Vocabulary and Word Study to Increase Comprehension in Content Areas for Struggling Readers

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Vocabulary and Word Study to Increase Comprehension in Content Areas for Struggling Readers

By

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Submitted in partial fulfillment of the requirements for the degree M.S. Literacy Education

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Abstract

This action research was conducted to examine how instructional strategies and providing students with vocabulary strategies support word knowledge and increased comprehension in content areas for struggling readers. From the literature review, a combination of direct instruction and vocabulary strategies were suggested to increase word knowledge and comprehension. Research was conducted in a special education classroom with four students. Through surveys, interviews, and observation, it was evident that vocabulary strategies positively impacted students’ ability to comprehend social studies content. These findings call for teachers to evaluate their instructional practices to provide direct instruction combined with vocabulary strategies. Many opportunities should be provided for students to interact with words on a regular basis across a variety of contexts.
Vocabulary and Word Study to Increase Comprehension in Content Areas for Struggling Readers

In recent years, the need for vocabulary development has come to the forefront of literacy instruction. As early as the primary grades, readers begin to acquire a significant number of vocabulary knowledge through reading. By the end of second grade, average children have acquired approximately 6,000 root-word meanings, but the lowest 25% have acquired only 4,000 (Biemiller, 2006). However, if students experience reading difficulties, they are less likely to have the appropriate knowledge base and vocabulary necessary for comprehension of texts in content-area classes. Additionally, Fresch (2008) found that the main source of difficulty for students is knowing the meaning of words, if they are even able to pronounce them. As students move beyond primary classrooms, literacy instruction shifts from learning the processes of acquisition, genre, text type, and structure to utilizing those systems of language to gain knowledge of concepts and content. These systems of language contain a much wider variety of specific content-based vocabulary, and what strategies students have learned in primary grades may not always transfer to those content areas. If readers are not proficient in using vocabulary strategies, they will struggle with gaining comprehension from content-related texts.

As all students benefit from vocabulary strategy instruction however, it is the struggling readers that make the most gains. Many struggling readers may not have had as much exposure to literacy events, or lack experience to provide background knowledge. Stanovich (1986) suggests that the relationship between vocabulary instruction and reading comprehension is complex, and the results of children who enter school with a limited vocabulary find reading difficult. The achievement gap between students of differing socioeconomic levels is one of the
most persistent and frustrating problems that educators face. A learning disability in reading comprehension affects the learner's ability to understand the meaning of words and passages. Students with a learning disability in reading comprehension may also struggle with basic reading skills such as decoding words, but comprehension is the greater weakness. Research shows that the best solution involves a consistent and persistent investment in vocabulary development, which can be implemented through a variety of ways (Ebbers & Denton, 2008). Without intervention, literacy deficits in their early years of education will follow a downward spiral as they progress into middle and high school years.

When looking at increasing comprehension in content areas through vocabulary instruction, it is important consider the types of words that are encountered in various texts and the words are categorized. The language the students are expected to learn in various content areas, such as science and mathematics can be challenging because most vocabulary terms in these areas are low-frequency, technical words that only appear in content-specific contexts (Hedrick, Harmon, & Wood, 2008; Taboada & Rutherford, 2001). Academic language is a specialized language; both oral and written language of academic settings facilitate communication and thinking about disciplinary content. Struggling readers experience difficulty with comprehension and the ability to think critically about concepts and ideas when they are unfamiliar with vocabulary.

When looking at increasing comprehension in content areas through vocabulary instruction, it is important for teachers to include strategies that address the individual learner. First, cognitive strategies include having the student address their own thoughts about a word or concept and understand what he or she knows about it. From that experience, the student can utilize his or her schema to establish a connection between prior knowledge and construction of
meaning. Secondly, a certain level of direct explicit instruction should occur, which involves defining the word and the context in which it is used. Finally, students should see how the word is used and how the meaning relates to its context and content. Vocabulary instruction should also include opportunities for students to repeatedly encounter the words in a variety of contexts. Multiple exposures allow students to gather more information about its meaning. Using and applying many examples of a word reinforces word knowledge. However, most teachers in areas of science, social studies, and mathematics are more comfortable teaching concepts and may not be familiar with teaching vocabulary to improve comprehension related to textbooks.

When reviewing the literature, the intention was to find why and how vocabulary instruction in content areas was essential to learning vocabulary and concepts in content areas and which strategies were most effective for struggling readers. Much of the literature documented that vocabulary instructional strategies were effective when combined with direct instruction to have an impact on learning vocabulary and increasing comprehension. From the review of literature, the following question arose. What level of impact does vocabulary instructional strategies have on increasing comprehension of content areas including ELA, social studies, science, and mathematics? Research was done in Hamburg, New York (pseudonym) with a group of four students, all struggling readers from a life skills classroom. Through surveys, interviews, a focus group, and observations it was found that there was evidence of vocabulary strategies being used in the classroom that had a positive effect on the students’ comprehension. Findings showed that the students utilized strategies that were taught with automaticity. The strategies were effective for the students to learn the vocabulary related to the particular unit and aided in their comprehension of the unit. These findings call for teachers to provide various strategies to struggling readers repeatedly, that they can utilize automatically on
their own, to increase vocabulary knowledge and comprehension in content areas to narrow the gap in achievement from non-struggling readers.

**Theoretical Framework**

Literacy is the ability to make and communicate meaning through the use of a variety of socially contextual symbols, both oral and written. Within various levels of developmental ability, a literate person can make meaning and use their knowledge to achieve a desired goal that requires the use of language skills, in speaking, reading, and writing. Knowing that letters represent sounds, and that those sounds form words to which the reader can attach meaning is an example of the cognitive strategies that a literate person uses. Literacy is "not in isolated bits of knowledge but in students’ growing ability to use language and literacy in more and broader activities" (Moll, 1994, p. 202). The definition of literacy is dynamic, evolving, and reflects the continual changes in our society.

Literacy is all-inclusive and encompasses the ability to speak, read, and write. Also, these three things must be done with understanding and comprehension (Kucer, 2009; Gee, 2001). It is also important to be able to be literate in a variety of contexts. As children are born, the language they acquire is considered to be their primary discourse, which is the shaped by their family, culture and community (Gee, 2001). Children are born into a society that is fully literate and first acquire language through the desire to communicate with the users of their primary discourse. Children learn to read and write through their environment. They acquire the basic practices by watching what their parents do. In defining literacy as the control of the secondary uses of language, Gee examines the distinction between primary discourse, experiences within the immediate context of home and family, and secondary discourse that includes the uses of language beyond our primary discourse.
When considering vocabulary knowledge and comprehension, the cognitive theory suggests that readers construct meaning through written language. Two of the prominent figures in cognitive psychology are Jean Piaget (1896 – 1980) and Lev Vygotsky (1896 – 1934). Cognitive theory focuses on the study of how people think, understand, and know. Knowledge and prior knowledge became the focal point when trying to understand the interaction between reader and text (Fresch, 2007). The cognitive theory places emphasis on learning how people comprehend and represent the outside world within themselves and how our ways of thinking about the world influence our learning. From a cognitive learning perspective, learning involves the transformation of information in the environment into knowledge that is stored in the mind. Learning occurs when new knowledge is acquired or existing knowledge is modified by experience. Prior knowledge or background knowledge was shown to affect the comprehension, interpretation, and recall of written and oral texts (Alvermann, Smith, & Readence, 1985). Readers access and use appropriate background knowledge to make meaning as they interact with print.

Cognitively based views of reading comprehension emphasize the interactive nature of reading and the constructive nature of comprehension. Besides background knowledge, a set of flexible, adaptable strategies are used to make sense of a text and enhance comprehension during the reading process. The cognitive theory was used to frame the research in teaching vocabulary strategies to aid in comprehension. As students enter intermediate grades, they are encountering more content-laden vocabulary. Without prior knowledge of the word, the use of strategies will aid in learning new vocabulary.

The sociocultural theory was also used as a framework to guide the action research. The major theme of Vygotsky’s theoretical framework is that social interaction plays a fundamental role in
the development of cognition. He believed that everything is learned on two levels: through social interaction with others, and then integrated into the individual’s mental structure (Kucer, 2009). There is strong evidence that children learn and acquire language in culturally specific ways, which aligns with the sociocultural theory of literacy acquisition (Meier, 2003). Children acquire language at home in different ways, whether through reading a variety of books, or purely through oral language. Being a member of society places each individual person as a member of a certain group. Within each group, there are a set of guidelines and requirements for being a functional member of their group (Kucer, 2009). Therefore, reading and writing are not only acts of thought and language, but patterned social acts and behaviors of a group.

When discussing literacy instruction, it is important to considering what social, cultural and historical influences the readers possess. Language, thus, is never independent of social world, as it always occurs within and is shaped by a cultural context. According to Gee (1996), language always comes fully attached to social relations, cultural models, perspectives on experience, values and attitudes, as well as things and places in the world. Literacy practices occur naturally outside of school that includes speaking, reading, and writing. These experiences are influenced by ones’ primary discourse and shape a student’s development and how they learn. Additionally, there are various ways in which people used reading and writing for different purposes in their everyday lives. Literacy is something that one either has or does not have; people are either literate or illiterate, and those who are illiterate are deficient. Literacy is a set of practices (as opposed to skills) that are grounded in specific contexts and linked to cultural structures in society (Street, 1984). For the purpose of the research, it is important to consider how students’ literacy is grounded within their culture and how their experiences have shaped their literacy.
**Research Question**

Literacy, using the cognitive framework, is the desire of the language user to explore, discover, construct, and share meaning through print. The linguistic dimension implies that readers have the ability to identify text and sign systems, make meaning of the text, and analyze the function or intent of the text. Therefore, using these frameworks to guide research, how can instructional strategies and providing students with vocabulary strategies support word knowledge and increased comprehension in content areas for struggling readers?

**Literature Review**

Vocabulary serves a critical role in content-area textbooks such as English, social studies, mathematics, and science. Students who struggle with vocabulary are presented with obstacles that may have a negative impact on comprehension within context and content areas. Based on a review of the literature, there are commonalities that emerged for the causes of deficits in reading comprehension. Many strategies to improve reading comprehension for struggling readers were presented. The purpose of this research is to identify how word study and content-based vocabulary instruction and strategies are effective for improving comprehension in content areas with struggling readers.

This review of literature has examines many studies that address strategies for various types of learners, ranging from students performing at or above grade level expectations to struggling students in all academic areas. Three themes will be discussed in this review of literature. The first theme will examine the factors that students are presented with that cause
them to struggle with reading and comprehension. Secondly, content area vocabulary will be defined, as well as the idea that learning content area vocabulary will build on comprehension in English, social studies, mathematics, and science. Lastly, research based vocabulary strategies will be examined on the effectiveness of increasing comprehension in areas of English, social studies, mathematics, and science.

Factors That Contribute to the Deficits of Struggling Readers

The first theme will examine the factors that students are presented with that cause them to struggle with reading and comprehension. There are many skills that contribute to successful reading comprehension and there are many factors that influence reading. Learning new concepts and developing new knowledge is critical for comprehension across content areas. As early as the primary grades, readers begin to acquire a significant number of concepts and amount of knowledge through reading. However, if students experience reading difficulties early on, they will probably lack the appropriate knowledge base and vocabulary necessary for comprehension of texts in content-area classes in the middle and high school years.

Race/ethnicity, language, culture, gender, and socioeconomic status (SES) are among the factors that shape the knowledge and experiences students bring to the classroom. Many struggling readers may not have had as much exposure to literacy events, or lack experience to provide background knowledge. According to the National Reading Panel (2000), reading fluency can be defined as how quickly and accurately a student reads a passage. Fluency is critical for reading comprehension. Thus, students with reading or fluency deficits may take longer than their peers to accurately decode texts (Hawkins, Hale, Sheeley, & Long, 2011). The struggling reader is one who may or may not possess the ability to decode words quickly and
accurately, and fails to comprehend meaning from text. Students who struggle with fluency are typically ones who can decode words and meaning, but at such a slow rate that comprehension is lost, causing them to become frustrated and lose interest in reading. Without intervention, these students will continue to fall behind their peers.

Many English language learners (ELL) struggle with reading comprehension for several reasons. English language learners truly experience the “double edged” sword (Rupley & Slough, 2010); they are learning a second language, which is the language of instruction (English), and are being held accountable for learning content and concepts in the English language. ELLs must perform twice the work of their English-only peers because they are learning the English language while new learning content. Rupley and Slough also state that ELLs may come to school with the vocabulary half the size or less of those of their peers. The deficit in vocabulary becomes problematic for ELLs when considering comprehension of texts. According to Vaughn, Martinez, Lilan-Thompson, Reutebuch, Carlson, and Francis (2009), ELLs are still being held to the same accountability standards as their English-only counterparts. For ELLs, the deficits in vocabulary knowledge and comprehension that are experienced in the early grades tend to snowball into larger problems as they progress throughout school. Taboada and Rutherford (2011) found that it is common that Spanish-speaking, fourth-grade ELLs had relatively strong on-grade word decoding and fluency skills; however, students’ oral language and comprehension skills were between two to three levels below grade level. Furthermore, in the upper grades, ELLs face challenges because of struggles with academic text, lack of content-area knowledge, and underdeveloped oral language and vocabulary levels that can have a negative impact their academic achievement (Denton, Wexler, Vaughn, & Bryan, 2008). A lack
of proficiency in academic language often impedes older second language learners in their abilities to comprehend and analyze academic texts.

In addition to ELLs, socioeconomic status (SES) has been shown to be associated with home literacy environment, which in turn is associated with reading achievement. Children who have larger vocabularies typically have had more exposure to written and spoken discourse and are more successful in school. A child's background and experiences are likely to directly influence the association between a child's understanding of vocabulary and comprehension of texts. Stanovich (1986) suggests that the relationship between vocabulary instruction and reading comprehension is complex, and the results of children who enter school with a limited vocabulary find reading difficult. The achievement gap between students of differing socioeconomic levels is one of the most persistent and frustrating problems that educators face. Results from Chall, Jacobs, and Baldwin (1990) support Stanovich’s suggestion and identified that, children from economically disadvantaged homes to have a limited vocabulary, resulting in an achievement gap from their peers performing on grade level. As students limited vocabularies move on to middle school and high school, the gap widens. Further research on the relationship between SES and reading ability was conducted by Hecht, Burgess, Torgesen, Wagner, and Tashotte (2000). The authors suggested that there is a relationship between SES and reading ability. The relationship is determined by reading-related experiences, such as the home literacy environment, degree of early print exposure, and quality of early schooling (Hecht et al., 2000). Unfortunately, having fewer literacy-rich experiences may result in a struggle that can create an achievement gap in future years, when the child will encounter content-specific vocabulary.

Students who lack the ability to learn words fall further behind, and once they reach high school, they may know only one-fourth as many words as their peers (Stanovich, 1986). Once
students fall behind in earlier grades, the gap widens from their peers without intervention. Stanovich describes how, if a child reads well, and has a good vocabulary, they are likely to read more and learn more word meanings. Literacy is reciprocal. He has coined this at the “Matthew Effect” where “the rich get richer” refers to children who read well and have good vocabularies will read more and learn more vocabulary (p. 381). The relationship between reading well and reading new words easily could lead to higher confidence and interest with reading. Consequently, “the poor get poorer” (p. 382) refers to a child who does not read as many words per year will tend to have a smaller vocabulary and struggle learning reading new words.

Children who struggle with words and meanings of words when reading may struggle with comprehension of a passage or text. As a result, Ebbers and Denton (2008) state that struggling readers who are at an economic disadvantage tend to avoid reading, resulting in limited word encounters and inadequate vocabulary growth, and they often have difficulties inferring the meanings of new words from context. Additionally, they state that the best solution will involve a consistent and persistent investment in vocabulary development, which can be implemented through a variety of ways (Ebbers & Denton). Without intervention, literacy deficits in their early years of education will follow a downward spiral as they progress into middle and high school years.

Finally, the reasons for deficits in reading will be considered for students with learning disabilities. The term learning disability (LD) refers to deficits in students’ cognitive ability to comprehend texts caused by unknown factors. LD may include a group of disorders characterized by inadequate development of specific academic, language, and speech skills. On most occasions, disorders associated with learning disabilities affect the brain's ability to receive and process information. When considering the characteristics of students with disabilities in
relation to the characteristics of text-based learning, it can be seen that students with difficulties in verbal learning, literacy, text comprehension, and independent study strategies would be expected to have considerable difficulties with learning (Scruggs, Mastropieri, & Okolo, 2008). Language disabilities in reading and writing are primary factors that negatively impact students with LD. However, difficulties with academic-related tasks are not the sole problems that students with LD have when it comes to learning. Steele (2004) noted that students with LD have behavioral issues in specific areas of sustained attention and social skills, which are necessary for success in the general education setting. They may appear as if they are not putting forth effort when in fact, they are just overwhelmed. Learning disabled children know they are behind their peers, which affects their self-esteem and motivation.

A learning disability in reading comprehension affects the learner's ability to understand the meaning of words and passages. Students with learning disability in reading comprehension may also struggle with basic reading skills such as decoding words, but comprehension is the greater weakness. Language disabilities in reading and writing are likely the primary factors that negatively impact a student with LD in science achievement (Therrien, Taylor, Hosp & Kaldenberg, 2011). Additionally, because science generally involves the use of mathematics, difficulties in this area may also contribute to the limited science achievement for students with a learning disability. Nearly all academic learning requires comprehension of text whether in science, social studies, or even mathematics (Knight, Browder, Agnello, & Lee, 2010). However, most teachers in area of science, social studies, and mathematics are more comfortable teaching concepts and may not be familiar with teaching vocabulary and comprehension related to textbooks.

**Importance of Learning Content Area Vocabulary**
Vocabulary knowledge is strongly associated with reading comprehension. Understanding the meanings of words and their relation to text comprehension has been the focus of much research. The relationship between vocabulary and reading comprehension is thought to be reciprocal, meaning that a reader who knows more words is likely to have better reading comprehension, while a reader who is successful with comprehension and frequently will have more opportunity to learn more words (Feebody & Anderson, 1983; Stanovich, 1986). Consequently, a reader who struggles with vocabulary will be less likely to comprehend text, and less likely to learn new vocabulary. However, teaching vocabulary can enhance comprehension of text if the kind of instruction provided helps students build meaningful associations to their knowledge base and more than a brief definition is provided (Baumann, Kame’enui, & Ash, 2003).

The goal of early literacy instruction for students in primary grades is to gain mastery in the five fundamentals of literacy that include phonemic awareness, phonics, vocabulary, fluency, and comprehension to use in their reading and writing. Narrative texts typically follow a story grammar structure containing setting, characters, problem, and solution (Hall Sabey, & McClellan, 2005). When reading, identifying the elements of a narrative text aids in comprehension. Additionally, readers who are able to utilize a combination of background knowledge and inferencing gain greater comprehension of the text (Graesser, Singer, & Trabasso, 1994). In primary grades, narrative texts are mostly used with a growing emphasis on expository texts. Expository texts, or informational texts, contain factual information and contain more unfamiliar vocabulary and concepts. The elements of an expository text include: description; sequencing and procedures; problem and solution; and compare and contrast.
Expository texts often contain bold headings, graphics, and often technical words that may or may not be defined in the text.

Many readers entering fourth grade have just acquired the fundamentals of literacy and learning-to-read, whereas the tasks required in content-area classrooms expect readers to be proficient in reading-to-learn from expository texts, a skill that Chall, Jacobs, and Baldwin (1990) explain is not emphasized during the earlier years of reading development. As students encounter vocabulary related to content areas other than English, such as social studies, mathematics, and science, they are required to utilize their background knowledge and prior experiences about a topic to make sense of the word. Students utilize their concept knowledge and context to make meaning. Many fourth-grade students who were reading on grade-level may begin to fall behind and experience difficulty reading informational textbooks; this downturn in performance has been referred to as the “fourth-grade slump” (Chall, Jacobs, & Baldwin, 1990). And as time progresses, so does the deficit in students’ achievement. This problem begins early in childhood and becomes increasingly evident over time. And by the time they graduate from high school, students with limited vocabulary know only one-fourth as many words as their academically successful peers (Lubliner and Smetana, 2005).

When considering the words that are encountered in various texts, it is important to consider how the words are categorized. Beck, McKeown, and Kucan (2002) describe how words are categorized into three levels, based on the frequency that the words occur in both oral and written language. Tier one words include high frequency words that are encountered every day that are likely to be known by children through spoken language experiences, such as cat, house, or car. Sight words are also considered tier one words. The tier two words are non-specialized words that are encountered across a variety of texts but would be less likely
recognizable to children, such as *blizzard, frigid,* or *vivid.* Tier three words are very content specific, such as *igneous* and *metamorphic,* and often found in areas of mathematics and science contexts. Research-based studies have provided the base for current general vocabulary instructional practices, especially for the teaching of tier two words used along a variety of contexts, and are recommended for teaching elementary aged children. The language the students are expected to learn in various content areas, such as science and mathematics can be challenging because most vocabulary terms in these areas are low-frequency, technical words that only appear in content-specific contexts (Hedrick, Harmon, & Wood, 2008; Taboada & Rutherford, 2001). Academic language is a specialized language; both oral and written language of academic settings facilitate communication and thinking about disciplinary content. Struggling readers experience difficulty with comprehension and the ability to think critically about concepts and ideas when they are unfamiliar with vocabulary and a lack of domain knowledge or conceptual understanding (Bielmiller, 2003; Hedrick, Harmon, & Wood, 2008). Unfortunately, for students who struggle with vocabulary often struggle with gaining concepts and comprehension.

In content-area classrooms, teachers are being asked to assume the responsibility for strategy instruction in addition to teaching content. For teachers, three guiding principles were suggested for vocabulary instruction. There should be a promotion of a deep understanding of a relatively small number of words, their elements, and semantically and morphologically related words in rich contexts (Graves, 2006; Stahl & Nagy, 2006). Therefore, teachers should select vocabulary words relevant to the content area that promote comprehension. Secondly, the words to be taught deeply should be very high utility in nature; specifically the words taught should be general-purpose academic words (Beck, McKeown, & Kucan, 2002; Graves, 2000, 2006; Stahl
& Nagy, 2006). New vocabulary words should be taught prior to reading, as the reader will spend too much time figuring out new words, and will be unable to comprehend the content. Finally, a balance of direct teaching with teaching word-learning strategies to equip students with cognitive tools to learn words independently, such as using contextual cues (Fukkink & de Glopper, 1998; Swanborn & de Glopper, 1999). A combination of direct instruction and incorporating flexible strategies has been researched to promote increased comprehension. Classroom-based interventions should feature a “comprehensive, multifaceted approach to vocabulary instruction, in contrast to focusing on only one aspect of vocabulary knowledge” (Leseaux, Kieffer, Faller, & Kelley, 2010, p. 219). Intervention should also be designed with consideration to linguistic diversity.

Where possible, in addition to teaching words necessary for understanding the text, teachers are advised to select academic words that appear across the curriculum and that belong to morphological families (Ebers & Denton, 2008). Morphological awareness refers to recognizing the presence and of morphemes (the smallest meaning units in language) in words. Rich instruction should include questioning, providing brief explanations, pointing, clarifying, and repeating when teaching higher level vocabulary to promote vocabulary development (Sobolack, 2011). In selecting which words to teach, content-specific vocabulary must not be overlooked. In general, students with reading disabilities should be directly taught words that represent key concepts or big ideas. In addition, it can be especially important to teach multiple-meaning words to all students with a limited lexicon, including English language learners (ELLs), as these words may be particularly confusing for them.

**Vocabulary Instructional Strategies to Improve Comprehension**
As students advance into intermediate grades, they are more exposed to expository texts for learning concrete ideas in subjects other than ELA, like social studies, science, and mathematics. After a long absence, vocabulary instruction has once again come to the forefront of the discussion of reading and comprehensions (Pearson, Hieer, & Kamil, 2007). In turn, vocabulary instruction has returned to a place of prominence in the reading curriculum. The Report for the National Reading Panel (NRP, 2000) and the RAND Reading Study Group (RAND, 2002) have identified vocabulary as an essential component of reading instruction. Additionally, there is much concern over the national decline of students’ reading comprehension as they move beyond third grade, that they may not automatically become proficient in comprehension in later grades. Therefore, teachers must teach comprehension explicitly beginning in primary grades and continuing through high school (RAND, 2002). Consistent vocabulary development will close the gap of struggling readers and their peers.

According to Nagy (1998), fundamental to comprehending text is possessing vocabulary knowledge. As students encounter content related vocabulary without knowing the meaning, their ability to comprehend the content may be compromised. Building upon this principle of vocabulary and comprehension, Nagy and Scott (2000) report that a child must be able to comprehend the meaning of 90-95% of the words in a passage in order for it to be fully understood. Although researchers and scholars, like Nagy and Scott recognize the role that vocabulary plays in comprehension, it is difficult to assess to what extent it plays in comprehension:

Our measures of vocabulary are inadequate to the challenge of documenting the relationship between word learning and global measures of comprehension. That is, it might be that our
instruction is improving vocabulary learning, which might lead to improvements in general comprehension, but the instruments we use to measure vocabulary are so insensitive that they prevent us from documenting the relationship. (p. 283)

It is important to consider a variety of methods to assess students improvement in vocabulary knowledge and comprehensions, as standardized measures provide a only a snapshot of students’ abilities. From a meta-analysis conducted by Elleman, Lindo, Morphy, and Compton (2009), authors also found that, “although a positive overall effect of vocabulary training on comprehension assessed with custom measures was found, the effect for standardized measures was minimal” (p. 33). These findings claim that although vocabulary knowledge and comprehension improved for the unit of study, the student was less able to transfer the meaning of the word outside of the context it was learned. Possible explanations for the limited impact of vocabulary training on standardized measures were offered by Pearson, Hiebert, and Kamil (2007) stating that: (a) there is no causal link between vocabulary and comprehension, (b) vocabulary instruction does not transfer beyond the target words and texts in which the words are learned, or (c) existing standardized measures are not sensitive enough to detect changes in comprehension due to vocabulary instruction. Despite researcher’s inability to document the exact nature of the relationship between vocabulary and comprehension, its importance in reading research cannot be denied. Not only is vocabulary one of the best indicators of verbal ability, vocabulary knowledge in the primary grades is a significant predictor of reading comprehension in the middle and secondary grades (Graves, 2006).

Vocabulary instruction currently remains a topic of interest and concern for both classroom teachers and teacher educators. Hedrick, Harmon, and Wood (2008) researched
specific instructional strategies for teaching vocabulary that appeared most frequently in current content area textbooks. As texts become more difficult and more complex, the vocabulary becomes more difficult as well. They identify three critical areas to focus on: (a) an understanding of the students’ vocabulary learning, (b) the features of content vocabulary, and (c) effective vocabulary instruction ideal for particular disciplines, including mathematics, social studies, and science (Hedrick, Harmon, & Wood). The authors claim that although strategies may be flexible, they should be appropriate for the context in which the word learning will occur. Similar research was conducted by Wood, Vintinner, Hill-Miller, Harmon, and Hedrick (2009) which also investigated what strategies textbooks offered to teachers. Researchers examined content area textbooks and the amount of attention devoted to context clues, multiple exposures, motivation, self-selection, and wide reading. Consequently, Wood et al., (2009) discovered through textbook examinations that although the textbooks did not offer strategies, the texts support the need to provide multiple exposures to key vocabulary terms were provided to teachers.

An effective approach to content area vocabulary is one that “must take into account the different roles that words play in a text and must utilize methods that help students build new concepts” (Armbruster & Nagy, 1992, p. 550). Although students may learn the meaning of a word related to certain content, they should be able to transfer vocabulary meanings in other contexts. The traditional approach to vocabulary instruction is to require students to learn definitions of words, whether by drill or by looking words up in a glossary or dictionary (Harman & Dole, 1988). The traditional approach requires students to find word meanings independently. Although this strategy saves time for the teacher and enables them to progress to content matter, Irvin (2001) identifies this as problematic. A person must know a word to
understand it and also definitions may not always contain enough information to allow for complete understanding. Additional instruction is needed to help students learn new words in the context of a subject. However, using the definitional approach should not be avoided. Rather, learning definitions of words can be effective when students already have an understanding of the underlying concept of the term.

The focus of effective vocabulary practices should be placed on improving comprehension, not just word knowledge alone (Beck & McKeown, 1991; Stahl & Fairbanks, 1986). Word knowledge and comprehension are reciprocal. According to Nagy (1998), effective and explicit instruction of vocabulary has three components; integration, repetition, and meaningful use. When teaching new words, teachers need to relate them to other words and concepts. Instructional methods include modeling, guided practice, checking for understanding, and multiple opportunities for practice with explicit and timely feedback (Jitendra, Edwards, Starosta, Sacks, Jacobson, & Choutka, 2004). By modeling providing timely feedback, students can become comfortable with the strategies and will use them automatically and independently. The ability to use strategies automatically and independently is reflective of the schema theory as it involves students relating unknown words to concepts, with an emphasis placed on students’ background or existing knowledge (Harmon et al., 2005). Once the students are able to utilize their background knowledge, they are able to utilize new words in other areas. Students also need to interact with new words on a regular basis across a variety of contexts so its meaning can be automatically accessed during reading (Stahl & Fairbanks, 1986). Finally, once students have acquired knowledge of a word, they should be able to use it in the proper context. The higher level of engagement a students has with a word, the more likely the student will learn and retain the word’s meaning.
Explicit vocabulary words are specifically targeted for instruction, and they are presented through multiple exposures within rich language contexts where word awareness is created through the explicit focus on the target words (Taboada & Rutherford, 2011). Multiple exposures to new vocabulary allows students to develop background knowledge of the word. Explicit vocabulary was the theme for Hawkins, Hale, Sheeley and Ling (2011), who conducted a study to examine whether students who were repeatedly exposed to two new strategies to improve fluency and comprehension for struggling high school readers would experience improvements on reading fluency and comprehension. Aside from the control group, who received a reading passage and 10 multiple choice comprehension questions, the two experimental groups received additional strategies. The repeated group (RR) was provided vocabulary instruction on the misread words from passage that was read orally. The repeated reading with vocabulary preview group (RR+VP) was taught definitions of preselected words from a passage prior to reading before following the same procedures of the RR group was followed. Although both groups achieved higher scores in reading fluency, comprehension, and oral reading rate, the combination of repeated reading and vocabulary preview strategies resulted in a slightly higher increase in the trends of the repeated reading group (Hawkins et al., 2011). The study implies that having a variety of strategies and combining strategies results in higher trends on comprehension. Similar results were found in a study by Denton, Wexler, Vaughn, and Bryan (2008), who explored the effectiveness of a multicomponent intervention in middle school with ELL students with severe reading disabilities. Although students did not demonstrate significant growth, there were no losses in achievement on posttest decoding, spelling, oral vocabulary, word identification, and comprehension (Denton et al.).
A combination of explicit vocabulary and concept instruction focus shifted emphasis to be placed on the idea of providing context in a way that promotes students’ using language and understanding the content. The body of research available on English-only students has identified effective instructional vocabulary strategies such as providing definitional and contextual information about each word’s meaning and actively involving students in word learning through talking about, comparing, analyzing, and using targeted words (Beck & McKeown, 2001; Beck, McKeown, & Kucan, 2002; Stahl, 1999). Both explicit and direct instruction were used to teach content related vocabulary. Building on the previous research, Vaughn, Martinez, Linan-Thompson, Reutebuch, Carlson, and Francis (2009) utilize methods that take advantage of a student’s first language knowledge by providing explicit vocabulary instruction, increasing awareness of cognates from their native language (Spanish) to extend their vocabulary and improve comprehension. The researchers also utilize strategies that emphasize on the big ideas, paying attention to vocabulary and background knowledge development and alter interactions between teacher and students to include structured paired grouping (Vaughn et al., 2009). Further, the use of structured discussions and graphic organizers by pairs of students provided additional support to students in their use of expressive language.

Taboada and Rutherford (2011) conducted a formative experiment that compared the effects of two instructional frameworks that provide strategy instruction for explicit vocabulary instruction in the science context. In the contextualized vocabulary instruction framework (CVI), academic vocabulary was taught in an implicit way, where students learned word meanings in the context of explicit strategy instruction while using texts to learn about the central concepts in the unit. The intensified vocabulary instruction framework (IVI) is based on the explicit instruction of academic vocabulary, with a focus on selected target words taught in
rich language contexts with a goal of developing word awareness. When looking at results across interventions, the benefits of explicit instruction in IVI were evident for both high and lower readers. In addition, post-intervention scores revealed only a one-point difference in academic vocabulary between lower and higher readers in the IVI condition and a two-point difference in the CVI condition. Similarly, Hedrick, Harmon, and Wood (2008) researched prominent content vocabulary strategies used by teachers. They found that explicit instruction of content area vocabulary and content analysis using expository texts was among the most widely used by teachers. When the two strategies were combined, they were proven to be more effective on word learning and comprehension.

Direct vocabulary instruction occurs when a teacher systematically demonstrates how to determine the meanings of words by utilizing context and concept clues. Although students learn the words in the context of authentic reading, the teacher leads them to specific strategies for discovering meaning. Direct vocabulary instruction used to promote comprehension depends on several factors: the goal of instruction, the reading development of the child, objectives and tools for assessing vocabulary learning, and allocation of instructional time (Baumann, Edwards, & Boland, 2003). Direct vocabulary alone may not promote the students’ ability to utilize the new vocabulary across various contexts. However, Nagy and Anderson (1991) acknowledge that the value of learning words from context alone may have been overestimated due to the fact that vocabulary learning is a long-term process, one that requires multiple encounters with words.

Morphemic analysis refers to looking at the meaningful parts of words, such as the root words and affixes, and how the prefixes and suffixes add meaning to words. Baumann, Edwards, Boland, Olenjnik, & Kame’enui, (2003) explore the impact of teaching 5th grade students how to derive word meanings through morphemic analysis and infer meanings through
contextual analysis. Words are analyzed and broken apart and meaning is attached to each part. Similar research was conducted by McCutchen and Logan (2011) and found results consistent with Baumann et al. (2003), which morphological awareness was accountable for a unique variance in comprehension.

Word mapping strategies, described by Harris, Shumaker, and Deshler (2011), utilize a set of cognitive and behavioral steps students can use to predict the meanings of unknown words using words maps that involves: (a) breaking words into their morphemic parts (i.e., prefix, suffix, root); (b) attaching meaning to each word part; (c) making a prediction about the meaning of the unknown word based upon the meaning of each part; (d) and checking the dictionary for the definition. Modeling, guidance, and timely feedback may be necessary to guide students in this process. This word mapping strategy was used to as an approach on improving struggling readers’ comprehension on expository texts used in content areas in a study conducted by Harris et al., (2011). Since vocabulary in expository texts is usually related to a specific context, students may not possess any background knowledge of the new words. Consistent with earlier research by Baumann, Edwards, Boland, Olejnik, & Kame’enui (2003), the strategy intervention resulted in students learning the meaning of isolated words at a socially significant level, and the intervention was effective in teaching the strategies to both students with disabilities and their peers without disabilities.

The relationship between strengthening vocabulary instruction and comprehension of struggling readers is complex. Vocabulary experts have noted that metacognitive knowledge is an important factor in utilizing word learning strategies and transferring word knowledge from one context to another. Some researchers have found no correlation between having improved skills in gaining meaning from vocabulary and improved reading comprehension (Baumann et
al., 2003). The lack of improved reading comprehension may be a result of students not having the ability to transfer vocabulary across various contexts. As stated above, improved comprehension also may be due to ineffective tools for measuring outcomes. Therefore, Lubliner & Smetana (2005) turn to research of cognitive strategies to identify successful methods of improving reading comprehension that may be adapted and applied to vocabulary instruction.

Evidence suggests that struggling readers experience difficulty in cognitive processes such as making inferences, drawing conclusions, and predicting outcomes. When struggling readers are taught how to utilize a combination of metacognitive strategies, their self-monitoring, comprehension levels increase (Simmons, Hairrell, Edmonds, Vaughn, Larsen, Willson, Rupley, & Byrns, 2010). In their study to improve reading comprehension, the authors designed an approach that focused on: using the main idea as a building block for summarization; using higher-level questioning; and using graphic organizers to represent key learning. Additionally, a multiple cognitive strategy approach to content-area vocabulary was used. This strategy approach included a prioritized set of content vocabulary words, explicit teaching of multiple strategies to learn and apply vocabulary, activation and building of background knowledge related to vocabulary, contextual clues to derive word meanings from text independently, and the use of semantic organizers to graphically organize and reinforce vocabulary learning. (Simmons et al., 2010). The combination of direct and explicit instruction with vocabulary strategies promoted students to learn vocabulary within the context it was being used. Likewise, Mercuri (2010) utilized graphic organizers to support both the development of content knowledge and language development in science education. Both found that graphic organizers were effective in allowing teachers to examine students’ critical thinking about the content. They also created a visual...
representation of concepts, helping students to sort, summarize, show relationships among ideas, and make meaning from texts. Finally, graphic organizers were used to assess ongoing learning, allowing for teachers to design and modify instruction to better meet students’ needs (Simmons et al, 2010; Mercuri, 2010). Therefore, graphic organizers were proven to be useful in a future-focused view to improving educational situations.

Metacognitive strategies include thinking aloud, predicting, summarizing, and questioning. Activities include preteaching vocabulary, explicit instruction of appropriate strategies, modeling, guided instruction, and individual practice. Results from several studies indicate that students who learned how to use the metacognitive strategies gained confidence in their ability to think about and comprehend texts. However, there was no indication of significant gains in scores.

**Conclusion**

When looking at increasing comprehension in content areas through vocabulary instruction, it is important for teachers to include strategies that address struggling readers. Teachers need to attempt to identify the individual reasons why students struggle in reading achievement. As students enter fourth grade, their academic reading consists of more content related textbook, or expository texts in mathematics, science and social studies. These texts include more tier two and tier three words that are specific to the content or related concept. If students struggle with making meaning from the word in isolation or in context, they will not be able to comprehend the text, resulting in the students falling behind their peers.

Many factors shape the knowledge and experience that students bring to the classroom. Race, ethnicity, culture, and socioeconomic status are a few factors that shape a student’s
literacy. Some students who have had limited exposure to literacy events outside of school struggle with a limited vocabulary and less reading fluency, resulting in struggling with decoding words and meaning. English language learners typically struggle because they are learning a second language and they are learning content and concepts in a language not native to their own. Therefore, a lack of proficiency in academic language often creates a problem for older second language learners in their abilities to comprehend academic texts.

Depending on the content and students’ needs it may be necessary to teach individual word meanings to ensure that they are available for instant access when reading text through direct or explicit instruction. It is important for teachers to provide a variety of strategies to students to be able to acquire content related vocabulary. The selection of the strategy may depend on the goal of instruction, the assessment tool to monitor learning, development level of the student, objective for vocabulary learning, and how much time is available. It is also important to teach strategies in a way that goes from teacher directed to the students also building the ability to use the strategies on their own. Utilizing a combination of metacognitive strategies promotes students’ self-monitoring and comprehension to increase.

The research that was reviewed showed that there is a connection between vocabulary knowledge and comprehension. The research-based vocabulary strategies were effective for all learners despite not showing significant gains on assessment tools. However the most significant gains were made by struggling readers, students with disabilities, and English language learners when comparing posttest results compared to their benchmarks.
Methods

Context

The context for this study took place at Hamburg Middle School (a pseudonym). The New York State District Report Card for the 2010-2011 school year indicates that at total of 5439 students were enrolled within five elementary schools, grades kindergarten through fifth grades; two middle schools, grades sixth through eighth grades; a ninth grade academy and one high school. The population was made up of 68% White, 16% African American, 10% Asian, 5% Hispanic, and 1% multiracial. Of this population, 37% of the students were eligible for free or reduced price lunch. All of the schools in the district are in good standing, making adequate yearly progress (AYP), with the exception of the one middle school in the district, which is on a one year improvement plan. The overall accountability for the district is in good standing in all content areas however, AYP was not met in English language arts in one elementary school and secondary math in one school. Several schools in the district receive Title 1 Part A Funding.

Hamburg Middle School serves 490 students in sixth through eighth grades. The average class size is about 20 students per class. This study took place in one of the three self-contained classrooms. This classroom is a 12:1:1 life skills classroom with one special education teacher, one teaching assistant, and the capacity for 12 students. Grade levels represented in this classroom are sixth, seventh, and eighth grades. The class currently has six students who are classified with a learning disability. Most of the students receive speech services and counseling. All students are eligible for the New York State alternative assessments. The sample group for this research includes five students, four male students and one female student.
Participants

Alex (a pseudonym) is a 14-year-old Hispanic male in the seventh grade. He is diagnosed with autism and enjoys swimming and playing video games. He does not have many acquaintances his own age outside of school. He lives with his mother, brother, and sister near the school. His mother works in the school district as a lunch monitor. Alex shows most success with mathematics. However, his disability makes it difficult for Alex to read independently and he struggles with decoding. According to his Fountas and Pinnell assessment, he is at an instructional level L, placing him at a second grade reading level. Alex currently has an Individual Educational Plan which allows his access to service providers for speech therapy. He is placed in a 12:1:1 classroom setting and meets eligibility for the New York State alternative assessments.

Chris (a pseudonym) is a 14-year-old Caucasian male in the seventh grade. He enjoys listening to music, watching sports, and playing video games. He lives with both parents and his sister in their grandmother’s home in the district. Chris’s favorite subjects include physical education and technology. He is diagnosed with an intellectual disability and is taking medication for attention deficit disorder. Chris’s disability makes it extremely difficult for him to maintain focus at school. He lacks social skills necessary to be successful in general education settings and requires several visual and verbal prompts to maintain his attention. According to his Fountas and Pinnell assessment, he is at an instructional level L, placing him at a second grade reading level. Chris currently has an Individual Educational Plan which allows him access to service providers for speech therapy and counseling services. He is placed in a 12:1:1 classroom setting and meets eligibility for the New York State alternative assessments.
Hanna (a pseudonym) is a 14-year-old Caucasian female in the eighth grade. This is Hanna’s last year in this classroom and will be going to the Ninth Grade Academy next year. She enjoys video games and watching movies. She lives with her mother and has a sister who lives with her father. Hanna’s favorite subjects include English language arts and social studies. She wears glasses and is diagnosed with an intellectual disability and is currently taking medication for ADHD. According to the Fountas and Pinnell assessment, her instructional level is O, placing her at a third grade reading level. Hanna currently has an Individual Educational Plan which allows her access to service providers for speech therapy and individual psychological counseling services. She is placed in a 12:1:1 classroom setting and meets eligibility for the New York State alternative assessments.

Kari (a pseudonym) is a 12-year-old African American male in the sixth grade. This is his first year in the school and has had an easy transition. He lives with his mother and has no siblings however, his mother is expecting. Kari is very active and loves to play football. He also enjoys singing in chorus and playing video games. Kari is diagnosed with an intellectual disability and is currently taking medication for ADHD. According to the Fountas and Pinnell assessment, his instructional level is L placing him at a second grade reading level. Kari currently has an Individual Educational Plan which allows him access to service providers for speech and language. He is also eligible for Extended School Year. Kari is placed in a 12:1:1 classroom setting and meets eligibility for the New York State alternative assessments.

Joey (a pseudonym) is a 13-year-old, Caucasian male in the seventh grade. He live with his mother and has several brothers and sisters; some live with him and his mother and some live with his father in the Bronx. He loves using technology and video games. He is creative with computer software such as PowerPoint. His strengths are in sight word recognition and he is a
good speller. His intellectual disability causes him to have difficulty with written expression and mathematics. According to the Fountas and Pinnell assessment, his instructional level is U, placing him at a fifth grade reading level. Joey currently has an Individual Educational Plan which allows him access to service providers for speech. Joey is placed in a 12:1:1 classroom setting and meets eligibility for the New York State alternative assessments.

**Teacher Subjects**

Ms. J (a pseudonym) has been teaching this class for six years. She has focused on structuring students’ learning based on their individual needs. She fosters independence by teaching learning strategies that students can utilize on their own. Ms. J has a Bachelor’s degree in Childhood Education and English and a Master’s degree in Literacy Education.

Mrs. M (a pseudonym) is a certified Speech and Language Pathologist who provides services to qualified students. She works with most of the students in the 12:1:1 classroom. She has been a Speech teacher for five years at the middle school and also works at the Ninth Grade Academy where students will transition to.

**Researcher Stance**

I am currently a graduate student at St. John Fisher College working towards a Master’s degree in Literacy Education, Birth through 6th grades. I presently have a Bachelor’s degree with certification in Early Childhood Education, Childhood Education, and Special Education. As a researcher in this study, I acted as a participant observer with two purposes. Mills (2011) describes a participant observer to be one whom “observes the activities, people, and physical aspects of a situation” (Mills, 2011, p. 74). As I am not the classroom teacher, being an observer allowed me to get a better understanding of how the students interact with the environment, their
peers and the teacher, as well as determine their confidence as a learner. I also collected data through interviews and questionnaires. When possible, I interacted with students while they were engaged in learning and applying new vocabulary strategies.

**Method**

For this study, I collected both qualitative and quantitative data to examine the effects of teaching social studies vocabulary to improve students’ comprehension of social studies content. The study took place over the course of three weeks during the 45-minute social studies block. Observation will occur during four sessions. The sessions included conducting a formal teacher interview and collecting student background information, including benchmark assessment data. Interest surveys were completed by five students. Additionally, a student panel interview was conducted with five students to find out which vocabulary strategies they are familiar with and which strategies they are comfortable using.

Prior to the social studies unit, a Stoplight Vocabulary sheet was used as a tool to assess students’ knowledge of the preselected words from the unit. Knowledge of these terms will assist in students’ comprehension of the unit. During each day of the unit, an instructional strategy was be taught to reinforce the vocabulary terms, including direct instruction, finding dictionary definitions, using words in a sentence, watching short videos of the event surrounding the unit, and reading the words in context. Two observations were be made during the three-week period to observe the strategies being taught and how receptive the students were to the strategies.

During the final observation, students were re-assessed using the same Stoplight Vocabulary activity as a post-assessment to determine if the strategies helped the students learn
the vocabulary. The unit ended with a comprehension activity. Additionally, in order to gather more quantitative data, a Linkert scale survey was used with students to evaluate their use of vocabulary strategies and the effect the strategies had on comprehending following the unit test.

**Quality and Credibility of Research**

When conducting the study, four components must be considered to ensure and confirm quality and credibility. First, the credibility of a study refers to the researcher’s ability to take into account the complexities that may occur during a study (Mills, 2011). As part of credibility, triangulation will be practiced. Mills describes triangulation as utilizing a variety of data sources and different methods to and the comparison with one another to cross-check data. Data was collected from the use of questionnaires, interest inventories, observation field notes, transcribed notes from audio recordings of the interviews, and work samples.

The second component to be considered in this study is transferability. Transferability refers to the belief that the data from the study is bound to the context and should not be generalized to larger groups of people (Mills, 2011). The detailed descriptive data described above provides the reader a picture of this specific context. The reader can then make a decision whether the data on the effectiveness of the combined vocabulary learning strategies would be transferable to other contexts.

The third component to be considered is the dependability of the study. Mills (2011) refers to dependability as the stability of the data. An overlapped method, similar to triangulation is used by including two or more methods to collect data. In the event that one method provides weak data, another method may provide stronger data and compensate for the weaker method. As stated above, several methods of data collection were used in this study,
including interviews, observation field notes, questionnaires, and student work samples of teacher-made assessments to determine how effective vocabulary strategies were on student comprehension of the social studies content.

Lastly, the confirmability of the study must be considered. Mills (2011) describes that confirmability, or the neutrality or objectivity of the data collected can be addressed by practicing triangulation and reflexivity. As previously discussed, triangulation was practiced during this study by the variety of methods of data collection. A journal of field notes was maintained throughout the observation sessions and the research process to reflect on data collection and observations. This was to “intentionally reveal any underlying assumptions or biases” thus avoiding findings to be presented in a particular way (Mills, 2011, p.105).

**Informed Consent and Protecting the Rights of the Participants**

Prior to conducting this study, an informed consent form was provided to the teacher, informed assent forms to each student, and permission forms to the parents of the students. Each form describes the purpose of the study is to identify how content-based vocabulary instruction and strategies are effective for improving comprehension in social studies for struggling readers. Students, parents, and the teacher were informed that this study would present no risks to the participants and would benefit the examiner to become a better teacher. The forms assured that anonymity would be maintained by the use of pseudonyms and any identifying marks would be removed from student work samples and artifacts. Participants were informed of their rights.

**Data Collection**

Several tools were used to collect data that include qualitative and quantitative data collection techniques. Interviews were conducted with the student participants to collect
background information and students’ interest and motivation to read and write. A formal was conducted with the teacher to determine how and when vocabulary instruction occurs in the classroom. Field notes were collected from observations of the physical setting, activities, and student engagement with vocabulary strategies.

To determine knowledge of new vocabulary words, the Stoplight Vocabulary assessment was used a pre- and post-assessment to the instructional unit. Several vocabulary strategies were used daily. Additionally, a vocabulary quiz was given where the students match the correct word to the definition. The Likert scale was completed by the students to rate whether they used the taught strategies and the likelihood that they will continue to use the strategies. Finally, comprehension was assessed through a combination of fill in the blank and multiple choice questions from the text.

Data Analysis

After collecting the data, I analyzed the data to find commonalities across the sources. The first analysis done was with my quantitative data. All of the students are eligible for alternate assessment. This data consisted of the students’ Fountas and Pinnell benchmark assessments. The data provided information about the students’ instructional reading levels. Student work samples were also examined to determine the effectiveness of the vocabulary learning strategies.

From the teacher interview, student surveys, and the focus group questions, I began to look for common themes among the discussions. In particular, I focused on which vocabulary strategies the teacher uses during instruction, and which strategies the students use to learn vocabulary. These focal points were developed from the review of literature and the focus of the
research question. I hoped to gain a better understanding of how vocabulary instruction and strategies promoted comprehension for struggling readers in content areas.

The student surveys were analyzed and coded according to categories and then put into themes. I began to look for common themes among the responses. I hoped to find out about students' interests and the amount of reading that occurred outside of school. Additionally, I was looking for the students' feeling about reading and their favorite and least favorite subjects. All of the students showed interest in computers, video games, and music outside of school. The students also shared feelings about reading and writing, whether positive or negative. They identified favorite books and favorite and least favorite subjects in school. All four students admitted that rarely read outside of school. When asked about reading, two of the four students indicated that they like to read, however when the students responded to how reading make them feel, one of the students who indicated that he liked reading, responded that reading makes him feel mad. When asked about writing, one of the four students responded that he was liked to write. When asked about favorite subjects in school, two students responded that their favorite subject is math, one student social studies, and one student likes PE. Two students state that ELA is their hardest subject.

The focus group questions were related to strategies the students use when reading and encounter words they cannot read or do not know. The responses from the discussion were coded and analyzed for common themes among the discussion. In particular, I focused on students’ knowledge and usage of strategies for figuring out unknown words. Additionally, the teacher interview responses were analyzed for the use of instructional strategies. The responses from the teacher interviews and observation field notes provided triangulation of data to support the study.
After careful analysis and cross examination of the data collected, the following themes emerged. The first theme that repeatedly aroused from the data addresses the teacher’s knowledge of instructional methods and strategies for vocabulary. The second theme addresses the students’ knowledge and usage of the vocabulary strategies when reading to aid in comprehension. Finally, the third theme addresses the effectiveness of the taught strategies on the students’ word knowledge and comprehension. The following data that was collected and the review of literature will be used to support the importance of these themes.

Findings and Discussion

The initial data collected on the students was related to their academic achievement. As the students are in a self-contained, special education life skills classroom, they are all exempt from New York State Standard Assessment and are all eligible for Alternate Assessment. As shown in Table 1, the students’ reading levels are substantially below that of their peers within the current grade in which they are enrolled. The level of reading may be indicative of some of the struggles that the students have with vocabulary knowledge and comprehension. The results in Table 1 play a major role in deciding the level of modifications needed, as well as the types of instructional strategies needed to improve students’ vocabulary and comprehension.

Table 1

Fountas and Pinnell Assessment, 2013

<table>
<thead>
<tr>
<th>Student Name</th>
<th>Current Grade</th>
<th>Fountas and Pinnell Reading Level</th>
<th>Reading Grade Level Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alex</td>
<td>7</td>
<td>L</td>
<td>2</td>
</tr>
<tr>
<td>Chris</td>
<td>7</td>
<td>L</td>
<td>2</td>
</tr>
<tr>
<td>Joey</td>
<td>7</td>
<td>U</td>
<td>5</td>
</tr>
<tr>
<td>Kari</td>
<td>6</td>
<td>L</td>
<td>2</td>
</tr>
</tbody>
</table>
Table 1 shows the current grade level that the students attend in a life skills classroom. The Fountas and Pinnell benchmark assessment was administered the students in January, 2013 to assess their current reading level, which is noted. The grade level equivalent of the Fountas and Pinnell assessment is noted as well. All students are reading substantially below grade level, ranging from two to five grade levels. When considering the characteristics of students with disabilities in relation to the characteristics of text-based learning, it can be seen that students with difficulties in verbal learning, literacy, and comprehension would be expected to have difficulties with learning (Scruggs, Mastropieri, & Okolo, 2008).

**Teacher’s Knowledge of Instructional Methods and Vocabulary Strategies**

The first theme addresses the teacher’s knowledge of instructional methods and strategies for vocabulary repeatedly which repeatedly arise from the data. During the initial interview, Ms. J, the classroom teacher completed a questionnaire (Appendix A) regarding the instructional materials she uses in the classroom, the methods she uses to teach vocabulary strategies and the frequency, and how she assesses student achievement for vocabulary knowledge and comprehension. One of the questions from the interview was for the teacher to rate the quality of the textbooks. Ms. J. stated that, “many of the provided textbooks for social studies are at a reading level far above the ability of my students and far too complex for them to comprehend” (Teacher Interview, February 13, 2013). To address the needs of her struggling readers, she uses modified material related to American history that include nonfiction leveled readers, shorter expository reading passages, and internet resources including video clips to support students’ engagement, learning, and comprehension of the content. Ms. J. utilizes a combination of modified instructional material, explicit instruction, combined with vocabulary strategies to increase the readers word knowledge and comprehension.
Examination of the data showed that Ms. J utilizes explicit instruction combined with a number of vocabulary strategies to the students to increase word knowledge and comprehension. Ms. J. was very knowledgeable of effective pre-reading strategies, including activities and graphic organizers to activate background knowledge. Some pre-reading strategies included using a word map, a concept web, a KWL chart, and watching a video related to a fictional story (Field notes, February 13, 2013). These are all effective tools to build prior knowledge before reading. However, when asked the frequency of use of the strategies, she stated that, “Vocabulary instruction and word study really only occurs during the ELA block. I sometimes use graphic organizers in science to teach comprehension of concepts” (Teacher Interview, February 13, 2013). Graphic organizers were used to create a visual representation of concepts, helping students to sort, summarize, show relationships among ideas, and make meaning from texts. Mercuri (2010) utilized graphic organizers to support both the development of content knowledge and language development in science education and found that graphic organizers were effective in allowing teachers to examine students’ critical thinking about the content.

Ms. J includes several strategies as part of the weekly routine for the ELA block. A typical week of ELA word study and vocabulary instructions is described by Ms. J:

The students are required to look up the definitions of the new words in the dictionary. They are given one class period to complete this task, and if they do not finish, they have to finish the task for homework. Students are given many opportunities throughout the week to practice the new words, such as alphabetizing them, word scrambles, writing the words three times, and using them in a meaningful sentence. (Teacher Interview, February 13, 2013)
This teacher uses a combination of explicit instruction combined with other vocabulary strategies and many opportunities to encounter new words. The traditional approach to vocabulary instruction is for students to learn definitions of words, whether by drill or by looking words up in a glossary or dictionary (Harman & Dole, 1988). The traditional approach requires students to find word meanings independently. Irvin (2001) adds that a person must know a word to understand it and also definitions may not always contain enough information to allow for complete understanding. These combined uses of strategies support Nagy and Anderson (1991) who acknowledge that the value of learning words from context alone may have been overestimated due to the fact that vocabulary learning is a long-term process, one that requires multiple encounters with words. In other content areas like social studies, science and mathematics, she will occasionally use pre-teaching strategies for key terms. For the purpose of this research, Ms. J. preselected key vocabulary terms from the passage on the War of 1812 to pre-teach prior to reading the passage. She utilized the same strategies listed above from her typical ELA week.

To get a better understanding of the teacher’s vocabulary instructional methods, an observation was conducted of an ELA lesson on poetry. Ms. J. taught introduced the lesson with a short video on rhyming words and how they are used in some forms of poetry. She utilized a read aloud that modeled poetry and rhyming words. Questioning was used to encourage students making predictions. There was a brainstorming activity where students had a discussion on what rhyming words are and how they sound. Ms. J asked aloud, “What rhymes with boat?” (Field Notes, March 6, 2013). She encouraged participation for students to call out words that rhyme with the given word. Students provided responses like, coat, and bat. She repeated the word, emphasizing the sounds in the word, “boat, b-, -oat, boat” (Field Notes,
March 6, 2013). The lesson wrapped up with students using the computer to look up synonyms and rhyming words to assist them in generating ideas for writing their own poem. Ms. J taught the concepts of rhyming words, modeled words that rhyme through listening and speaking activities, followed by a written assignment. According to Nagy (1988), effective and explicit instruction of vocabulary has three components; integration, repetition, and meaningful use. Ms. J incorporated all three components. Instructional methods include modeling, guided practice, checking for understanding, and multiple opportunities for practice with explicit and timely feedback (Jitendra, Edwards, Starosta, Sacks, Jacobson, & Choutka, 2004).

**Students’ Usage of Vocabulary Strategies**

The second theme addresses the students’ knowledge and usage of the vocabulary strategies when reading to aid in comprehension. The responses from the student interviews, teacher questionnaire, informal teacher interview, and field observations revealed consistencies and some inconsistencies when examining what vocabulary strategies the students use when reading and encountering new words. This next theme will address what strategies the students are familiar with and which strategies they use the most.

The student focus group provided insight to which vocabulary learning strategies they and use the most. Some responses were not consistent with the responses from the teacher questionnaire and informal interview. When asked about how student decode words, Alex stated that, “sometimes I look at the letters to sound out the words” (Student Focus Group, February 25, 2013). He shows that he occasionally utilizes phonics strategies to decode unknown words. The other students from the focus group said that they never utilize phonics strategies and state that they use the dictionary to learn the meaning. Students with reading difficulties often struggle
with decoding. According to Hawkins, Hale, Sheeley, and Long (2011) struggling readers may not possess the ability to decode words quickly and accurately, and fail to comprehend meaning from text. However, this question may have been worded improperly. My intent was to investigate whether the students ever used phonics strategies in their learning however, the question asked how they figure out a word that they do not know. I also probed to find out the how student figured out meanings of words they did not know in context. Kari agreed with Alex’s statement that, “pictures are helpful sometimes” (Student Focus Group, February 25, 2013). Kari and Alex occasionally utilize context clues to decode and make meaning from unknown words. Interestingly, Chris admitted that, “it takes too long to try to figure it out when I skip it and go on, so I just ask Ms. J because it’s quicker” (Student Focus Group, February 25, 2013). Again, this is could present that a student with reading difficulties may struggle with using decoding, and context clues. Chris and Joey both use a dictionary to figure out the meanings of words they do not know. Joey stated that, “when I look at the word [in the dictionary] then I know it” (Student Focus Group, February 25, 2013). Using the dictionary to define an unknown word will provide the reader with an accurate definition. According to Herman and Dole (1988), the traditional dictionary approach allows students to find word meanings independently.

A pre-assessment was used to determine the students’ knowledge of the new vocabulary words they would encounter during their reading of a social studies passage on the War of 1812. The passage on the War of 1812 (Appendix D) provides key words. Additionally, words were preselected by Ms. J. that that may not be recognizable to the students and words that may have multiple meanings. These words made up the weekly vocabulary list. A Stoplight Vocabulary checklist (Appendix E) developed by Lubliner (2005), is a tool for students to rate their
knowledge of the vocabulary term. If they know the word and can use it in a sentence, they color in the green circle; if they are familiar with the word, but are unsure of the meaning, they color in the yellow circle; and if they do not know the word at all, they color in the red circle.

The students completed the Stoplight Vocabulary Checklist for vocabulary from the War on 1812 passage (Table 2) as a pre-reading strategy. From the students’ results, the teacher decided which words would require the most instruction time. Red-light words are completely unknown and would require direct, intensive instruction. Yellow-light words are partially known, suggesting that students may be able to understand them in context. Green-light words are already known by the students.

Table 2

*Stoplight Vocabulary Checklist, February 2013*

<table>
<thead>
<tr>
<th>Students</th>
<th>Red Light Words</th>
<th>Yellow Light Words</th>
<th>Green Light Words</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of Words</td>
<td>% of Words</td>
<td>% of Words</td>
</tr>
<tr>
<td></td>
<td>Pre-</td>
<td>Post-</td>
<td>Pre-</td>
</tr>
<tr>
<td>Alex</td>
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<td>0%</td>
<td>18%</td>
</tr>
<tr>
<td>Chris</td>
<td>18%</td>
<td>0%</td>
<td>27%</td>
</tr>
<tr>
<td>Joey</td>
<td>0%</td>
<td>0%</td>
<td>9%</td>
</tr>
<tr>
<td>Kari</td>
<td>10%</td>
<td>0%</td>
<td>27%</td>
</tr>
</tbody>
</table>

Table 2 contains the students’ results from their self-assessment of the vocabulary words from the reading passage on the War of 1812. The students used the Stoplight Vocabulary as a pre-reading tool to self-assessed their knowledge of the vocabulary words prior to reading the passage on the War of 1812. The Stoplight Vocabulary checklist was used again by students as a post-reading tool to assess their knowledge of the vocabulary words after reading and instruction. All of the students felt confident with their knowledge of the vocabulary words after reading the passage with vocabulary instruction and repeated use of the words in various contexts. Prior to
reading and instruction, few students rated words as red light words. Chris and Kari were unfamiliar with one to two words from the vocabulary list when isolated from the context. Each of the students was somewhat familiar to vocabulary words from the list, ranging from one to three words. The students had heard the words before, but were not sure how they related to the topic. Finally, the students were confident with at least 55% of the words from the vocabulary list prior to reading the passage.

Prior to reading the passage on the War of 1812, the students use a dictionary to find the meaning of the words and complete the Dictionary worksheet (Appendix E). Due to the various abilities of the students in the classroom, Ms. J. provided some dictionary meanings of the words to model the expectations and reduce frustration. Using the dictionary to define an unknown word will provide the reader with an accurate definition. According to Herman and Dole (1988), the traditional dictionary approach allows students to find word meanings independently. Additionally, students utilized the words in meaningful sentences from the dictionary definitions. After reading the passage, students had repeated encounters with the words using word search, word scrambles, and created and practiced the words with flashcards. The results from Table 2 show that all of the students were able to rate the all of the vocabulary words as green light words, indicating that they know the vocabulary words. The activities increased their awareness and knowledge of the words.

From my field observations in the classroom, I noticed that many of the activities and strategies that the teacher has the students practiced were not part of the responses from the students. I noticed that the students did, in fact utilize phonics and to identify unknown words. Students were using their finger to point to words, and as Kari struggled with the word journey, he sounded out the word, “j-, j-, joney, jouney,” until he was given the word (Observation Field
Notes, February 25, 2013). This shows that despite his comment of not using phonics strategies, Kari did in fact look at the letters and attempt to sound out the word. Many of the word learning strategies were also phonics related activities such as rewriting words, the word search, and the word scramble. I also noticed that the students utilized context clues and elements of the text to gain meaning of the words. Utilizing text elements was evident in their reading and repeated reading of the passage. One of the preselected, pre-taught words was *trunk*. This word was selected because of, depending on the context, it could have different meanings. The student’s oral reading paused as he came to the word while he looked at the illustration of a trunk with contents described in the passage (Observation Field Notes, February 25, 2013). The pause in his reading could indicate that he used the picture to provide or confirm the meaning of the word.

The students’ lack of response to utilizing the strategies that the teacher provides may be that: a) they are unsure they are using the specific strategy; b) they gain information from the dictionary, computer, or the teacher most frequently; or c) they were not confident in their use of strategies. Perhaps the students felt that there is a right or wrong answer and with hearing answers from their peers during the focus group interview, they felt that their opinion or preference would be the wrong answer.

Finally, technology plays a role in vocabulary word learning strategies in the classroom as well. During my observation, some students used the computer to find dictionary definitions, which seems to be the preferable method for the students versus using the Webster’s Dictionary text. Perhaps students seem engaged because most fields for typing text will suggest the intended word which would help them if they are not confident in spelling the new word. When they have typed or selected the correct word, most dictionary websites provide an audio button to hear the pronunciation of the word. Joey, who has English as his second language, utilized this
feature during my observation (Field Notes, March 7, 2013). Joey speaks and reads English well; however Spanish is primarily spoken at home. Students also used the computer to look up synonyms and rhyming words to assist them in generating ideas for writing. The computer seems to motivate the students to look up new words. During my observation, the students appeared to have a high level of engagement in the activity using the computer.

**Effectiveness of Vocabulary Strategies on Comprehension**

Finally, the third theme addresses the effectiveness of the taught strategies on the students’ word knowledge and comprehension. When examining the student engagement in the classroom and student work samples, it is evident that the students benefited from the taught strategies during the social studies unit. Comprehension and vocabulary test scores from the Louisiana Purchase (Table 3) unit are shown in the table below. This social studies unit on the Louisiana Purchase was conducted without the use of the vocabulary strategies described in this study.

Table 3

<table>
<thead>
<tr>
<th>Topic</th>
<th>Assessment</th>
<th>Average Test Scores</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Louisiana Purchase</td>
<td>Comprehension</td>
<td>67%</td>
<td>No Strategy</td>
</tr>
<tr>
<td></td>
<td>Vocabulary</td>
<td>85%</td>
<td></td>
</tr>
</tbody>
</table>

Table 3 shows the results of teaching the unit on the Louisiana Purchase to students. Comprehension and vocabulary were assessed at the end of the unit without the use of instructional strategies. The average test scores of the student participants without instructional strategies were 67% on comprehension and 85% on vocabulary knowledge from the unit. The scores indicate that the vocabulary provided in the passage, and the context clues may not have
provided enough for students with a reading disability to gain comprehension from the text. Therefore additional strategies may benefit the reader.

For the unit on the War of 1812, students were introduced to the stoplight vocabulary checklist (Appendix D). I was able discuss how the checklist would provide the teacher with information about what the students already know about the words. I modeled how to fill in the checklist for the students. Although this tool is useful for the teacher to determine which words will require more instructional attention, it get the students thinking about the words, drawing on the background knowledge. Additional strategies, such as explicit instruction of vocabulary, dictionary definitions, writing words in sentences, and watching a video clip were used as strategies to aid in learning new vocabulary and increase comprehension. The assessment used to determine the students’ knowledge of the vocabulary words closely aligned with the information from the stoplight vocabulary checklist and the success in the vocabulary activities. The results of the social studies unit taught with vocabulary instruction are shown in Table 4.

Table 4

<table>
<thead>
<tr>
<th>Topic</th>
<th>Assessment</th>
<th>Average Test Scores</th>
<th>Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>The War of 1812</td>
<td>Comprehension</td>
<td>87%</td>
<td>Explicit Instruction</td>
</tr>
<tr>
<td></td>
<td>Vocabulary</td>
<td>97%</td>
<td>Dictionary Definition</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Writing Words in Sentences</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Video Clip</td>
</tr>
</tbody>
</table>

Comprehension and vocabulary test scores from the War of 1812 unit are shown in the Table 4. The social studies unit on the War of 1812 was conducted with the use the vocabulary strategies including explicit instruction of vocabulary, dictionary definitions, writing words in sentences, and watching a video clip. Table 4 shows that comprehension and vocabulary were assessed at the end of the unit using instructional strategies. The average test scores with the
strategies were 87% on comprehension and 97% on vocabulary knowledge from the unit. The results indicate that the use of strategies had a positive impact on students’ performance in vocabulary knowledge and comprehension. The combination of explicit instruction, vocabulary strategies, and multiple opportunities for practice with words leads to improved comprehension (Jitendra, Edwards, Starosta, Sacks, & Choutka, 2004).

When comparing the data from the two units, it is evident that the vocabulary strategies were effective not only on vocabulary knowledge, but comprehension as well. The test scores for comprehension and vocabulary were higher for the unit on the War of 1812 (Table 4), which incorporated the use of vocabulary strategies. For both units, the methods of assessment are the same. The vocabulary assessment was a matching format, matching the correct word to the definition. The words were provided in a word bank. The comprehension assessment was a fill-in-the-blank, cloze format. The statements were related to the passage, and students had to put the correct word in the blank to complete the sentence. The words were also provided in a word bank for this assessment. This data show evidence that pre-reading strategies, direct instruction, repeated readings, and multiple exposures to the words assisted in vocabulary knowledge and comprehension of the social studies unit.

When looking at increasing comprehension in content areas through vocabulary instruction, it is important for teachers to include strategies that address the individual learner. A combination of direct and explicit instruction involves defining the word and the context in which it is used. Students should also be responsible to seek out addition meaning on their own, through the use of a dictionary, other texts, and technology. Finally, students should see how the word is used and how the meaning relates to its context and content. Vocabulary instruction needs to include opportunities for students to repeatedly encounter the words in a variety of
contexts. Multiple exposures allow students to gather more information about its meaning. Using and applying many examples of a word reinforces word knowledge and will increase comprehension.

**Implications and Conclusions**

Vocabulary knowledge serves a critical role in reading comprehension. Increased vocabulary knowledge will aid in increased comprehension. From the review of literature, studies have shown that a combination direct instruction and vocabulary strategies will improve students’ vocabulary knowledge. Depending on the content and students’ needs it may be necessary to teach individual word meanings to ensure that they are available for instant access when reading text through direct or explicit instruction (Nelson & Stage, 2007). When considering the characteristics of struggling readers in relation to the characteristics of text-based learning, it can be seen that students with difficulties in verbal learning, literacy, text comprehension, and independent study strategies would be expected to have considerable difficulties with learning (Scruggs, Mastropieri, & Okolo, 2008). In the study above, the teacher was well attuned to the current achievement levels of each of her students in order to provide appropriate instructional leveled material and instructional strategies. She provided differentiated material that was at an appropriate instructional level for each student. As teachers, it is important to clearly identify their deficits in literacy that their struggling readers face, whether it is issues of decoding, fluency, or lacking strategies for word knowledge or comprehension. Nearly all academic learning requires comprehension of text whether in science, social studies, or even mathematics (Knight, Browder, Agnello, & Lee, 2010). As students enter intermediate grades, they need to have a toolbox of strategies to identify words and generate meaning of new words in order to be able to gain comprehension from expository content laden
texts. For teachers, it is important to be knowledgeable of various strategies to provide to struggling readers to narrow the gap in achievement from non-struggling readers.

When teaching new vocabulary, teachers should also provide many opportunities to interact with new words on a regular basis across a variety of contexts so its meaning can be automatically accessed during reading. In the above study, the teacher provided many opportunities to interact with words with a variety of differentiated instructional material and multiple resources, including oral and written interactions, and the use of technology. Instructional methods include modeling, guided practice, checking for understanding, and multiple opportunities for practice with explicit and timely feedback (Jitendra, Edwards, Starosta, Sacks, Jacobson, & Choutka, 2004). When teaching new words, teachers need to relate them to other words, real-life contexts, and related concepts. A multiple cognitive strategy approach includes a prioritized set of content vocabulary words, explicit teaching of multiple strategies to learn and apply vocabulary, activation and building of background knowledge related to vocabulary, contextual clues to derive word meanings from text independently, and the use of semantic organizers to graphically organize and reinforce vocab learning (Simmons et al., 2010). In content areas, such as social studies, science or mathematics, it is essential for teachers to provide vocabulary instruction to address content area specific words that a student may be less familiar with. In the above study, the teacher used vocabulary strategies when teaching a social studies unit that involved direct instruction and cognitive strategies to build background knowledge related to the vocabulary terms. She also provided multiple opportunities for students to utilize the words in multiple contexts.

When reviewing the literature, the intention was to find why and how vocabulary instruction in content areas was essential to learning vocabulary and concepts in content areas
and which strategies were most effective for struggling readers. From the review of the literature, I was interested to see what level of impact vocabulary instructional strategies had on increasing comprehension of content areas other than ELA such as social studies, science, and mathematics. Much of the literature documented that vocabulary instructional strategies were effective when combined with direct instruction to have an impact on learning vocabulary and increasing comprehension. From the review of literature, the following question arose. What level of impact does vocabulary instructional strategies have on increasing comprehension of content areas including ELA, social studies, science, and mathematics? Research was done in Hamburg, New York (pseudonym) with a group of four students, all struggling readers from a life skills classroom. Through surveys, interviews, a focus group, and observations it was found that there was evidence of vocabulary strategies being used in the classroom that had a positive effect on the students’ comprehension. Findings showed that the students utilized strategies that were taught with automaticity. The strategies were effective for the students to learn the vocabulary related to the particular unit and aided in their comprehension of the unit. These findings call for teachers to provide various strategies to struggling readers repeatedly, that they can utilize automatically on their own, to increase vocabulary knowledge and comprehension in content areas to narrow the gap in achievement from non-struggling readers.

There were a few limitations in the research done. The time span was short which limited the amount of observation and length of time to compare strategies and result. Data from only a one week-long unit in social studies was used for the study, as well as field notes from an observation of an ELA lesson were used. Also, the study was only conducted with a small focus group containing four students with disabilities and data was not compared to students
without disabilities which limited any range of data. In future research, I would be interested to see the results of similar strategies with a large focal group over a longer period of time.

After completing the research, I was left with the following questions. As strategy instruction should become part of content area instruction, and teaching strategies takes up content instructional time, how much time should be dedicated to effectively teaching vocabulary strategies? Also, as research of vocabulary instruction in content areas is relatively new for content area teachers, how long must a strategy be taught for a student to automatically incorporate a strategy into their toolbox of strategies? Further research involving a large group of participants, with a wider range of abilities over a longer period of time would provide support to the above research.

In conclusion, it is evident that word knowledge plays an important role in reading. Having a wide vocabulary is also important in comprehension. In order to be successful, readers need to have a tool box of vocabulary strategies to learn new words that they encounter in reading new texts. As teachers, we must be knowledgeable of the necessary word learning and vocabulary strategies, and implement them during instruction. As student incorporate these strategies, their vocabulary knowledge will increase and their comprehension will improve.
References


doi:10.3102/00028312040002447


Appendix A

Teacher Questionnaire

How do you rate the quality of the social studies text? ________________

Does the social studies text clarify the vocabulary terms? ______________

Do you provide the definitions to the students? ________________________

How much class time is allotted for students to look up new words? ______

What is the frequency of dictionary use in the classroom? ______________

How many opportunities are provided to practice new words? ____________

How often do students write using new words in sentences? ____________

How is social studies vocabulary selected? ____________________________

What method is used to assess social studies vocabulary? ______________

What method is used to assess social studies comprehension? ___________
Appendix B

Student Interest Survey

1. What are you interested in?
   Playing sports ____ Watching sports ____ Art ____ Video Games ____ Watching TV ____ Listening to Music ____ Playing Music ____ Watching Movies ____ Using the Computer ____ Anything else? _____

2. Do you like to read? _______________________________________

3. How do you feel you are at reading? ___________________________

4. How much do you read outside of school? _______________________

5. What is the name of one book you enjoy reading? ______________

6. What do you do when you come to a word that you don’t know? _______

7. Do you like to write? _______________________________________

8. How do you feel you are at writing? ___________________________

9. What is your favorite subject? ______________________________

10. What subject is hardest for you? _____________________________
Appendix C

Student Focus Group

- How do you figure out words you cannot read?
- What kind of context clues do you use to figure out the meanings of words when reading?
- How often do you skip a word you don’t know and go on to find out the meaning of the word from the sentence?
- How often do you ask the teacher to give you the word?
- How often do you write new vocabulary words in a sentence?
- How often do you practice spelling new vocabulary words?
- What are other ways you practice new vocabulary words to remember them better?
Appendix D

CHAPTER 13  The War of 1812

New Words: * capture * freedom of the seas * angered * captains * forced * James Madison *
  navy * Dolley Madison * White House * trunk * burned * painting * Andrew Jackson

America and England were fighting again in the year 1812. Why did Americans fight a second war against England?

Napoleon, the ruler of France, started a war against England in 1803. The United States wanted to trade with both England and France. English ships captured many American ships that sailed to France. This made the United States very angry. Americans wanted freedom of the seas. “Freedom of the seas” means that ships can sail wherever they want.

England angered America in another way. English ships stopped American ships on the ocean. English captains went on the American ships. These captains

English sea captains forced American sailors to sail on English ships. The captains forced the sailors to work for England.
said that some of the Americans were really English people. They forced these Americans to sail on the English ships. They had to work for England. The English forced many Americans to work on English ships. Americans wanted to trade with France. They did not want their ships captured.

In 1812 Americans began to fight England for freedom of the seas. James Madison was the president during the War of 1812. He thought America would win the war quickly. But the American army and navy were small. The war did not end quickly. Americans fought for more than two years against England.

Americans wanted Canada to be part of the United States. American ships captured some of the lakes near Canada. The English army in Canada was strong. The United States could not capture Canada.

The American army had burned some buildings in Canada. England decided to burn the American capital city, Washington, D.C. Americans did not think England would attack their capital. There were very few

The English soldiers marched into Washington and burned the White House.
American soldiers in the capital. In 1814, an army of English soldiers came to Washington. They burned the Capitol building, the White House, and other government buildings.

Dolley Madison was the president’s wife. She was at home in the president’s house when Washington, D.C., was burning. The president’s house is called the White House. President Madison was not in the city. He was with the army.

Dolley Madison was a brave lady. She did not run away from the burning city. She stayed in the White House and packed important government papers in a trunk. A beautiful painting of George Washington was in the White House. Dolley did not want the English to burn this painting. She asked someone to take it off the wall. Dolley left Washington with the painting and the government papers.

Very soon, English soldiers came to the White House and burned everything inside. Dolley Madison had saved George Washington’s painting and important government papers for the United States.
England wanted to capture the city of New Orleans. Andrew Jackson was a general in the American army. He took 5,000 American soldiers to New Orleans in January 1815. General Jackson did not know that in December 1814 America and England had decided to make peace. The English army at New Orleans was very large. General Jackson and his soldiers won the Battle of New Orleans in January 1815.

In December 1814 England and America decided to stop fighting. Both countries had won and lost many battles. Both countries wanted peace. England did not win new land in the war. The United States did not win new land from the war.

Nothing really changed much because of the war. But England never again fought against the United States. England and other countries in Europe knew that the United States was now a stronger country. The United States was now strong enough to fight for what it wanted.

**USING WHAT YOU'VE LEARNED**

**☆ Read and Remember**

**Who Did It** • Answer each question with the name of a person. Write a sentence about the person.

1. Who was the president during the War of 1812? ________________

2. Who was the ruler of France during the War of 1812? ________________

3. Who saved the painting of George Washington? ________________

4. Who won the Battle of New Orleans? ________________
Appendix E

STOPLIGHT VOCABULARY

Name_______________________________ Date____/____/____

Follow these steps for Stoplight Vocabulary:

If you don’t know the word at all color the light red. If you have heard of it but aren’t sure what it means color it yellow. If you know the word and can use it in a sentence color it green.

Example: The word is frog. I know that frog is animal that has no tail and webbed feet. So I will color in a green light.

<table>
<thead>
<tr>
<th>1. captured</th>
<th>2. angered</th>
<th>3. captain</th>
<th>4. forced</th>
<th>5. trunk</th>
<th>6. trade</th>
</tr>
</thead>
<tbody>
<tr>
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