

EFFECTIVE INSTRUCTIONAL STRATEGIES TO ENHANCE VOCABULARY
DEVELOPMENT IN ELEMENTARY CLASSROOMS

By

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Abstract

The answer to the question of what strategies best increase vocabulary development is explored through the research of studies focusing on English language learners, various models of vocabulary instruction, specific content area vocabulary instruction, and the use of technology to enhance current practices. Additionally, background is provided about the important connections between vocabulary development and reading comprehension. The studies reveal practical advice for instruction, planning, and implementation of vocabulary strategies that fit within current classroom practices. Commonalities found within each focus area include the use of visuals models, repeated exposure to selected words, instruction in word learning strategies, and student creation of definitions.

Chapter I: Introduction

For close to 150 years all states have provided a free public education to elementary students. During these years, the institution has undergone many changes regarding which children must be included in classroom instruction. Today every elementary-aged student is entitled to receive an education in the public school setting and each district serves to provide students an environment in which to learn. Elementary classrooms today consist of a diverse group of students who all need to receive the same educational instruction and social support. Additionally, the same standards of learning apply to all students regardless of ability. Special education programs and laws allow students with diagnosed learning disabilities or other exceptionalities to have needed supports in place to provide appropriate learning experiences in their least restrictive environment, most typically the general education classroom (Powell, 2009). However, learning disabilities and exceptionalities are not the only reason that students may struggle to acquire needed skills.

In every school, a large spectrum exists of the experiences children have had with language and communication before formal schooling begins. On one end of the spectrum are children who have participated in many enriching activities and have daily interaction with language, both orally and written, under the guidance of parents and/or other caregivers. On the other hand, some children have had little to no daily interaction with written and spoken forms of communication. Conversations and experiences are the basis of every child's personal vocabulary. Much of the vocabulary students learn is done indirectly and much of this learning takes place informally (Armbruster, Lehr, & Osborn, 2003; Tompkins, 2006).

Background

Children with lower vocabulary skills tend to be the students who struggle to understand the meaning of a story or article as a whole because vocabulary is a building block in learning to read. As students learn to decode words, previous aural experiences form the foundation to create meanings for print (Armbruster, Lehr, & Osborn, 2003). These skills are the basis for reading comprehension. Being able to understand a text goes beyond word recognition. Reading comprehension is tied into processes thought to be related to overall language comprehension (Ouellette, 2006). Beginning vocabulary development happens before any formal educational instruction ever takes place. Researchers have found that early pre-school vocabulary skills were predictive of comprehension in the early stages of reading (Bianco, Bressoux, Doyen, Lambert, Lima, & Pelleno, 2012). Meaning, if children are lacking in key experiences or interactions that build vocabulary when beginning formal instruction, students are already behind in literacy skills on day one.

Students on the other end of the spectrum enter school prepared for the expectations and demands that reading instruction and comprehension will entail. Students with larger vocabularies are the readers that are more adept at understanding text or being able to figure out unknown words using strategies that are readily available in their minds (Tompkins, 2006). The experiences, conversations, and interactions these children received will have already built a solid oral vocabulary that is waiting to be funneled into reading comprehension. Many researchers have found a moderate correlation between receptive vocabulary levels in kindergarten and the ability to comprehend what is read one and two years later (Oueellette, 2006). Students without a solid vocabulary will continue to struggle year after year with reading instruction. Children who enter school with a less robust vocabulary tend to never catch up to

their more word equipped peers (Brabham, Buskist, Coman-Henderson, Paleologos, & Baugh, 2012)

Statement of Problem

With the emphasis of reading instruction increasingly focusing on higher thinking skills, students who struggle to comprehend the basics of word meanings will begin to fall behind even further due to the high expectations in this new era of Common Core State Standards. The types of vocabulary instruction embedded in many basal reading programs have become the sole source of vocabulary instruction in many schools. These approaches are not helping students acquire the amount of vocabulary needed to become proficient readers (Brabham et al., 2012). Students need vocabulary enrichment beyond a teaching emphasis of phonemic awareness and phonics instruction (Ouellette, 2006). Educators must find a way to help students who lack enriching experiences with language and communication catch up to their peers and successfully participate in the classroom to grow in knowledge and understanding.

Theoretical Framework and Purpose of Study

The theory of constructivism is a good model to contemplate the links between personal vocabulary skills and reading comprehension ability. Constructivist theory is grounded in the ideas that all learners are active participants in construction of personal understanding and the more the learning takes place in the context of real world tasks the more meaningful the understanding will be (Woolfolk, 2010, p. 311). Using the basic ideals of constructivist theories the goal of this review is to provide explicit instructional strategies that can close the gap in vocabulary knowledge found within elementary grades.

Research Question

In what ways does explicit instruction in vocabulary strategies accelerate lagging vocabulary development in elementary students?

Definition of Terms

The following terms form the foundation of the problem and solution explored concerning vocabulary development. Defining these terms will allow for a better understanding of the explanation of findings in the literature review and ending recommendations.

Vocabulary Development. “Vocabulary refers to the words we must know to communicate effectively. In general vocabulary can be defined as oral vocabulary or reading vocabulary. Oral vocabulary refers to words that we use in speaking or recognize in listening. Reading vocabulary refers to words we recognize or use in print,” (Armbruster, Lehr, & Osborn, 2003, p.34). The development of the vocabulary concerns the breadth, or amount of words contained in an individual vocabulary, as well as the depth, or amount of knowledge about the semantics of words (Ouellette, 2006).

Instructional Strategies. The direct teaching or planned experiences that facilitate a growth in knowledge and/or understanding (Woolfolk, 2010).

Explicit Vocabulary Instructional Strategies. Directly teaching the meaning and use of specific words (Armbruster, Lehr, & Osborn, 2003).

Read Alouds. Trade book read aloud to students that contain more advanced structures and vocabulary than students’ independent reading levels (Beck & McKeown, 2007).

Summary

As educators continue to provide the best education possible for every student, gaps in learning still exist. The gaps develop before formal education begins. Without careful and active

intervention from the elementary classroom teacher, students who enter school behind more equipped peers will continue to struggle and fall behind as schooling progresses. One area in particular with the potential to affect students' achievement is vocabulary development. Students who lack depth and breadth in vocabulary development also lack skills needed for effective reading comprehension. Programs and curriculum traditionally used in elementary classrooms are not providing the amount of words or strategies needed to close the gap quickly in vocabulary development of students. Using the theory of constructivism, educators must strive to implement a program that more effectively increases students' breadth and depth of vocabulary.

Chapter II: Review of Literature

A myriad of vocabulary programs have been tried and tested in elementary classrooms over the years. No one, widely accepted model for vocabulary instruction currently exists. It is important to consider the many areas students encounter vocabulary as the best mode of instruction is decided. In this review, studies examined were a combination of classroom observation, review and adaptation of previous vocabulary methods, and data obtained from qualitative studies. Review topics include the tight connection between reading comprehension and vocabulary development, currently used methods to increase vocabulary development of English language learners, an effective model of instruction the need for vocabulary instruction in content area topics, and the effective use of technology as an aid to vocabulary development.

Reading Comprehension and Vocabulary Connections

Reading comprehension is a skill composed of many individual components working together to help the reader create meaning from print. Interesting connections between some components became apparent when exploring possible instructional strategies to assist with reading comprehension (Shany & Biemiller, 2010). Researchers set out to explore gains in reading comprehension associated with a 16-week program using assisted reading practices with 29 third and fourth grade students, 19 in the experimental group and 10 in the control group, from an elementary school located in a disadvantaged downtown area of a major Canadian city. In the process of examining pretest and posttest measures associated with reading comprehension a major predictor of reading comprehension gains involved gains in vocabulary.

Students were pretested and post tested in measures of reading comprehension including traditional reading comprehension, vocabulary, oral comprehension, decoding, reading speed, and amount of words read. Students then participated in 32 hours of assisted reading practice

over 16 weeks broken into 30-minute sessions four times a week. During this time, students received live or taped assistance with word identification during reading. At the end of 16 weeks, two qualified “blind” testers assessed each student individually. In addition to gains in reading comprehension by students who receive treatment, researchers also identified a trend associated with vocabulary. Students with the largest gain in comprehension also had larger gains in vocabulary. Further analysis revealed the reading practice did not cause vocabulary gains, but that there was data to support higher vocabulary gains in the highest reading comprehension gains.

In this population of students, the assisted reading practice increased reading comprehension, but no evidence that it caused the gains in general vocabulary. The only students that showed substantial vocabulary gains were the students who also showed substantial reading comprehension gains. To increase comprehension gains further, students would need more direct instruction in vocabulary and it would take a substantial amount of reading practice to increase vocabulary as well.

Working with English Language Learners

Under the framework of limitations English language learners (ELL) face when growing up outside of English speaking homes, the importance of ELL receiving direct vocabulary instruction is apparent in key research on the connections between ELL vocabulary development and the implications for instruction (Manyak & Bouchereau-Bauer, 2009). Limitations such as lack of familiarity with vocabulary in test passages and low understanding of word associations between languages may have negative effects on long-term academic achievement. Despite this, ELL students are capable of surpassing grade level expectations concerning English vocabulary development (Manyak & Bouchereau-Bauer, 2009). Two separate studies argue for the benefit of

vocabulary instruction for ELL. The first study showed ELL closed the gap with English only (EO) students after participating in instruction together using an approach known as Text Talk, an approach that utilizes read alouds, discussion, and direct vocabulary instruction, as well as incorporating ELL instructional techniques such as acting words out and visual illustrations to learn 50 words from various read aloud texts. Additionally, another study had EO and ELL students explicitly taught academic vocabulary with repeated exposure and word learning strategies to help infer word meanings. Both groups showed similar gains in understanding target words, as well as ability to understand other elements of words such as word parts and multiple meanings (Manyak & Bouchereau-Bauer, 2009).

Based on the analysis of previous studies, six suggested implications for ELL vocabulary instruction exist. First schools must implement vocabulary programs that are consistent, well planned, and intensive across all grades. Next, instruction for ELL should include not only academic words, but also explicit instruction in relatively basic English vocabulary to help quickly close the gap between ELL and EO students. Additionally, instruction towards basic vocabulary or academic language should not favor one or the other. A balance between the two must exist. Fourth, the need for acquisition of words is beyond what is realistic to teach explicitly. Students must also learn strategies for inferring word meanings in context and increasing word consciousness. In addition, strategies proven successful for EO students are a solid starting point for ELL when combined with strategies that also include various visual modes of instruction. Finally, rich vocabulary oriented activities should be incorporated throughout the day, even if brief, to help additionally develop and deepen vocabulary skills (Manyak & Bouchereau-Bauer, 2009).

Often times research studies looking at ELL and EO students focus on what should be done differently to bolster vocabulary development. Patrick Manyak, along with partners James Baumann and Camille Blachowicz conducted a three-year research study using a program designed to provide multifaceted, comprehensive vocabulary instruction (MCVIP) to all students. Manyak (2010) presents preliminary findings from the implementation of MCVIP in two fourth and two fifth grade mixed ELL and EO classrooms in high poverty schools located in the Rocky Mountain region. The team created the program to follow four main components for all students including rich and varied language experiences, direct teaching of specific words, teaching word learning strategies, and the development of word consciousness. Teachers used many visual aids and age-appropriate picture books to support the goals of MCVIP. The early findings reveal that the components of the program have created an environment where students are growing in enthusiasm for knowing and playing with language. Additionally, the instruction takes into account the balance of time and deep learning. A quick, explicit pace initially introduces words. Later in the week time is used for review and teaching strategies for deeper meaning. The supporting tools used by educators have elicited engagement and provided a common context for teaching specific words. The author feels that although the research is still in the early stages the observations made show that the MCVIP approach has given focus to instructors and addressed the needs of ELL.

Many research studies concerning vocabulary development focus largely on only one segment of the student population, choosing to examine English only speakers (EO) or English language learners (ELL). A quasi-experimental study set out to examine the impact of an English vocabulary enrichment intervention for ELL, while also looking at the outcomes for EO in the same classrooms (Carlo, August, McLaughlin, Snow, Dressler, Lippman, Lively, & White

2004). Additionally explored was the possibility that improved vocabulary and word analysis skills had an effect on reading comprehension. The intervention consisted of direct word instruction and instruction in word learning strategies for 254 fifth grade students at four separate schools; two in California, one in Massachusetts, and one in Virginia. All sites served students from working class backgrounds with 142 ELL and 112 EO. Classrooms at each site were randomly assigned to treatment or comparison groups. The treatment groups consisted of 94 ELL and 75 EO and the other 48 ELL and 37 EO were in comparison classrooms.

Treatment groups received 15 weeks of vocabulary instruction consisting of a weekly routine focusing on 10-12 target words each week. Each day teachers spent 30-45 minutes on vocabulary with four days of instruction and activities introducing and using target words and the fifth day focused on activities to promote word analysis abilities in general. Every fifth week focused on reviewing the previous four weeks of target words. Assessments were given in five areas; polysemy production (the ability to produce multiple meanings for one word), reading comprehension, word mastery, word association, and morphology. Additionally, data was collected using the Peabody Picture Vocabulary Test Revised (PPVT-R).

The pre and posttest on the PPVT-R was significantly higher for the EO students with significant gains from fall to spring. However, results for EO and ELL differed significantly from site to site and revealed no influence of treatment. “The treatment group by gains interaction term was not significant, nor were any other interactions with gains detected,” (Carlo et al., 2004). Looking at the other five measures and co-varying PPVT-R to reduce the effects associated with differences in initial English proficiency and site differences all showed the same general pattern; the intervention groups showed greater gains over the course of the school year than the comparison group. The amount of gains for mastery, word association, polysemy, cloze,

and morphology varied from site to site enough differences could be attributed to either differences in population or program implementation or a combination of the two (Carlo et al., 2004)

A program focusing on academic words found in multiple contexts, fostering awareness of polysemy, teaching strategies for inferring word meanings from context, and giving students the tools to analyze morphological and cross-linguistic aspects of word meanings improved the performance of both ELL and EO to equal degrees. The intervention improved reading comprehension for both ELL and EO but was less dramatic than gains in word knowledge. Most importantly, even with a brief intervention with no specific focus on comprehension instruction students made gains in reading comprehension (Carlo et al., 2004).

An Effective Model for Instruction

The conservative, traditional approach of teaching a few words well is not helping to close the gap in students' vocabulary development in elementary schools. Not only does this gap need to close, but also changes need to be quick and effective. Common elements should be included in classrooms to increase students' vocabulary development and in turn their reading comprehension (Chung, 2012. Brabhan, Buskist, Conan-Henderson, Paleologos, & Baugh, 2012). The elements include immersing students in a language rich environment, directly teaching words, and teaching students to use word-learning strategies.

Language Rich Environments

Effective instructional elements were examined in one context when evaluating the effectiveness of vocabulary instruction of English language learners (ELL) with vocabulary skills that lagged behind their native English speaking peers in the elementary grades (Chung, 2012). Several studies and programs already in place were explored that were effective in

increasing the literacy of ELL. In the instructional programs, children were read to aloud from trade books with a more sophisticated vocabulary than their own independent vocabulary. The read alouds extended into retells by the students, followed by repeated readings of the book and discussions on the meanings of words. In this study, children were able to acquire the meaning of 26% of the new words and show not only a retention of the vocabulary gains, but a further increase in vocabulary gains four weeks later (Chung, 2012). In addition to read alouds, teachers employed wide reading and small group discussion as a means to create a language-rich environment for students.

Similar evidence exists to support the immersion of students in a language-rich environment known as “vocabulary floods” to create meaningful vocabulary gains (Brabhan et al., 2012). The researchers looked at a combination of quasi-experimental studies and qualitative experimental evidence that examined vocabulary instruction for elementary school students. When 85 students in kindergarten through second grade were flooded with words on a five-day cycle for four months 13% of students were at or above standards for receptive vocabulary on the pretest with an increase to 39% on the post-test. From the same study, 24% of students were at or above standards for expressive vocabulary on the pretest with an increase to 57% on the posttest. Students participated in interactive read alouds, created wall charts with thematic sets of words, and used technology to write and illustrate their own stories using words learned from the reading. Students were given a pretest and post-test examining expressive and receptive vocabulary.

In another study a fifth grade class was immersed in vocabulary for an entire school year by using daily exposure to unfamiliar words in read alouds, time given to self-select books and independently read, literature circles to interact and discuss words, and exploration of word

choice in personal writing. Using pre and post writing samples researchers found the students used 36% more total words and 42% more low frequency words on the post-test (Brabhan et al., 2012). Students who began the year with below average receptive vocabulary made greater gains during the school year than students who began the year at or above average. Also addressed was qualitative experimental evidence from treatment and non-treatment groups for vocabulary flooding. Statistically significant larger vocabulary gains in the treatment group compared to the non-treatment group (Brabhan et al., 2012).

Using Read Alouds as a Means of Instruction

One of the key components of a language rich environment is immersing students in daily read alouds. Two studies were conducted that focused on embedding direct vocabulary instruction within the context of classroom read alouds to teach words more advanced than those typically found in the vocabularies of young children, known as sophisticated words (Beck & McKeown, 2007). The first study was between-subjects, quasi-experimental study that looked at the plausibility that explicit instruction can be used to teach sophisticated words to young students. The second study was a within subject, quasi-experimental study focused on the possible differences amount of instruction has on acquisition of sophisticated words.

The first study included four classes of kindergartners and four classes of first graders in one school located in a small, urban district with a lower SES population. Pretest and posttest data was collected for 98 children, 52 in the experimental class and 46 in the control classrooms. Teachers used vocabulary instruction based on the Text Talk program, a research and development project based on read alouds. Researchers provided teachers with trade books and several sophisticated words to highlight and

instruct from each book. Instruction on the words occurred after the initial reading and discussion of the story, unless students needed knowledge of words for understanding the story. If this was the case, teachers provided a brief explanation of the word(s) before reading the story. After conclusion of the story, teachers introduced words by referring to the context of the story and then providing the meaning. Next children repeated the word and experienced other contextualized uses of the word. Children would then make judgments about how to use the word and provide their own examples. Finally the meaning and phonological representations were reinforced. The teacher would reinforce words by keeping word charts, marking uses of the word, and striving to use the words in daily speech.

In each grade, the students in the experimental group learned more words than the non-instructional group. The mean gains for kindergartners in the experimental group were 5.58 words compared to the control group who gained 1.04 words. The first graders in the experimental group gained an average of 3.64 words and the control group gained 1.71 words.

Study 2 was located in the same district, but a different school. Three kindergarten classrooms and three first grade classroom participated, with complete pretest and posttest data available for 76 students total. Teachers learned to use Text Talk as the basis of vocabulary instruction and shared trade books with students with six preselected vocabulary words for each book. The six words were divided into two groups of instruction; rich instruction and more rich instruction. Teachers taught all words in study one in the rich instruction group the same way. Words in the more rich instruction group were taught using rich instruction on three days of the week as opposed to one day.

Additionally, students experienced review of the words selected for more rich instruction after the first 4 weeks of instruction and again after three more weeks of instruction.

Kindergartners gained more words from the more rich instruction words than the rich instruction only words. A mean gain of 8.17 words for the verbal test and 8.03 words on the picture task existed on the more rich instruction words. Words addressed using only rich instruction showed a mean gain of 2.50 words for the verbal task and 2.97 words on the picture task. In first grade, students also showed significantly higher gains on more rich instruction words than rich instruction only words. A mean gain of 6.90 words on the verbal test and 6.88 words on the picture task existed for the more rich instruction words. Words addressed using only rich instruction had a gain of 3.80 words on the verbal test and 3.10 words on the picture test.

In study 1, the instructed group showed significantly more learning than the non-instructed group, meaning that it is possible for young students to learn sophisticated words. This type of vocabulary instruction may help in the direction of teaching language needed for later, more advanced literacy development. In study 2 researchers found students showed significantly more learning when more instruction was used, meaning that young students can not only gain understanding of sophisticated words but can increase the amount of sophisticated words learned by participating in more explicit instruction of words. More instruction showed better results, but also shows that sophisticated word learning is not easy. Even with more instruction, word learning was far from 100%.

A randomized control trial conducted found similar results from using whole-class read alouds to bolster vocabulary development and reading comprehension (Baker,

Santoro, Chard, Fien, Park, & Otterstedt 2013). At 12 different schools in the Pacific Northwest, 225 first grade students in 12 classrooms were randomly assigned to either the treatment or control conditions. Researchers first screened students to obtain their risk status for language and literacy difficulties. Using the screenings researchers created four sub groups for data comparison; (a) at risk language, low risk literacy, (b) at risk literacy, low risk language, (c) at risk language and literacy, and (d) low risk language and literacy.

Over a period of 19 weeks, teachers read aloud a combination of grade level appropriate narrative and expository text followed by discussions. Lessons were all 30 minutes in length with three lessons on the expository text and three or four lessons on narrative text for each 2-week unit. Words used for vocabulary measures came from the read alouds and fell into three categories. Category 1 words were explicitly taught in the intervention condition, category 2 words were taught in both conditions, and category 3 words were not highlighted for instruction in either condition.

Each intervention lesson focused on before, during and after reading instruction. Before reading instruction consisted of identification of the book genre, identification of reading purpose, and teaching of critical vocabulary. The during-reading instruction centered on parts of story for the narrative text and K-W-L components for expository text. Additionally, students explicitly learned higher order comprehension skills as well as new and review vocabulary words while listening to the read aloud. The conclusion of reading instruction focused on summarizing, retelling, and systematic vocabulary review. Students in the comparison condition took part in read alouds at least four days a week with narrative and expository texts for approximately 30 minutes using teaching practices

the teachers would normally employ. Two times during the 19 weeks, the teachers in the comparison condition used texts also used by the intervention condition for the use of comparison of fidelity of instruction and vocabulary growth.

Students were given pretests and posttests in listening comprehension, narrative retell, expository retell and depth of vocabulary knowledge. Students in the intervention outperformed the comparison group by 2.24 points on average. Additionally students who received treatment outperformed comparison students on vocabulary measures by 9.35 points, a difference of approximately 32 percentile points. Finally, looking at the outcomes of the three categories of word types there was statistically significant effects for the intervention group in category 1 and 2 words. The intervention was especially helpful for increasing skills in narrative retell and depth of vocabulary knowledge. Researchers confirmed a relatively low intensity intervention could have a strong impact on vocabulary skills when explicit instruction was involved as a part of instruction. However, more intentional instruction may be necessary for building deep meaning with vocabulary development.

Direct Word Instruction

The next component for an effective vocabulary instruction model is direct word instruction. ELL students took part in direct instruction concerning the meanings of words through incorporating the words into the context of a narrative (Chung, 2012). In the three-week study, the experimental group acquired 21 new words, while the control group acquired only nine new words. Additionally classroom instruction stressed the importance of making sure students understand the meanings of tier-1 and tier-2 words. Tier-1 words are words that native English speaking children pick up indirectly through their own language development. Tier-2

words are high-frequency words that are needed for more advanced understanding across content areas. The final methods addressed circle back to the rich-language environment and cite the importance of immediate and meaningful interaction of words in multiple contexts with multiple methods of student output.

Additional studies examined instruction that isolated and tested the effects of semantic organization in relation to word meaning. Students taught words in meaning-based clusters had significant improvement in word knowledge and comprehension (Brabham et al., 2012). The “vocabulary flooding” had students examine new words and new meanings for already known words through semantic relationships. Looking specifically at native English speaking and ELL students who explored the semantics of words with multiple meanings, students who took part in this instruction showed greater gains in word knowledge and vocabulary than the control group.

The effect of developing students’ vocabulary through two different methods, the definition method and the context method were explored (Nash & Snowling, 2006). The use of the definition method is a prime example of direct word instruction. The researchers screened 71 students in a primary school in the working class area of York, England. After standardized screening tests were given in receptive vocabulary, narrative skills, reading accuracy, and comprehension, 24 students were identified as being in the bottom third of the screened students on the receptive vocabulary test or the combined score of a narrative and vocabulary test, with many of the 24 students in the bottom third of both tests. For the final sample, four of the 24 were excluded from the experiment for reasons of creating a more reliable sample (Nash & Snowling, 2006). Researchers split the final sample into four groups balanced for gender and ability. Two of the groups received vocabulary instruction using the definition method. The other two groups received vocabulary instruction using the context method. No statistically significant

differences were present between the groups at the onset of the treatment. Next, students took standardized pre-tests in reading comprehension, reading accuracy, expressive vocabulary knowledge, and receptive vocabulary skills. After six weeks of bi-weekly instruction, students took post-tests that mirrored those given as pre-tests as well as a test for transfer of knowledge. Additionally, students took another set of post-tests three months after instruction concluded. On the first post-test, the definition group made gains on the expressive and receptive vocabulary tests, as well as the test for comprehension. However, data showed a significant decline in expressive vocabulary for the definition group during post-test two.

Biemiller & Boote (2006) took a unique approach and conducted two separate, but related studies to examine the effectiveness of a method for building vocabulary development in kindergarten through second grade. The first study examined the use of pretesting as a way to increase word learning, as well as introducing word meanings just before and during readings and examining the effectiveness of repeated readings. The second study refined the instruction methods of the first study and additionally looked at transfer and retention of word meanings over time.

Participating in study 1 were 43 kindergarteners (24 girls), 37 first graders (13 girls), and 32 second graders (14 girls) from a publicly supported Catholic school system in a working class district of Ontario, Canada. In each of the grades, the children were in two classrooms and the regular classroom teacher provided instruction. Study 2 was conducted in the same school the following year using the same teachers, except for one kindergarten teacher who left and was not replaced. A selection of 28 kindergartners (16 girls), 37 first graders (16 girls), and 42 second graders (21 girls) participated in this study.

In study 1, researchers divided children in each room into two matched cohorts. Each grade had their own selection of words and text based on grade level appropriateness. During the pretest, half of the total 48 words were given to one cohort and the other half was given to the other cohort in each grade. During the posttest, all students tested on all 48 words. Instruction consisted of one regular reading of a book without any interruptions for explanation of words and a few comprehension questions at the end of the book. Teachers read two of the three books an additional time with providing explanation of vocabulary when encountered in the text. Teachers read the third book another three times with different words explained during each of the subsequent readings. When encountering a word, students or the teacher would provide a definition and the sentence would be re-read.

Students in all grades had higher scores on the posttest with 25% of all the words known on the pretest and 42% of all words known during the posttest. Also present was a 22% gain for instructed words and a 12% for non-instructed words. Adding repeated reading to word instruction an additional 10% was gained for a 22% gain total. There was no conclusive evidence that reading a book two times versus four times had any effect on understanding of words meanings. There was no difference between the understanding of meanings if words were pretested or not pretested (Biemiller & Boote, 2006). Explicit instruction makes a difference in gaining understanding of word meanings.

In study 2, the design of pretest posttest was the same as in study one with an additional posttest given 6 weeks later to assess word-meaning retention. Children were divided similarly to the divisions in study one. Students took assessments using selected target words with half of the target words from the pretest given in a context different than used in the book to test for transfer of knowledge. Finally, researchers added a small no-instruction group in second grade.

Instruction consisted of one regular reading of a book without interruptions for instruction. One or two meanings critical to story meaning may have been explained before beginning if deemed appropriate. For the next three days, students listened to explanation of seven to ten words during each reading, with the teacher as the sole source of definition. After a complete reading, teachers reviewed the words with students. On the final day, students reviewed all words introduced that week with no rereading of the story.

In study two, there was an overall gain of 41% from pretest to delayed posttest, with kindergartners gaining the most words per week at 12.4. There was an overall gain of 35% between pretest and immediate posttest, with students in grade one again making the largest gains (Biemiller & Boote, 2006). It is possible to acquire a substantial number of word meanings from repeated readings in combination of explicit, embedded vocabulary instruction. Word meanings attained were not lost in an interim of 4 weeks from the immediate posttest to the delayed posttest. Additionally further gains in word knowledge and the ability to understand word meanings in different contexts from initial instructed contexts were present (Biemiller & Boote, 2006).

Word Learning Strategies

Based on the lack of transfer and retention from direct word instruction alone, classrooms must incorporate the final component of word learning strategies into vocabulary instruction. Giving opportunities to master word learning strategies allows students to become independent with vocabulary development and unlock the meaning of new words without teacher support (Chung, 2012). Some word learning strategies that have been successful when used in combination are learning to use context to determine meaning, morphological analysis, and encouraging word play through games. Using context clues is one of the most long standing

word learning strategies employed by educators, but mixed results regarding the effectiveness of this strategy have often been reported (Chung, 2012). However, solid evidence is available that teaching the use of context clues is beneficial for students to learn words with guidance and transfer their knowledge over longer periods of time (Nash & Snowling, 2006).

Along with the definition method of instruction, researchers examined instruction that taught students to use clue words to determine the meaning of one specific target word found in the text. When looking at the post-test data researchers found in addition to the definition group gains the context group also showed gains on the first post-test for both expressive and receptive vocabulary knowledge. Data from post-test two showed the context group was able to express significantly more meanings for the words tested than the definition group. Both groups also increased in comprehension ability when given post-test one. Additionally, the context group was able to answer two more vocabulary dependent questions compared to the definition group. No statistically significant differences were present between the groups on the first transfer post-test for receptive vocabulary. However, on both the first and second expressive vocabulary transfer post-tests the context group could give significantly more word meanings than the definition group (Nash & Snowling, 2006).

Teaching students to derive meaning from words in context is much more meaningful and long lasting than providing and learning definitions alone. Although both groups made gains, the group that learned through context had more ability to express word meanings, figure out multiple meanings of words, and carry the skill over to determine meaning for new words. The method of teaching students to derive word meaning in context also allows students to independently access word meanings without the support of an adult providing a simplified

definition. Students in the context group used the context method in their own reading as a way to figure out unknown words after the instruction had concluded (Nash & Snowling, 2006).

Using context clues to develop vocabulary is just one strategy that students should experience to help foster independent word learning. Introducing morphological analysis to students is important for vocabulary development. Morphological analysis involves teaching students how to break down words according to their structure, in particular finding the smallest parts of words that contain meaning, such as affixes. Researchers have found that students can enhance their vocabulary development and reading comprehension and better understand 60% of unfamiliar words by applying learned knowledge of affixes and word roots (Chung, 2012). One way educators can increase skills in morphological awareness and actively engage learners is to use word play and games. The games help students understand the meanings of affixes and roots through combining independent affixes and roots to create words and taking part in word sorts centered on common word roots. After developing meaning of the roots and affixes, students use the meanings to create sentences with the words formed from word games (Chung, 2012).

Kieffer & Lesaux (2007) conducted a correlational, quantitative study to explore the connection between the students' abilities in morphology related to abilities with vocabulary knowledge and reading comprehension. Using a sample of 87 Spanish speaking ELL and 24 native English speakers in fourth and fifth grade in a large urban district in Southern California researchers examined each skill. Researchers assessed morphology skills by asking students to extract a root from a more complex derivative of the word and use it to complete a sentence. Standardized tests were used to assess abilities in reading comprehension, word reading fluency, and vocabulary including formats such as cloze passage, multiple choice, and timed reading.

Students who were better with morphology also had higher reading comprehension scores when holding constant for their word reading fluency. This was true for both ELL and native English speakers (Kieffer & Lesaux, 2007). Additionally students with larger vocabularies tended to have a better grasp on morphology. Researchers concluded that morphology is related to reading comprehension in both fourth and fifth grade and becomes more important as students grew older. A reciprocal relationship seems to exist between morphology and vocabulary. Students who understand morphology may be able to attain a more broad vocabulary and as vocabularies grow students may be more able to apply morphology to ascertain word meanings (Kieffer & Lesaux, 2007).

Content Area Vocabulary Instruction

Many studies tend to concentrate on how we can increase student understanding through instruction in traditional literacy related vocabulary, however analysis must also focus on vocabulary instruction in the content areas. Researchers looked at two content area classrooms with instructional focus on the scaffolding of vocabulary instruction (Boyd, Sullivan, Popp, & Hughes, 2012). Observations revealed that general vocabulary development was present and the current instruction focused on developing student vocabularies in two ways; as a stepping-stone to further content knowledge and embedded within content area learning. In one high school U.S. history classroom a teacher was observed introducing students to new content area vocabulary before conducting further historical inquiry. The lesson began with introduction of key terms and asking students to share their initial understanding of the words using their own language, not dictionary definitions. After this initial involvement with the words, the teacher went on to explain the relevancy of the terms in a historical context, while also providing real world application allowing students to develop the context of content words. The same instructor

was also observed teaching a high school global studies class, in this observation content instruction began before vocabulary instruction. After an initial writing task where students wrote narrative about living in a certain type of economy the instruction introduced important terms. She asked students to use their initial understanding of key terms and then provided images to help students categorize the meaning of the key term. The instructor then asked students to rethink their definition based on what they visually observed and then provided a formal definition. This was an example of embedding vocabulary instruction into content instruction. Another educator used this technique in a high school biology class. Researchers observed as the teacher produced a diagram on a SMART board and students were lead in a discussion of the diagram. A student brought up previously taught concepts during the discussion and the instructor stopped to make sure students remembered how the word parts helped create the meaning for each of the words needed to explain the diagram. In this content instruction, the students engaged in discussion that contained elements of scientific understanding, as well as vocabulary knowledge. These observations reveal preliminary findings into how educators can move vocabulary instruction out of the context of language arts literacy and into all content area literacy instruction. Additionally, note was taken of graphic imagery and multiple forms of text and their significant role in content area and vocabulary instruction (Boyd, Sullivan, Popp, & Hughes, 2012).

All areas of content instruction contain specific academic language. Pierce & Fontaine (2009) explored the specific vocabulary needs within the field of mathematics and how teachers can better provide content area vocabulary instruction. The rationale behind the need for explicit vocabulary instruction in the context of the math classroom is the challenge students face on high-stakes testing. Test questions that students must independently answer include many words

with specific math meanings, as well as words that have different meanings outside of mathematics. There is great need for educators to identify math vocabulary words for explicit instruction and to apply research-based strategies to teach these words within the mathematics classroom (Pierce & Fontaine, 2009). Building off the work of Beck, McKeown, & Kucan (2002) researchers suggested providing instruction in math vocabulary that will encourage students to find interest and awareness in words beyond the classroom, as well as using student friendly explanations, and the use of deep processing activities with new vocabulary. Specific suggestions include the introduction of words followed by class discussion and agreement on the meaning of the word (Pierce & Fontaine, 2009). The next step involved the explicit instruction of the word's meaning in the context of math. Students get a definition of the word in everyday language and then brainstorm mathematical examples of the word in use. Finally, students participate in an activity that hinges on the mathematical meaning of vocabulary where they can solidify deeper meaning of the words.

Additional research supports the growing need of literacy instruction, specifically vocabulary instruction in the content area of mathematics (Smith & Angotti, 2012). Researchers worked with about 100 middle and secondary mathematics and science teachers on a project named Teaching Mathematics in a Technical World (TMTW) in its third year when the findings were published. This program aimed to help content area teachers weave in aspects of technology, real-life experiences, and literacy instruction into content area classrooms in the hopes of closing the gap and increasing achievement in a diverse group of learners including ELL and students with a variety of background experiences. Based on the experience working within this program researchers realized the unique challenge that content area vocabulary present because of the ubiquitous nature of the words, having both a general meaning outside of

content and a specific meaning inside of content. After seeing one of the biggest challenges for content-area teachers was selecting and teaching vocabulary that will increase understanding and achievement, as well as create the real –life connections and bridging with background knowledge to create deeper meaning, the authors of this article created a tool for planning purposeful vocabulary instruction in content areas. This tool is referred to as the 5 C’s each C standing for a step in planning; concepts, content, clarify, cut, and construct. The overall tool connects to the research based idea that students learn vocabulary best by creating connections with pre-existing schema, focusing on a small number of specific words, and learning the words in various contexts through discussions (Smith & Angotti, 2012).

The first step directs educators to choose which words are essential to the concept taught by the lesson. Next, educators identify words that are not content area specific, but may be unfamiliar to students and necessary understanding. Once a list of words is created, the next steps help whittle down which should be focused on for deep instruction. The third step of clarify directs instructors to identify words that need to be addressed, but can be done so through brief mention or clarification within the lesson. Next teachers choose which words are not important to learn before instruction and can be either rephrased or eliminated. Finally, teachers scan the remaining words to create a very small list for deeper instruction. In the sample provided, 44 words were initially identified and by the end of the final step, only six words were included in explicit instruction (Smith & Angotti, 2012). After the planning and organization comes the actual instruction. Researchers suggest that to teach the small list of identified words educators should use instruction that includes discussion, active participation and the use of meaningful contexts for teaching key vocabulary. Strategies provided by the authors include a foursquare

activity based on semantics, the use of an interactive word wall, and using clues and questions (Smith & Angotti, 2012).

As the educational world moves further into the implementation of Common Core Standards the need for using traditional language arts literacy instructional strategies in content area instruction becomes more apparent. Cox, Jackson, & Tripp (2011) analyze the use of interactive word walls and the walls provide for deeper meaning creation by students in both vocabulary development and content knowledge. A traditional word wall may contain an unorganized list of words that are present on a classroom surface for students to reference during instruction. An interactive word wall is deliberately designed tool that focuses on vocabulary words in relation to content concepts by using visual representations or words and connections. Educators take the time to select a mix of content specific words and high-frequency vocabulary that may be used in a new context for the specific academic area. The next step is to find photographs or realistic visual representations of each word and then create a concept map or graphic organizer that shows the connections between the words and corresponding visuals. The best maps also include a piece that allows for student participation in the creation of the word wall. Teachers and students build the walls throughout content instruction and rotate from unit to unit. Student perception of these walls was very positive (Cox et al., 2011). Students had a higher level of confidence in vocabulary and content understanding, and understood how to reference the walls when needed. Teachers reported a higher level of independence with tasks because students learned to problem solve using word walls instead of asking for as much teacher input and directions. Finally, the approach of interactive word walls was especially helpful for ELL students in reinforcing content area knowledge and English vocabulary development (Cox et al., 2011).

Technology and Vocabulary Instruction

Traditional explicit instruction involves students learning skills directly from an instructor. One study chose to explore how explicit instruction delivered by technological means would affect vocabulary development to investigate the effectiveness of increasing vocabulary learning using multimedia components such as visual text, spoken text, and graphics in a web based instruction program for students who are English language learners (Kim and Gilman, 2008). Conducted at Myungin Middle School in Seoul, the study took place in South Korea in five classes of 14 year olds totaling 172 students. Sample procedures were random and separated students into six groups.

All students took a pretest, posttest, retention test, and attitude inventory. Students then participated in one of six treatments; group (a) had visual text, group (b) had visual text and added spoken text, group (c) had visual text and added graphics, group (d) had visual text, added graphics, and added spoken text, group (e) had reduced visual text and added spoken text, group (f) had reduced visual text, added graphics, and added spoken text. One week after the pretest students participated in the multimedia instruction followed by a posttest. Approximately one-week later students took another test to determine retention and an attitude survey.

The students in Group C earned significantly higher raw scores than Group B and Group E. Additionally analysis showed Group D students earned significantly higher raw scores than Group B and Group E. The retention results analysis showed more statistically significant differences between groups. Group D earned significantly higher scores than Group B and Group E. The students in Group C (visual text and added graphics) and Group D (visual text, added graphics, and added spoken text) learned and retained new English vocabulary more effectively

than students who received other forms of instruction. In general, this indicates that visual elements added to instruction were most effective in instruction (Kim and Gilman, 2008).

In the expanding world of technology, educators begin to have more options to enhance many types of instruction in the classrooms. Dalton & Grisham (2011) make several recommendations of various forms of electronic, or technology based strategies (eVOC) teachers can use to help with students' vocabulary development and interest in words. The authors reviewed various research studies on vocabulary development, academic language, ELL, and gaps in learning to evaluate and recommend eVOC strategies for use in the classroom. Direct instruction is essential for students learning of vocabulary, but research that shows students with already well-developed vocabularies learn more words through indirect interaction of words (Dalton & Grisham, 2011). Therefore, the strategies consist of five eVOC tools for explicit instruction and five eVOC tools to provide support during independent reading. Explicit strategies include tools and ideas for the following; learning from visual displays of word relationships, taking digital vocabulary field trips, connecting and learning with online vocabulary games, having students use media to express learned knowledge, and taking advantage of online word reference tools as a teaching tool. The second set of tools focus on ideas to allow students to learn words independently from direct teacher instruction as they come across new words or words in new context during their own reading. They include; supporting reading and word learning with just-in time vocabulary referred support, using language translators for ELL, increasing reading volume through digital text, and increasing reading volume through listening to digital text with text to speech tools and audio books. The use of these strategies is essential to vocabulary instruction in the new digital world, and the use of these tools help in the creation of strategic learners (Dalton & Grisham, 2011).

Another study presents qualitative data on the use of technology from a 16-week, quasi-experimental study on the effects of using an internet-based, strategic digital reading (SDR) instruction program on the vocabulary development and comprehension skills of fifth grade students (Proctor, Dalton, Uccelli, Biancarosa, Mo, Snow, & Neugebauer, 2011). Participants of the study came from four schools found in three different districts in a northeast metropolitan area. The total sample was comprised of 240 students in 12 classrooms with 49% Spanish-English bilingual students. A total of 129 students from six classrooms in three of the four schools received the intervention. The control group was comprised of the other 111 students found in two of the four schools.

Students participating in the intervention spent two 50-minute sessions each week in the school's computer lab interacting with short digital texts. Eight texts in total were available for students interaction. A selection of 40 words was embedded within instruction of the digital text. The program used by intervention groups consisted of available Spanish translations of all texts and directions, human read-alouds of each text in English and Spanish, English monolingual and Spanish-English bilingual coaches who assisted with using the system and response to prompts, a revisable electronic work log, a multimedia glossary, and pictures illustrating the text content. The students who took part in the intervention did not have more time spent on literacy instruction than the control group. The online program worked into existing literacy schedules.

Researchers found mixed results on the SDR effects on both the standardized and researcher designed tasks (Proctor et al., 2011). The models used for analysis did a better job explaining variation among students than among classrooms. One segment of data showed that for each digital text completed a student gained 5.16 points on their post-intervention vocabulary score compared to control counterparts (Proctor et al., 2011). According to a hierarchical linear

model, a student using the SDR gained .11 points for each text completed compared to control student counterparts.

The intervention led to large and significant effects on the standardized measure of vocabulary knowledge and the researcher developed depth of word knowledge measures (Proctor et al., 2011). However, the results are not felt to be conclusive and need further exploration. Despite the gains shown in vocabulary, the intervention has little to no effect on reading comprehension (Proctor et al., 2011).

Over the years, videos were the instructional tool of choice left for substitute teachers or time fillers. Hall & Dougherty-Stahl (2012) contend that using visual media is a tool that classroom teachers should employ as means to support comprehension and vocabulary instruction in today's very visually oriented society. The researchers conducted an analysis of current research to develop a theoretical model of instruction for primary-level classrooms based on Dual Coding Theory (DCT). DCT is based on the premise of using more than one mode of cognitive processing at the same time, i.e. verbal and nonverbal, to create connections in the brains between these two types of input to strengthen students' abilities to learn and remember new information. Researchers point to the emergence of new vocabulary instruction that requires students to participate in multidimensional approaches including understanding definitions, multiple contexts of use, and semantic relationships. Researchers analyzed two studies that explored the use of video to engage students in learning, as well as provide multiple contexts of new words (Hall & Dougherty-Stahl, 2012). These experiences gave students and teachers a shared experience with the words, as well as an authentic context to discuss and interact with words. Instructions in both of the studies also included other pencil and paper techniques to compose the total vocabulary instruction. Both studies showed that the results of students

participating in the video-assisted instruction outperformed comparison groups and/or gained more skills than previous non-video experiences. The application of video enhanced vocabulary instruction allows teachers to move past techniques of rote memorization into more meaningful understanding, connection, and engagement with personal vocabulary development (Hall & Dougherty-Stahl, 2012).

Chapter III: Results and Analysis Relative to the Problem

The connections between reading comprehension and vocabulary development make a deliberate focus on vocabulary instruction necessary. There are many commonalities between ELL and EO students' responses to specific instruction strategies. Instruction must focus on the needs of all students, both ELL and EO, as well as specific concepts in content areas. Incorporating various modes of technology also enhances deeper learning through individualization and concrete models of vocabulary.

Reading Comprehension and Vocabulary Connections

Researchers found a very interesting trend in the data between reading comprehension and vocabulary development. Only those students with the highest gains in reading comprehension made corresponding gains in vocabulary development, proving there is connection but not a direct causation between these two skills (Shany & Biemiller, 2010). Instructional focus was on reading comprehension gains, but as some students read and comprehended more, additional incidental vocabulary growth occurred. The most able students showed increases in vocabulary development independent of instruction. However, most students would require more practice and direct instruction in vocabulary skills to accelerate vocabulary development at the same rate as instructed skills in reading comprehension (Shany & Biemiller, 2010). For students to deepen and widen vocabulary development at a rate to close achievement gaps, direct instruction is a key component to learning.

Working with English Language Learners

By examining a segment of learners that inherently need assistance with vocabulary development, researchers can learn what strategies may be beneficial for accelerating the development of all student vocabularies. Concerning the structure of classroom instruction

researchers found three common components to benefit ELL in acquisition of vocabulary; creating a language rich environment, directly teaching academic and basic English vocabulary, and teaching students variously strategies for independent word learning (Carlo et al., 2004; Manyak, 2010; Manyak & Bouchereau, 2009).

When considering the direct instruction of vocabulary for ELL the best jumping off point is to begin with strategies proven beneficial for EO students and then including components to create a more concrete experience with words such providing visual models, picture books, and experiences acting out word meanings (Manyak, 2010; Manyak & Bouchereau, 2009). Another important consideration is the amount of time allocated for teaching academic words and Basic English vocabulary. Although an educator may feel one is more important to the development of understanding for content or concepts, it is of utmost importance to provide a balanced amount of time and instruction on each category of words (Manyak, 2010; Manyak & Boucheraeu, 2009). Finally, instruction must include time for ELL to review previously encountered words during the cycle of instruction (Carlo et al., 2004; Manyak, 2010; Manyak & Boucheraeu, 2009).

Beyond selecting words for direct instruction, students must also learn strategies to use when encountering new, unknown words (Carlo et al., 2004; Manyak, 2010; Manyak & Boucheraeu, 2009). Teaching word-learning strategies is a key component in vocabulary development for ELL so that students do not become reliant on being given meanings of unknown words, but have the skills and tools to determine meaning independently. Without the transition of reliance to independence, ELL students will not have the ability to acquire and use English vocabulary on their own. In addition to the review of words used for direct instruction, time must be set aside for review of strategy use as students move towards independent word learning (Carlo et al., 2004; Manyak, 2010; Manyak & Boucheraeu, 2009).

An Effective Model for Instruction

To lay the foundation for accelerated vocabulary development the first step to immerse students in an environment of words and language (Brabhan et al, 2012; Chung, 2012). For deeper and more meaningful instruction to occur, students need experiences, incidental learning, and exposure to new words to build off. One means of creating a language rich environment is through daily read alouds. These read alouds should provide students exposure to language, a chance to discuss and interact using new and old words, and some form of explicit instruction in words (Baker et al., 2013; Beck &McKeown, 2007).

Providing students with more supported opportunities to interact with words will increase both the depth and breadth of students' vocabulary (Ouellette, 2006). Effective instruction in a language rich environment is not just exposing students to new words, but also intentionally and purposefully selecting words that students will explore (Beck & McKeown, 2007; Brabhan et al., 2012; Chung, 2012). However, no set number of words exists and the amount should be more than the traditional basal approach of ten to twelve words at a time. The environment should be flooded with words that students can grab ahold of, play with, and incorporate into their own vocabulary. Students need to be presented with words not generally acquired on their own and then supported with creating an initial meaning. After the basics are laid out from interactive read alouds students should have multiple opportunities to rehear the words being used and to use the words on their own (Baker et al, 2013; Beck & McKeown, 2007; Brabhan et al., 2012; Chung, 2012).

However, immersing students in language and word interaction through passive means only is not enough. To close the gap in vocabulary development instruction must include some methods of direct word instruction to bolster the understanding and achievement of all students

(Biemiller & Boote, 2006; Brabhan et al., 2012; Chung, 2012; Nash & Snowling, 2006). When students all have solid schema for lower level vocabulary, then it is possible to build understanding to make sense of newly taught words. Organizing words based on semantics and teaching students to use new words in their own life will create deeper meaning of vocabulary over a longer time (Brabhan et al., 2012; Chung, 2012). Another necessary experience is the repeated review and use of newly learned words through review practice and discussion (Biemiller & Boote, 2006). These direct methods go beyond just learning and reciting the definition to actually using and understanding how new vocabulary fits into school and life.

Finally, once students have the experiences to build off, and a larger arsenal of words contained in personal vocabularies, teachers must explicitly teach strategies for independent word learning. The ability to use word-learning strategies is the capstone component of increasing students' vocabulary development by laying out the tools needed to increase and sustain all previous word learning (Chung, 2012; Kieffer & Lesaux, 2007; Nash & Snowling, 2006). As students are supported through the growth of word learning strategies, more independence with vocabulary development will occur. The outcome teachers want for students should focus on long-term use of skills. An educator can grow a child's vocabulary through exposure and direct instruction. However, teaching students to continue to grow in understanding and vocabulary development beyond the classroom is even more necessary.

Content Area Vocabulary Instruction

An area that has often needed vocabulary instruction, but ignored the use of successful vocabulary methods are content area only classes. It is apparent the need for instructors in these fields to not only expose students to content area vocabulary, but use methods of literacy instruction to help students more deeply understand content area vocabulary and in turn, content

area concepts (Boyd et al., 2012; Cox et al., 2011; Pierce & Fontaine, 2009; Smith & Angotti, 2012). Rather than dedicating the same amount of time to content area vocabulary as in literacy-based classes, instructors should take care to pare down explicitly taught vocabulary to only those most needed to understand content (Cox et al., 2011; Pierce & Fontaine, 2009; Smith & Angotti, 2012). The words should be a combination of content specific words and new high-frequency words. Words that are specific to content concepts are unique and should be taught as such. These words often have multiple meanings, one for outside of content and one very specific meaning inside of content. Educators can begin by helping students create an agreed upon meaning from outside of content and moving into developing the meaning of the word inside of content (Pierce & Fontaine, 2009; Smith & Angotti, 2012). Additionally, students are able to create deeper meaning and process new content meanings more effectively when the use of visuals and active participation in creating meaning occurs, this includes establishing student friendly definitions for content area vocabulary (Beck, McKeown, & Kucan, 2002; Boyd et al., 2012; Cox et al., 2011; Pierce & Fontaine, 2009). Using traditional literacy strategies and allowing for the scaffolding of vocabulary instruction is worth the time due to the amount of enrichment and deeper understanding students create through the combination of vocabulary and content development.

Technology and Vocabulary Instruction

In the growing world of educational technology, researchers are finding many ways to expand the explicit instruction of vocabulary beyond traditional pen and paper activities (Dalton & Grisham, 2011; Hall & Dougherty-Stahl, 2012; Kim & Gilman, 2008; Proctor et al., 2011). These activities still contain the essential elements of direct instruction, and in many cases provide students with new tools for independent vocabulary development. Incorporating various

types of technology such as video clips, electronic or computer based games, various means of technological presentations, online tools, and computer based instruction allow students to have greater interaction with text and words (Dalton & Grisham, 2011; Hall & Dougherty-Stahl, 2011; ; Proctor et al., 2011). Increased amounts of interaction and experience with vocabulary allow students to create more meaningful context for understanding words and deeper vocabulary development. One of the most important aspects of using technology as a means of vocabulary instruction are the visuals presented to further solidify word meanings, as well as provide a shared experience and context for discussion of words (Dalton & Grisham, 2011; Hall & Dougherty-Stahl, 2012; Kim & Gilman, 2008; Proctor et al., 2011). These shared experiences and interactions allows for all students to understand the context of a word so more deep meaning discussion and activities take place to further vocabulary development.

Chapter IV: Conclusion

According to the theory of constructivism, students want to make sense of the world and actively pursue gaining personal understanding of new ideas. To make the learning experience more meaningful students must feel the skills gained are part of real world tasks (Woolfolk, 2010). Being daily readers students will need to discover the meaning of newly encountered words constantly. Without being able to determine the meaning of new words, the ability to understand text will be lacking. By providing opportunities for students to grow personal vocabulary knowledge and understand new words independently, the gap formed between students with poor existing vocabularies and those with deep word knowledge will begin to close.

Conclusions

The connection between vocabulary development and reading comprehension is a tight one. Evidence repeatedly reinforces the links between students with poor existing vocabulary and poor reading comprehension. As students' vocabulary development increases, along with other basic reading skills, the discrepancies in peer-to-peer reading comprehension will also begin to close (Bianco et al., 2012). With conservative traditional vocabulary approaches failing to bridge the gap in learning between same age peers, educators must look for another way to bolster word knowledge (Brabham et al., 2012). A multi-faceted approach to vocabulary instruction has created more gains than one approach alone and educators should take note. To increase students vocabulary development instruction must focus on building both the number of words in students' personal vocabularies as well as the extent to which words in personal vocabularies are understood (Ouellete, 2006). The goal of teachers should be to immerse students in language-rich environments with repeated and supported exposure to a large quantity

of new words. Educators can easily accomplish this within the context of daily read alouds by taking the time to preselect and instruct on new and needed vocabulary. Additionally, teachers should use direct instruction such as teaching definitions and semantic organization to increase student understanding of new vocabulary and build off already mastered words. This can include methods successful for ELL students including visual representations of word meanings and periodic review of previously learned. These instructional strategies can be enhanced using technological supplements. Finally, students should acquire the tools to use their expanding vocabulary on their own and create sense of new words encountered each day through such techniques such as contextual strategies and using tools like dictionaries or other technological resources. These instructional methods are not for only after students learn to decode, but alongside the development of other reading skills from the earliest age possible (Bianco et al., 2012).

Recommendations for Teachers

Implementing a program to enhance vocabulary development in students does not have to be overwhelming. Teachers can easily take current practices in the classroom and fit in the three recommended elements to increase word knowledge. First, take a slightly more purposeful approach to using language in the classroom. Preselect words from read alouds or content areas of instruction. Decide on how and when to introduce words to students. Let children see, hear, and interact with words everywhere. Encourage students to ask questions when new and interesting words are encountered that do not become immediately familiar. Read and discuss the same text more than one time. Allow students to take ownership of the language in the environment. Using traditional tools such as word walls, educators can make the environment

more interactive and purposefully connected to needed vocabulary, as well as current content topics.

Second, select more words than currently recommended by basal curriculum to teach directly. Give students simplified or “student-friendly” definitions and, again, have opportunities for frequent and repeated use of the words. Providing students with various forms of visual or concrete representations of the words will help create a shared model to enhance classroom discussion and learning of new words. Let students try out new words in writing and discussion, as well as make connections between personal experiences and new vocabulary. Using the idea of semantics help students understand the connections between words. Additionally, dedicate time to periodic review of previously learned words. Cycles of vocabulary reinforcement are helpful in solidifying meanings and preparing students to acquire new meanings that may build off current vocabulary.

Finally, give students the tools to become word detectives using word-learning strategies. Teach students what words are clue words to determine meaning of an unknown word. Demonstrate removing an unknown word and trying to place another word that would make sense in the sentence. Help develop students’ understanding of word parts through games and morphological interactions. All of the elements can be incorporated using the resources already available in elementary schools, as well as additions of computer and video programs when possible.

Areas for Further Research

The research reviewed in this study is just the beginning of what needs to be done concerning vocabulary development. Beyond instructional strategies used in the school, more research needs to be done on eliminating the gap before school begins. When families do not

have access to enriching experiences, what recommendation can be made beyond reading to children? Without support from outside sources, some children will always lack the needed skills when entering school. What programs need to be developed to help families prepare children from birth to attain vocabulary and literacy skills? Delving into further research of early childhood vocabulary development and new support systems for families will only increase the chances that all students start with equal opportunities.

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