six steps are:

Step 1: Provide a description, explanation or example of the new term

Step 2: Ask students to restate the description, explanation, or example in their own words

Step 3: Ask students to construct a picture, symbol or graphic representing the term

Step 4: Engage students periodically in activities that help them add to their knowledge of the terms in their notebooks

Step 5: Periodically ask students to discuss the terms with one another

Step 6: Involve students periodically in games that allow them to play with terms

Following the six-week intervention, students completed a post-test of the teacher created assessment and the Receptive One-Word Picture Vocabulary Test, 2nd edition published by Academic Therapy Publications (see Appendix A).
Description of Data Collection and Assessment Instruments

Students were given a pre and post test of both the teacher created assessment tool as well as the Receptive One-Word Picture Vocabulary Test, 2\textsuperscript{nd} edition published by Academic Therapy Publications (see Appendix A).

Data Analysis Plan

The standardized receptive language assessment was used to create a two-tailed paired $t$-test to compare pre and post assessment data. The $p$ value most commonly used in education research, $p= <.05$, was used to determine statistical significance and determine whether the null hypothesis should be accepted. The null hypothesis ($H_0$) stated the vocabulary intervention would not cause a correlation between the teaching method and an increase in post-test scores as determined by a two-tailed $t$-test. The researcher used the Microsoft Excel program, to analyze the data and produce the $t$-test results. The teacher created assessment was analyzed by a simple comparison between pre and post test scores to determine if a student’s comprehension of the given vocabulary grew during the course of the intervention.

Summary of Methodology

In closing, the purpose of this action research was to analyze the effect that the Marzano vocabulary teaching method had on student acquisition of content area vocabulary. For both the pre and post test students were given a standardized receptive language assessment as well as a teacher created assessment. To measure the effect of the intervention a $t$-test for the standardized assessment was computed and a comparison was drawn for the teacher created assessment.
CHAPTER 4

Results

Study Overview

The purpose of this action research study was to examine the relationship between content vocabulary instruction and student acquisition of that vocabulary. The research question for the study stated: “How does implementing a specific vocabulary intervention affect students’ understanding of academic content area vocabulary and influence global receptive vocabulary for 8th graders?” The researcher’s hypothesis ($H_1$) stated that the intervention would trigger a significant increase in post-test assessment scores as measured by a two-tailed t-test. The null hypothesis ($H_0$) for the study stated the vocabulary intervention would not result in a significant increase in post-test scores as determined by a two-tailed t-test.

The design of this study was quantitative: the research examined student scores on a pre-test and post-test of receptive vocabulary as well as a researcher-created assessment in content specific vocabulary. The receptive vocabulary assessment from the Receptive One-Word Picture Vocabulary Test, 2nd edition by Academic Therapy Publications measured students’ overall receptive language, and the content vocabulary assessment, designed by the researcher, measured understanding of specific vocabulary taught during the intervention. Robert Marzano’s Vocabulary Intervention was used as the framework for the intervention (Marzano, 2004). The independent variable was the Marzano vocabulary intervention and the dependent variable was the results of the post assessments. Students participated in a 6-week intervention which included 30 minutes of vocabulary instruction, 3 days per week, totaling 90 minutes per week.
Chapter 4 presents the results of the action research study in three subsections including: Summary of Collected Data, Findings Related to the Research Question and the Summary of Results.

**Summary of Collected Data**

Two separate assessments were used during the action research. The first, the standardized Receptive One-Word Picture Vocabulary Test, 2nd edition by Academic Therapy Publications measured student’s global vocabulary. Figure 4.1 displays pre and post test results. Two students increased their standard scores, two student scores remained the same, and one student decreased the standard score on the post-assessment.

Figure 4.1 displays the standard scores of the 5 students in the study. The pre-test mean ($M_{pre} = 98.6$) was 0.4 lower than the post-test mean ($M_{post} = 99.0$). The pre-test standard
deviation ($SD_{pre} = 7.92$) was less than the post-test standard deviation ($SD_{post} = 9.03$) showing a
greater difference in scores from the mean on the post-test.

Table 4.1

*Standardized Assessment Results*

<table>
<thead>
<tr>
<th>Test Description</th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receptive One-Word Picture Vocabulary Test – Pre Assessment</td>
<td>98.6</td>
<td>7.92</td>
</tr>
<tr>
<td>Receptive One-Word Picture Vocabulary Test – Post Assessment</td>
<td>99.0</td>
<td>9.03</td>
</tr>
</tbody>
</table>

A two-tailed t-test was used to compare the pre and post test scores to test the null hypothesis. The null hypothesis ($H_0$) stated the vocabulary intervention would not show statistical significance between the teaching method and an increase in post-test scores as determined by a two-tailed t-test. The statistical difference results of the Receptive Vocabulary Test yielded, ($p_{p_{rv}} = 0.47$). Therefore the null hypothesis was valid per the standardized assessment measure.

The second measure, a teacher created multiple choice vocabulary test was given pre and post intervention to determine the validity of the null hypothesis. Chart 4.2 displays pre and post test results. All five students increased their scores on the post-assessment.
Figure 4.2 displays the pre and post assessment scores on the teacher created assessment for the five students in the study. The pre-test mean ($M_{\text{pre}} = 6.0$) was 85 points lower than the post-test mean ($M_{\text{post}} = 91.0$) showing a drastic difference in overall test performance. The pre-test standard deviation ($SD_{\text{pre}} = 2.68$) was less than the post-test standard deviation ($SD_{\text{post}} = 9.2$) showing a greater difference in scores from the mean in the post-test.

Table 4.2

*Teacher Created Assessment Results*

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Standard Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher Created Pre Assessment</td>
<td>6</td>
<td>2.68</td>
</tr>
<tr>
<td>Teacher Created Post Assessment</td>
<td>91</td>
<td>9.20</td>
</tr>
</tbody>
</table>
A two-tailed t-test was used to compare the value of the teacher created pre and post tests to test the validity of the null hypothesis. The null hypothesis (H_0) stated the vocabulary intervention would not show statistical significance between the teaching method and an increase in post-test scores as determined by a two-tailed t-test. The statistical difference results of the teacher created test yielded results of, p_{tc} = 0.000044. Therefore the null hypothesis was not valid per the teacher created assessment measure.

**Findings Related to Research Question**

The results of the study displayed the impact of the Robert Marzano vocabulary instruction method on five students with identified disabilities. A two-tailed t-test was calculated, providing the following results: The Receptive One Word Picture Vocabulary supported the null hypothesis (p_{rpv} = 0.47) when tested at p<.05, while the teacher created vocabulary test did not support the null hypothesis (p_{tc} = 0.000044) when tested at p<.05. One p-value was greater (p_{rpv} = 0.47) than the statistical allowance acceptable for education research (p<.05) while the other fell below the allowable acceptance (p_{tc} = 0.000044).

**Summary of Results**

The Receptive One-Word Picture Vocabulary Test and the teacher created vocabulary assessment served as the pre-test and post-test for the intervention. The results of the post-test on each assessment was the dependent variable for the study. All five students started and completed the 6-week intervention. Statistical significance was reached on the teacher created assessment (p = 0.000044) Therefore the null hypothesis was not supported. Data analysis of The Receptive One-Word Picture Vocabulary (p = 0.47) supported the null hypothesis.
CHAPTER 5

Conclusion and Discussion

Introduction and Brief Overview of Results.

The purpose of this action research study was to examine the relationship between content vocabulary instruction and student acquisition of that vocabulary. The research question for the study stated: “How does implementing a specific vocabulary intervention affect students’ understanding of academic content area vocabulary and influence global receptive vocabulary for 8th graders?” The researcher’s hypothesis (H₁) stated that the intervention would trigger an increase in post-test assessment scores as measured by a two-tailed t-test. The null hypothesis (H₀) for the study stated the vocabulary intervention would not result in an increase in post-test scores as determined by a two-tailed t-test.

The design of this study, which examined student results using a pre-test and post-test of receptive vocabulary as well as a researcher-created assessment in content specific vocabulary, was quantitative the receptive vocabulary assessment from the Receptive One-Word Picture Vocabulary Test, 2nd edition by Academic Therapy Publications measured students’ overall receptive language, and the content vocabulary assessment, designed by the researcher, measured understanding of specific vocabulary taught during the intervention. Robert Marzano’s Vocabulary Intervention was used as the framework for the intervention (Marzano, 2004). The independent variable was identified as the Marzano vocabulary intervention and the dependent variables were the results of the post assessments. Students participated in a 6-week intervention which included 30 minutes of vocabulary instruction, 3 days per week, totaling 90 minutes per week. All 5 students started and completed the 6 week intervention.
Explanation of the Results

The Receptive One-Word Picture Vocabulary Test and the teacher created vocabulary assessment served as the pre and post test for the intervention. The results of each post assessment were the dependent variables for the study. Results of the teacher created assessment reached statistical significance (p = 0.000044). The null hypothesis was not supported. Statistical analysis of The Receptive One-Word Picture Vocabulary (p = 0.47) supported the null hypothesis.

Connections With Literature

The current body of research on vocabulary instruction, presented in Chapter 2, indicated the positive benefits of using a multi-sensory, visual approach to vocabulary instruction. For students with identified disabilities a multi-sensory approach was found to be especially beneficial to acquisition of vocabulary. Multiple research studies discussed the role of technology in vocabulary comprehension including the use of interactive white boards, computers, and projectors. To students at the middle school level, vocabulary comprehension becomes an essential skill as students venture into the core academic content areas and are required to read longer, more complex texts.

Researchers like Cohen and Johnson (2010), Kim and Gilman (2008), Baumann et al. (2007), Stoner et al. (2011), and Rezaee et al. (2011) demonstrated similar increases in post-test vocabulary assessment as did the researcher in this action research study. Through these studies and direct classroom observation it can be stated that the use of pictures, one of Robert Marzano’s primary instruction methods, provided a truly multi-sensory experience for students in vocabulary learning.
Strengths and Limitations of the Study

As with all research studies there were strengths and limitations specific to the study. All 6 participants in the action research study were students of the researcher who had positive rapport with them before, during and after the intervention. Additionally, this intervention was conducted as a natural part of the participant’s school day, which the researcher believed provided valid results. Additional strengths included an increased interest in vocabulary teaching throughout the school where the intervention occurred. Teachers at the 6th, 7th and 8th grade level asked the researcher for copies of the vocabulary notebook page.

Limitations of the study included sample size, intervention duration and absence of expected growth on a standardized test. With just 6 participants, global generalizations about the teaching method cannot be made. The intervention was only 6 weeks long, a short period of time in comparison to the length of a school year. Additionally, little growth, if any, was documented on the Receptive One-Word Vocabulary Assessment for all students. This standardized assessment is designed to show student growth in the area of receptive vocabulary over a period of time. The 6-week intervention did not allow for student scores to yield significant results, with minimal growth in the overall mean on the post-test of just 0.4.

Recommendations for Future Research

Future research should study the implications of Robert Marzano’s instructional methods on specific sub groups of students with identified disabilities. Comparisons between the results of the interventions for students with Autism versus Learning Disabilities would be not only interesting to the education community but vital information for Special and Regular Education teachers. Additional research on student vocabulary notebooks would also benefit the education
community. Just two studies reviewed in this action research paper even mentioned the use of a student vocabulary notebook or worksheet page. Their use was essential to this action research project, and further research could be done on its effectiveness across student sub groups.

**Conclusion: Implications for Personal Practice**

Completing this action research study has incredible implications for my personal teaching practice. The very creation and implementation of this action research project has made me a more reflective practitioner, provided additional data to drive my instructional decisions and made my classroom a better place to learn. Even early on in the intervention students expressed their excitement for getting to draw during vocabulary instruction. This student excitement coupled with the strong support for pictorial representation in existing literature, made me realize ways that pictures could be incorporated across the curriculum, not just in vocabulary instruction. For example, I implemented multiple graphics in my classroom after starting this action research project including: a pre-writing visual checklist, a visual editing checklist, visual classroom rules, and visual study guides.

Additionally, the experience of conducting action research in a school setting has provided opportunity to share my research process with new and veteran teachers alike. I will be briefly sharing the results of my study at an upcoming faculty meeting and sharing my vocabulary notebook sheets and SMART notebook files with other teachers in my building. In this vein, this project has provided opportunities for collaboration and growth for more than me and my students.

Finally, as an educator I recognize the power of action research in the education setting. I believe it is important to continue researching instructional methods that are driven by collected
data and implement new and research-based interventions that lead to student growth and success.
References


Appendix A

Teacher Created Assessment

<table>
<thead>
<tr>
<th>Name:</th>
<th>Hour:</th>
<th>Date:</th>
</tr>
</thead>
</table>

Match the following word in column A to its definition in column B.

<table>
<thead>
<tr>
<th>Column A</th>
<th>Column B</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ________ authentic</td>
<td>A. deep; deeply felt; intellectual; far-reaching</td>
</tr>
<tr>
<td>2. ________ profound</td>
<td>B. capable of existing together in harmony; consistent</td>
</tr>
<tr>
<td>3. ________ relevant</td>
<td>C. loyal; dependable; unwavering</td>
</tr>
<tr>
<td>4. ________ superficial</td>
<td>D. keenly observant; insightful; aware; sensitive</td>
</tr>
<tr>
<td>5. ________ endorse</td>
<td>E. lacking in depth or seriousness; shallow</td>
</tr>
<tr>
<td>6. ________ provoke</td>
<td>F. clear and easily understood; rational</td>
</tr>
<tr>
<td>7. ________ lax</td>
<td>G. having similar interests or feelings; agreeable</td>
</tr>
<tr>
<td>8. ________ formidable</td>
<td>H. harsh; insistent; piercing; shrill; grating</td>
</tr>
<tr>
<td>9. ________ rigorous</td>
<td>I. pertinent; significant</td>
</tr>
<tr>
<td>10. ________ lucid</td>
<td>J. doubting of the motives or integrity of others</td>
</tr>
<tr>
<td>11. ________ perceptive</td>
<td>K. odd in appearance or style</td>
</tr>
<tr>
<td>12. ________ strident</td>
<td>L. expressing oneself clearly and effectively</td>
</tr>
<tr>
<td>13. ________ articulate</td>
<td>M. intimidating; impressive; hard to overcome</td>
</tr>
<tr>
<td>14. ________ steadfast</td>
<td>N. not strict with rules or conduct; careless</td>
</tr>
<tr>
<td>15. ________ cynical</td>
<td>O. very strict; precise</td>
</tr>
<tr>
<td>16. ________ bizarre</td>
<td>P. support; patronize</td>
</tr>
<tr>
<td>17. ________ compatible</td>
<td>Q. incite to action; bring about</td>
</tr>
<tr>
<td>18. ________ congenial</td>
<td>R. conforming to fact; genuine</td>
</tr>
</tbody>
</table>
Standardized Receptive One-Word Picture Vocabulary Test

![Test Form](image)

**Test Results**

<table>
<thead>
<tr>
<th>Standard Score</th>
<th>Receptive Vocabulary</th>
<th>Expressive Vocabulary</th>
<th>Percentile Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>145</td>
<td></td>
<td></td>
<td>&gt;99</td>
</tr>
<tr>
<td>140</td>
<td></td>
<td></td>
<td>&gt;99</td>
</tr>
<tr>
<td>135</td>
<td></td>
<td></td>
<td>99</td>
</tr>
<tr>
<td>130</td>
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<td>98</td>
</tr>
<tr>
<td>125</td>
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<td>95</td>
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<td>120</td>
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<td>91</td>
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<td>115</td>
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<td>60</td>
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<td>&lt;1</td>
</tr>
<tr>
<td>55</td>
<td></td>
<td></td>
<td>&lt;1</td>
</tr>
</tbody>
</table>
## Appendix B

### Intervention Lesson Plan Format

<table>
<thead>
<tr>
<th>Time Needed</th>
<th>30 minutes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials</td>
<td>SMART Board, Student Notebook sheets</td>
</tr>
<tr>
<td>New Words</td>
<td></td>
</tr>
<tr>
<td>Modeling</td>
<td></td>
</tr>
<tr>
<td>Guided Practice</td>
<td></td>
</tr>
<tr>
<td>Review Words</td>
<td></td>
</tr>
<tr>
<td>Assessment &amp; Conclusion</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix C

**Student Notebook Page**

<table>
<thead>
<tr>
<th>Term:</th>
<th>My Understanding:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>My Description:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dictionary Definition:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draw:</td>
<td>Synonym (same):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Antonym (opposite):</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Vocabulary Type:** Power Words
<table>
<thead>
<tr>
<th></th>
<th>Vocabulary Comprehension Rating Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I’m very unsure or confused about the term. I really don’t understand what it means yet.</td>
</tr>
<tr>
<td>2</td>
<td>I’m a little unsure or confused about what the term means, but I have a general idea.</td>
</tr>
<tr>
<td>3</td>
<td>I understand the term and I’m not confused about any part of what it means.</td>
</tr>
<tr>
<td>4</td>
<td>I understand more about the term than I was taught.</td>
</tr>
</tbody>
</table>