The effects of concept sorts on vocabulary acquisition in third grade

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The Effects of Concept Sorts on Vocabulary Acquisition in Third Grade

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CONCEPT SORTS AND VOCABULARY ACQUISITION

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Abstract

The purpose of this study was to evaluate the effectiveness of the concept sort strategy on vocabulary acquisition. Participants were seven third graders who were chosen by the researcher based on attendance from one elementary school. The elementary school is located in a mid-sized city in Wisconsin. The students received an additional ninety minutes of vocabulary instruction in addition to the language arts block. The results showed the effectiveness of the concept sort strategy with an increase in the participants vocabularies. The process for research provided implications for future research which are discussed.
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Chapter One

Introduction

Statement of the problem

As a child listens to their parents communicate, read stories, or even to a song, they store vocabulary. This storage of vocabulary is used in their speech and understanding of verbal communication, but as they grow older it is applied to text. As students progress through school, the connection between vocabulary and comprehension becomes stronger and stronger. Recent research has investigated the influence of economic status and vocabulary development. By the age of three, vocabularies of children with low-economical status are dramatically behind their peers with an average of a 600 word meanings. (Fien, Santoro, Baker, Park, Chard, Williams and Haria, 2011). These delays follow the children when they enter school. By the time second grade ends, students who have lower vocabularies understand 4,000 to 8,000 less than their peers (Fien, Santoro, Baker, Park, Chard, Williams and Haria, 2011). It is crucial to build their vocabularies to help support them as they progress through school, especially when there is a direct link between vocabulary and reading achievement (Pullen, Tuckwiller, Konold, Maynard, and Coyne, 2010). In recent years, many studies have been conducted to help and figure out how to support low income students with vocabulary delays.

In recent years, the city in which the study was conducted has gone through drastic economic changes. The study was conducted in a mid-sized city in South-central Wisconsin, where several businesses have left or even closed down leaving the city and many families searching for incomes. As a result, the schools within the mid-sized school district have increased in their free and reduced lunch rates, which is a direct link to poverty levels. At the
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school the study was conducted, the free and reduced lunch rate is at 57 percent of an approximate population of 360 students.

As a result of the social changes and the implementation of the Common Core Standards (2011), the needs of the students demanded a look at vocabulary instruction. The district has implemented programs to help support the gaps with Making Meaning (Developmental Studies Center, 2008) and Making Meaning Vocabulary (Developmental Studies Center, 2008). The Making Meaning (Developmental Studies Center, 2008) program provides students with a shared reading program that is supported by explicitly taught reading strategies. The program runs daily supported by the Making Meaning Vocabulary (Developmental Studies Center, 2008). The program supports the students with concepts, such as: antonyms, synonyms, prefix, and suffixes, embedded in the four day program. These concepts are also embedded in the Common Core Standards (2011), which states that students need to be able to clarify and determine the meaning of words based on either a prefix or suffixes that are added. Students are also expected to determine meaning of a word based on the phrase or sentence the word is embedded in. These are both key skills that are derived from vocabulary instruction. Students cannot complete the task, unless they have the foundation of vocabulary. The students are exposed daily between the two programs, which provided the students with an environment of vocabulary learning that is supported by research and aligned with the Common Core Standards (2011).

Even with the implementation of these programs, there still was something missing. The students were not making the connection from vocabulary to text. After evaluating the research, the idea of the concept sort presented an idea. A concept sort is an instructional strategy that is used to introduce concepts. The concepts are turned into headers and the words are put under the headers that match the concept (Bear, Invernizzi, Templeton, and Johnston, 2007). The concept
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sort lends an opportunity for the students to categorize not only the words to the text, but the meaning of the words as well. This not only re-emphasized the meanings of the words, but it connected the words back to the text. This lead to my research question, “Do concept sorts help students acquire vocabulary?”

The purpose of this study was to investigate the effects of the concept sort strategy and student vocabulary acquisition. The concept sort intervention was an additional thirty minutes conducted on Monday, Wednesday and Friday. The procedure for the study started with the standardized pretest, Woodcock-Johnson III (Woodcock, McGrew, & Mather, 2001), Form A. The test components were fourteen and seventeen based on the elements tested, picture vocabulary, synonyms, antonyms, and analogies, due to the elements that mirrored the Making Meaning Vocabulary (Developmental Studies Group, 2008). After the pretest, the three day format was implemented for six weeks. The participants received an additional 90 minutes per week of vocabulary instruction. Embedded within the intervention, the students were assessed weekly on the target vocabulary words by researcher developed assessments. At the end of the six week intervention, the Woodcock-Johnson III (Woodcock, McGrew, & Mather, 2001) Form A, was conducted as the standardized post-test.

After the intervention was complete, the goal was that the participants would be able to connect the text and vocabulary, ultimately adding to individual vocabularies by implementing the concept sort strategy. By making the connection between vocabulary and text, it will help students meet the expectations of the Common Core Standards (2011) for third grade. Students need to make the connection between vocabulary and text, but it makes it difficult when students do not have a foundation to build on. By helping students make the connections and teach the two components cohesively, it helps the students show how everything works together. In the
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next chapter, the procedures for the study are described in further detail to see how the pieces fit together to enhance the participants’ vocabulary.
Introduction

Today more and more students are entering classrooms with vocabulary delays; this creates greater gaps for children down the road as they progress through school. More and more evidence is showing the relationship between vocabulary and comprehension, which implicates the strong need to develop a students’ vocabulary. As a student enters school, they are considered in the stage, learning to read. This means the focus is on phonemic awareness, text structures and to prepare them to read. As students progress through school, around third grade, the shift goes from learning to read, to reading to learn. When this occurs, students make the shift not only within reading strategies which focus more on comprehension, but assessments rely heavily on comprehension of text. During this phase, students rely heavily on their vocabulary to recognize the word and its meaning to comprehend the text. For many students, their vocabularies are not large enough for this to occur leaving them to rely solely on decoding. This takes the reader away from comprehending the text (Hairrell, Simmons and Rupley, 2011). Teachers need to build the vocabulary of each individual student in order to prepare each of them to become metacognitive readers. This is a perfect time to evaluate vocabulary instruction, especially with the implementation of the Common Core Standards (2011). It encourages an opportunity to shift from the old to the new. First teachers need to evaluate what components support successful vocabulary instruction. Secondly, teachers need to know research-based strategies that support whole group instruction. Thirdly, when students are showing gaps,
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teachers need to intervene with research-based strategies for interventions to support student success.

In this literature review, vocabulary instruction components such as instruction, materials, multiple meaning words, and professional development, are investigated in the first section. O’Leary, Cockburn, Powell and Diamond (2010) spoke with Head Start teachers about what vocabulary instruction entails and how it’s implemented in their classrooms. This study focused on the importance of explicit vocabulary instruction along with aligned curriculum. Holmes, Holmes and Watts (2011) evaluated the use of materials to support vocabulary learning in multiple contexts. The study focused the use of materials on a leveled scale; one used definitions, to a six, which used real-life application. Then, Nelson and Stage (2007) investigated another component of vocabulary instruction, multiple meaning words. The study evaluated the influence on student comprehension and vocabulary learning. The intervention discussed the importance of multiple word learning to build, connect, and expand vocabulary. Another important component to vocabulary instruction is professional development. Hairrell, Simmons, Rupley and Vaughn (2011) studied how professional development impacted student learning. In order for instruction to be aligned to the common core and throughout a district, professional development needs to occur for teachers to learn and students to benefit from research-based instruction.

The second section evaluates whole group instruction with shared reading and language acquisition strategies. Pollard-Durodola, Gonzalez, Simmons, Kwok, Taylor, Davies, Kim, and Simmons (2011) used shared reading with the Word of Oral Reading and Language Development (WORLD) intervention with preschool students who were at a high risk for vocabulary delays. This intervention used the shared reading strategy to implement the
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intervention, but concluded there is a need for a combination of instructional factors to support students with vocabulary delays. Coyne, McCoach, Loftus, Zipoli, and Kapp (2009) also implemented shared reading, but evaluated the impact of instructional time and depth of instruction with kindergarten students, whether time was more effective or depth of instruction. Many of the studies in this section used shared reading; Orawiwatnakul (2011) took a different perspective with college entry students by using language acquisition strategies and implemented them in to whole group instruction. All of these studies provided research-based strategies to analyze and help teachers redefine whole group vocabulary instruction.

The third section consists of literature that investigates small group instructional strategies. Coyne, McCoach, Loftus, Zipoli, Ruby, Crevecoeur and Kapp (2010) implemented direct and extended vocabulary instruction with target words supported by text. This study compared explicit instruction to implicit instruction and extended opportunities. This provided an extension of learning for the participants. Another small group intervention study was conducted by Fien, Santoro, Baker, Park, Chard, Williams, and Haria (2011). The tier two intervention provided students with another opportunity for additional time to review the target vocabulary. In a similar study, Pullen, Tuckwiller, Konold, Maynard, and Coyne (2010), investigated an intervention at a different level by applying the target words within multiple contexts. Another study was conducted by Taboada and Rutherford (2011) with small groups, but compared two different types of vocabulary instruction, Contextualized Vocabulary Instruction and Intensified Vocabulary Instruction, with ELL students. The study provided an analysis of two research-based instructional strategies that effected comprehension, expository writing, and reading engagement. All of the studies provided strategies for small group instruction, but each were connected to the whole group instruction that occurred during the
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Participants daily instruction. Teachers need to have an understanding of key components for successful vocabulary instruction and how they are woven together for student success.

Vocabulary Instruction

O’Leary, Cockburn, Powell, and Diamond (2010) interviewed a population of Head Start teachers on their views on phonological awareness and vocabulary instruction. The participants were from a collaboration of urban, small city and rural areas in a Midwest state. The participants were 81 lead teachers and 56 assistants with varied degrees and experience. Of the 81 lead teachers 34.6% held associates degree, 46.9% bachelors, and 7.4% bachelors or higher. The average teaching experience was 10.2 years for the lead teacher. As for the assistants, 21.2% held a Child Development Associate degree, 32.7% held a college or trade school experience, and 13.5% held an associate’s degree and 5.8% a bachelor’s degree. The teachers interviewed represented 83 different classrooms.

The research staff of this qualitative study consisted of a moderator, an assistant moderator, and a note taker with experience in interview research. The moderator conducted the questions and asked for clarification when needed, while the assistant moderator kept track of time and took notes. The notes were displayed for the participants as a reminder of responses. The note taker took notes and audio taped each session. The average interview lasted 90 minutes with an average of 9.71 teachers. The interview process started with the reminder that the participation was voluntary and the purpose of the interview stated. The interview consisted of ten questions that focused on the invitation for participants to share experiences and challenges with phonemic awareness and vocabulary. During the interview the assistant moderator reviewed the main points and verified information with the participants.
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The interviews went through a process in order to be analyzed to form conclusions. All of the interviews were transcribed with Hatch’s (2002) use of inductive and interpretive methods. The authors transcribed the interviews. Afterwards, a third person evaluated the transcribed text for continuity. From there, the authors and reviewer got together to discuss common themes.

The transcribed interviews found common themes within phonemic awareness instruction, vocabulary instruction and setting. The common thread within phonemic awareness instruction was the focus on letter and sound recognition. Within the theme, there were discrepancies on sequence of instruction and what phonemic awareness encompassed. The common theme for vocabulary instruction was spontaneous instruction. Even though some teachers planned on and explicitly taught vocabulary, many did not understand or see the importance. The common thread for the setting was the importance of the position as a Head Start educator and the roles held as parents and educators, with little to no support from home. The study itself provides the Head Start programs with a direction of focus; find and embed a definition of phonemic awareness and professional development for vocabulary instruction and its importance. The Head Start program is a key foundation for many students and needs to have strong vocabulary instruction to help students at risk to raise their personal vocabularies to help them become metacognitive readers.

Another key component are the materials used when vocabulary instruction is conducted, which was investigated by Holmes, Holmes and Watts (2011). The study was conducted to gain knowledge of different perspectives on vocabulary instruction and the use of materials by educators. The purpose of the study was to see if educators used concrete materials to support new words in multiple contexts. Five hundred seven observations occurred in 150 kindergarten through third grade classrooms in school districts in Northern Mississippi.
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The sample districts varied in the economic status and accountability levels. Two of the schools were high performing, three were considered successful, four were on academic watch, and one was at risk of failing. The schools were selected on the following basis: participation in professional development by the department of curriculum and instruction or requested by graduate observers.

The research method was qualitative with 507 observed lessons of vocabulary instruction from 2009 to spring of 2010. Each observation was scaled based on the hierarchy of materials: level one for example was the oral description of the words. Level two consisted of written description of the words. Level three were visuals or pictures. Level four consisted of real world materials that resembled artifacts. Level five were living and nonliving artifacts taken out of native environment. Level six consisted of nonliving and living artifacts in native environment. Each lesson was documented for up to one hour of instruction.

The study recruited and trained interventionists through the graduate department of the University of Mississippi Oxford campus. All sixteen participants were trained in small group sessions for one and a half to two hour sessions. Each passed the Institutional Review Board (IRB) and Collaborative Institutional Training Initiative (CITI) tests. Each of the sixteen observers participated in practice observations to ensure interrater reliability.

The sixteen participants scheduled three different sessions with the teachers consent. Each teacher was observed in the reading subject areas: math, science, and/or social studies. Exceptions were accepted for teachers who did not teach a particular subject. The observations lasted up to one hour to determine the accountability level of the materials used. The district, grade level, subject area, hierarchy level, and time were recorded for every observation.
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The data was collected and analyzed on four different levels: hierarchy level, grade level, subject area, and accountability level. Fewer than one third of the population used materials at a hierarchy level of three or higher. When broken down by subject; only 9.1% of language arts lessons contained concrete materials, compared to 42.6% of math and 26.4% of science. When evaluated at the accountability level, the high performing and successful schools had the most balance within the hierarchy levels. While the academic watch and at risk of failure schools relied heavily on written definitions. The study concludes that the high performing schools used concrete materials three times as much as low-performing schools. Vocabulary materials have an impact on the learning and application of the words taught.

Another component to vocabulary instruction is the connection of words through multiple meanings. Nelson and Stage (2007) investigated the impact multiple meaning vocabulary instruction had on vocabulary knowledge and comprehension of students. The study consisted of 283 third and fifth grade students in a small Midwestern public school system. Thirty two percent of the population qualified for free and reduced lunch. Of the 134 third grade students, 124 were Caucasians, 39 were Hispanic, and eleven were considered other. The fifth grade population consisted of 149 students, 93 were Caucasians, 34 were Hispanic and seven were other.

The research method was quantitative with the Gates-MacGinitie Reading Test, 4th Edition (MacGinitie, MacGinitie and Dreyer, 2000) as the dependent variable. The six week intervention of multiple meaning instruction for 283 third and fifth graders as the independent variable. After the students were randomly grouped, experiment or non-specific, the students were pre and post-tested with GMRT-4 to the normal curve equivalent (NCE) score. Student
scores under 30 were considered low, and a score of above 30 were considered average to high. Seventy-one third graders and 72 fifth graders participated in the intervention.

The intervention consisted of six weeks of instruction during language arts. The experimental group received contextually-based multiple meaning instruction for 36 words with three relatable words. Third graders were exposed to level one words, words that had two meanings; whereas, the fifth graders were exposed to level two words, words that had three to four meanings per word.

The procedure followed a two day lesson format, with a 20 – 30 minute session. Six words were introduced each week. Day one, the students were exposed to the words and had to provide a stage of word meaning for each of the new words. The stages were as follows: 1. I never saw the word before, 2. I’ve heard of the word, but I don’t know what it means, 3. I think I know it-it has something to do with, 4. I know the word-it means “…” in this context. The meanings of the target words were introduced. The words were introduced with a related word to activate prior knowledge. Day two, included the application of the word meaning in context. The students were provided the background history of the word. Then the students conducted a “Word Meaning Map” where relatable words were added to a graphic organizer. After conclusion of the “Word Meaning Map” activity, the students created a definition for each of the target words, in the “Complete Each Definition” activity.

The students’ vocabulary and comprehension progress was analyzed with the pre and post-test of the GMRT 4th edition. Form S was used in the pretest and Form T was administered for the post-test. The vocabulary component consisted of a 30 minute multiple choice exam.
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The comprehension component was 50 minutes long and provided the students with fiction and non-fiction passages.

The results showed progress from pre to post-tests, for each grade level and component. However, the low achieving experimental groups showed more improvements than the average to high achieving students. When the experimental group was compared to the non-specific group, the experimental group showed improvements in comprehension compared to the non-specific group.

Quality instruction is dependent upon professional development. Hairrell, Simmons, Rupley, and Vaughn (2011) focused on professional development and the impact on vocabulary instruction in Social Studies. The research is based on the influence of evidenced–based vocabulary instruction.

Twenty six teachers from two ethnically and economically diverse school districts in a central Texas school district participated in the study. The students involved in the study were divided based on the results of the Texas Assessment of Knowledge and Skills (TAKS) performance. The students were then randomly dispersed to the two different conditions: typical instruction or professional development. This ensured that the teachers in each condition did not vary by degree, ethnicity, experience or additional certifications. The teachers that led the professional development classrooms had an average of 5.35 years of teaching experience and an average of 3.6 years in fourth grade. The teachers that led the typical instruction classrooms averaged between11.4 years of teaching experience and 6.3 of the averaged years in fourth grade.
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The research was conducted with the quantitative method. The independent variables were the conditions, professional development, or typical instruction. Total time, number of strategies and instructional quality were the dependent variables. The teachers were evaluated based on instruction, instructional strategies, and teacher familiarity of instructional strategies. The Instruction Content Emphasis, ICE (Edmunds and Briggs, 2003) was used to evaluate instructional strategies based from three audiotaped instructional sessions. The teachers were rated on a global rating scale of one to seven. Their inclusion of teacher modeling, student practice, and pacing were rated (Foorman and Schatschneider, 2003). A survey was also conducted to determine the teacher’s knowledge of vocabulary instruction based on a scale of one to three: one unfamiliar, two familiar, and three very familiar.

The professional development condition was supported with eighteen hours of instruction, practice, and study sessions within the social studies themes. The themes occurred over six weeks. Prior to each theme, a three hour professional development would occur. Weeks one through six focused on vocabulary analysis maps with the school district prioritized vocabulary. The focus of weeks seven through twelve was anticipation guides to activate students’ background knowledge. Over the course of the study, teachers participated in six sessions of professional development over 21 weeks.

The results from the timed observations supported a statistical difference between typical instruction and professional development instruction. The professional development condition dedicated more time to vocabulary, with an average of 40.6 minutes compared to 27.72 typical instruction. During the sessions, the professional development condition offered more strategies, 2.23 per session, compared to the reliance of 1.19 per session. The quality of instruction was greater for the professional development classrooms with an average of 4.90; whereas, the
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typical instruction condition had an average of 3.60. The results supported the importance of professional development and how it serves as a bridge between research and practice.

**Whole Group Instruction**

Pollard-Durodola, González, Simmons, Kwok, Taylor, Davies, Kim, and Simmons (2011), evaluated the use of shared book reading as an intensive intervention for students at risk of vocabulary delays. The purpose of the study was to find a correlation between the Word of Oral Reading and Language Development (WORLD) intervention and vocabulary gains.

The sample consisted of 125 preschool students from two different school districts and one Head Start agency in southcentral Texas. Of the 125 students, the breakdown consisted of sixty-two African Americans, eleven Asians, thirty-five Hispanic/Latinos, and seventeen Caucasians. The students were pretested with the Peabody Picture Vocabulary Test-III (Dunn & Dunn, 1997). To qualify for the study, a student had to score below the 30th percentile. They then were randomly placed to either a treatment or practice-as-usual condition based on enrollment. The classrooms ranged from eighteen to twenty-two students. Two standardized assessments, PPVT-III and EOWPVT (Expressive One-Word Picture Vocabulary Tests) were used as pre and post-tests. The researchers also designed pre and post-tests, RDRPVT (Researcher Developed Receptive Vocabulary Test), and RDEPVT (Researcher Developed Expressive Picture Vocabulary Test). All four were administered to gain information from the intervention.

The research method was quantitative. The independent variable was the implementation of the WORLD Intervention. The dependent variables were the scores on the standardized
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assessment PPVT-III. The researcher developed the EOWPVT, RDRPVT, and RDEPVT, which were used to determine growth in receptive and expressive vocabulary.

The study lasted for twelve weeks, with two different intervention themes, nature and living things. The students were pretested two weeks prior to intervention and two weeks after. Each week had a balance of text structures: day one and two had fictional text, day three and four had non-fiction text. On day five, both structures were reviewed. Before, during and after reading routines were established in the daily lessons of twenty minutes. The experimental group received the WORLD intervention curriculum. This was administered by eleven teachers who taught the experimental classrooms. Each participated in a half day professional development. This provided the teachers with the rationale of the intervention, materials and specific procedures. The teachers were provided with all instructional materials to implement intervention. Throughout the duration of the intervention, the teachers met with the researchers three times to review and resolve problems.

The intervention showed varied results. The students did not show any difference between receptive and expressive vocabulary on the standardized assessments, PPVT-III and EOWPVT. However, The students showed progress on both of the assessments created by the researchers. Due to the variance, the researchers have concluded that a combination of factors needed to be implemented to enhance shared reading interventions to close the gaps of vocabulary delays.

Another perspective on whole group instruction was investigated, a direct versus depth instruction embedded in shared reading with kindergartners by Coyne, McCoach, Loftus, Zipoli, and Kapp (2009). The two methods varied in instructional time and depth of instruction. The
participants consisted of 42 kindergarten students in a large city in the Northeast. Of the participants, twelve students were Hispanic, eight were African American, three were Caucasian, and one Asian. The eligibility level of the participants for free and reduced lunch was 65%.

The study used the quantitative method with the independent variable as two different instructional types, embedded and extended. The dependent variable is the Peabody Picture Vocabulary Test –III (Dunn and Dunn, 1997). The researcher based assessment evaluated expressive word definitions, words in context/full knowledge, words in novel context, and receptive target word definitions.

The intervention was designed around a storybook with nine targeted vocabulary words. Three vocabulary words were introduced at each session of the story read aloud. At each session, the students were exposed to the different types of instruction: embedded, extended, and incidental. Embedded instruction consisted of vocabulary introduced during the read aloud. Whereas, extended vocabulary instruction provided a time intensive approach with multiple interactions with the story. The students did show growth with incidental exposure, even with no target words. During the week long intervention, the students were broken down into groups of four, with three 30 minute sessions. The session consisted of fifteen minutes of read aloud with introduction of words, if applicable, and fifteen minutes of post-reading activities.

The researchers used the PPVT-3 as a screener to gain knowledge of the participants’ general vocabulary to determine vocabulary words to be taught. The researcher developed assessment was administered, immediately following the intervention and eight weeks after post-test. Members of the research team administered all of the assessments.
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The results supported extended and embedded instruction which had higher scores than the incidental. On the post-test, the students showed greater knowledge with the extended method on each of sub tests compared to the embedded instruction. The expressive definitions sub test, which provides a deeper understanding, had the greatest gap between instructional types. The students averaged a score of 3.79 with the extended instruction, compared to a 1.47 average with embedded instruction. The results showed that vocabulary instruction needs to have a balance with the two types of instruction; however, to gain the deeper understanding of word meaning students need to have extended instruction.

Students obtain vocabulary explicitly and incidentally, but Maynard, Pullen, and Coyne (2010) took a closer look to evaluate the evidence of rich and basic instruction compared to incidental exposure. Two hundred twenty four first graders from three different schools in a central Virginia school district participated in the one week study. The three schools represented diverse populations with low socioeconomic status; 36 percent of the students in attendance at the three schools received free and reduced lunch. The make-up of the participant population consisted of fifty-eight percent White, twenty-two percent Black, ten percent Hispanic, six percent Asian, and four percent other.

The study was quantitative with the one week intervention of the rich and basic instruction as the independent variables. The dependent variables were the standardized assessments of the Peabody Picture Vocabulary Test (Dunn and Dunn, 1997) and Expressive Vocabulary Test (Williams, 2006). The researcher also developed assessments that consisted of composite, receptive, context, and expressive components of vocabulary in the study.
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The intervention took place for one week with 224 first grade students. The students were nested in their classrooms for the study, which means that the students were clustered in the classrooms and not dispersed. The participants were in twelve different classrooms, all of which were randomly assigned to treatment or non-treatment. The teachers in the study were all certified first grade teachers and participated in a two-hour training with the focus on shared reading intervention along with the materials. The one week intervention consisted of three read aloud sessions with six focus words in the basic and rich instruction. However, twelve total words were selected from the text for assessment purpose. The basic treatment provided the students with simple definitions of the target words during shared reading. When a target word was recognized, the sentence would be read aloud and repeated with the supplementation of the word’s definition within the sentence. The rich instruction had the same foundation with the addition of post-reading activities, such as open ended questions and production of sentences that used the target words. The incidental comparison group exposed the children to the twelve target words three different times, but the words were not taught or discussed.

All of the participants were pretested with the PPVT-III for vocabulary knowledge and the EVT for expressive vocabulary knowledge. The intervention followed for a week, where the students were exposed to the various treatments, rich, basic or incidental instruction. The first post-test followed the intervention and the delayed post-test followed three weeks later.

The results of the study showed the greatest growth with the rich vocabulary instruction compared to the basic and incidental instruction on the post-test and delayed post-test. Each instructional model showed growth, but the rich instruction showed the greatest with a 14.19 composite mean score. This is compared to 10.63 for basic and 2.76 for incidental. On the delayed post-test, the rich instruction retained a mean score of 10.02, basic was 8.56 and
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incidental at 5.45. The incidental score not only showed growth from the post-test to the delayed post-test. As a result of these findings, the researchers have recommended three suggestions for vocabulary instruction for first grade. First, vocabulary instruction should include varied and complex vocabulary embedded in text. Second, teachers need to provide students with a subset of target words and activities with each text. The last suggestion is that rich instruction should be provided for the complex words to help enhance a student achievement in vocabulary.

The foundation for instruction should be based on research and practice, Orawiwatnakul (2011) used researched vocabulary acquisition techniques to support college entry students learning English and evaluated the results. The purpose was to determine how vocabulary acquisition techniques affected the ability and attitude of students. The study was focused on the 35 students learning English and how vocabulary acquisition techniques supported learning during one semester. The sample consisted of students from Bangkok University in the mandatory EN 111, English Fundamentals course. The students were randomly clustered from 120 sections.

The research method was quantitative. The two dependent variables were the students’ vocabulary capability and their attitudes determined by a questionnaire. The acquisition techniques were the independent variable. The students were pretested and post-tested with the same 50 multiple choice questions based on the Torat’s English Text Analysis test (2000). The test evaluated the students on word structures, such as roots, prefixes, suffixes compound words and use of context clues. After the students received the vocabulary acquisition techniques, a questionnaire by Tabtimsai (2003) was administered to explore the students’ attitudes on format, content, activities and benefits.
The study occurred during the first semester with 35 college entry students. The students were pretested and post-tested with the Torat’s English Text Analysis test (Torat 2000). The students were separated into three different categories based on the scores out of 50 total points, high (higher than mean score of 29.71), intermediate (mean score between 17.34 – 29.71), and low-proficiency (a mean score lower than 17.34), based on the results on the English Text Analysis test. Between the pre and post-test, the students received instructional strategies with the emphasis of word structure analysis and context clues. The word structure strategies focused on prefixes, roots and suffixes. This supported the students with tools to decode words by meaning and visual representation. The strategies delivered for context clue analysis were evaluated phrases to determine meaning with the emphasis of definition, restatement, comparison and contrast.

The results supported the use of acquisition strategies for all students. The students with most positive responses were the low group, who averaged an increase of 12.50 points on the English Text Analysis test. This was followed by the intermediate group with gains with an average of 11.82. The high group demonstrated 5.66 points increase. Added to the support of growth, the students’ attitudes towards acquisition techniques were positive in the following areas: format, content, activities and benefits. The study provided information that supports the importance of using language acquisition strategies to support students with limited vocabulary to problem solve and comprehend.

Small Group Instruction

Whole group instruction is universal, but there are times when students are not meeting the universal expectations. Coyne, McCoach, Loftus, Zipoli, Ruby, Crevecoeur, and Kapp
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(2010) investigated the transfer effects of direct and extended vocabulary instruction with an eighteen week intervention using small group instruction. Three different schools from the Northeast participated in a quasi-experimental study with diverse populations and moderate to high percentages of free and reduced lunch numbers, 73%, 81% and 91%. The sample consisted of 124 students, 80 in the experimental and 44 in control. Of the 80 experimental participants 55% were Hispanic, 21% were Caucasian, 19% were African American, and 5% other. The control group consisted of 57% Hispanic, 16% Caucasian, 25% African American, and 2% were other.

The eighteen week intervention of direct and extended vocabulary instruction served as the independent variable in the quantitative study. The dependent variable was the pre and post-test of the Peabody Picture Vocabulary Test-III (Dunn and Dunn, 1997) for overall vocabulary knowledge. The researcher also created assessments to evaluate the following: expressive definitions, target words in novel contexts, and receptive target word definitions.

The direct instruction of targeted words embedded in extended instruction was supported by storybooks, repeated exposures, and applications to real-life situations. The 36 half-hour lessons created used eighteen storybooks and 54 focus words. Of the 54 words, fifteen that were nouns, eighteen were verbs, and twenty-one were adjectives. The beginning of each lesson introduced three target words. After each lesson, extension activities were implemented for the target words, and applied in different context. The lessons were implemented in small group and whole group settings.

The students were pretested with the PPVT-III for expressive vocabulary. The pretest provided the researchers with a baseline data on each individual student. Prior to intervention, a
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One day training was provided for the interventionists. The intervention was implemented at all three elementary schools with 124 participants. Four post-tests were administered, one standardized and three researcher created. The standardized assessments were used for discussion of results. The other three were not used due to insufficient data.

The findings supported larger gains for the experimental group compared to the control. The PPVT-III pre and post-test gains for the control were 2.85 compared to a 5.08 of the experiment. The results from the assessments provided information that explicit vocabulary instruction is effective. More research was suggested, with a larger time frame, in order to capture more information.

Another similar study was conducted by Fien, Santoro, Baker, Park, Chard, Williams, and Haria (2011) which evaluated the effects of a tier two intervention that mirrored the tier one whole group instruction. This provided the first grade students another opportunity to preview and review vocabulary in addition to whole group instruction.

The student sample was selected from nine various Title 1 schools in the Pacific Northeast. It consisted of 106 first grade students who scored below the 50 percentile on relational vocabulary subtest of the Test of Language Development: Primary-III (Newcomer & Hammill, 1997). The intervention group consisted of 55.6% female and 44.4% males. The population consisted of 74.1% Caucasian, 1.9% African American, 18.5% Hispanic, 1.9% Native American, and 3.7% declined an answer. The students were matched up based on vocabulary scores and assigned randomly to a classroom. Eighteen classrooms participated in one of the two conditions, treatment and control.
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The study was conducted under the quantitative model. The independent variable was the implementation of the shared reading model in small groups. The dependent variables consisted of the students’ scores on the TOLD-P – 3 (Newcomer and Hammill, 1997), narrative and expository retells, which were used as a pretest and post-test.

The study occurred for eight weeks with a sample of 106 first graders. The entire sample received read aloud instruction based on the district’s Read Aloud Curriculum. Four units were covered during the eight weeks with expository and narrative text structures. Beyond the read aloud curriculum, the treatment groups received an additional twenty minutes of read aloud instruction, two times a week for eight weeks to reemphasize the skills. Eleven interventionists were hired to conduct booster sessions. Each of the eleven interventionists received one full day of training with ongoing support throughout the study.

The treatment group received twenty minutes of additional instruction, two times a week for eight weeks consisting of four animal themes. The instruction for the booster interventions were aligned with the curriculum, with the addition of “Big Books.” Each theme was supported with four booster intervention sessions. Each session had its own consistent framework that supported conversations about instruction and text. The first session framework consisted of a discussion to lay out background knowledge, introduction of key vocabulary, discuss and extend vocabulary, and preview of the “Big Book.” The second session framework consisted of a review of old vocabulary, introduction of new vocabulary, main idea structure, and the “Big Book” read aloud was supported with a “think sheet.” The third session reviewed session two and continued with the “Big Book” read aloud. The fourth session started with “think sheets,” and animal classification was supported by vocabulary usage. The session goals were to enhance
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conversations about instruction and text. At the end of eight weeks, the treatment group was compared to the control group to gain insight from interventions.

As a result, the data suggested that the treatment group responded to the interventions. The treatment group outperformed the control group on vocabulary assessment and expository retell. The gains ranged from 0.57 to 0.66. The data does not support this for narrative retells. As a result, the researchers have a foundation to start to evaluate the importance of whole group instruction with mirrored interventions to help close the achievement gap for vocabulary.

When students are showing gaps, support needs to be implemented in a different way. Pullen, Tuckwiller, Konold, Maynard, and Coyne (2010) conducted a study to find the effects of tiered vocabulary instruction for at risk students in early elementary. The purpose of the study was to evaluate the effectiveness of a vocabulary intervention within the model of shared reading.

The sample consisted of 224 first-grade students from three different elementary schools in a medium sized school district. The elementary schools were selected, with the intent to find a population with various social economic areas. At school one, 33 percent of the students received free and reduced lunch. Whereas, school two had 36 percent of students who received free and reduced lunch, and 38 percent at school three. The students were considered at-risk if they scored below the 39th percentile on the Peabody Picture Vocabulary Test-4 (Dunn & Dunn, 2007). The PPVT-4 is a tool used to determine language deficiencies. The at-risk control group consisted of 46.9 percent of males and 53.1 percent of females; while the at-risk treatment consisted of 49 percent of males and 51 percent of females.
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The method was quantitative, with the shared reading model for vocabulary as the independent variable. One of the dependent variables was the PPVT-4, which was used as a pretest and post-test. In addition to the standardized assessment, the researcher developed other assessments.

The study for the three groups, at-risk treatment, at-risk control, and not at risk, consisted of a two week timeline. The PPVT-4 was used as a pretest to determine groups, but was not used as a post-test due to its lack of sensitivity under the short timeline. The post-test was designed by the researchers based on curriculum. This post-test was administered two times, immediately after the intervention and four weeks later to monitor long term effects. All of the students received tier one interventions, Monday and Wednesday. The at-risk treatment groups received the tier two interventions on Tuesday and Thursdays. This intensified the vocabulary taught during the tier one interventions.

The experimental group received a two week intervention group that immediately followed the tier one instruction on Tuesdays and Thursdays for twenty minutes. Each week had a theme book, with the emphasis of four vocabulary words. The format consisted of review and active interaction with target words.

The results of the study were evaluated. The students who were in the not at risk group, out-performed the other two groups on all word knowledge levels. Between the two other groups, the at-risk treatment group scored higher than the at-risk control on all word knowledge levels of expressive, conceptual and receptive. The analysis of the delayed post-test scores showed interesting results. The not at-risk students maintained their scores from the post-test to
the delayed post-test, while both at-risk group scores showed decreased scores in all three areas. The results were short lived and the skills did not become internalized.

Many times, a label such as English Language Learners (ELL) can be misleading, when it really holds the key for all students. Taboada and Rutherford (2011) compared two types of vocabulary instruction, Contextualized Vocabulary Instruction (CVI) and Intensified Vocabulary Instruction (IVI), primarily used with English Language Learners in the science content. The study evaluated the impact on the participants’ reading comprehension and academic vocabulary. The sample was located in a sub-urban area in the mid-Atlantic, with a diverse population of 43.6 percent Hispanic, 33.9 percent White, 12.2 percent African American, 6.3 percent Asian/Pacific Islander, and 0.2 percent Native American and 3.7 percent other. Participants consisted of twenty ELL students who held a level three or four, based on English Proficiency levels determined by the SELP (Standard English Language Proficiency) assessment. Within the sample, thirteen boys and seven girls participated.

The study was qualitative and quantitative. The researchers conducted a qualitative study to gain knowledge of the teachers’ perspective and implementation of interventions with eight observations. The quantitative study covered the statistical evidence of the implementation of the two instructional models. The independent variables consisted of the two types of vocabulary instruction, CVI and IVI. The dependent variables consisted of five researcher developed assessments: academic vocabulary, reading comprehension, expository writing, autonomy affecting teacher behaviors, and autonomy supporting behaviors. A reading engagement inventory was administered; this was created by the researcher to fit the needs of the study. The academic vocabulary and reading comprehension assessments were multiple choice assessments designed by the researcher. The expository writing sample was an open format
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essay that was based on a non-fiction text. The essays were scored on a scale of one (lowest) to four (highest): and how that related to the understanding of animal and plant adaptations. The assessment for autonomy-affecting teacher behaviors consisted of a 22 item assessment with a Likert-Scale that focused on the students’ perceptions of the teachers. This was followed up with observations with the focus of frequency of student choice and connections to real-world situations. There was a total of eight data points for both of the interventions were collected. The engagement inventory was administered to gain knowledge of whether the participants were engaged and/or motivated from the teacher’s perspective.

The study implemented two interventions: CVI and IVI, each vocabulary frameworks of instruction. The CVI instructional framework embedded a science theme with four reading comprehension strategies and two motivation practices. The four reading strategies were activating prior knowledge, questioning, organizing graphically, and self-monitoring. IVI used three practices for focused vocabulary. They were supported with autonomy and voice of participants. The three explicit strategies are: rich word learning environment, explicitly taught words with multiple exposures, and use words as a base to learn new words or multiple meanings.

The interventions lasted eight weeks, with several assessments administered within the timeline and after. Assessments for vocabulary, comprehension, and expository writing assessments were administered at the four, eight and delayed three weeks. The autonomy assessments and engagement inventory were administered three times: once prior to the study beginning, and two times during the timeline. The qualitative data was collected eight times through observation, all during the eight week intervention. Several assessments were administered to help drive instruction and support the participants in the study.
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The results showed growth for both interventions with a balance of autonomy. The CVI instructional model showed growth with the comprehension test and expository writing. IVI instructional model showed more strength with academic vocabulary. The study was conducted to determine what instructional strategy would enhance the academic vocabulary of ELL participants. The results support the recommendation of the IVI framework for this purpose.

In the following chapter the procedures are discussed for the intervention of concept sorts and its effects of concept sorts on vocabulary acquisition.
Introduction

The community in which my school is embedded has gone through so many changes, so have the students in our building. Students are coming into our doors with less and less reading exposure, which has a large impact on how they perform in school. Our focus as a school has been to intervene as early as possible to get our students to the learning to read stage. By the time the students arrive in third grade, a new transition occurs, the reading to learn stage. Vocabulary plays a large part in the reading to learn stage, as students rely heavily on their vocabulary as they read the text to gain comprehension. If the student does not recognize at least ninety percent of the words, comprehension cannot occur (Pullen, Tuckwiller, Konold, Maynard, and Coyne, 2010). Therefore, the needs of my students necessitate an investigation of vocabulary instruction. The purpose of this study was to investigate the effects of the concept sort strategy and student vocabulary acquisition.

In the past two years, our district has implemented Making Meaning (Developmental Studies Center, 2008) and Making Meaning Vocabulary (Developmental Studies Center, 2008). The Making Meaning (Developmental Studies Center, 2008) program provides students with a read aloud program that is supported by explicitly taught reading strategies. The program runs daily supported by the Making Meaning Vocabulary (Developmental Studies Center, 2008) and has concepts, such as, antonyms, synonyms, prefix, and suffixes, embedded in the a four day program. In addition to the vocabulary instruction, the students are exposed daily with the
words and text between the two programs. The weekly instruction provided the students with an environment of vocabulary learning that is supported by research.

In recent studies of vocabulary research, explicit instruction is key, especially when the structure of the word is analyzed (Bear, Invernizzi, Templeton, and Johnston, 2007). This not only teaches the students the word structure, but the multiple meanings of the word as well. Nelson and Stage (2007) state that the multiple meaning component is crucial to vocabulary instruction because it helps take instruction to the next level. Students are required as readers to decode meaning within the text in order to comprehend. The instruction also provided the students with repeated exposure of the vocabulary taught; which supports the acquisition of vocabulary (Coyne, McCoach, Loftus, Zipoli, and Kapp, 2009). The repeated exposure helps the students and store and transfer the information. This is why, I felt so strongly about the opportunity to investigate and implement the concept sort strategy.

The strategy lends an opportunity for the students to take vocabulary instruction to the next level. Even though, the students were exposed to well-researched vocabulary instruction, I felt that it was necessary to take their learning and enhance it. I feel that the addition will provide my students with a foundation and skill to enhance their own vocabulary. The information about the participants, procedures and data collection about the concept sort intervention are explained below.

**Participants**

The qualitative study was conducted in a mid-sized city in a south central school district in Wisconsin. The school consisted of a population of approximately 360 students where 57 percent of the population received free and reduced lunch. The school provided the following
The seven participants came from one third grade classroom, of which five were girls and two were boys. Of the participant population, five were Caucasians, one was Asian, and one was Hispanic. All of the students participated in the classroom with no adaptations; one student was a level six ELL student, who was monitored. Three of the participants were identified Intellectual, under Talented and Gifted. The age range for the participants was eight years, nine months to nine years, four months. The participants were at grade level and/or above on the standardized assessments, district wide MAP (Measures of Academic Progress) and state wide WKCE (Wisconsin Knowledge and Concept Examination) for Reading.

**Description of Procedures Used**

The classroom participated in the Making Meaning Program (Developmental Studies Center, 2008) program in coordination with district protocol. The Making Meaning series used “Read Alouds” to explicitly teach comprehension strategies. Each week focused on a different book and built on comprehension strategies throughout the year. Along with Making Meaning, the district added Making Meaning Vocabulary (Developmental Studies Center, 2008). This entailed an average of six to eight vocabulary words that were targeted in the weekly text. The intervention used the instructional strategy of concept sorts along with the target vocabulary words in coordination with the text and vocabulary strategies, such as multiple meanings, antonyms, and synonyms. A concept sort is a vocabulary instructional strategy that is primarily used to introduce concepts. The concepts are turned into headers and the words are put under the
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headers that match the concept (Bear, Invernizzi, Templeton, and Johnston, 2007). The Making Meaning Read Aloud schedule followed the Tuesday through Friday, or four day format, suggested in the program. The concept sort intervention was an additional thirty minutes conducted on Monday, Wednesday and Friday.

The procedure for the study started with the standardized pretest, Woodcock-Johnson III (Woodcock, McGrew, & Mather, 2001), Form A. Only Tests 14: Picture Vocabulary, 17A: Synonyms, 17B: Antonyms, 17C: Analogies were administered due to connection of the components with Making Meaning Vocabulary. After the pretest, the participants started the three day weekly schedule for six weeks; each lesson consisted of thirty minutes. During the intervention, five different texts were used, two non-fiction and three fictional. One fictional text was used for two weeks, due to the length of the text. Day one consisted of a researcher created vocabulary assessment that included the target vocabulary for the week (Appendices F – J). After the pretest, the target vocabulary words were introduced along with the meanings in concept sort form. All sorts are in the Appendix section under A through E. The participants were asked to put the words into context to help activate prior knowledge. The researcher provided the participants with the headers, in coordination with the main ideas of text, and the sort was conducted as a group. On day two, the group reviewed the target words and meanings, then discussed the text that was introduced the day prior, and how the words were used in the text. At the end of the session, the concept sort was conducted as a group. Day three consisted of the same researcher created assessment as a post-test; this was used to track gains within the week. After the participants took the post-test, headers were created and sorts were conducted individually. This provided an opportunity for individual application of the target words in
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context. At the end of the six week intervention, the Woodcock-Johnson III (Woodcock, McGrew, & Mather, 2001), Form A, was conducted as the standardized post-test.

Description of data collection

The standardized Woodcock-Johnson III (2001) was administered one week prior to intervention and as a post-test one week after intervention. The assessments were scored by a district employee who is trained to norm and score the Woodcock-Johnson III (2001). The assessments were normed based on grade level equivalency. The researcher created assessments were developed each week with the target words. The same assessment was used as a pre and post-test to show gains weekly. Each assessment was scored by a percentage based on correct answers by each participant. The schedule was followed on a weekly basis for four weeks, but the last two weeks used different protocol due to the length of text. For this text, the pretest was taken on day one and the post-test was taken on day 6, after the text was read aloud in its entirety. If a participant was absent for the pretest, which occurred two times over the course of the study, the scores were not included because there was no comparison data. All of the assessments were kept in a secure location prior to analysis by researcher.

Summary

Vocabulary instruction has been a hot topic in recent research, and after evaluating the research, an investigation needed to occur to evaluate the implementation of a concept sort. I feel the concept sort, in addition to already existing instruction, allowed students an opportunity to evaluate vocabulary in different context, ultimately enhancing their vocabulary. This is very important as I provide my students with a foundation as they embark on the next stage of reading: reading to learn. A six week study was conducted using to see the effects of the
implementation of a concept sort enhanced a student’s vocabulary. The intervention group consisted of seven students who were pulled for additional 90 minutes of vocabulary instruction weekly. These students were used to compare the data and the effects of the intervention. The data of the intervention is evaluated in detail in the next chapter.
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Chapter Four

Results

Introduction

Vocabulary instruction has always been an area of my teaching that has needed improvement. In recent years I have tried acting out words, breaking down the words structure, repeated definitions, and visuals, not only did I bore my students, but their vocabulary was not improving. Not to say, that these strategies do not work, but there was something missing. My students were not making the connections to text. The words seemed to float in air, without out applying outside of explicit instruction. As years progressed, the needs of my students grew larger and larger, which really made me stop and think, vocabulary is a larger piece to the puzzle than I thought. This lead to my research question, “Do concept sorts help students acquire vocabulary?”

In recent years, a lot of research has surrounded vocabulary and the link to comprehension, especially as students progress through school. As I evaluated the research more closely, there were many common themes about vocabulary instruction such as, vocabulary instruction and shared reading. Not only does this help the students hear the word in context, but the students receive repeated exposures to the word (Maynard, Pullen and Coyne, 2010). This lends a perfect opportunity to enhance the instruction in my classroom using the Making Meaning (Developmental Studies Center, 2008), which is a shared reading program that is embedded with explicitly taught reading strategies. The instruction also provided the students with repeated exposure of the vocabulary taught; which supports the acquisition of vocabulary (Coyne, McCoach, Loftus, Zipoli, and Kapp, 2009). In addition to this program, vocabulary is
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supported with its own program, Making Meaning Vocabulary (Developmental Studies Center, 2008).

This program contains elements of another common theme within research, explicitly teaching students about word structures. In recent studies of vocabulary research, explicit instruction teaches students to analyze the word and its parts (Bear, Invernizzi, Templeton, and Johnston, 2007). The program teaches the students about the base word, and what happens to a word when either a prefix or suffix is added. It also provides students with a strategy to analyze the structure and how it physically changes, but how the meaning changes as well. Nelson and Stage (2007) that the multiple meaning component is crucial to vocabulary instruction because it helps take instruction to the next level. Students are required as readers to decode meaning within the text in order to comprehend, which requires knowledge of multiple meanings. The Making Meaning Vocabulary (Developmental Studies Group, 2008) has woven antonyms and synonyms in the four day program. In addition to the vocabulary instruction, the students are exposed daily between the two programs. The weekly instruction provided the students with an environment of vocabulary learning that is supported by research. So why was there a need to investigate the concept sort intervention?

The concept sort strategy lends an opportunity to take my vocabulary instruction to the next level, by embedding all of these elements with the focus of the text. Even though, the students were exposed to well-researched vocabulary instruction, the pieces needed to be woven together to help students make the connection between words and text. I felt that the addition would provide my students with a foundation and a skill to become independent. This would ultimately increase their personal vocabularies. The data from the intervention is provided
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below. The data is broken down by whole group and individual students to provide information about the different assessments.

Summary of Assessments

The purpose of the study was to implement the concept sort instructional strategy to see the effects on student vocabulary. The researcher worked with the Making Meaning and Making Meaning Vocabulary (2008) programs, aligned target vocabulary and implemented the concept sort strategy. The intervention provided the participants with an extra 90 minutes per week of vocabulary instruction with the concept sort strategy. Two different types of measures were used: standardized and researcher developed. The standardized assessment, Woodcock-Johnson III (2001) was administered as a pre and post-test. This assessed the participants’ picture and reading vocabulary which was converted to grade level equivalency. The researcher developed assessment mirrored the target vocabulary taught in the weekly texts. This assessment was used as a pretest and post-test each week.

Measures of Standardized Assessment

Picture Vocabulary assessment. After the pretest was conducted and evaluated, the participants showed a wide range of vocabulary levels, shown in Table 4.1 below. The picture vocabulary range was a mid-year first grade (1.5) to a mid-year eighth grade (8.6). After the intervention occurred, the average grade level growth for picture vocabulary was 1.97 years. Each student is represented by a letter in the tables below. Student G made the largest growth with an average of five grade levels. Students A and B were both considered below grade level prior to the intervention. Student A went from a grade level of 3.5 to a 4.2 on the post-test. Whereas, Student B went from a mid-first grade (1.5) to a beginning third grade level (3.0),
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although still below grade level. At the same time, this was a significant gain for Student B, since the student is now only one academic year behind instead of more than two academic years behind. All of the participants made gains in the picture vocabulary assessment, which is also evident in the reading vocabulary assessment.

**Reading vocabulary assessment.** The reading vocabulary assessment showed smaller gaps between levels, mid to end second grade (2.7) to the end of fifth grade (5.9). The participants had a mean score of a two year grade level gain after the implementation of the intervention. Students A and B, were both considered below grade level on the pretest, with a mid to end year of second grade level (2.7) and a beginning third grade level (3.2), but made gains and scored above grade level after the intervention. Student D made the largest gains with a three year grade level increase (3.2). All of the students are at or above grade level for their reading vocabulary after the intervention.

<table>
<thead>
<tr>
<th>Woodcock Johnson III</th>
<th>Pre</th>
<th>Post</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Picture Vocabulary</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>3.5</td>
<td>4.8</td>
</tr>
<tr>
<td>B</td>
<td>1.5</td>
<td>3.0</td>
</tr>
<tr>
<td>C</td>
<td>7.3</td>
<td>8.6</td>
</tr>
<tr>
<td>D</td>
<td>6.5</td>
<td>8.6</td>
</tr>
<tr>
<td>E</td>
<td>5.6</td>
<td>7.3</td>
</tr>
<tr>
<td>F</td>
<td>5.6</td>
<td>6.5</td>
</tr>
<tr>
<td>G</td>
<td>8.6</td>
<td>13.6</td>
</tr>
<tr>
<td><strong>Reading Vocabulary</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A</td>
<td>3.3</td>
<td>6.0</td>
</tr>
<tr>
<td>B</td>
<td>2.7</td>
<td>4.2</td>
</tr>
<tr>
<td>C</td>
<td>4.4</td>
<td>5.6</td>
</tr>
<tr>
<td>D</td>
<td>5.2</td>
<td>8.4</td>
</tr>
<tr>
<td>E</td>
<td>5.6</td>
<td>7.9</td>
</tr>
<tr>
<td>F</td>
<td>2.8</td>
<td>4.1</td>
</tr>
<tr>
<td>G</td>
<td>5.9</td>
<td>7.7</td>
</tr>
</tbody>
</table>
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Measures of Target Words

**Researcher-developed assessment.** The researcher-developed assessments (Appendices F – J) were taken weekly with the focused target words taught for the week. The pretest was administered on Monday, prior to the intervention for the week, and the post-test was on Friday. The results showed growth in four of the five weeks, as shown in Table 4.2. The only week that did not show growth was week four, but the scores were at a high percentage, 96.7%, on the pre-test.

<table>
<thead>
<tr>
<th>Intervention Week</th>
<th>Pretest Average %</th>
<th>Post-test Average %</th>
<th>Gain %</th>
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<tbody>
<tr>
<td>Week 1</td>
<td>60.9</td>
<td>96.4</td>
<td>35.5</td>
</tr>
<tr>
<td>Week 2</td>
<td>51.4</td>
<td>85.7</td>
<td>34.3</td>
</tr>
<tr>
<td>Week 3</td>
<td>86</td>
<td>100</td>
<td>14</td>
</tr>
<tr>
<td>Week 4</td>
<td>96.7</td>
<td>96.7</td>
<td>0</td>
</tr>
<tr>
<td>Weeks 5 and 6</td>
<td>47.8</td>
<td>77</td>
<td>29.2</td>
</tr>
</tbody>
</table>

**Individual pre and post-test results.** This section is focused on the individual results of the researcher-developed assessment. The displayed data in figures 4.1 – 4.7 below breaks down how the participants grew over the course of the intervention with the targeted vocabulary words. This also displays the prior knowledge of the words. Additionally it provides a visual of the prior knowledge base of the targeted vocabulary words, and the response to the intervention.
Student A held consistent gains throughout the intervention, as shown in Figure 4.1. The first pretest was a zero, but turned around to get a one hundred percent on the post-test. Three of the five post-tests had gains, whereas two did not. Weeks three and four did not show gains, but pretest scores were eighty and one hundred percent. This showed an understanding of the target words on the pretest. The post-test scores were consistent with scores of eighty percent and above.
Student B was inconsistent with the assessments. Figure 4.2 showed that the student only made gains on two of the assessments. As for the two assessments that showed growth, the knowledge base was low with the target vocabulary on the pretest. In week four, the student understood the target words on the pretest and carried the knowledge over to the post-test.
Student C carried consistent results throughout the weekly assessments. The student showed knowledge of some of the target words based on the pretest scores, but gained knowledge of the target words on three of the five assessments. This is shown in Figure 4.3. In week five the student provided little understanding of the target words, and made little gains on the post-test.
Student D, as shown in Figure 4.4, had few gains with the target words. Week one, three and four, showed no growth on the pre and post-tests. Although, all three assessments had a high percentage correct on the pretest compared to other weeks that showed growth. Both weeks two and five had low pretest scores as well as low post-test scores. However, the results did show evidence of gained target word knowledge.
Student E had a strong foundation for the target words during the intervention, as Figure 4.5 shows evidence of the pretest scores. Only two assessments, weeks two and five, show growth from pretests to post-tests. The other three assessments provided knowledge of the target words in weeks one, three and four, with a score of one hundred percent on the pretests.
Student F, as shown in Figure 4.6, showed the greatest growth from pretests to post-tests during weeks two and three. The pretest scores were low, but after the intervention the post-tests scores rose. During the other two weeks, the pretest scores showed a solid understanding of target words on the pretest and post-test.
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Figure 4.7

Student G Pretest and Post-test Percentage Scores

*Notes that the student was absent for either pretest or post-test and scores were not used.

Student G had a foundation for all of the target words, which is evident on the pretest scores shown on Figure 4.7. Even though, the data supports knowledge of the target vocabulary words, the learning did not stop there. As the results were analyzed, the evidence of growth was shown on both types of assessments.

Summary

After all of the data was analyzed, the researcher can conclude that the results show evidence that the implementation of concept sorts is an effective instructional strategy that supports vocabulary growth. All of the participants made gains on all of the assessments, whether below, at, or above grade level. The researcher-developed assessments showed varying results within each week, but all showed statistical growth on the standardized assessment which
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supports evidence of vocabulary growth. The conclusions of the intervention are provided in the next chapter.
Chapter Five

Conclusions

Introduction

In answer to the question, “Do concept sorts help students acquire vocabulary?” the strategy allowed the third grade participants a chance to think more deeply about vocabulary, ultimately enhancing their individual vocabularies. The intervention was embedded with well-researched strategies such as shared reading, multi-meaning words, and analysis of word structures. The implementation of the concept sort strategy was effective for the seven third grade students, who showed growth on standardized and researcher-developed assessments.

Connections to the Common Core Standards

While reviewing the research for the study, the Common Core Standards (2011) were also evaluated to align the expectations. Standard 3.RFS.4 states that students should be able to use grade level phonics and word analysis to decode unknown words (Common Core Standards, 2011). The standard is covered in the study when the structure of the vocabulary words is analyzed. By analyzing the structure of the word, it helps the students internalize the structure to apply it to other words or decode other words.

Another Common Core Standard that was aligned in the study was 3.L.4, in which the students are expected to derive or clarify the meaning of an unknown or multiple meaning word in context (Common Core Standards, 2011). This requires the students to build upon both standard mentioned above and their comprehension to pull the meaning from the text. The study allowed the students to interact with the text, along with the structure of the words. This helped
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the students make the connections between the words structures and text. Vocabulary instruction needs to be connected to text to enhance their comprehension and ultimately to become readers.

**Connections to Existing Research**

The results of the study conclude that the concept sort strategy supported vocabulary growth. In addition to the findings, the participants were supported by the direct and explicit whole group instruction in the classroom with the Making Meaning Vocabulary (2008) program. A recent study was conducted with a small intervention group, with the support of whole group instruction, also showed growth and provided students with a deep understanding of words and enhanced vocabularies (Fien, Santoro, Baker, Park, Chard, Williams, and Haria, 2011). The intervention provided the students with extended exposure to the words with different context for application. In another study, Pullen, Tuckwiller, Konold, Maynard, and Coyne (2010), conducted a study with similar results. The focus of the intervention was to provide students who were at-risk for vocabulary delays with extra exposure beyond the whole group instruction. The students who received the intervention were able to explore and gain an in-depth understanding of the words. The studies provide information on how to implement more in depth instruction in addition to whole group instruction.

The concept sort strategy offers the students with an addition in-depth look at vocabulary which supports the students with a solid foundation for internalizing meaning. This component is crucial for students to learn vocabulary and needs to be implemented in whole group instruction. This also provides students with additional exposure to the vocabulary taught. Coyne, McCoach, Loftus, Zipoli, and Kapp (2009), conducted a study that evaluated the breadth versus depth instruction and the effects on student vocabulary. The concept sort strategy
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provided an extra 90 minutes a week of repeated exposure to the target words. Within this repeated exposure, the students evaluated the word meanings in context. This allowed the students to take an in-depth understanding and application of the word. Nelson and Stage (2007) conducted a study on the effects of a multiple meaning instructional strategy and found that students applied their vocabulary knowledge to comprehension. This provided the students with a balance of strategy and meaning. The concept sort strategy provided the students with a strategy to apply independently, but also focused on the meaning which enhanced their vocabulary. The connection needs to be made within vocabulary instruction, between meaning and strategy, in order for students to become readers.

Explanation of Results

The researcher conducted the study to investigate the implementation of the concept sort strategy to enhance the participants’ vocabulary. The intervention was aligned with the Making Meaning (Developmental Studies Group, 2008) and Making Meaning Vocabulary (Developmental Studies Group, 2008) programs that are established in the classroom. The participants received an additional 90 minutes per week of vocabulary instruction. The assessments consisted of standardized and researcher developed. The two different types of assessments provided a balance of data to analyze.

The results from the standardized picture vocabulary pretest provided a wide range of vocabulary levels with almost a seven grade level years (7.1). The reading vocabulary assessment also showed a wide range of vocabulary levels with a range of almost three grade level years (3.2). Each participant varied in the vocabulary levels, but all made growth on the post-tests. The results of the picture vocabulary test, averaged a growth of 1.97 years. The
results for the reading vocabulary assessment averaged a two year grade level gain. All of the participants showed growth from pre to post-test in the six week time span, especially when normed by grade level.

On the other hand, the researcher developed assessments provided information about the words in focus for the concept sorts. Each week consisted of a pre and post-test, which provided the researcher with background knowledge on the pretest and growth over the week on the post-test. The participants showed varying results from week to week. Overall, the participants all showed growth from pretest to post-test. The assessments provided a lot of information, to get a whole picture of the intervention.

**Strengths**

The participants were provided a well-researched foundation of vocabulary instruction, such as shared reading, multiple meaning words and analysis of word structures. The overall intervention provided the students with a strategy that they can use independently while reading to help enhance their vocabulary and ultimately their comprehension.

In addition to the foundation of the intervention, the small sample size allowed the researcher to hear and see everything. Many of the students felt more comfortable sharing in the small group setting. The discussions were rich and each participated at each session. The structure and schedule for the intervention also helped prepare the students to think ahead about what was to come.
Limitations

The study did provide limitations to help with future research. First, the study was conducted with a small group of students for a short time period. On the other hand, the small group allowed the researcher to monitor the intervention very closely. It would be beneficial in future research to implement with a whole group within a school year to assess the results. This would also help to determine long term effects and how the students internalized the vocabulary. Secondly, the assessments should be immediate and delayed to provide a better analysis of the intervention. The use of the standardized and researcher developed assessments provided a balance, but additional assessments need to be added to in order to provide more data. For example, a delayed post-test would provide information about the retention of vocabulary. Another assessment is needed to analyze the application of the concept sort conducted by the students; this would provide information on the depth of learning. Since there is a direct link between vocabulary and comprehension, an assessment needs to be conducted to measure the effects of the concept sorts to comprehension. Third, an additional time needs to be provided for students to apply the strategy and discuss their thinking. A discussion was conducted during the first two days, but the directive was from the researcher and the text. The last day of the intervention consisted of the post-test and individual sorts, but there was no interaction after the sorts were conducted.

Recommendations for Future Research

Knowing that the study conducted provided growth during a small timeline, there are implications for future research. First, this is a key time with the implementation of the Common Core Standards (2011), for teachers to evaluate vocabulary. As suggested above, it would be
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beneficial to align the Common Core Standards (2011) and the vocabulary to assessments and instruction. The instruction should be systematic and assessments continuous and ongoing to help enhance student vocabulary learning. Second, teachers need to use research-based strategies to help support students to become independent in their learning. Professional development needs to occur to provide teachers with the research-based strategies, like concept sorts. Teachers also need this time to collaborate and align the Common Core Standards (2011) and vocabulary to their instruction. Third, when students have vocabulary delays, the interventions need to focus not only on the target words, but on deepening the meaning and multiple meaning words to build up the students’ vocabulary to catch up with peers. The intervention provided a seed in which to plant, but it is what we do the seed to nourish the development, just like the students and their vocabularies in our classrooms.

Summary

The intervention of the concept sort strategy proved to be beneficial for third grade students to acquire vocabulary. The intervention was embedded with well-researched strategies such as shared reading, multi-meaning words, and analysis of word structures. The concept sort provided the students a deeper level of thinking in addition to the foundation already established in the classroom. Although, more research and assessment is necessary to evaluate the intervention on a larger scale, the results of this intervention provide a strong base to begin. Vocabulary is a crucial piece of the puzzle for a reader, without it students would not be able to comprehend. As research continues to enhance and extend our knowledge of vocabulary, teachers need to make vocabulary a key component to their daily instruction to help develop readers in their classrooms.
References


Developmental Studies Center: Oakland, CA


Bloomington, MN: Pearson.


Appendix A

Concept sort for Week One:

<table>
<thead>
<tr>
<th>Identify</th>
<th>Predator</th>
<th>Prey</th>
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<tbody>
<tr>
<td>Skillful</td>
<td>Dim</td>
<td>Available</td>
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<tr>
<td>Migrate</td>
<td>Echolocation</td>
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Headers provided for Week One:

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<tr>
<th>Five Senses</th>
<th>Habitat</th>
<th>Hunting</th>
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Appendix B

Concept sort for Week Two:

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<thead>
<tr>
<th>Frolic</th>
<th>Slink</th>
<th>Wriggle</th>
</tr>
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<tbody>
<tr>
<td>Ultimate</td>
<td>Involved</td>
<td>Bounce</td>
</tr>
<tr>
<td>Threatened</td>
<td>Pollution</td>
<td>Stalks</td>
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<td>Frisky</td>
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Headers provided for Week Two:

<table>
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<tr>
<th>Verbs</th>
<th>Nouns</th>
<th>Adjectives</th>
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Appendix C

Concept sort for Week Three:

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<tr>
<th>Collaborate</th>
<th>Aggressive</th>
<th>Evacuate</th>
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<tbody>
<tr>
<td>Distress</td>
<td>Unaggressive</td>
<td>Considerate</td>
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<tr>
<td>Cockroaches</td>
<td>Pests</td>
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Headers provided for Week Three:

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Concept sort for Week Four:

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<th>Ease</th>
<th>Clench</th>
<th>Caretaker</th>
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</thead>
<tbody>
<tr>
<td>Aroma</td>
<td>Slump</td>
<td>Tribe</td>
</tr>
<tr>
<td>Familiar</td>
<td>Display</td>
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Headers provided for Week Three:

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<th>Culture</th>
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Concept sort for Week Five and Six:

<table>
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<tr>
<th>Diligent</th>
<th>Frank</th>
<th>Self-Confident</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headstrong</td>
<td>Overwhelmed</td>
<td>Contentment</td>
</tr>
<tr>
<td>Alarmed</td>
<td>Critic</td>
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Headers provided for Week Three:

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<th><strong>Emotions</strong></th>
<th><strong>Personality</strong></th>
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Appendix F

Researcher developed Pretest and Post-test for Week One:

Name:_____________________________     Date:_____________________________

Circle one:       Pretest                Post-test

**WEEK ONE**

1. Identify ______  a. An animal that hunts other animals for food
2. Predator______  b. Good at doing something
3. Prey______  c. Possible to get or not busy
4. Skillful______  d. Recognize something or someone
5. Dim______  e. An animal that is hunted by another animal for food
6. Available_____  f. The use of sound to locate things
7. Migrate______  g. Somewhat dark or not bright or clear
8. Echolocation  h. To move locations or habitats based on seasons
Appendix G

Researcher developed Pretest and Post-test for Week One:

Name:_____________________________ Date:________________________

Circle one: Pretest Post-test

**WEEK TWO**

1. Frolic _____ a. Follows and sneaks up on
2. Slink_____ b. Play actively and happily
3. Wriggle_____ c. Recover or feel better
4. Ultimate_____ d. Greatest or very best
5. Involved_____ e. Playful
6. Bounce back_____ f. You take part in it
7. Threatened_____ g. Twist and turn from side to side
8. Pollution______ h. Move in a quiet, secret or sneaky way
9. Stalks______ i. Recover or feel better, after a difficult experience
10. Frisky______ j. Being endangered
Appendix H

Researcher developed Pretest and Post-test for Week Three:

Name: ___________________________     Date: ___________________________

Circle one:  Pretest           Post-test

**WEEK THREE**

1. Collaborate _____            a. Creatures that bother or destroy other animals or plants
2. Aggressive______            b. Leave a place and go somewhere safer
3. Evacuate______             c. Work with others to make or do something
4. Distress______            d. Threatening or ready and eager to fight back or attack others
5. Unaggressive______          e. Not aggressive, or not threatening
6. Considerate______          f. Thoughtful of the feelings and needs of others
7. Cockroaches______          g. A feeling of deep sadness, worry, or pain
8. Pests_______               h. Brown or black insects that live in warm, dark places
Appendix I

Researcher developed Pretest and Post-test for Week Four:

Name: __________________________     Date: __________________________

Circle one:  Pretest           Post-test

**WEEK FOUR**

1. Ease ______
   a. Group of people who share the same ancestors, customs and laws

2. Clench______
   b. Squeezed

3. Display______
   c. Well-known

4. Caretaker______
   d. Move slowly and carefully

5. Aroma______
   e. Show something or put something where people can easily see it

6. Slump______
   f. A person whose job is to take care of something or someone

7. Tribe______
   g. Fall or sit down suddenly or heavily

8. Familiar_______
   h. A pleasant smell
Appendix J

Researcher developed Pretest and Post-test for Week Five and Six:

Name: ___________________________     Date: ___________________________

Circle one:     Pretest    Post-test

**WEEK FIVE and SIX**

1. Diligent ______
   a. Determined to do what you want no matter what anyone was

2. Frank______
   b. Hard working

3. Self-Confident______
   c. Say what you think

4. Headstrong______
   d. Sure of yourself

5. Overwhelmed______
   e. A feeling so strong you forget other things

6. Contentment______
   f. Feeling of satisfaction or happiness

7. Alarmed______
   g. Cause to feel frightened

8. Critic______
   h. How one forms opinions