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How Does Explicit Instruction Enhance the Understanding of Academic Vocabulary for Middle School English Learners?

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HOW DOES EXPLICIT INSTRUCTION ENHANCE THE UNDERSTANDING OF
ACADEMIC VOCABULARY FOR MIDDLE SCHOOL ENGLISH LEARNERS

by

Katherine M. Kermes

A capstone submitted in partial fulfillment of the
requirements for the degree of Master of Arts in Literacy Education.

Hamline University

Saint Paul, Minnesota

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To my husband Alex, for your endless love and support. I never would have made it here without you by my side.

To my capstone committee, for your dedication and encouragement.
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CHAPTER ONE

Introduction

Imagine a middle school science classroom filled with students sitting at tables in pairs. The 8th grade students are poised to begin notes on the topic of the day and the science teacher asks them to share what they know about chemical properties. Hearing the word chemical, students suggest the following synonyms: poison, bad, liquid. The teacher quickly responds that none of these is the correct answer and transitions to the first slide of a presentation for students to copy the definition of a chemical property. The students had used their background knowledge of the word chemical to attempt an answer that made sense to them based on when they have heard the word in news reports or in TV shows. However, the teacher expected an academic explanation according to the scientific definition of chemical. Half of the students in the class were identified as English Learners (ELs). This disconnect between the vocabulary students possess and the vocabulary demands of school, is an urgent area of need. It is experiences like this that have led me to identify my question for this capstone, how does explicit instruction enhance the understanding of academic vocabulary for middle school English Learners?

In this chapter I will explain the journey that took me towards choosing this topic for my Capstone. I will begin by discussing the ACCESS test for English Learners in addition to my co-
teaching experiences in content classes. Both of these experiences in teaching English Learners helped me to see the struggles students face and the need for academic vocabulary instruction. Lastly, I will describe my personal vocabulary learning experiences to explore how I acquired a wide vocabulary through independent reading.

The ACCESS Test for English Learners

My first encounter with students’ lack of academic vocabulary was when I was hired as an English Learner (EL) teacher for the 2011-2012 school year at a middle school. In the winter it was my job to administer the state accountability test, the ACCESS for ELs, to the students on my roster. This test consists of four parts: reading, writing, speaking and listening. Based on their responses in each part, students are given an EL score on a scale from one to six. A level one score corresponds to a student who is learning English at the very beginning stages. Conversely a level six score is earned by a student who has fully developed the language skills to be successful at their grade level without limitations. These scores are used for informing program placement and for exiting decisions. Currently in my school district, a student will be exited from EL services once they reach a level five on the ACCESS test.

Administering the speaking portion of the test opened my eyes to how my students were struggling with the language and vocabulary of school. To administer the speaking test, I met with one student at a time. Sitting at a table with them, I positioned a flip book so that they could see visual supports while I read aloud short texts and question prompts that connected to the visuals. Students then responded to the questions to the best of their ability and I rated their answer according to a rubric. Specifically, the rubric instructed the rater to focus on the organization of discourse, the specificity of vocabulary and the speaker’s overall
comprehensibility according to the question level. The test was structured so that the questions started at the lowest level and progressively got more challenging (see Table 1).

Table 1: ACCESS Speaking Test Example Questions and Answers

<table>
<thead>
<tr>
<th>Level</th>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>What do you see in this picture?</td>
<td>A book</td>
</tr>
<tr>
<td>Entering</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>What is Andrew doing?</td>
<td>He is listening to the teacher read.</td>
</tr>
<tr>
<td>Emerging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>What are the steps that Andrew takes to do his science lab experiment?</td>
<td>He measures water in the cup. He stirs the sugar in the water. He heats the water until the water evaporates and the sugar is left at the bottom of the cup.</td>
</tr>
<tr>
<td>Developing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Describe how water travels through the water cycle.</td>
<td>First the water in lakes and rivers changes to gas and goes into the air. Then the water condenses in the clouds. Finally, the rain and snow falls from the clouds to the Earth.</td>
</tr>
<tr>
<td>Expanding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>What are some actions that people can take to protect the water in our environment?</td>
<td>There are many things that people can do to help protect the water in our environment. One thing people can do is to reduce the amount of water they use at home. They can take shorter showers and turn the facet off when brushing their teeth. Another thing people can do is to clean up litter. When garbage is left on the ground and it rains, then the trash can be washed into the storm drains and travel to lakes and rivers in the watershed. This trash is toxic to our sources of water.</td>
</tr>
<tr>
<td>Bridging</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

While the ACCESS speaking test may seem like a daunting task, I was quite confident that many of my students would perform successfully. In the first place, most of the ELs that I worked with were born in the United States and spoke English with a perfect American accent. Additionally, the majority of students were achieving average and above-average grades in their middle school classes. I had no reason to believe that discussing various content area topics would serve to be such an impossible task. What I found was just that; students were wholly unprepared to discuss the concepts they were learning about in their classes each day. As I progressed through the questions in the speaking test, I noticed that students spoke clearly but I was shocked to find that their responses were too brief, unorganized and used only the most
common vocabulary terms. Very few ELs met the criteria for passing level five questions which included extended responses that are highly organized and use specialized vocabulary. When combined with their scores from the reading, listening and writing portions of the test, which were also challenging, few students were able to exit from EL services at the end of the year since they did not achieve a level five for their overall score.

This experience of administering the ACCESS test for the first time was the beginning of my awareness of the language difficulties that my students were facing in their content classes. My students might have been successful at understanding the concepts that were taught throughout the day but if they were unable to express their comprehension in structured responses with academic vocabulary, then they were at risk of not being able to sufficiently demonstrate their understanding. Clearly, there was a need to focus on developing academic language abilities in my teaching and across the school day.

Co-Teaching

After teaching at my school for four years as a part-time EL teacher, my position increased to full-time last year. With this increase I was able to continue teaching two English Language Development (ELD) courses while adding three co-taught content classes. I now co-teach a 6th grade math, a 7th grade social studies and an 8th grade science section with ELs clustered in each hour. It is through this new experience that I am developing a deeper understanding of the language complexities that ELs face.

In the beginning of the year, my goal was to acquaint myself with the teaching styles of the co-teachers and become more familiar with the content of each of my co-taught classes. During our planning time, I listened as the teachers explained the learning targets and activities for each day. My initial impressions were that students would encounter a large amount of
academic vocabulary in the lessons that my co-teachers had planned. It was not until experiencing these lessons that I realized how quickly a student could be left behind by the large amount of new and complex academic language used.

One example that clearly illustrates this barrage of academic language is the first two days of a unit on scientific method in 8th grade science. On the first day of this unit, the students were introduced to eight new vocabulary terms related to the scientific method including, observation, hypothesis and controlled variable. The definitions of the terms were quickly read aloud for students as they copied them from the board. The teacher then gave an oral explanation by using each term in a hypothetical example of a science experiment that she could conduct. The second day of the unit, students took notes again and copied the definitions for another seven new vocabulary words. Again, the teacher elaborated orally to explain each word but no further processing was planned. The 14 new words were not intentionally practiced or reviewed during the initial days of instruction. The terms were used in context during the unit but there was no focused review of the word meanings before the unit test.

A second example of students struggling with academic vocabulary occurred during a 6th grade math test. After studying many concepts in the Number Theory unit students took a summative test to demonstrate mastery of concepts. During the test, Ricardo raised his hand and asked for help on a question which asked students to find the prime factorization of a number. The week before when we had learned and practiced this skill, I remembered Ricardo was very successful and even put an answer on the board during class yet here he was asking for help on the test. My initial reaction was disappointment that he had forgotten the skill he had learned only a week prior but after asking Ricardo to explain his difficulty on that test problem he told me that he didn’t know what prime factorization meant. I quickly rephrased the question by
replacing the vocabulary term with more common language describing it as using “factor trees” and Ricardo’s eyes lit up with understanding. He grabbed his pencil and set to work showing me that he knew exactly how to do the skill of finding the prime factorization.

In both of these situations and in others during my co-teaching experiences I have found that content teachers focus on concepts and skills while rarely taking the time to explicitly teach and practice the academic vocabulary of their content area. Due to this lack of attention to vocabulary, ELs and other students are not reaching the levels of success in school that they are capable of. If students do not know or feel comfortable with the academic terms then they will not be able to fully express their comprehension.

Personal Vocabulary Learning

In my own life I have only a few vague memories of vocabulary instruction. I can recall rare instances of copying definitions from the board or completing a matching test with vocabulary words. It is likely that I reviewed the words for ten minutes in the class period before a vocabulary quiz and quickly memorized the target words. Unfortunately for my long-term learning, I can easily memorize and then quickly forget the next day. This strategy helped me get A’s and helped convince teachers that I had learned, but it didn’t help me achieve deep knowledge of the complex meanings and uses of the vocabulary.

Thankfully, the prolific reading I began as a child helped me bridge the gap from a basic vocabulary to a robust one. Prior to independent reading, I grew up in a home filled with books where reading was modeled and valued. Once I could read on my own, I devoured books and begged my mom to let us stop at the bookstore in the mall. Reading was a significant part of my life as I read in my free time and in class. Looking back, it is clear that the high-volume reading I did positively contributed to my vocabulary knowledge. The more I read, the more words I
was exposed to and as I continued to read my level of understanding for words deepened through multiple encounters. In addition, these exposures to words were meaningful because I enjoyed the activity of reading.

I clearly see the need for explicit vocabulary instruction however my personal background in vocabulary learning is not enough to help me guide student vocabulary growth. The vocabulary teaching that was modeled for me was scarce and insufficient. Reading is the medium through which I learned most of my vocabulary yet I cannot apply reading as a cure-all to the problems my students face. Reading is a struggle when your vocabulary is small and if you rarely read, you will not encounter very many words. I will not fix anything by just telling my students to read more. Embarking on this journey to research vocabulary instruction is how I can become a better vocabulary teacher in order to positively impact student learning.

Conclusion

Since I now have the opportunity to work closely with three content teachers I know that I can help support students to acquire the language they need to learn and show understanding. In my research for this capstone I plan to answer the question, how does explicit instruction enhance the understanding of academic vocabulary for middle school English Learners? My goal is that through my research I will find ways to increase student achievement through the impact that a robust vocabulary can make on student reading and writing abilities. I will also be able to share my findings with my co-teaching partners and with the teachers at my school.

In chapter two of my capstone I present what the research says about English Learners and academic vocabulary. I detail how to best teach and assess vocabulary so that I can use the information when planning my action research. Chapter three discusses the methods I used in my research. I describe the setting of my research and the tools that I used with students. In
chapter four I analyze the results of my research and review the data that I collected with students. Finally in chapter five I summarize my capstone project and look towards possible next steps for research.
CHAPTER TWO

Literature Review

Language learning is, by all accounts, a complex task. When listening to an unfamiliar language, it is difficult to hear where one word ends and another word begins. A beginning language learner may be able to answer a direct question with a yes or no but will not be able to read a history textbook or watch a documentary on volcanoes for many years. Fluency requires knowledge of language across many registers, situations and purposes. The language learning journey is long if the goal is full proficiency. For students in the United States who are forging their English learning path at school, much is at stake. For this reason, I have chosen to investigate the question, *how does explicit instruction enhance the understanding of academic vocabulary for middle school English Learners?*

In this chapter I will synthesize current scholarship on English Learners, academic vocabulary and explicit vocabulary instruction. I will first address who English Learners are. Then I will describe academic language and the importance of academic vocabulary to achievement. Finally, I will present what research says about direct teaching of individual words followed by best practices for teaching and assessing vocabulary in the classroom.

**English Learners**

The focus of my question for research begins with an investigation of the characteristics of English Learners. English Learners (ELs) are students whose primary home language is a
language other than English and who are not yet proficient in English. As their label implies, these students are still learning English which is the dominant language of school in the United States.

According to the Migration Policy Institute, there were 4.85 million English Learners enrolled in K-12 public schools during the 2011-2012 school year (Ruiz Soto, Hooker & Batalova, 2015). Together, ELs made up 9.8% of the national student population. Currently, in Minnesota for the 2015-16 school year, English Learners account for 8.3% of students or 70,779 total ELs (Minnesota Department of Education, 2015). The number of ELs in Minnesota has increased over 5,000 students in the last six years compared with a national increase of 600,000 students (U.S. Department of Education).

It is undeniable that English Learners are becoming a significant portion of American K-12 students and that they bring with them a variety of language and cultural backgrounds. Across the country, 71% of ELs are Spanish speakers while the next most common languages are Chinese, Vietnamese, Haitian Creole and Arabic (Ruiz Soto, Hooker & Batalova, 2015). However, Minnesota does not follow this national trend since only 40.6% of our ELs are Spanish speakers (Ruiz Soto, Hooker & Batalova, 2015; U.S. Department of Education). Hmong, Somali, Karen and Vietnamese round out the list of the top five languages spoken by ELs in Minnesota (U.S. Department of Education).

Language background is not the only characteristic that diversifies ELs. Educational backgrounds can make important distinctions as well. Some ELs are students who recently moved to the United States. Among this group there may be students who studied English in their home country and others who are learning English for the first time. They may come due to family who is seeking employment, is a diplomat, has refugee status, works for an international
company, is seeking medical treatment or a variety of other circumstances. Some students may have a strong educational background from their home country while other students affected by extreme circumstances may be classified as SLIFE (students with limited or interrupted formation education) and will need extra support in learning how to adjust to school settings. In another category are ELs born in the U.S. and who have exclusively attended American schools. These students grew up primarily speaking their home language until enrolling in pre-school or kindergarten. After six years of instruction in U.S. schools ELs are classified as LTEls (Long-term English Learners) since they have yet to achieve proficiency in English.

The numbers of this diverse group called English Learners are growing in our schools and they deserve the opportunity to succeed in our English-dominated country. Success in life here in the U.S. will be tied to their ability to use English in a variety of contexts including academia. In the next section I will describe what academic vocabulary is within the broader scope of academic language and how academic vocabulary is essential for the success of English Learners.

**Academic Vocabulary**

Academic vocabulary cannot be separated from the wider context in which it is found. In order to examine the explicit instruction of academic vocabulary, a primary understanding of academic language development, the history of academic language research and the specifics of academic vocabulary must be established.

**Academic language.** When students come to school, they bring with them a “foundation of language” which is shaped by their home culture (Zwiers, 2008, p. 20). This foundation may include other languages, such as Hmong and Spanish, or may include other English varieties such as African American English and Chicano English.
While attending school, students begin to develop an additional layer of language which researchers identify as academic language (Zwiers, 2008). Academic language is defined as the language of school through which students learn and demonstrate their learning (DiCerbo et al., 2014). Bailey expands this definition to the vocabulary terms, grammar structures and discourse structures used for academic purposes (as cited in Townsend et al., 2012). In addition, Zwiers (2008) defines academic language as including the words and structures that students need to “describe complex ideas, higher-order thinking processes, and abstract concepts” (p. 20). This academic layer of language is vital to the success of a student as they travel from class to class. As Hollie (2011) describes it, students need academic language to “do school” (p. 114).

A third layer of language that students acquire is the specialized language of the content areas (Zwiers, 2008). In math, science, social studies and language arts there are specific terms and structures that students need to demonstrate proficiency in these school subjects.

Every student is unique in their range of language abilities in the three registers of home language, school language and specialized content area language. Students may be strong in one register and weak in another. Additionally, for some students, the languages of these registers overlap significantly in that their home language closely resembles the language of school. For other students there may be less alignment and more gaps. Regardless, all students need to build their language in each of these registers so it must be a focus of instruction (DiCerbo et al., 2014; Zwiers, 2008).

**History of academic language.** Academic language was not always understood by the educational community. In the 1970s and 1980s researchers identified academic language as a separate language register that children develop which creates the foundation for accessing learning and finding success at school (DiCerbo et al., 2014).
Working with English Learners, many teachers found it problematic that students often had the ability to speak English fluently on the playground with their friends and yet they struggled with the English of school. Cummins first described the difference in acquisition of social and academic language registers by defining BICS (basic interpersonal communication skills) and CALP (cognitive academic language proficiency) (Haneda, 2014). The intent was to help educators understand the complexity of language learning. In particular Cummins sought to build awareness that ELs may need more time to acquire the language of school (Haneda, 2014; Ranney, 2012).

Students are likely to first acquire BICS since this is the language of social interactions. Speaking with friends is highly contextualized as well as highly motivating. For example when a peer points to an object and says the word ball, the English Learner is motivated to play with their friend and the meaning of the word is supported by the context and the physical object. Some researchers estimate a time period of three to five years for developing proficiency of BICS (Valdes, 2004). In contrast, CALP is characterized as being cognitively demanding and abstract (DiCerbo et al., 2014). In social studies a teacher may compare the role of a citizen in several forms of government. A student needs access to academic vocabulary and grammatical structures in order to understand and process this comparison. The teacher cannot show a concrete image of democracy and neither may the student have any first-hand experience with government. Learning how to understand and use the academic language of CALP can take between five and seven years (Valdes, 2004). This extended time requirement leads to a gap between students’ social language proficiency and their academic language proficiency.

This is precisely the situation I often see with my EL students. The majority of the students I work with were born in the U.S. and have attended American schools since
Kindergarten. Most English Learners in my school can fluently and adeptly speak about their weekends or a new movie coming out. Based on social language, it is not clear which students need EL services. However, these same students who easily converse with peers continue to lag behind in content knowledge and their academic language abilities. They have BICS but their CALP is not fully developed. This language gap is apparent in both students’ grades and standardized test scores and yet it is not obvious on the surface.

**Academic vocabulary.** Once researchers identified academic language as a separate register of language used in school, they began to focus on the individual linguistic features of academic language. As a result, academic vocabulary is one linguistic feature that has been particularly emphasized.

Academic vocabulary consists of words students need to know in order to access academic concepts and to express their understanding (DiCerbo et al, 2014). Terms, such as *identify, analyze* and *dependent*, are used across the content areas and are therefore more frequent than content specific terms (Blachowicz et al., 2013).

Beck, McKeown and Kucan (2013), are well-known for their work in describing academic vocabulary as the second tier of a three-tier categorizing system for words. Tier one words are basic vocabulary terms that require explicit instruction only for beginning English learners (August et al., 2005). Examples include *book, has, red, many, under* and *year*. These 2,000 word families are the basis of the English language and according to Coxhead (2000) comprise 90% of fiction and 75% of nonfiction texts. On the other end of the spectrum, tier three words are rare and usually specialized, content area terms (Beck, McKeown & Kucan, 2013). Examples of tier three words for a sixth grade math class include: *numerator, divisor,*
parallelogram and reciprocal. These terms are likely to appear on a vocabulary list or in class notes because the teacher anticipates that they are new for students.

In contrast with tiers one and three, the academic vocabulary of tier two consists of words that are used in many school contexts and yet are less frequent than tier one words. For example, students may be asked to compare the experiences of different Native American tribes and then next period be asked to compare igneous and metamorphic rocks. As in this example, the tier two word compare is the essential word for understanding what academic task students need to perform with the content. Furthermore, a tier two word is one for which a student is likely to have a synonym. As an example, a student would be able to identify have to as synonymous with the tier two term required. In this way, academic vocabulary represents concepts students understand but offers a more precise description of the idea (Beck, McKeown & Kucan, 2013).

Another way to think about academic language is to consider words and phrases as either bricks or mortar (Zwiers, 2008). Bricks are tier three words and phrases which commonly appear on content area vocabulary lists. These words are specialized for that content area and can range from concrete to abstract concepts. Examples from 7th grade science standards include: photosynthesis, chlorophyll, nucleus and cytoplasm. Mortar, on the other hand, holds the bricks in place and keeps the wall from falling down. Mortar words are the tier two academic terms that can be found across the content areas. Examples of mortar words are: therefore, consequence, represent, reflect, and evidence. These words and phrases are essential to expressing complex ideas yet they are rarely taught explicitly (Zwiers, 2008).

Coxhead’s seminal work, “A New Academic Word List,” has long been referenced as the best analysis and accumulation of academic terms. In an examination of 3.5 million words, from a range of university level texts, Coxhead compiled a list of 570 word families that comprise
10% of academic texts (Coxhead, 2000). This is known as the Academic Word List (AWL). In order to meet the criteria of being included on the list words needed to appear at least 100 times and be found across the content areas of the analyzed texts. Coxhead’s AWL is broken into 10 sublists of 60 words each in order of frequency. Each of the 60 most frequent word families on the AWL will occur once in every 4.3 pages and make up 3.6% of academic texts (Coxhead, 2000). This word list is an important source of information for identifying academic vocabulary.

Academic vocabulary accounts for a significant amount of words that students will hear and read at school. These tier two, or mortar, words appear in textbooks, articles, directions, tests, lectures, notes and presentations. Students need a clear understanding of these words in order to access the curriculum and find success.

Need for explicit academic vocabulary instruction. Understanding the context in which academic vocabulary is found and how it is defined, leads to the question of why English Learners need explicit vocabulary instruction. To begin with, there is an achievement gap between English Learners and other students. August et al. (2005) cites that ELs fall persistently behind their English-only peers in reading scores at the national level. Furthermore, Townsend et al. (2012) found that ELs in their study demonstrated a gap in both their general vocabulary knowledge and in academic vocabulary. This is in addition to the findings of many researchers who have found that ELs lack breadth and depth in their vocabulary knowledge (August et al., 2012).

Reading skills and vocabulary knowledge are interrelated areas of literacy. August et al. (2005) explains this relationship by stating that as the level of unknown words in a text increases, student comprehension of the text decreases. Proficient readers can only handle a small amount of new vocabulary in a text and still maintain full comprehension (August et al., 2005). As a
result, ELs with lower vocabulary knowledge are less likely to understand texts used at school. Especially challenging is that a student with a better vocabulary may be more inclined to read since they know more words on the page and can easily comprehend the message of the text (Carlo et al., 2004). Reading increases vocabulary knowledge since knowing more words makes reading easier thus perpetuating the cycle. Proficient readers will learn around 3,000 words each year and will acquire most through reading (Kieffer and Lesaux, 2010; Lesaux et al., 2010). However, struggling readers are reading less and therefore encounter fewer words (Lesaux et al., 2010).

Imagine two middle school students who illustrate the relationship between reading skill and vocabulary knowledge: Lucy and Angel. Lucy has always loved to read and enjoys many different genres. So, when her social studies teacher assigns an article to read about the Battle of Gettysburg during the Civil War, Lucy dives in without hesitation. She has an above-average vocabulary for a 7th grade student which means she can handle most of the academic words in the article. She can make a good guess of the meanings of the few words she does not know based on the context. The next time she encounters these words, she has some prior experience with them in order to build her understanding. Lucy successfully completes the assignment of reading and summarizing the article. Angel, on the other hand, does not like to read and avoids it when she can. Her vocabulary is below average for a 7th grade student. When she receives the assignment in social studies, she starts to read the article but quickly gives up when it does not make sense. There are too many words that are confusing so Angel struggles to understand the main idea of the article. She does not finish the assignment and the experience reinforces her belief that reading is too hard and she does not like it. Angel will read and encounter many
fewer words than Lucy this year and in the future which will result in a widening gap in the vocabulary knowledge of the two girls.

The complex relationship between reading comprehension and vocabulary knowledge is demonstrated in multiple studies. In a 15 week study by Carlo and her colleagues (2004) vocabulary was taught to English Learners and English Only students who all increased in their reading comprehension abilities. Similarly, another study of vocabulary instruction conducted over 18 weeks with a diverse group of middle school students tested their reading comprehension throughout the course of the program. Participants in this study by Lesaux et al. (2010) demonstrated an increase of 8-9 months of reading comprehension growth. This means that the reading growth that students typically make during one school year, these students achieved in one half of a year. Reading is a complex task that involves many skills and strategies coming together and these studies clearly show that vocabulary instruction can have a positive impact on reading comprehension for ELs.

Additionally, vocabulary instruction is linked to achievement in the content areas. In the research of Townsend and her colleagues (2012), a diverse group of middle school students were given a variety of assessments. Students were tested on their general vocabulary abilities, academic vocabulary knowledge, reading comprehension, science and math skills. The researchers found that students from low socio-economic status and language minority students (ELs) were consistently outperformed by students from standard socio-economic backgrounds and English Only students (Townsend et al., 2012). The low performance by ELs on the content test which measured science and math was also present when the researchers controlled for general vocabulary abilities. This means that ELs who had average general vocabulary knowledge had lower math and science scores than English Only students with average
vocabularies. This study proves that it is reasonable to point to academic vocabulary knowledge as a contributing factor of academic achievement for English Learners (Townsend et al., 2012).

A final reason to put emphasis on teaching academic vocabulary is the fact that explicit teaching of academic vocabulary is rare in school. Lesaux et al. (2010), state that there is little presence of “systematic and explicit vocabulary instruction” at the elementary level (p. 198). The authors suppose that the same can be assumed for middle school when the curriculum focuses primarily on content and literature. More specifically, academic vocabulary is rarely taught though it requires explicit teaching since it differs from everyday language (Blachowicz et al., 2013; Zwiers, 2008). As Coxhead (2000) explains, “Academic words are not highly salient in academic texts, as they are supportive of but not central to the topics of the texts in which they occur,” (p. 214). This means that in order to close the vocabulary gap students need to be explicitly taught academic vocabulary and they need the tools and strategies to help them learn words independently (Kieffer and Lesaux, 2010).

**Summary.** Academic language is the register of discourse used in the world of education. English Learners develop proficiency first with social language and later with academic language. Targeting academic language should therefore be a main objective of EL support for students so that they can find success in the curriculum.

While academic language is a very broad category encompassing the areas of grammar structures, discourse styles and text organization, among others, teaching academic vocabulary is one way to positively impact student achievement. Academic vocabulary comprises all terms that are used across content areas in order to “do school” (Holle, 2011, p. 114). Often referred to as tier two or mortar words, academic vocabulary words are essential to reading school texts and demonstrating mastery of concepts.
English Learners in American public schools need language support to catch up to their English only peers and to fully access the curriculum taught at school. Since the academic register of school has little overlap with the home languages of English Learners, these students struggle with vocabulary knowledge, which results in low reading comprehension and low academic achievement. Content teachers are not using instructional time to explicitly teach the academic vocabulary that is essential for success in their classrooms so students will continue to struggle without a shift towards focusing on vocabulary.

In the next section, I will focus on best practices for teaching vocabulary. I will describe ways to expand vocabulary teaching that go beyond searching for definitions in a dictionary in order to reach deep comprehension of words.

**Teaching Individual Words**

The immersion caused by years of studying and teaching a specific content often clouds a teacher’s mind to the amount of abstraction present in what they are teaching. For example, a science teacher has a clear picture in their mind of electrons or heat transfer. Yet, for students who have little background knowledge this may be the first time they are exposed to the language of chemistry (Zwiers, 2008). If students are to be successful in an academic content area, they will require a deep understanding of the language needed to understand and express that content including academic vocabulary. According to Beck, McKeown and Kucan (2013), “If students are to become successful in academic life, they need to be able to get meaning from text, which in turn means being able to build meaning using the more sophisticated vocabulary of written language,” (p. 24).

Researchers estimate that students need to learn around 3,000 words every year to stay on track with word knowledge goals by the end of high school (Graves, August & Mancilla-
Martinez, 2013). While many words are acquired through textual and oral encounters, it is clearly not a sufficient source of vocabulary learning since there is a large gap between English Learners and English Only students in vocabulary knowledge (Beck, McKeown & Kucan, 2013). In the words of Graves, August and Mancilla-Martinez (2013), “It is vital to teach ELLs a lot of words,” (p. 48). ELs need to not only make yearly growth in vocabulary, they additionally need to learn extra words in order to catch up to their peers and begin to close the gap. Explicit vocabulary instruction is essential for English Learners.

While understanding that vocabulary instruction is critical for ELs is an important first step, educators must examine what explicit vocabulary teaching should look like in the classroom. According to Townsend et al. (2012) vocabulary learning is much more than memorizing definitions. Research affirms that vocabulary instruction should include: providing rich definitional and contextual information, engaging students in active interactions with words and multiple exposures with opportunities to practice word meanings (Townsend et al., 2012; Beck, McKeown & Kucan, 2013; Graves, 2006).

In this section I will describe multiple important aspects of direct vocabulary teaching that promote student success. I will begin by addressing how words should be introduced through the use of helpful definitions, visuals and authentic contexts. Next I will examine the roles of active engagement and multiple exposures in supporting vocabulary acquisition.

Definitions. “Full understanding and spontaneous, appropriate use of new words develops gradually, but a strong start is essential to allowing those processes to occur,” (Beck, McKeown & Kucan, 2013, p. 54). This quote urges us to reexamine how target vocabulary terms are introduced and the use of traditional dictionary definitions. Definitions are frequently the starting point for vocabulary instruction and as Beck, McKeown and Kucan (2013) point out,
dictionaries use the fewest words possible to describe meanings of words in order to save space. These definitions then, are usually too brief for students to develop a “strong focused concept” of a vocabulary term (Beck, McKeown & Kucan, 2013, p. 35). The typical brevity of definitions is particularly challenging for ELs who need clarity and context to support their understanding.

In order to provide a strong start to vocabulary acquisition, students need a strong definition. Graves gives the example of the word *conspicuous*. The traditional dictionary definition for *conspicuous* is “easily seen,” while Graves puts forward a revised definition: if something is *conspicuous*, “you notice right away because it stands out” (Graves, 2006, p. 31). Researchers recommend developing student-friendly explanations of words such as Graves’ example, that incorporate both an explanation of the meaning in everyday language and how it is used (Beck, McKeown & Kucan, 2013). Student-friendly definitions should be longer than traditional definitions since they are written in complete sentences and they should not contain words that are more difficult than the target word. In addition, an example sentence is highly useful in combination with a definition (Graves, August & Mancilla-Martinez, 2013). Following these guidelines will help students immediately gain a deeper understanding of the target term.

While it can be challenging to create student-friendly definitions, the use of a learner’s dictionary can help. Learner’s dictionaries are written with English Learners in mind so the definitions are often more complete than traditional definitions. In particular the Collins COBUILD English Language Dictionary is recommended as a source for helpful definitions and example sentences (Beck, McKeown & Kucan, 2013).

A final consideration of definitions involves repetition. In order to avoid rote memorization of definitions, Beck, McKeown and Kucan (2013) recommend using variations of definitions during classroom activities and over time. This way, students will begin to
understand the core meaning of the term instead of depending on the exact wording for identification.

**Visuals.** A second aspect of introducing vocabulary is the importance of providing visual support. English Learners benefit from the addition of an extra-linguistic representation paired with a definition (Graves, August & Mancilla-Martinez, 2013). The instructor should explain how the visual represents the target term so that it is clear to all students (Graves, August & Mancilla-Martinez, 2013). ELs are supported by visuals and multimedia in a way that helps them to better access concepts (Beck, McKeown & Kucan, 2013).

Beyond initial introduction of words, visuals can be used to reinforce word meanings. Graves (2006) suggests using the Frayer Method which provides a visual in tandem with a definition that students then add to by writing an example and a nonexample. In addition, Blachowicz and Fisher (2011) recommend engaging students in creating visuals to support word learning such as semantic webs and graphic organizers. These tools can help make word meanings and word relationships understood in an efficient way (Blachowicz & Fisher, 2011).

**Meaningful context.** Kieffer and Lesaux (2010) identify teaching words in meaningful contexts as one of the key components to a vocabulary program. Words do not exist in isolation and thus are ideally taught as a part of a sentence or larger text. Pairing a definition with contextual information creates more effective instruction (Blachowicz & Fisher, 2011; Graves, 2006).

One of the common ways to ensure a meaningful context for target terms is to teach vocabulary in tandem with a text (Beck, McKeown & Kucan, 2013; Lesaux et al., 2010). In a study by Carlo et al. (2004), the authors chose to use engaging and age-appropriate texts from which to pull target vocabulary terms with the goal that students will more easily remember the
meanings within a meaningful context. Each week a new text that connected to the theme of immigration was read aloud to the class. On subsequent days students were engaged in a variety of activities to further explore the ideas of the text and the meanings of the target words. The authors’ use of text and theme-centered learning helped facilitate the creation of a rich context (Carlo et. al, 2004).

Students tend to stick to the original context of the story or text when they try out new words. For this reason, Beck, McKeown and Kucan (2013) point out the importance of exposing students to the target term in a variety of contexts. These multiple contexts for vocabulary will help students “construct a meaningful and memorable representation of the word,” (Beck, McKeown & Kucan, 2013, p. 63). The researchers recommend searching online for authentic uses of the vocabulary term in journals, articles and professional blogs. These example sentences offer students exposure to the various nuances of a word instead of being confined to one use in one text and additionally support the findings of Jenkins, Stein and Wyoscki who found that students need 5-10 exposures to a word in context in order to improve their vocabulary posttest score (as cited in Graves, 2006).

**Active engagement.** In order to build upon an initial foundation of a strong definition, an accompanying visual and the support of a meaningful context, students must interact with a new term. Going “beyond definitional information to get students actively involved in using and thinking about word meanings” will support the creation of deep understanding (Beck, McKeown & Kucan, 2013, p. 83; August et al., 2005; Townsend et al., 2012).

Activities that target active engagement require students to attend to word meanings in order to complete the task (Beck, McKeown & Kucan, 2013). These exercises should provide opportunities for students to connect to their personal experience, to use words in speaking and
writing, to explore the relationships between words and to deal with the various facets of a word’s meaning (Beck, McKeown & Kucan, 2013; Graves, 2006; Graves, August & Mancilla-Martinez, 2013).

With the goal that students integrate new terms into their personal vocabularies through active processing, researchers have many suggestions for effective ways to scaffold instruction in order to help students own target vocabulary words. An example of active processing is students putting a definition in their own words which forces them to think clearly about the core meaning and how it could be expressed differently (Graves, 2006). Many researchers suggest using discussion and writing for students to create personal connections to the target term and to experience the word in various contexts (Beck, McKeown & Kucan, 2013; Graves, 2006). Graves, August and Mancilla-Martinez (2013), advocate for the use of sentence stems with ELs that can serve the purpose of making connections. An example for the word *lovely* is “On my walk, I saw a lovely __________,” (Graves, August & Mancilla-Martinez, 2013, p. 60). This stem could be used in speaking or writing and will force students to use the term *lovely* thus actively engaging students in a meaningful use of the new word.

Additional ways for students to interact with vocabulary terms are through evaluating examples and considering word relationships. Graves (2006) and others describe a classroom activity of engaging with examples and nonexamples of target terms (Beck, McKeown & Kucan, 2013). Graves advises to first present students with examples and nonexamples that help clarify the meaning and then to move on to having students evaluate possible examples and nonexamples. Finally, Graves suggests challenging students to create their own examples once they have a deeper understanding of the term. Analyzing relationships between words similarly supports vocabulary learning by requiring students to focus on the core meaning of a word and
how it relates to other words (Beck, McKeown & Kucan, 2013). Graves (2006) advocates for students to make connections between target words and other words from their own vocabularies. In a different way, Beck, McKeown and Kucan (2013) suggest prompting students to compare and contrast different target terms. An example of the latter style is pairing two vocabulary terms that are not obviously related in order for students to closely examine if a possible relationship exists as in the question, “Could a virtuoso be a rival?” (Beck, McKeown & Kucan, 2013, p. 85).

In these examples and in other similar activities, students are engaged in deep processing of word meanings. Vocabulary instruction that goes beyond introducing words with definitions in such a way that students must attend to meaning can make a significant impact in student learning (August et al., 2005).

**Multiple exposures.** A final aspect of teaching vocabulary that must be considered is the amount of practice students must engage in for deep word learning to occur. “One of the strongest findings about vocabulary instruction is that multiple encounters are required before a word is really known, (Beck, McKeown & Kucan, 2013, p. 83). This enforces the common sense notion that the more a student practices with a word, the better they will understand it.

To begin, researchers promote the practice of engaging with a word immediately after it is introduced (Beck, McKeown & Kucan, 2013; Vadasy & Nelson, 2012). After this initial interaction with a word, students need more repetitions that occur over time (Graves, 2006; Kieffer & Lesaux, 2010). Ideally, words will cycle throughout the curriculum so that each time a word is encountered, the learner has a better understanding of the meaning (Blachowicz & Fisher, 2011; Carlo et. al, 2004; Townsend et al., 2012).
More specifically, researchers have developed recommendations for the number of times students need to engage with vocabulary terms. In a study by Lesaux et al. (2010), an instructional cycle of eight days included between 6-20 repetitions of the target vocabulary. This is similar to Beck, McKeown and Kucan (2013) who targeted words at least ten times per week. These multiple exposures over time and in a variety of contexts allow students to fully learn vocabulary terms (Vadasy & Nelson, 2012).

Summary. Since explicit teaching of academic vocabulary is important to the achievement of English Learners, best practice for vocabulary teaching must be considered. In this section I synthesized what researchers say is important for vocabulary instruction.

To begin with, a student friendly definition must be provided. This is often paired with a visual and an example sentence. Ideally vocabulary is connected to a text being used in class in order to create a rich context around the target terms. Next, it is important that students engage with the vocabulary words both immediately after introduction and over time. As students work with words repeatedly, they will develop a deeper understanding of the words in multiple contexts and in relationship to other words. Graves (2006) succinctly describes vocabulary teaching when he says to “review, rehearse, and remind students about the word in various contexts over time,” (p. 70). It is precisely this type of vocabulary instruction that can make a significant impact in student achievement.

In the following section, I will describe some ways to facilitate vocabulary learning in the classroom. These strategies can help teachers plan for meaningful and deep learning of target terms.
Teaching Strategies for Academic Vocabulary

While the tradition of copying definitions from the dictionary is not adequate for introducing words, neither is the tradition of practicing vocabulary by asking students to use each word in an original sentence. These sentences rarely use the target words in an accurate or meaningful way and even less frequently are they anything more than vague. A strategy that has amused me many times is when students create a sentence such as, “I proclaim.” If the vocabulary word is not a verb, then the option, “I like philanthropists,” is also a creative solution to completing a boring task. In both instances, students are not demonstrating that they understand the meaning of the word nor do the sentences make much sense.

Such examples of typical vocabulary activities show the need for creative and engaging strategies that will bridge students to successful vocabulary learning. Through oral interactions, small group work or in writing, there are many strategies that help students deepen their understanding of word meanings. All of the following strategies require students to think about the meaning of a target term in order to be successful.

**Example and nonexample.** In this activity students must analyze potential examples of the target term to determine if it is an accurate or inaccurate example (Beck, McKeown & Kucan, 2013). It requires students to struggle with the meaning of the vocabulary words in order to complete the task. The difficulty can be raised or lowered by creating possible examples that are more or less similar to each other. When the nonexample is very close to being a good example, students will need a clear understanding of the target term in order to justify their choice. For instance, this strategy could be used with the word *persist*:

“Which of these is an example of *persist*?

- The test was really hard but I kept going and I finished it
• I read for two hours last night because I love reading
• My mom doesn’t want me to play football but I never stop asking her if I can

In this sample item, students are required to recall the meaning of persist in order to choose appropriate examples of the word. The example and nonexample activity will force students to actively engage with the target vocabulary.

**Personal connections.** This classroom strategy promotes personalization of vocabulary words through discussion or in writing. Students are motivated to talk about themselves and their experiences. This motivation can be tapped by the personal connections strategy which presents students with a question they need to answer according to their own opinion or reality (Beck, McKeown & Kucan, 2013; Graves, August & Mancilla-Martinez, 2013). Examples of this activity include: “Would you like to have a really ambitious person as a friend? Why or why not?” (Graves, August & Mancilla-Martinez, 2013, p. 68) and “Which would you rather interact with—sharks or polar bears? Why?” (Beck, McKeown & Kucan, 2013, p. 53). These examples show how this strategy actively engages students with the target vocabulary and provides opportunities for repetition since students will have various answers that can be shared.

**Word relationships.** In order to deepen understanding of a vocabulary word, the word relationships strategy asks students to analyze the relationships between words (Beck, McKeown & Kucan, 2013). Graves, August and Mancilla-Martinez (2013) give an example, “How likely is it that an ambitious person would be lethargic? Explain your answer,” (p. 69). Targeting two words at a time actively engages students in thinking clearly about the meanings of each word in order to complete the task.

**Writing with sentence stems.** In my experience with writing prompts, students often struggle with how to start or which topic to pick. The strategy of using sentence stems alleviates
much of those problems by giving students a focused writing task. In this strategy, students complete a sentence that has been provided for them (Beck, McKeown & Kucan, 2013). In the stem, the teacher has placed the target word in a context that will precipitate an ending created by the student. Beck, McKeown and Kucan (2013), offer the examples: “The dog absconded with…” and “The girl implored her friend to…” (p. 91). Each of these sentence stems will accomplish the goal of active engagement with the target terms.

Summary. With a firm foundation of what research says about vocabulary teaching, I’ve described in this section a variety of classroom strategies to engage students. These activities will facilitate deep processing of vocabulary words because students are required to consider the meaning in order to be successful. If the goal is a high level of understanding of words, these strategies will support student achievement.

Now that I’ve established the important aspects of teaching vocabulary and various classroom strategies to facilitate learning, I will move on to address how we know if a student has learned. In the final section of my literature review, I will focus on assessment of student learning.

Vocabulary Assessment

No instructional plan is complete without knowing how the learning will be assessed. Once students have been taught, it is important to collect evidence of what they have learned. The vocabulary instruction that is described above, aims for depth of knowledge about each word. With this in mind, the assessment needs to match the purpose of instruction and measure depth of knowledge as well (Beck, McKeown & Kucan, 2013; Blachowicz & Fisher, 2011). Since vocabulary knowledge is not as clear cut as a word being known or unknown, using multiple assessment measures for each word will help teachers to have a clearer understanding of
students’ word knowledge (Beck, McKeown & Kucan, 2013; Vadasy & Nelson, 2012). When assessing ELs it is important to understand whether they have a deep or a shallow understanding so that reteaching or extra practice can be planned for if needed.

Assessing depth of knowledge about vocabulary can be accomplished in a variety of ways. Traditional matching items that require students to select the definition that corresponds with the target term can be paired with other types of test items that target a deeper understanding (Beck, McKeown & Kucan, 2013). Students can be asked to identify correct usage examples or to use selected words in a written response (Beck, McKeown & Kucan, 2013; Blachowicz & Fisher, 2011). In addition, multiple choice and true or false items can be manipulated in order to target either shallow or deep understanding of words (Beck, McKeown & Kucan, 2013).

Furthermore, assessment should align with the instructional strategies used in the classroom. A test should mimic the teaching that was done so that students are not being asked to do something they are not prepared for. If the instruction focused on synonyms then testing for antonyms does not make sense. If the learning was targeted on recognition of a term then a test should not focus on usage (Blachowicz & Fisher, 2011). Beck, McKeown and Kucan (2013), support this idea by suggesting that many of the activities used throughout instruction can be easily adapted for assessment. Moreover, a new activity can be confusing for ELs so familiarity with the type of activity will increase the likelihood that students can be successful. However, it must also be noted that if test items are exactly the same as what was done during learning then the assessment may only be a measure rote learning and not deep understanding (Blachowicz & Fisher, 2011). To avoid this, assessments should follow the structure and emphases of instruction while not duplicating the teaching activities.
The following are several assessment strategies that can be used in combination to thoroughly understand students’ knowledge of vocabulary terms.

**Vocabulary rating scale.** One assessment strategy that facilitates student self-reflection is the vocabulary rating scale. A teacher asks students to self-assess on a scale of vocabulary knowledge before and again after learning takes place (Blachowicz & Fisher, 2011). Students rate their understanding on a scale that ranges from zero to three:

- **0:** I do not know this word.
- **1:** I have seen this word before but do not know its meaning.
- **2:** I have seen this word before and I think I know its meaning.
- **3:** I know this word and can use it when I speak or write,” (Vadasy & Nelson, 2012, p. 124).

Once this tool is established in the classroom, it can provide a preview of learning for students and an interesting piece of data for teachers. Such self-reflection of word knowledge can also be useful for ELs to promote self-monitoring of their own vocabulary learning journey.

**Match definitions.** While matching words and definitions is a very traditional type of assessment, it can still provide useful information (Blachowicz & Fisher, 2011). Matching requires students to choose from a list of words, which corresponds with a given definition. Often an extra term or two is added to the list that will not be used so that students will rely less on the process of elimination for correct answers. Depending on the learning goal, matching items can be paired with other test items to reveal a gradient of knowledge of the term (Beck, McKeown & Kucan, 2013). Again, working with ELs it is helpful to see if students are able to correctly match the terms but cannot yet use the terms correctly, then they need more practice to reach the highest levels of understanding.
**Multiple choice.** Researchers point to the versatility of multiple choice as the key to its usefulness (Beck, McKeown & Kucan, 2013). Beck, McKeown and Kucan (2013) suggest targeting surface understanding by prompting students to choose an appropriate association. When a student chooses that the word economy “has to do with” money then it is evident that the student has at least a shallow understanding of the term (Beck, McKeown & Kucan, 2013, p. 105). The choices could be words or pictures for items that will target a general familiarity with the essence of a word (Blachowicz & Fisher, 2011). For beginning English Learners choosing a picture to correspond with the target vocabulary word is very appropriate since they will not struggle with reading the test question. The target word could also be read aloud to support students with an audio representation in combination with the written word.

To demonstrate more specific understanding of the meaning, items can be designed to target synonyms or antonyms (Blachowicz & Fisher, 2011). Also, the example and nonexample teaching strategy can easily be adapted to fit a multiple choice question. Multiple choice assessments, therefore, can illuminate the depth of knowledge students have about a term if test items are written to target a variety of levels of understanding.

**Written response.** Ability to correctly use a target word in the context of a sentence or a paragraph, demonstrates a deep level of knowledge of the word (Beck, McKeown & Kucan, 2013). Written response is an assessment option which will target a more sophisticated level of word learning. There are many different ways to prompt student writing. Beck, McKeown and Kucan (2013) suggest requiring students to create examples of a target word. One example asks students to “describe some things that could make a person feel miserable,” (Beck, McKeown & Kucan, 2013, p. 106). The writing sample collected from this prompt will help teachers assess how well a student understands the essence of the term.
Another option is to ask students to describe how two similar words differ from each other (Beck, McKeown & Kucan, 2013). Requiring a distinction between two related words will show if a student understands the subtleties of word meaning.

A final written response suggested by Beck, McKeown and Kucan (2013) is a context interpretation writing task in which students must make an inference based on a described situation. One example is: “Jerome told us he was a novice, but when we heard him play the piano we knew he had been kidding us. What do you think Jerome’s piano playing sounded like?” (Beck, McKeown & Kucan, 2013, p. 107). The rigor of a context interpretation task can be increased by using an atypical context for the target term (Beck, McKeown & Kucan, 2013).

**Summary.** By following the principles of backwards design, educators should first plan for how the learning will be measured and then plan for the instruction that will support student success. With vocabulary learning, the requirements are no different. Ideally, teachers create an assessment that is appropriate for the learning goals. When depth of knowledge is the goal, the assessments must be able to elicit student responses which demonstrate that high level of understanding.

In this section, I briefly reviewed the research on vocabulary assessment. In order to have a clear picture of student word knowledge it is important to plan assessments according to the learning goals and include a variety of assessment measures. A test that combines more and less challenging tasks will be a significant source of data on student achievement for ELs. Teachers will be able to see which students are stuck with a shallow understanding of words and which students have reached fluency in the ability to use words correctly. With this information gathered, further instruction can be planned to help all students reach success.
Conclusion

In chapter two I presented research on academic vocabulary instruction for English Learners. I began by explaining who English Learners are by describing some of their characteristics nationally and in the state of Minnesota. Then I set the stage for academic vocabulary by situating it in the context of academic language. Once academic language and the history of its research were understood, academic vocabulary could be analyzed. I described academic vocabulary as tier two words that are found across the content areas. I concluded this portion of the literature review by explaining the link between vocabulary knowledge and achievement in school.

In the second half of chapter two, I described what research says about vocabulary teaching and vocabulary assessment. I started with the characteristics of rich vocabulary instruction including, student-friendly definitions, teaching in context, visual support, active engagement and multiple exposures. Then, I explained a few teaching strategies that support these instructional goals in the classroom. Lastly, I described best practices for assessing vocabulary knowledge along with some assessment options that will target all levels of depth of understanding.

This literature review leads into chapter three, the methods of my own action research, where I will describe the unit I designed based on this research which answers the question, how does explicit instruction enhance the understanding of academic vocabulary for middle school English Learners?
CHAPTER THREE

Methods

Introduction

In order to improve the vocabulary instruction in my classroom I first needed to examine the research. In chapter two I reviewed what researchers have to say about best practice teaching for vocabulary. I explained researched-based strategies for teaching and assessing vocabulary words. Subsequently, I designed a unit that put this information into action in order to answer the question, how does explicit instruction enhance the understanding of academic vocabulary for middle school English Learners?

The action research I conducted for my capstone was a qualitative study. In qualitative research, “systematic observations” are used to study the environment (Johnson, 2008, p. 6). Data is collected through a variety of means including through anecdotal notes. Instead of manipulating the environment through a quantitative study which attempts to isolate one variable, qualitative research seeks understanding of the world as it is found (Johnson, 2008). Qualitative research was best suited to my capstone since my goal was to understand how ELs learn vocabulary through explicit instruction. This approach allowed me to preserve the natural environment of my classroom while I sought to understand and promote acquisition of academic vocabulary.
In this chapter, I will detail how my action research was carried out. I begin by
describing the district and school where I work and the students that I teach. Next, I will explain
the curriculum I designed to teach academic vocabulary to English Learners. Finally I will
describe the data collection tools I used to evaluate student learning and the impact of explicit
vocabulary instruction.

Setting

Instruction is never designed without first considering the audience. In order to put my
curriculum into context I will first describe the district and school where I teach.

District. I teach in a medium-sized public school district in the first-ring suburbs of a
major metropolitan area. Our students come to the district from seven different communities
with a total population in the area of over 74,000 residents. The district has 10,603 students
spread across two high schools, three middle schools and nine elementary schools. The
demographics of the students include: 49% White, 19% Black, 18.5% Asian, 11% Hispanic and
2.5% Native American students. Also of note is that 51.7% of students in the district received
free or reduced priced lunch.

After many years of growth, the district is currently at 10.5% English Learners who speak
35 different languages. There are 26 EL teachers in the district including ten at the secondary
level.

School. My teaching position is at a middle school with students in grades six through
eight. With a total of 672 students, our population is made up of 51% White, 17% Asian, 15%
Black, 14% Hispanic and 3% Native American students. 55% of students in the school receive
free or reduced priced lunch which is slightly above the district average.
Currently there are 63 English Learners in the building. The students speak mostly Hmong and Spanish but there are also speakers of Vietnamese, Amharic, Somali, Arabic and Kiswahili. They range from EL level three (intermediate) to level five (advanced). At this time, level one students are not serviced in our building but are bused to a different middle school for the special newcomer programming that they offer. This middle school has an enrollment of 110 ELs while the third middle school in the district has 45 ELs.

The school day consists of six periods and begins with a 20 minute advisory. Each class period is 56 minutes long. A typical seventh grade student has the following classes all year long: language arts, math, science and social studies. Students have physical education and music alternating every other day. FACS, art and technology classes are one trimester each to round out student schedules. After school a variety of sports and interest clubs meet throughout the year. Twice per week I offer an after school support class for ELs to get help on homework, finish missing assignments and retake tests.

Of the 41 teachers in the building I am the only EL teacher. The program I’ve designed for ELs includes one co-taught content course in each grade level and two English Language Development (ELD) courses. This is similar to the programs at the other secondary schools in my district in that they also offer a combination of co-taught content courses and ELD courses with the exception of the one middle school which has the smallest EL enrollment and therefore only a part-time EL teacher.

The co-taught courses for ELs include a 6th grade math class, a 7th grade social studies class and an 8th grade science class. In these hours, I work with teachers licensed in the various content areas while I provide language supports to assist students. Each class has a cluster of
ELs in addition to non EL students. The three content teachers volunteered to work with me and we attended a day-long co-teaching training during our first year of collaboration.

The ELD classes I teach are for English Learners only to focus on acquiring higher levels of English. These two classes are mixed grades and are split by EL level into a level three class and a level four class. Depending on student need, students either receive EL services in the co-taught content class at their grade level or they have EL services twice per day with the co-taught class and the ELD class.

Participants

I designed this action research on academic vocabulary for the level four ELD class. There are 19 students in this class including 12 boys and 7 girls. It is a class of mixed grades with four students in 6th grade, eight students in 7th grade and seven students in 8th grade. Regarding home language, one student speaks Amharic, one student speaks Arabic, one student speaks Somali, one student speaks Vietnamese, six students speak Hmong and nine students speak Spanish.

All students scored a level four on the ACCESS test for ELs in 2015. Of the two students who were not born in the United States, each came with a strong educational background from their home country including courses in English. The other 17 students were born in the United States and have attended American schools since pre-school or Kindergarten. These students can be categorized as LTELs (Long-Term English Learners) since they have yet to reach English proficiency and are now in the middle grades. There are no students with an IEP or special education services in place.

In order to use their data in my capstone, participating students received an informed consent letter to be signed by their guardian (see Appendix A). This letter explained to families
what the purpose of my capstone was and how the student data would be used. It also stated that no student names would appear in my capstone and instead I would use pseudonyms when reporting the data.

**Methods**

According to Johnson (2008) “The goal of action research is to understand some element of your classroom by collecting data,” (p. 81). I wanted to explore how I could facilitate academic vocabulary learning for my ELs. For my action research, I created a three-week curriculum unit around three texts and 18 academic vocabulary words. In order to thoroughly address my research question, I used a variety of data collection methods including tests, a teacher journal and a student survey to assess students and provide a holistic view of the vocabulary learning journey.

**Curriculum.** Based on the research I read about vocabulary instruction, there were a few key factors I sought to include in my unit. First, I prioritized choosing texts which could unite under one theme and would simultaneously provide the meaningful context for the academic vocabulary terms as suggested by Carlo et al. (2004). I chose the theme *Making a Difference* in order to tie together three biography picture books:

- *Wangari’s Trees of Peace* by Jeanette Winter
- *Brave Girl: Clara and the Shirtwaist Makers’ Strike of 1909* by Michelle Markel
- *Harvesting Hope: The Story of Cesar Chavez* by Kathleen Krull

The protagonists in each book made a difference in their world by fighting for what they believed in despite many obstacles. A positive aspect of using non-fiction texts meant that students would learn about real events in history while hopefully being inspired by the accomplishments of the characters.
Secondly I chose these texts with a balance of protagonists in order to provide a mirror for my students. Two main characters are female while one is male. Wangari Maathai is a black woman from Kenya. Clara Lemlich is an immigrant to the United States who is learning English. Cesar Chavez is a Mexican-American. While my students are not perfectly represented by these characters, they do show a diversity of genders, races, cultures, languages and geography.

For each text I identified six academic vocabulary words to teach. These words mostly came from the text itself. I used Coxhead’s Academic Word List (AWL) as one source for vocabulary to target. I also turned to Kate Kinsella’s *Academic Vocabulary Toolkit* I and II to help me choose words. Finally, I identified academic vocabulary that was not in the text but was related to the story. The final list of 18 words accurately represents academic vocabulary (see Appendix B).

Once I designed the instructional unit, the next step was to determine how to collect data which would answer my research question.

**Pretest and posttest.** One clear way to measure student growth is to use a pretest and a posttest. I administered a pretest to the students to assess their understanding of the 18 target vocabulary words before I began the unit. After the unit was over I used this same assessment in order to have quantitative data that represented student learning over the course of the teaching (see Appendix C).

The assessment first asks students to self-reflect on their knowledge of the terms using a vocabulary rating scale. Then, the test has a section of matching for students to identify the correct definition for each word. Lastly, is a writing section which prompts students to respond in a way that makes clear their understanding of the target word.
**Teacher journal.** As I taught the three-week unit I collected qualitative data through a journal (see Appendix D). Each day I reflected in writing by taking ten minutes to “record insights and observations,” in my journal after school (Johnson, 2008, p. 85). I recorded the activities for the day, my reflections of the success of the activities and the words that were targeted. This format of data collection helped me to analyze the different teaching strategies while especially taking into account the reactions of the students. It also helped me track the number of exposures students had to each word.

**Student survey.** At the end of the unit I used a student survey to collect student opinions (see Appendix D). This quantitative and qualitative data collected through a Google form focused on student perceptions of the teaching strategies used throughout the unit. I incorporated four closed-response questions in which students rated the usefulness of the class activities towards helping them learn the vocabulary. I also included two open-ended questions for students to respond with ideas of what helped them learn the vocabulary and what was challenging for them. Johnson (2008) recommends keeping the survey short and incorporating both types of closed-response and open-ended questions.

**Data analysis.** Once I collected several forms of data from students it was time to look closely at what I had gathered. From the pretest and posttest I had data correlating to student knowledge of the target academic vocabulary words. I also collected data on how confident students felt with the vocabulary through the self-rating scale. At the end of the unit, I explored the test data to identify multiple pieces of information including:

- average score for the class
- separated scores for the matching section and the written section
- words for which students demonstrated the highest and lowest levels of mastery
students who showed the least and greatest growth in scores

• growth in student confidence

• how student self-ratings compared to test scores

This analysis helped me to see the data from a variety of angles in order to look critically at student achievement.

Reviewing the teacher journal and the survey responses helped me see the unit from multiple angles. As Johnson (2008) states, observing from multiple perspectives “provides greater depth and dimension, thereby enhancing your accuracy and credibility,” (p. 102). The journal incorporated my perspective of how the direct instruction activities went in class while the survey focused on student perceptions of the usefulness of the vocabulary exercises. By looking for patterns in these two sets of data I was able to identify possible reasons for the successes and challenges of the unit.

Conclusion

According to Johnson (2008) “action research is a series of quick looks taken at different times and in a variety of ways,” (p. 82). In this chapter I described how my action research was conducted in my classroom. Through a unit taught over three weeks I targeted 18 academic vocabulary terms with my middle school EL students in the level four ELD class. The unit was focused on a theme of Making a Difference and incorporated three biography texts to create context for the target words. I used both qualitative and quantitative data collected through my personal reflections as well as from student test scores and survey responses in order to analyze the academic vocabulary growth that occurred.

In chapter four I present my results. This includes the pretest and posttest data in addition to information from my personal journal and student surveys. These results helped me
evaluate my research question, *how does explicit instruction enhance the understanding of academic vocabulary for middle school English Learners?*
CHAPTER FOUR

Results

Introduction

After carefully reviewing the research on academic vocabulary, instructional strategies and vocabulary assessment, I created and implemented a plan to teach 18 academic vocabulary terms to my class of English Learners. The long process of careful research and curriculum planning came to fruition when I taught the unit over three weeks in April. The experience of hearing my students use academic vocabulary in their speech and seeing it in their writing was undeniably satisfying. And yet, examining the data to confirm my observations was equally pleasing.

In this chapter I will analyze the multiple data sources that I collected as part of my capstone project to answer the question, how does explicit instruction enhance the understanding of academic vocabulary for middle school English Learners? I will begin by discussing the curriculum that I designed including the academic vocabulary words that I chose to target, the read aloud texts I used and the teaching strategies that I incorporated for explicit instruction of the terms each week. Next, I will report and interpret the data for the pretest and posttest which measured student growth of understanding of the 18 academic vocabulary words. Finally, I will analyze the patterns present in the teacher journal that I kept throughout the unit and the student survey that collected feedback on teaching strategies.
Curriculum

The unit I designed on the theme *Making a Difference* was successfully implemented in my level four ELD class with 19 English Learners. For three weeks, the lessons focused on the academic vocabulary terms for part, or all of the class period. Each week began with a read aloud of one of the biography picture books and an introduction to six of the academic vocabulary words. The rest of the week focused on actively engaging students with strategies that structured multiple exposures to the words in meaningful ways.

**Read aloud texts.** I chose three texts to use with this unit in order to provide a meaningful context for the academic vocabulary words. To fit the theme, *Making a Difference*, I chose biographical picture books that highlighted the lives of three people who have made a positive impact in the world. In *Wangari’s Trees of Peace*, Wangari Maathai combats deforestation in her native Kenya through a grass-roots effort to organize women to plant trees. Despite the opposition Wangari faced from the government and cultural norms, she is credited with bringing trees back to Kenya. In *Brave Girl*, Clara Lemlich leads a massive strike of women factory workers in the New York garment industry to get better working conditions. And in *Harvesting Hope*, Cesar Chavez organizes a strike and leads a protest march of 300 miles to fight for the rights of farm workers in California.

The students enjoyed each of these non-fiction texts. The stories were powerful and the artwork beautiful to look at. I chose to read the books aloud to ensure comprehension for students of all reading levels. Reading aloud also helped me to support comprehension by providing background information during the reading when needed. For example, the concept of a strike needed clarification to understand the story lines. While some of the students had heard
of Cesar Chavez before, the other characters were new to them so they enjoyed learning about the characters’ lives.

Students also made many connections to the texts. They easily grasped the connections between the stories we read and were able to articulate how each character showed the theme of Making a Difference. After finishing Brave Girl, one student shouted out, “Clara is just like Wangari!” In addition, students made connections to their own lives through discussions around the actions they might have taken in those situations and also how they can make a difference in the world today. Finally, students made many connections to their past learning. The most common connection students made was between the texts and social studies class where they have learned about factories in the early 1900’s and the Civil Rights Movement.

Academic vocabulary. The academic vocabulary terms that I targeted in this unit for ELs were well-suited to middle school students and the English level of this class. I chose words that directly appeared in the texts that I read aloud and others that fit the themes of the texts (see Appendix B). Students had background knowledge of some of the 18 words. On the pretest students rated their knowledge of each of the academic vocabulary terms on a scale of zero to four, zero meaning no knowledge of the word and four indicating that a student could use the word confidently and teach it to others. Terms that students rated with the highest level of knowledge were affect, approach, convince and respond. Students indicated that they knew these words well at the beginning of the unit giving these four terms an average rating of between three and four. Words that received the lowest rating on the pretest included, despite, contribute, urge, oppose and persist. Students rated these terms between a one, which indicated that they had seen the word before, and a two, which meant that they were uncertain what the word meant. The other half of the words fell in the middle range when students self-rated their
understanding. The range of ratings of the 18 target terms confirmed that I chose appropriate academic terms to teach since students had some exposure to a selection of the words while others were quite new. Typically academic vocabulary is rarely taught explicitly to students therefore it is not surprising that students had exposure to the terms and yet had not fully acquired them. There was room for vocabulary growth for all students.

Further indication of the appropriateness of the academic terms that I chose to target in my instruction was that they were easily transferable from one context to another. Academic vocabulary can be defined as words that are used across content areas at school. Appearing in textbooks, worksheet directions, learning targets, tests, articles and state standards, fluency with academic vocabulary words is needed to “do school,” (Holle, 2011, p. 114). When students were able to easily connect the target words to the content of all three of the books, it was clear that these academic vocabulary terms were useful in many contexts. This was especially apparent when the target words appeared in students’ other classes during the day.

Teaching strategies. Based on the research, there were a number of teaching strategies that I implemented during this unit on academic vocabulary. To begin with I planned for a rich introduction to the target vocabulary through student-friendly definitions and example sentences. Then, I facilitated active engagement with the terms using the strategies of personal connections, example and nonexample and writing with sentence stems.

The first time students were exposed to the academic vocabulary words was on the first or second day of the week through what I call vocabulary squares (see Figure 1). I designed the vocabulary square based on the Frayer Method and other vocabulary note taking examples that I have come across (Graves, 2006). The goal of such a model is to introduce the meaning of each word through structured notes so that a word is represented in a variety of ways and so that
students can refer back to their organized packet containing all of the vocabulary. The vocabulary square that I developed includes the following parts for each term:

- **Definition:** a student-friendly description of the word meaning accompanied by the part of speech
- **Connection Sentence:** a sentence written in collaboration with the class that uses the word in a familiar context
- **Picture:** a visual that connects to the meaning of the word
- **Synonyms:** words that have a similar meaning to the target term and with which students may be more comfortable
- **Antonyms:** words that have an opposite meaning to the target term
- **Other Forms:** alternate forms of the target word including the noun, verb or adjective version of the base word or the term with common prefixes and suffixes

**Figure 1: Vocabulary Square**

The vocabulary square was partially filled out as a class on the first two days of the week so that students were introduced to the definition and the other forms without being overwhelmed. Then, over the course of the week the class revisited the vocabulary squares to complete all parts. In particular, the connection sentence was always done after reading the
In tandem with the vocabulary squares, each word was introduced with two example sentences and a personal connection question (see Figure 2). The two example sentences supported the definition by showing how the target word is used in a sentence. Students are not very adept at describing parts of speech so seeing the word *benefit* in a sentence provides better contextual information than simply stating that the word is a verb. Also, these example sentences offered the opportunity to show the word in two different contexts to show the versatility. As in the example in Figure 2, the word *aware* can have two slightly different meanings so the example sentences show both. The personal connection question concluded the initial introduction to the word by asking students to share something about their life that incorporated a target vocabulary term. For example, I asked students, “Would you *approach* a
celebrity at the mall?” Students discussed the question with their partner and then I called on a few students to share their answers to the whole class. These questions stimulated a lot of talking and created a memorable connection to the academic vocabulary word.

Figure 3: Example and Nonexample Activity

<table>
<thead>
<tr>
<th>Persist</th>
<th>Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>-The test was really hard but I finished!</td>
<td>-My basement is cold and damp so I don't like to be down there for long.</td>
</tr>
<tr>
<td>-I love eating candy so I don't want to stop.</td>
<td>-If I bought a brand new car it would have no scratches or rust.</td>
</tr>
<tr>
<td>-Wangari didn't give up trying to help the environment even after she went to jail.</td>
<td>-Cesar Chavez grew up on a ranch in Arizona.</td>
</tr>
</tbody>
</table>

In addition to the personal connection discussion questions, there were three other vocabulary teaching strategies that I used with students each week. The first was example and nonexample. In this activity one vocabulary word was targeted at a time and students were asked to determine if the sentences qualified as an example of the target word or not (see Figure 3). Students had to interpret the context of the sentence and relate it to the meaning of the target vocabulary word in order to answer correctly. For the word persist, I gave students the following sentences: 1) The test was really hard but I finished. 2) I love eating candy so I’m not going to stop. The first sentence is an example of persist since the person continued even though they faced a challenge while sentence two does not correspond to the meaning of persist. This vocabulary teaching strategy was engaging for students because they had to think critically about the meaning of the word in order to correctly respond. When we did this activity as a whole class there was a good amount of debate that happened before we reached a consensus so
students were forced to justify their answer. Example and nonexample also worked well as a partner activity once students were familiar with it.

Another vocabulary strategy that I used each week was word relationships. This activity required students to find ways to connect the meanings of two or more academic vocabulary terms. Often I used this strategy as a warm-up activity to start class by asking, “How are the words oppose and convince related?” Students then volunteered answers such as, “My friend convinced me to oppose the other team.” The word relationship strategy was also one of the final activities I used to review the 18 academic vocabulary terms before the posttest. This time I challenged students to use as many words as they could in one sentence. Students produced many creative sentences with two to five vocabulary words. My favorite example written by a student was, “The benefit of having a role-model they have a impact to you and urge you to be a better individual.” Using word relationships was a good activity to determine how deeply students understood the target academic vocabulary since it was difficult to relate the different words if they were not fully understood.

A final strategy that I incorporated each week to teach the academic vocabulary was writing with sentence stems. In this activity, I provided sentence stems that included a target vocabulary term and students were required to complete the sentence with a word or a phrase that made sense (see Figure 4). For example, “Teachers respond positively when students __________.” Students particularly enjoyed writing with sentence stems when I organized it as a write and pass activity in small groups. In this style I gave each group a set of papers with one sentence printed on each. Students wrote their answer anywhere on the page and then passed it on to the next person. Papers circulated around the group with each student adding their answer until all group members wrote on all papers. We debriefed as a class by reading aloud some of
the best sentence stem completions. This activity was engaging for students because there was not pressure to write a long answer and many of the sentence stems focused on personal connections so students could easily respond. Also, students were able to look at the previous answers to get ideas if needed and there was constant movement with the passing of papers. Finally, this activity forced students to recall the meanings of the target academic vocabulary terms in order to write an answer that made sense. The final debrief was important to catch any misunderstandings in the activity.

Figure 4: Writing with Sentence Stems Activity

| -It’s dangerous to not be aware of ________________ |
| -____________ at school has had a positive impact on me. |
| -The best conditions for me to study are ____________ |
| -If someone was facing an obstacle I could give them advice to ________________ |
| -Despite being tired, I still ________________ |

In this section I reviewed the curriculum that I designed and implemented to focus on teaching academic vocabulary to ELs. I described how I created a meaningful context for learning vocabulary with non-fiction picture books. I also discussed the academic vocabulary words that I chose for explicit instruction. Finally, I reviewed the vocabulary teaching strategies which I used with students to actively engage them in learning new terms.

In the following sections I will explore the data collection aspect of my capstone project. For each method of data collection I will explain how the tool was used and the final results.

Pretest and Posttest Results

In order to collect quantitative data that clearly demonstrates growth of academic vocabulary terms, I designed a test which I gave to students before the unit of explicit vocabulary instruction started and again after the unit finished (see Appendix C). Though there are 19
students in the class, I only received signed consent forms from nine students. Due to this, I am only able to report specific data for those nine students. However, even with this small sample, students demonstrated vocabulary growth from the pretest to the posttest and perceived growth on the vocabulary rating scale.

As mentioned above, the beginning of the assessment asked students to rate their understanding of each of the 18 academic vocabulary terms. Students self-rated on a scale of zero to four based on their perception of how well they knew each term with zero representing no knowledge and four representing full understanding.

Looking at the data from the vocabulary rating scale there is a clear indication that students felt they knew more about the target academic vocabulary at the end of the unit than before the words were explicitly taught (see Table 2 and Table 3). When measuring students’ self-rating by word, the average rating increased from 2.77 to 3.28. Students perceived the smallest amount of growth for the words that they had felt the most confident about at the beginning of the unit. The words *affect, approach, respond* and *role* were rated highly on the pretest so the ratings did not change on the posttest. I interpret this result to mean that since students already felt they knew the word well, the explicit instruction did not make a large impact on their understanding. Conversely, the words for which students felt the least confident demonstrated the most growth. For example, *oppose* and *persist* grew by approximately 1.50 points in students’ self-ratings. This seems logical that the words for which students had little understanding would be the same words about which students had the largest opportunity to learn.

Examining the data by student shows that the average rating rose from 2.76 to 3.28 for an increase of 0.52. Student E and Student H perceived the greatest gains in vocabulary knowledge
increasing by 1.33 and 0.93 respectively. Again the students with the highest ratings on the pretest showed the lowest amounts of growth for similar reasons as above; they had little room to improve.

Table 2: Vocabulary Rating Scale Results by Word

<table>
<thead>
<tr>
<th>Academic Vocabulary Word</th>
<th>Average Rating on Pretest</th>
<th>Average Rating on Posttest</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>affect</td>
<td>3.56</td>
<td>3.56</td>
<td>0</td>
</tr>
<tr>
<td>approach</td>
<td>3.67</td>
<td>3.67</td>
<td>0</td>
</tr>
<tr>
<td>aware</td>
<td>3.11</td>
<td>3.33</td>
<td>+0.22</td>
</tr>
<tr>
<td>benefit</td>
<td>3.00</td>
<td>3.11</td>
<td>+0.11</td>
</tr>
<tr>
<td>condition</td>
<td>3.22</td>
<td>3.33</td>
<td>+0.11</td>
</tr>
<tr>
<td>contribute</td>
<td>2.00</td>
<td>2.89</td>
<td>+0.89</td>
</tr>
<tr>
<td>convince</td>
<td>3.56</td>
<td>3.33</td>
<td>-0.23</td>
</tr>
<tr>
<td>despite</td>
<td>1.56</td>
<td>2.67</td>
<td>+1.11</td>
</tr>
<tr>
<td>impact</td>
<td>3.11</td>
<td>3.33</td>
<td>+0.22</td>
</tr>
<tr>
<td>individual</td>
<td>2.89</td>
<td>3.56</td>
<td>+0.67</td>
</tr>
<tr>
<td>inspect</td>
<td>2.33</td>
<td>3.11</td>
<td>+0.78</td>
</tr>
<tr>
<td>obstacle</td>
<td>2.44</td>
<td>3.33</td>
<td>+0.89</td>
</tr>
<tr>
<td>oppose</td>
<td>1.56</td>
<td>3.00</td>
<td>+1.44</td>
</tr>
<tr>
<td>persist</td>
<td>1.44</td>
<td>3.00</td>
<td>+1.56</td>
</tr>
<tr>
<td>respond</td>
<td>3.67</td>
<td>3.67</td>
<td>0</td>
</tr>
<tr>
<td>role</td>
<td>3.44</td>
<td>3.44</td>
<td>0</td>
</tr>
<tr>
<td>strategy</td>
<td>3.33</td>
<td>3.56</td>
<td>+0.23</td>
</tr>
<tr>
<td>urge</td>
<td>1.89</td>
<td>3.22</td>
<td>+1.33</td>
</tr>
<tr>
<td>Average</td>
<td>2.77</td>
<td>3.28</td>
<td>+0.51</td>
</tr>
</tbody>
</table>

Table 3: Vocabulary Rating Scale Results by Student

<table>
<thead>
<tr>
<th>Student</th>
<th>Average Rating on Pretest</th>
<th>Average Rating on Posttest</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student A</td>
<td>2.78</td>
<td>3.44</td>
<td>+0.66</td>
</tr>
<tr>
<td>Student B</td>
<td>3.00</td>
<td>3.00</td>
<td>0</td>
</tr>
<tr>
<td>Student C</td>
<td>3.72</td>
<td>3.83</td>
<td>+0.11</td>
</tr>
<tr>
<td>Student D</td>
<td>1.94</td>
<td>2.11</td>
<td>+0.17</td>
</tr>
<tr>
<td>Student E</td>
<td>2.39</td>
<td>3.72</td>
<td>+1.33</td>
</tr>
<tr>
<td>Student F</td>
<td>1.94</td>
<td>2.78</td>
<td>+0.84</td>
</tr>
<tr>
<td>Student G</td>
<td>3.72</td>
<td>3.89</td>
<td>+0.17</td>
</tr>
<tr>
<td>Student H</td>
<td>2.29</td>
<td>3.22</td>
<td>+0.93</td>
</tr>
<tr>
<td>Student I</td>
<td>3.06</td>
<td>3.56</td>
<td>+0.50</td>
</tr>
<tr>
<td>Average</td>
<td>2.76</td>
<td>3.28</td>
<td>+0.52</td>
</tr>
</tbody>
</table>

It is interesting to note that Student D and Student F were the only two for whom their average rating on the posttest was under three. When I examined their ratings closely I found that both of these students neglected to rate themselves a level four for any of the 18 terms. Due to this I believe that both students interpreted a rating of four to mean perfect knowledge which they refused to claim. These two students may be slightly unconfident or they may be more realistic than their classmates.
The vocabulary rating scale gives an interesting view of student growth through their own eyes. Overall, students felt more confident with the academic vocabulary at the end of the unit than they did before the explicit vocabulary instruction. While this self-perception data does not perfectly align with the data from the assessment, I believe a gain in confidence proves that students had more exposure to the academic terms which was the goal of the unit.

Table 4: Pretest and Posttest Scores by Word on the Matching Section

<table>
<thead>
<tr>
<th>Academic Vocabulary Word</th>
<th>Percent Correct on Pretest Matching</th>
<th>Percent Correct on Posttest Matching</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>affect</td>
<td>88.9%</td>
<td>88.9%</td>
<td>0</td>
</tr>
<tr>
<td>approach</td>
<td>100.0%</td>
<td>100%</td>
<td>0</td>
</tr>
<tr>
<td>aware</td>
<td>66.7%</td>
<td>66.7%</td>
<td>0</td>
</tr>
<tr>
<td>benefit</td>
<td>88.9%</td>
<td>88.9%</td>
<td>0</td>
</tr>
<tr>
<td>condition</td>
<td>44.4%</td>
<td>55.6%</td>
<td>+11.2</td>
</tr>
<tr>
<td>contribute</td>
<td>44.4%</td>
<td>77.8%</td>
<td>+33.4</td>
</tr>
<tr>
<td>convince</td>
<td>77.8%</td>
<td>77.8%</td>
<td>0</td>
</tr>
<tr>
<td>despite</td>
<td>55.6%</td>
<td>77.8%</td>
<td>+22.2</td>
</tr>
<tr>
<td>impact</td>
<td>44.4%</td>
<td>66.7%</td>
<td>+22.3</td>
</tr>
<tr>
<td>individual</td>
<td>77.8%</td>
<td>77.8%</td>
<td>0</td>
</tr>
<tr>
<td>inspect</td>
<td>77.8%</td>
<td>100%</td>
<td>+22.2</td>
</tr>
<tr>
<td>obstacle</td>
<td>66.7%</td>
<td>88.9%</td>
<td>+22.2</td>
</tr>
<tr>
<td>oppose</td>
<td>88.9%</td>
<td>88.9%</td>
<td>0</td>
</tr>
<tr>
<td>persist</td>
<td>55.6%</td>
<td>55.6%</td>
<td>0</td>
</tr>
<tr>
<td>respond</td>
<td>88.9%</td>
<td>100%</td>
<td>+11.1</td>
</tr>
<tr>
<td>role</td>
<td>44.4%</td>
<td>77.8%</td>
<td>+33.4</td>
</tr>
<tr>
<td>strategy</td>
<td>66.7%</td>
<td>66.7%</td>
<td>0</td>
</tr>
<tr>
<td>urge</td>
<td>55.6%</td>
<td>55.6%</td>
<td>0</td>
</tr>
<tr>
<td>Average</td>
<td>68.5%</td>
<td>78.4%</td>
<td>+9.9</td>
</tr>
</tbody>
</table>

Table 5: Pretest and Posttest Scores by Word on the Writing Section

<table>
<thead>
<tr>
<th>Academic Vocabulary Word</th>
<th>Percent Correct on Pretest Writing</th>
<th>Percent Correct on Posttest Writing</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>affect</td>
<td>0.0%</td>
<td>11.1%</td>
<td>+11.1</td>
</tr>
<tr>
<td>approach</td>
<td>22.2%</td>
<td>55.6%</td>
<td>+33.3</td>
</tr>
<tr>
<td>aware</td>
<td>22.2%</td>
<td>55.6%</td>
<td>+33.3</td>
</tr>
<tr>
<td>benefit</td>
<td>33.3%</td>
<td>22.2%</td>
<td>+11.1</td>
</tr>
<tr>
<td>condition</td>
<td>55.6%</td>
<td>100%</td>
<td>+44.4</td>
</tr>
<tr>
<td>contribute</td>
<td>44.4%</td>
<td>77.8%</td>
<td>+33.4</td>
</tr>
<tr>
<td>convince</td>
<td>22.2%</td>
<td>66.7%</td>
<td>+44.5</td>
</tr>
<tr>
<td>despite</td>
<td>0.0%</td>
<td>11.1%</td>
<td>+11.1</td>
</tr>
<tr>
<td>impact</td>
<td>22.2%</td>
<td>66.7%</td>
<td>+44.5</td>
</tr>
<tr>
<td>individual</td>
<td>0.0%</td>
<td>44.4%</td>
<td>+44.4</td>
</tr>
<tr>
<td>inspect</td>
<td>11.1%</td>
<td>66.7%</td>
<td>+55.6</td>
</tr>
<tr>
<td>obstacle</td>
<td>55.6%</td>
<td>88.9%</td>
<td>+33.3</td>
</tr>
<tr>
<td>oppose</td>
<td>11.1%</td>
<td>77.8%</td>
<td>+66.7</td>
</tr>
<tr>
<td>persist</td>
<td>22.2%</td>
<td>11.1%</td>
<td>-11.1</td>
</tr>
<tr>
<td>respond</td>
<td>11.1%</td>
<td>77.8%</td>
<td>+66.7</td>
</tr>
<tr>
<td>role</td>
<td>22.2%</td>
<td>66.7%</td>
<td>+44.5</td>
</tr>
<tr>
<td>strategy</td>
<td>77.8%</td>
<td>100%</td>
<td>+22.2</td>
</tr>
<tr>
<td>urge</td>
<td>0.0%</td>
<td>44.4%</td>
<td>+44.4</td>
</tr>
<tr>
<td>Average</td>
<td>24.1%</td>
<td>58.0%</td>
<td>+33.9</td>
</tr>
</tbody>
</table>

The second section of the pretest and posttest assessment was a matching section which required students to identify the term that corresponded to each definition (see Table 4). This part of the assessment was the less rigorous section since students were able to choose their answer from the available choices. In this case, a student with a medium level of understanding
of a term may still be able to match the word with the correct definition. On the other hand, the matching section presents a small challenge in the sense that the words and definitions are without a supportive context.

The average score on the matching section by word was 68.5% on the pretest and 78.4% on the posttest for an increase of 9.9%. The words *contribute* and *role* saw the largest gains of 33.4% each. This means that three more students answered correctly for these two words on the posttest than on the pretest. An additional sign of growth was that there were fewer words on the posttest with a success rate of 60% or lower than there were on the pretest. The number words in this category of low proficiency dropped from seven terms on the pretest to two terms on the posttest. According to the matching results the words *condition* and *urge* were the most difficult to correctly identify. On the other hand, all students were able to perfectly match three words with their definitions: *approach*, *inspect* and *respond*.

The third section of the assessment was a writing section (see Table 5). Students were asked to respond to a prompt containing one or more of the target academic vocabulary terms. The prompts were designed so that students needed to understand the word in order to write an appropriate answer. This section targeted a deeper level of understanding than the matching questions. The results show this level of rigor with a 24.1% average score on the pretest writing section. Given this low pretest score, the posttest average of 58.0% demonstrates significant growth of 33.9%. This means that approximately three more students demonstrated understanding of each word on the posttest. In particular, students showed a significant increase in understanding for the words *inspect, oppose* and *respond* ranging from 55.6-66.7% growth. The terms *condition, obstacle* and *strategy* did not see as dramatic of growth yet they had the highest rates of proficiency overall on the posttest.
On the other hand the words, *affect, benefit, despite* and *persist* grew a very small amount or even fell in proficiency. The test items for *benefit* and *persist* were challenging in that students had to explain their ideas clearly in order to demonstrate understanding of the words. Some students responded with such abbreviated answers that they did not fully respond to the prompt. *Affect* and *despite* were paired in a test item that required students to connect the meanings of the two words. The test questions that asked students to identify word relationships were particularly difficult because students needed a clear understanding of both words to be successful.

Analyzing the test as a whole shows which words had the highest level of mastery (see Figure 5). For five words, *inspect, obstacle, oppose, respond* and *strategy*, students achieved an 80% or higher on the assessment. In contrast, *persist* stands out as the term for which students have the smallest amount of understanding.

Figure 5: Percent Proficiency on Posttest by Word
Reviewing individual student data for the pretest and posttest provides another look at the increases in scores (see Table 6 and Figure 6). Student D made the largest gains with a 51.6% increase from the pretest to the posttest. Other important improvements were made by Student A and Student I who increased their scores by more than 25% each. While the 9.6% gain by Student F is less impressive, the final score of 90.3% on the posttest shows the impact of the instruction even on the student who began with the highest score.

Table 6: Pretest and Posttest Scores by Student

<table>
<thead>
<tr>
<th>Student</th>
<th>Score on Pretest</th>
<th>Percent on Pretest</th>
<th>Score on Posttest</th>
<th>Percent on Posttest</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student A</td>
<td>19</td>
<td>61.3%</td>
<td>27</td>
<td>87.1%</td>
<td>+25.8%</td>
</tr>
<tr>
<td>Student B</td>
<td>16</td>
<td>51.6%</td>
<td>20</td>
<td>64.5%</td>
<td>+12.9%</td>
</tr>
<tr>
<td>Student C</td>
<td>21</td>
<td>67.7%</td>
<td>24</td>
<td>77.4%</td>
<td>+9.7%</td>
</tr>
<tr>
<td>Student D</td>
<td>4</td>
<td>12.9%</td>
<td>20</td>
<td>64.5%</td>
<td>+51.6%</td>
</tr>
<tr>
<td>Student E</td>
<td>19</td>
<td>61.3%</td>
<td>24</td>
<td>77.4%</td>
<td>+16.1%</td>
</tr>
<tr>
<td>Student F</td>
<td>25</td>
<td>80.7%</td>
<td>28</td>
<td>90.3%</td>
<td>+9.6%</td>
</tr>
<tr>
<td>Student G</td>
<td>15</td>
<td>48.4%</td>
<td>19</td>
<td>61.3%</td>
<td>+12.9%</td>
</tr>
<tr>
<td>Student H</td>
<td>10</td>
<td>32.3%</td>
<td>12</td>
<td>38.7%</td>
<td>+6.4%</td>
</tr>
<tr>
<td>Student I</td>
<td>14</td>
<td>45.2%</td>
<td>23</td>
<td>74.2%</td>
<td>+29.0%</td>
</tr>
<tr>
<td>Average</td>
<td>15.9</td>
<td>51.3%</td>
<td>21.9</td>
<td>70.6%</td>
<td>+19.3%</td>
</tr>
</tbody>
</table>

The student of greatest concern is Student H. This student had the second lowest score on the pretest and the lowest overall on the posttest, 32.3% and 38.7% respectively. They also
showed the smallest amount of growth of the nine students at only 6.4% which was less than half of the average growth. While this student had self-rated within the average range of vocabulary knowledge, it is clear that they were not able to fully express their understanding on the assessment. Based on the results of this vocabulary test and other observations of this student I am becoming more concerned that they may need to be evaluated for learning needs beyond English acquisition.

A final way that I analyzed the data was to examine each student’s scores on both the pretest and posttest in comparison with their self-ratings (see Table 7 and Table 8). After looking carefully at the data for the pretest, it appears that there is no strict correlation between the students’ ratings and their scores. Of the students who highly rated their knowledge with an average of three or more, their scores range widely from 45.2% to 67.7%. In other words, the rating of a three, meaning that they know the word, did not match with their achievement on the pretest.

Table 7: Comparing Student Self-Ratings and Scores on the Pretest

<table>
<thead>
<tr>
<th>Student</th>
<th>Rating on Pretest from 0-4</th>
<th>Score on Matching Section out of 18</th>
<th>Score on Writing Section out of 13</th>
<th>Score on Pretest out of 31</th>
<th>Percent on Pretest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student A</td>
<td>2.78</td>
<td>13</td>
<td>6</td>
<td>19</td>
<td>61.3%</td>
</tr>
<tr>
<td>Student B</td>
<td>3.00</td>
<td>12</td>
<td>4</td>
<td>16</td>
<td>51.6%</td>
</tr>
<tr>
<td>Student C</td>
<td>3.72</td>
<td>14</td>
<td>7</td>
<td>21</td>
<td>67.7%</td>
</tr>
<tr>
<td>Student D</td>
<td>1.94</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>12.9%</td>
</tr>
<tr>
<td>Student E</td>
<td>2.39</td>
<td>16</td>
<td>3</td>
<td>19</td>
<td>61.3%</td>
</tr>
<tr>
<td>Student F</td>
<td>1.94</td>
<td>16</td>
<td>9</td>
<td>25</td>
<td>80.7%</td>
</tr>
<tr>
<td>Student G</td>
<td>3.72</td>
<td>16</td>
<td>1</td>
<td>15</td>
<td>48.4%</td>
</tr>
<tr>
<td>Student H</td>
<td>2.29</td>
<td>7</td>
<td>3</td>
<td>10</td>
<td>32.3%</td>
</tr>
<tr>
<td>Student I</td>
<td>3.06</td>
<td>13</td>
<td>1</td>
<td>14</td>
<td>45.2%</td>
</tr>
<tr>
<td>Average</td>
<td>2.76</td>
<td>12.3</td>
<td>3.8</td>
<td>15.9</td>
<td>51.3%</td>
</tr>
</tbody>
</table>

On the posttest the self-ratings and the scores came closer to correlating. In general, students who rated themselves with an average of 3.44 or higher, also achieved a higher-than-
average test score. The exceptions to this statement are Student B, who missed the average by two points, and Student H, who really struggled to achieve success in this unit.

Two other students deviate from this generalization that a high self-rating correlates to a high posttest score. Student G greatly overestimated their vocabulary knowledge by indicating an almost perfect rating of 3.89 while achieving a 61.3% on the posttest. Student F did the opposite by greatly underestimating their vocabulary understanding. This student had the highest score of any student on the posttest with a 90.3% and yet they had estimated their vocabulary proficiency with an average rating of 2.78.

Table 8: Comparing Student Self-Ratings and Scores on the Posttest

<table>
<thead>
<tr>
<th>Student</th>
<th>Rating on Posttest from 0-4</th>
<th>Score on Matching Section out of 18</th>
<th>Score on Writing Section out of 13</th>
<th>Score on Posttest out of 31</th>
<th>Percent on Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student A</td>
<td>3.44</td>
<td>18</td>
<td>9</td>
<td>27</td>
<td>87.1%</td>
</tr>
<tr>
<td>Student B</td>
<td>3.00</td>
<td>13</td>
<td>7</td>
<td>20</td>
<td>64.5%</td>
</tr>
<tr>
<td>Student C</td>
<td>3.83</td>
<td>16</td>
<td>8</td>
<td>24</td>
<td>77.4%</td>
</tr>
<tr>
<td>Student D</td>
<td>2.11</td>
<td>11</td>
<td>9</td>
<td>20</td>
<td>64.5%</td>
</tr>
<tr>
<td>Student E</td>
<td>3.72</td>
<td>16</td>
<td>8</td>
<td>24</td>
<td>77.4%</td>
</tr>
<tr>
<td>Student F</td>
<td>2.78</td>
<td>16</td>
<td>12</td>
<td>28</td>
<td>90.3%</td>
</tr>
<tr>
<td>Student G</td>
<td>3.89</td>
<td>15</td>
<td>4</td>
<td>19</td>
<td>61.3%</td>
</tr>
<tr>
<td>Student H</td>
<td>3.22</td>
<td>8</td>
<td>4</td>
<td>12</td>
<td>38.7%</td>
</tr>
<tr>
<td>Student I</td>
<td>3.56</td>
<td>13</td>
<td>10</td>
<td>23</td>
<td>74.2%</td>
</tr>
<tr>
<td>Average</td>
<td>3.28</td>
<td>14.0</td>
<td>7.9</td>
<td>21.9</td>
<td>70.6%</td>
</tr>
</tbody>
</table>

Overall there are a few conclusions I can make from the pretest and posttest data. First of all, students made growth in their understanding of the 18 academic vocabulary terms. Though each word and each individual was unique, scores indicate that students knew more about these words at the end of the unit than they did at the beginning. Secondly, students at a variety of pretest levels demonstrated growth. Regardless if students had a high or low score on the pretest, they were still able to make gains in their academic vocabulary knowledge. This is important to note that explicit instruction of vocabulary benefits all students. An additional conclusion is that
students learned some words better than others. At the end of the unit, only one student of the nine demonstrated proficiency of the word *persist* while the group showed excellent understanding of many other words. And finally, I can conclude that no student reached full proficiency with all 18 of the academic vocabulary words. Despite the gains, there are still gaps to fill.

**Teacher Journal**

During the three weeks that I taught this unit focused on academic vocabulary to my level four ELD class, I kept a journal to reflect on the process (see Appendix D). I recorded the activities we did in class along with a list of the vocabulary words that were targeted each day. I described how the activities went including student reactions and changes I could make for next time.

Rereading my journal helped me to identify patterns in the day-to-day lessons of this unit. The first insight I had when analyzing my reflections was that the biography picture books were foundational to the success of the unit. Each week, students enjoyed learning about another inspiring figure while listening to me read aloud. At the end of *Brave Girl* they even clapped! Even more importantly, the richness of these non-fiction texts created a meaningful context in which to teach academic vocabulary. It felt natural to focus on the target terms when they were used in connection to the stories we read. Students easily created connection sentences in their vocabulary square when I asked them how each word was related to the text. Without the meaningful context of three high-quality books, this unit would have been a chore of memorizing 18 disjointed words.

Another pattern I observed from my daily journal was that students enjoyed practicing the academic vocabulary in connection to their own lives. Middle school students are very
interested in talking about their opinions and experiences. This fact made the personal
connection teaching strategies very enjoyable for students. Students were motivated to share
their ideas and responses which made them willing to participate in reviewing the vocabulary
words again and again from different angles.

A last insight from my journal is that the amount of target academic vocabulary words
seemed too high to thoroughly teach and review in three weeks. Within the first week, there were
many opportunities to review the six words in a variety of ways. However, it became difficult to
keep up with the growing list of terms as the weeks went by. According to my journal only five
words were reviewed after the initial week in which they were the focus. In the final week it was
especially difficult to fully teach the six target words while simultaneously reviewing all words
in preparation for the posttest. More time was needed for students to fully acquire all 18
academic vocabulary terms.

Student Survey

After the academic vocabulary unit was completed, I gave students a survey to ask their
opinions on the teaching strategies used in class (see Appendix E). Students completed a Google
survey form to indicate how much the teaching strategies helped them learn the vocabulary
words on a scale from one to five. I asked students to rate the help they received from the
strategies, personal connections, example and nonexample and writing with sentence stems. A
rating of one meant students felt that the activity did not help them learn the vocabulary while a
rating of five meant students felt that the activity helped them learn a lot about the vocabulary.
One student was absent on the day of the survey so I have data results for eight students.

In general, this data shows that a majority of the students viewed the teaching strategies
as helpful (see Figure 7). For three of the strategies, personal connections, word relationships
and writing with sentence stems, 50% or more of the students responded that the activity helped them learn the vocabulary. Personal connections received the highest overall rating from students with an average of 3.75. I view the small number of negative ratings as an additional indication that students viewed the activities positively.

It is difficult to interpret the frequency with which students chose the rating three. Since this is in the middle of the scale, it is possible that students meant that they felt indifferent about the activity. If students found the activities neither helpful nor unhelpful, they may have chosen three. I also wonder if students selected three since they are unaccustomed to analyzing their own learning. It is rare that teachers require students to self-reflect about how they learn best. In this case, a rating of three is an easy choice when students are unsure how to respond. Consequently, a rating of three provides no useful data to explore.

Figure 7: Student Survey Results
Students also had the chance to respond to two open-ended questions on the survey. The first question asked students to describe what helped them learn the vocabulary words. One pattern in the answers was that students indicated that sentences were helpful. I interpret this to mean that interacting with the target terms within the context of a sentence or a sentence stem, was beneficial compared to seeing the word in isolation. Another trend in responses was the answer of studying, practicing or “reading them alot.” Paired with the mostly favorable results for the teaching strategies, I take this feedback to mean that students understood the basic idea that the more repetition, the better. I’m pleased to know that students recognized the importance of multiple exposures.

The last question asked students to identify what was difficult about learning the vocabulary words. With three answers of “nothing” and one “IDK” there were not any strong patterns present in the responses. However, Student G did respond that it was difficult when there were “too much words.” This student scored a 61.3% on the posttest so I understand if they felt overwhelmed by the amount of terms to learn.

In the end, the survey was useful for giving students a voice outside of their assessment scores. Overall the students had positive views of the teaching strategies that helped them practice the target academic vocabulary words with the goal of proficiency.

Conclusion

In this chapter I reviewed the results of my action research. By designing and implementing a three week unit to teach academic vocabulary to my class of ELs I was able to collect data on their vocabulary growth. The chapter provided the answer to my research question, how does explicit instruction enhance the understanding of academic vocabulary for middle school English Learners? The data showed that in my classroom not only did explicit
instruction positively impact understanding of academic vocabulary but also that the learning process was enjoyable for students.

In chapter five I will conclude my capstone by summarizing my experience. I will return to the literature, discuss the implications and limitations of my action research and finally I will look towards future research related to my capstone topic.
CHAPTER FIVE

Conclusion

Introduction

When I began my capstone project I chose to research academic vocabulary because I saw it as an area of difficulty for the ELs at my school. Many of the students I worked with struggled to find success during the day and academic language was one thing I had pinpointed as a source of trouble. If students had not acquired the vocabulary necessary to understand an article or a video in class, then they were not able to learn the academic content. Furthermore, when students did have a strong grasp of the content, they may not have been able to communicate their high level of understanding since they lacked the language to describe what they knew.

The academic language struggles I saw at school motivated me to research academic vocabulary. Through the process of completing this capstone I have developed a deeper understanding of the answer to my research question, how does explicit instruction enhance the understanding of academic vocabulary for middle school English Learners? In chapter four I presented the findings of my action research which indicated that explicit instruction makes a positive impact on the academic vocabulary knowledge of ELs.
In this chapter I will conclude my research by returning to the literature review. Next, I will explore the possible implications of my action research findings and discuss the limitations of my results. Finally, I will look towards future research that relates to my topic.

**Literature Review**

Through reading the current scholarship I came to a very clear understanding of what academic vocabulary is and how it impacts students. Academic vocabulary consists of words students need to know in order to access academic concepts and to express their understanding (DiCerbo et al, 2014). As Zwiers (2008) describes it academic vocabulary is the mortar that holds the brick wall of school language together. These terms, which are used across disciplines, are essential to holding content knowledge together in texts, directions, class notes, documentaries, demonstrations and assessments. Not only is academic vocabulary necessary for learning in content classes, it also greatly impacts reading ability (August et al., 2005; Carlo et al., 2004). Text comprehension decreases when the amount of unknown words increases and as Coxhead (2000) found, academic vocabulary comprises 10% of academic texts. A final important note about academic vocabulary is that it is rarely taught at school even though it requires explicit teaching since it differs significantly from everyday language (Blachowicz et al., 2013; Zwiers, 2008).

The findings of my action research corroborate this description of academic vocabulary. The 18 words that I targeted with explicit instruction were common academic terms and yet the middle school ELs I work with had little prior knowledge of them. Students had no previous instruction on these words and yet they proved to be quite common. I found that these academic terms appeared in many other school contexts including in other middle school courses and in
my own capstone. Furthermore, the data shows that explicit instruction of academic vocabulary causes student growth in understanding of those words.

Another focus of the literature was how best to teach vocabulary terms. Beck, McKeown and Kucan (2013) recommend starting with a definition that can help students to develop a “strong focused concept” of a vocabulary term (p. 35). In addition Blachowicz and Fisher (2011) suggest engaging students in creating visuals to support word learning. Moving students beyond knowing a definition and towards owning a vocabulary term involves teaching within a meaningful context, actively engaging students with the target words and structuring multiple exposures (Kieffer & Lesaux, 2010; Beck, McKeown & Kucan, 2013; Graves, 2006). Such rich instruction of vocabulary words results in deep learning. The literature referred to many teaching strategies that facilitate rich instruction. They include: example and nonexample, personal connections, word relationships and writing with sentence stems (Beck, McKeown & Kucan, 2013; Graves, August & Mancilla-Martinez, 2013).

Again, the data from my action research mirrors these recommendations from researchers. Structuring academic vocabulary instruction in this way created an optimal environment for the ELs in my class to acquire the words. The data I collected especially supports the importance of multiple exposures over time. In the three week unit, there was not enough time to adequately repeat the 18 academic vocabulary terms so the final results showed growth but not full proficiency.

One result of my action research that I did not come across in the literature about teaching vocabulary was the use of picture books with middle school students. I found that my middle level students greatly enjoyed listening to me read aloud the picture books that formed the meaningful context of the vocabulary instruction in the unit. Many researchers point to texts
as an excellent way to embed vocabulary instruction within a meaningful context however, it seemed most common to use grade-level texts such as articles or the course textbook. I would be interested to learn more about how picture books support vocabulary learning.

**Implications**

The findings of my action research have many implications for my ELD classroom and my school. The major implication of my findings is that ELs can begin to close the academic vocabulary gap through explicit instruction of words in the ELD classroom. Since academic vocabulary is so important to reading comprehension and content achievement, students can make significant vocabulary gains which will support their success at school. ELD class is a perfect place to implement a curriculum which systematically teaches academic vocabulary through meaningful contexts that support content course work.

In addition, the data indicates that the rate of 18 academic terms in three weeks is too fast for deep understanding to occur. Curriculum aimed at teaching academic vocabulary should focus on fewer words at a time. This could be accomplished by spreading six words over two weeks instead of one, or by narrowing the amount of target words. Allowing for more meaningful exposures will increase the depth of knowledge of the target academic terms.

A further implication for my school is that students need explicit instruction of academic vocabulary words across the school day and over the span of grades six through eight. The terms that I targeted in my instruction can be found in any content area and yet the math, science and social studies curriculum does not call for explicit instruction of academic terms. In order to ensure success for ELs and other students who struggle with vocabulary knowledge, vocabulary instruction must become an integral part of all courses.
Finally, I plan to share my action research with my colleagues. I will begin by bringing the results of my unit to my co-teachers. I will share with them the process I went through to identify academic vocabulary for instruction and the teaching strategies that were effective in class. This can form the basis of a conversation with my co-teachers of how to integrate explicit academic vocabulary instruction into our lesson plans. Once we try various aspects of teaching academic vocabulary, I plan to share our successes and struggles with the rest of the staff at my building. I hope that this action research will create an impact for all students at my school.

**Limitations**

There were multiple ways that my action research results were limited. The most significant restriction to my research findings was the time limit of three weeks for my unit. The posttest gathered results that showed significant growth however, the time constraint did not allow for students to reach full proficiency with the target vocabulary. A longer time frame for instruction would have facilitated deeper vocabulary learning for students.

Secondly, the results of my action research were limited in that I was only able to use the data from nine students in my ELD class. It was frustrating to not get the permission slips back from all 19 students in the class. A better turn-in rate would have enabled me to analyze a larger sample of data. With the data set that I had to work with one student could sway the average quite a bit and I was not able to examine an overall picture of class growth.

The data from the student survey was a limitation in my research as well. Asking students to respond to a survey did not provide much detail about student opinions. Student ratings on a scale of one to five to indicate how the teaching strategies helped them learn vocabulary were difficult to interpret and the written responses were brief and vague. A more effective way to collect student opinions would have been to conduct interviews with a sample of
students. Direct questioning of students through an interview would have allowed me to elicit longer and more detailed answers about which activities students enjoyed and found helpful.

A final limitation to my findings is that many of the high level ELs are not in my ELD class. Instead, students with EL levels of 4.8 or higher only have EL services through the co-taught course at their grade level. I would have liked to see the impact that the explicit instruction would have made in their vocabulary knowledge. In particular, I would be interested to see if these students who are near exiting EL services would have reached a greater level of proficiency due to their more advanced English language abilities.

Future Research

For future research projects I am interested in bringing what I have learned to perfection in the ELD classroom. I would like to find the ideal combination of number of words and number of days so that I can replicate deep vocabulary learning in my classroom. I am also interested in analyzing what conditions are needed for long-term retention of vocabulary words. In addition, I would like to investigate how ELs can be successful taught independent word learning strategies so that they can better acquire vocabulary on their own.

At a broader level, I am interested in researching how I can take what I have learned about explicit vocabulary instruction and integrate it into content area classrooms. I would like to look at how to balance the heavy requirements of the state mandated curriculum with the essential practice of teaching academic vocabulary without one getting in the way of the other.

Conclusion

The academic vocabulary demands of standardized testing and content area classes were what first opened my eyes to the gap between the vocabulary that my EL students possessed and the vocabulary that they needed to find success in school. However, lately I have seen glimmers
of hope for closing that gap. In social studies, my students’ eyes lit up when they came across the word *conditions* in our textbook reading about the Dust Bowl. Students reported to me that in science, a test question asked them to identify the *role* of a primary consumer in an ecosystem. And the other day a student said, “I *urge* you to let me use the bathroom, Mrs. Kermes!” Not only do students recognize academic vocabulary across the school day, but they have also found it to be useful.

The journey of writing this capstone has been a challenging one for me; yet, looking back I see that the journey was worth it be become a better teacher by improving my instructional practices. The ELs I work with face many challenges, one of which is academic vocabulary. Through what I have learned during my action research, I can provide better instruction for students to move them towards English proficiency and academic success.
Appendix A

Informed Consent Letter

March 28th, 2016

Dear Parent or Guardian,

I am your student’s EL (English Learner) teacher and a graduate student working on a graduate degree in education at Hamline University, St. Paul, Minnesota. As part of my graduate work, I plan to conduct research in my classroom from April 4-22nd, 2016. The purpose of this letter is to ask your permission for your student to take part in my research.

I want to study how students learn vocabulary in my class. In EL class we regularly learn new vocabulary words and I would like to collect data on how students learn best. I plan to teach 18 vocabulary words through the use of three books and various classroom activities. Students will practice with the vocabulary words through listening, speaking, reading and writing over the course of three weeks. I will collect data with a pretest and a posttest that measures students’ knowledge of the 18 vocabulary words. I will also use a survey to collect student opinions about which classroom activities were the most helpful in learning the words.

There is little to no risk for your student to participate. All results will be confidential and anonymous. I will not record information about individual students, such as their names, nor report identifying information or characteristics in the capstone. Participation is voluntary and you may decide at any time and without negative consequences that information about your student will not be included in the capstone.

I have received approval for my study from the School of Education at Hamline University and from the principal of Maplewood Middle School, Kevin Wolff. The capstone will be cataloged in Hamline’s Bush Library Digital Commons, a searchable electronic repository. My results might also be included in an article for publication in a professional journal or in a report at a professional conference. In all cases, your student's identity and participation in this study will be confidential.

If you agree that your student may participate, keep this page. Fill out the duplicate agreement to participate on page two and return it to me by mail, email or via your student no later than April 1st. If you have any questions, please email or call me at school.

Sincerely,

Katherine Kermes
Informed Consent to Participate in Qualitative Research

Keep this full page for your records

I have received your letter about the study you plan to conduct in which you will be collecting data about vocabulary learning. I understand there is little to no risk involved for my student, that his/her confidentiality will be protected, and that I may withdraw or my student may withdraw from the project at any time.

___________________________________  ______________
Parent/Guardian Signature  Date

Participant copy
Informed Consent to Participate in Qualitative Research

Return this portion to Katherine Kermes

I have received your letter about the study you plan to conduct in which you will be collecting data about vocabulary learning. I understand there is little to no risk involved for my student, that his/her confidentiality will be protected, and that I may withdraw or my student may withdraw from the project at any time.

______________________________  __________________
Parent/Guardian Signature          Date

Researcher copy
Appendix B

List of Academic Vocabulary Terms

affect
approach
aware
benefit
condition
contribute
convince
despite
impact
individual
inspect
obstacle
oppose
persist
respond
role
strategy
urge
Appendix C

Pretest and Posttest

Vocabulary Test

Vocabulary Rating Scale: Think about how well you know these words. Circle a number for each word that shows how well you know that word.

0- I don’t know the word.
1- I’ve seen the word before but I don’t know its meaning.
2- I think I know what it means. I can give an example. It has something to do with...
3- I know what the word means. I understand it when I see it or hear it. I can explain it.
4- I know what the word means and I use the word when I speak or write. I can teach someone what the word means and how to use it. I own the word!

adapted from Vadasy & Nelson, 2012

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<th>Word</th>
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<td>urge</td>
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</table>
Matching: Select the best definition for each word. One answer in each set will not be used.

<table>
<thead>
<tr>
<th>1. to cause a change</th>
<th>A. approach</th>
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<tbody>
<tr>
<td>2. to get closer</td>
<td>B. convince</td>
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<tr>
<td>3. to persuade or to make someone believe something</td>
<td>C. affect</td>
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<td>4. to disagree or try to stop something from happening</td>
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<td>E. oppose</td>
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<td>5. to try hard to get someone to do something</td>
<td>A. inspect</td>
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<td>6. to look at something carefully to check it or to learn about it</td>
<td>B. persist</td>
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<td>7. to continue even when it’s difficult</td>
<td>C. affect</td>
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<td>8. to react by doing or saying something</td>
<td>D. respond</td>
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<td></td>
<td>E. urge</td>
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<td>9. to know about something</td>
<td>A. strategy</td>
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<td>10. the help that you get from something</td>
<td>B. benefit</td>
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<tr>
<td>11. a plan that you make to achieve a goal</td>
<td>C. aware</td>
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<td>12. something that is in your way and that makes it difficult to do what you want to do</td>
<td>D. obstacle</td>
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<td></td>
<td>E. oppose</td>
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<td>13. a part that someone has in an activity or situation</td>
<td>A. contribute</td>
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<td>14. one person</td>
<td>B. individual</td>
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<td>15. to say or do things that help something or someone be successful</td>
<td>C. strategy</td>
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<td></td>
<td>D. role</td>
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<td>16. the factors that affect people where they live or work</td>
<td>A. condition</td>
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<td>17. without being prevented by something</td>
<td>B. despite</td>
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<td>18. the effect that someone or something has</td>
<td>C. impact</td>
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<td>D. role</td>
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Written Response: Write your answer to the following questions.

19. Describe your **strategy** for being successful at school.

20. Describe some of the **benefits** of school.
21. Describe what would **convince** you to dance in front of the whole school.

22. Describe how you **contribute** to your family.

23. Describe the **obstacles** to being successful at school for you.

24. Describe the **condition** of your room at home.

25. Describe how you would **persist** if you wanted to be famous.

26. Describe how you would **inspect** your backpack.

27. How are the words **role** and **impact** related to each other?

28. How are the words **respond** and **oppose** related to each other?

29. How are the words **aware** and **approach** related to each other?

30. How are the words **affect** and **despite** related to each other?

31. How are the words **urge** and **individual** related to each other?
Capstone Journal

<table>
<thead>
<tr>
<th>Date</th>
<th>Reflection: How did the activities go? What went well? What could be improved next time? What did students enjoy? What was unexpected? Which words presented problems?</th>
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Appendix E

Student Survey

Vocabulary Survey
Which vocabulary activities helped you learn the most? Rate each activity 1-5

* Required

1. **Examples and Nonexamples** *
Example activity: Which of these is an example of urge? -telling a friend about a song -telling a friend to try a cookie
*Mark only one oval.*

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2. **Personal Connections** *
Example activity: What would you say to convince someone to give you some candy?
*Mark only one oval.*

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3. **Word Relationships** *
Example activity: When you face an obstacle would it be better to work as an individual?
*Mark only one oval.*

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4. **Writing with Sentence Stems** *
Example activity: The benefit of studying for a test is...
*Mark only one oval.*

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</table>
5. What helped you learn the vocabulary words?

6. What was difficult about learning the vocabulary words?
REFERENCES


