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Affects of using Flocabulary: A Rap Based Vocabulary Program on Middle School ELLs

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Abstract

This report describes a study aimed at determining if using Flocabulary, a rap based vocabulary program, in conjunction with direct instruction targeting the necessary skills for determining word meaning, is an effective tool for middle school English Language Learners.

The study included both native English speakers and English Language Learners. A non-random sample of participants was chosen for the intervention. In total 47 seventh grade students participated. All of the students were from the same urban middle school located in south central Wisconsin.

The intervention began in February of 2011 and continued until May of 2011. Teacher-designed assessments were used to determine the effectiveness of the program. Assessment tools included weekly summative tests and teacher recorded accounts of students applying the target vocabulary. Additionally a pre and post survey aimed at assessing student perceptions was also gathered.

The results indicate that Flocabulary was effective for both increasing word knowledge and student engagement. Further study is necessary to determine if the intervention is effective for increasing morphological awareness and long-term retention of word meaning.

Chapter One

Introduction

This action research was conducted in response to an identified need of my students and my current district. As a teacher for five years I had worked in two very different school districts in Southern Wisconsin. The districts differed in many ways; some of the most obvious differences included the percentage of minority students represented in the total student body, the number of students living in poverty, and the number of students to whom English was not their first language. The first district, Oregon, WI, is a more affluent district with few minority students and even fewer non-native English speakers. The second district, Beloit, WI, has higher levels of poverty, racial diversity, and non-native English speakers. In comparing the two districts from a teacher standpoint, what I found most obvious beyond the student/family construct was the level to which the administrators placed importance on standardized tests like the Wisconsin Knowledge Concepts Examination (WKCE) and the Measure of Academic Progress (MAP) tests. In Oregon the WKCE came and went with little acknowledgement. In contrast administrators in Beloit brought it up at nearly every staff meeting, MAPs testing (three times each year) was added to monitor progress, test preparation was added to the curriculum in the early part of the year, and data retreats were scheduled for all staff to carefully evaluate the results for areas of strength and weakness. Despite the extra emphasis on standardized tests the Beloit district has continued to struggle where as the Oregon district seems to pass without any real effort.

As a teacher, I wondered what I could do in my classroom to better prepare my students, particularly, but not exclusively, my English Language Learners (ELLs). After teaching a few years I noticed that many of my students lacked the necessary vocabulary for reading grade level

material and expressing themselves accurately and concisely in written or spoken form. Since vocabulary is an essential element for both receptive and productive language I felt it was necessary to target it more formally in my study.

Why Academic Vocabulary?

For students who are not yet proficient in reading academic texts, the academic words they commonly come across in school related setting, such as *perceived*, *robust*, *conjure*, *incident*, and *potential*, may also be unfamiliar. While it is likely that technical words are also difficult, these words are those that teachers introduce and reinforce during lectures and discussions. Averil Coxhead (2000) makes the same observations in her work: "Academic words are not highly salient in academic texts, as they are supportive but not central to the topics of the text in which they occur" (p. 214).

Explicitly targeting academic vocabulary in instruction is particularly important for second language learners (Hiebert & Kamil, 2005). For many English Language Learners (ELLs) the home environment supports language development in their first language (L1 language). This means that their exposure to English (the L2 language) comes largely from outside the home, most often in the form of peer conversations, conversations in stores or restaurants, and also while listening to the radio or television. Since none of these experiences are likely to be full of academic vocabulary it's not surprising that ELL students also need direct instruction related to academic vocabulary.

Plausible cause for lower rates of vocabulary acquisition

As learners of a second language, ELL students have to overcome quite a few stumbling blocks to achieve academic success. In many cases attainment of academic language poses the biggest challenge since students cannot get their messages across when they do not possess enough vocabulary to make what they want understood.

It is commonly acknowledged that low socioeconomic status has a negative impact on vocabulary development (Freeman, Freeman, & Mercuri, 2003). Nationally the majority of ELLs (80%) are Spanish speakers (Capps et al., 2005). This is an important fact since Spanish speakers in the U.S. tend to come from lower economic and educational backgrounds than either the general population or non-Spanish speaking immigrants (Capps et al., 2005). By middle school there is already a profound difference in vocabulary knowledge among learners from different ability or socioeconomic (SES) groups (Beck, McKeown, & Kucan, 2002). Poverty, even when other factors are equal, negatively impacts vocabulary acquisition (Marzano, 2004). In single parent families, as well as families where both parents work, there tends to be less rich conversation time between children and adults (Collins, 1999). This conversation time is needed to support vocabulary development.

The lack of acquired academic vocabulary extends beyond K-12 education. Minority student, in general, are significantly less likely than their majority peers to graduate from college. A lack of adequate academic language skills has been identified as a primary cause of the revolving door of minority student admissions in postsecondary education (Kuehn, 1996). For all of these reasons, I felt a concerted effort in increasing the knowledge of academic word meaning and the use of strategies for independently discovering word meaning in an engaging way would benefit my students.

Chapter 2

Critical Review of the Research: Academic vocabulary and English Language Learners

This document includes a critical review of the suggested instructional practices for English language learners (ELLs) related to academic vocabulary and content-mastery. It also provides a discussion of the literature related to teaching English language learners in the general education classroom. After a general overview of the literature on vocabulary development for ELLs and the relationship between literacy skills and comprehension of academic content, a review of primary source research reports as well as secondary source compilations of research related to English language learners, vocabulary development, and academic achievement was conducted. The research findings have been grouped into three manageable segments:

Relationship between vocabulary knowledge and learning, ELLs in the Mainstream Classroom, and Instructional Practices for Concept Comprehension- emphasis on music intervention.

Unfortunately, there have not been many studies of the relationship between vocabulary development and learning on middle school and older students. Most studies are conducted on elementary children. For example, of the 50 vocabulary related intervention studies reviewed by the National Reading Panel (NICHD, 2000), 39 of them focused on monolingual English speakers in elementary school. Most of these focus on site words. Site words are the most frequently used words in the English language; they are not for the substance of secondary level academic content.

Vocabulary intervention research on language minority students is even more scarce. In their review, Shanahan and Beck (2006) found only three vocabulary intervention studies published between 1980 and 2005 that were conducted with language minority learners (e.g., Carlo et al., 2004; Péerez, 1981; Vaughn-Shavuo, 1990). Of them only one study (Carlo et

al., 2004) evaluated vocabulary for children beyond the primary grades; in this case upper elementary students (254 fifth-grade ELLs and their monolingual English-speaking classmates) were studied. Guadalupe Valdes (2004) found the same problem in her research- the dialogue on academic language is unfortunately made up of a "series of unconnected conversations" (p. 120); there is currently no agreed-upon definition of either academic English or academic language in general.

Discussions of academic language have focused on two very different groups of students. The first group consists of native speakers of English, while the second group includes students who have learned or are learning English as a second language (Valdes). Second language learners too are divided into groups. There are those learning English in an English dominant country, English language learners (ELLs), and those learning English in a non-English speaking country, English as a foreign language (EFL). While the concerns for each group differ in many ways, when it comes to concepts, the content needed to pass the test is the same. Therefore, it is important to define what academic vocabulary is for the purpose of this review. Some refer to academic vocabulary as the vocabulary or language necessary to do well in school (Valdes). Teachers of English to Speakers of Other Languages (TESOL) defines academic language as the language used within particular disciplines and professions, which follows particular conventions for presenting information specific to the field (TESOL, 2006). For the purpose of this review academic vocabulary will be used as the general term for the vocabulary needed to comprehend and verbalize grade-level academic content. (i.e., The terms that become connecting links between what is known (background knowledge) and that is being introduced as academic content.) With this in mind let us turn to the research supporting the importance of vocabulary to learning new material.

Relationship Between Vocabulary Knowledge and Learning

Learning involves language. Across learning contexts, students use language to think. Despite the fact that every learner is constantly processing language, the ability to access the language of school is not equally attainable to all students. For this reason Averil Coxhead (2000) developed and evaluated The Academic Word List (AWL). The AWL has become one of the most widely referenced word lists for secondary school teachers in the English-speaking world, in part because the list does not include the most frequent 2000 English words (Lesaux, Kieffer, Faller, & Kelley, 2010).

Word knowledge is among the greatest predictors of reading comprehension, as well as the likelihood that learners will understand the content being taught (Carlo et al., 2004; Fisher & Frey, 2010). Therefore, limited vocabulary knowledge is a potential source for reading comprehension difficulties, especially among older struggling readers, whether language minority learners or native English speakers (Lesaux, et al., 2010). Although skilled readers can tolerate a small portion of unknown words in a text without much disruption, comprehension is diminished if the portion of unknown words is too high (McKeown, Omanson, & Perfetti, 1983). To test this finding, Schmitt, Jiang and Grabe (2011) conducted a study analyzing the relationship between percentage of vocabulary coverage and percentage of reading comprehension. The test was administered in a wide variety of nations (Turkey, China, Egypt, Spain, Israel, Great Brittan, Japan, and Sweden), cumulatively collecting 661 valid samples from EFL learners. The average age of the participants ranged from 16 to 33 years old. They had studied English for an average of 10 years. After analyzing the research, the relationship between percentage of vocabulary coverage and percentage of reading comprehension appeared

to be essentially linear, at least within the vocabulary coverage range of 90-100%. The totals increase in comprehension went from about 50% comprehension at 90% vocabulary coverage to 75% comprehension at 100% vocabulary coverage. There was no obvious point at which comprehension dramatically accelerated; instead comprehension gradually increased with increasing vocabulary coverage. These findings argue against any threshold level after which learners have a better change of understanding of text.

Brown (2010) studied the relationship between vocabulary knowledge and reading comprehension to determine if there is mutual dependency when reading expository texts. Participants (n= 50) were all ESL students at the University of Botswana. A standardized vocabulary test, comprehension tests, and a questionnaire aimed at determining how students process information were all used. Data was analyzed using t-tests; percentages means and standard deviations were used to calculate the data. Findings revealed in general the college level participants possess a large academic vocabulary size, but only scored 62% in the comprehension test. Thus the relationship between vocabulary knowledge and reading comprehension is mutually dependent.

Although seemingly obvious, it's worth stating that many ELLs are less able than their monolingual peers to process verbal and written directions (Fisher & Frey, 2010). Even with research outlining the importance of vocabulary to comprehension for ELLs, there have been few studies that focus on identifying what vocabulary is most important for understanding material in academic content areas. Calderón et al. (2005) highlight a process for categorizing vocabulary by Beck and colleagues (Beck, McKeown, Kucan, 2002) in which a systematic method for selecting vocabulary was designed. A description of this process will be provided because it was used in a study (Carlo et al., 2004) that will be examined in a future section of this review.

Selection of vocabulary began by first grouping the words into three tiers. Tier One included words English-speaking students already know, but Non-English speaking students need to be pretested on before instruction can begin; Tier Two are the words targeted for instruction; and Tier Three are the words students are unlikely to know, and those words that are not frequently used across a variety of domains. Next, Tier Three words were divided into four additional criteria: (a) the nature of the word (i.e., is it concrete? Can it be demonstrated?); (b) cognate status (is there one available?); (c) depth of meaning (i.e., the number and richness of the way the word is used); and (d) utility (how useful is it? Does it function in other domains?) The final step in preparing for this study was to choose the instruction needed to learn the words. Instruction for this process as well as the results of a study (Carlo et al.) will be described in the Instructional Strategies section of this review. Before addressing effective instructional strategies for teaching vocabulary to ELLs, it's important to look further into who these children are, and what challenges they have in learning vocabulary.

ELLs in the General Ed Classroom

Secondary English Learners are the fastest growing segment of the ELL student population (Short & Fitzsimmons, 2007). Contrary to widely held perceptions that learning English is a challenge faced by elementary age students, approximately one-third of all ELLs are found in grades 7-12 (Maxwell-Jolly, Gandara, & Mendez Benavidez, 2005). Moreover, many secondary teachers are unprepared to meet their needs because most have been trained in a particular content area.

One hindrance to the success of secondary ELLs has been the overly simplistic perspective that improving their English will automatically lead to educational success. This narrow perspective denies the importance of academic content knowledge, of motivation, and of

developing the academic vocabulary needed to access school subjects (Maxwell-Jolly et al., 2005).

Freeman, Freeman, and Mercuri (2003) present a case study that describes this very challenge. The study consisted of three types of English learners that can be found in general education classrooms across the country: students with adequate formal schooling in their first language, those with limited formal or interrupted schooling, and a third group consisting of long-term English learners who may have conversational proficiency but lack the academic language required for school success. Though the authors are quick to point out each learner presents a unique challenge, they believe their four research-based keys for working with struggling English learners will yield success. Their model is as follows: 1) Engage students in challenging theme-based curriculum to develop academic concepts; 2) Draw on students' background- their experiences, cultures, and languages; 3) Organize collaborative Activities and scaffold instruction to build student's academic English proficiency (Walqui, 2006); and 4) Create confident students who value school and value themselves as learners. In this case study the teacher who was observed made the following conclusions, the first step in providing effective instruction to ELLs is to recognize their differences, for English learners to succeed academic English proficiency is key, and lastly, all students benefit from the four keys identified in this research. A noticeable difference in this research from the preceding research on vocabulary, and on research targeting instructional strategies, is that here there is less emphasis on intervention and more emphasis on the importance of student motivation and building on prior knowledge. This has a lot to do with the age of the student. Much of the research on vocabulary development is geared toward elementary students learning to read. Though the research is limited, there are few studies specifically related to secondary and post secondary

students. Note that research on the upper grades seems to focus much more on an individual's engagement in learning and ownership of success than studies of elementary ELLs.

The lack of secondary teachers with even minimal expertise in English language instruction contributes significantly to the problem of underachievement of secondary ELLs. In 2004 Maxwell-Jolly et al. surveyed approximately 1,300 secondary teachers from across California. What they found confirms findings of other research cited above. That is, teachers felt extremely challenged with regard to their ability to convey academic content to their ELL students. The most significant reason for this was their ability to effectively communicate with students, and the other was lack of training in how to present the material in alternative ways. Results in this study showed that more than 40% of the teachers whose students were mainly English Learners had received only one in-service workshop that focused on the instruction of ELLs and none had any other training in the previous 5 years (Maxwell-Jolly et al., 2005). To add to this disconcerting information is the findings in the same study that the least experienced teachers are placed disproportionately in schools that have the greatest number of racial and linguistic minority students. Clearly there is a need for educators to be educated on proven strategies that work best for ELLs, so let's move onto some studies focusing on suggested instructional practices.

Suggested Instructional Practices for ELLs

Research has also been conducted in an attempt to determine what strategies are best for increasing vocabulary. Many strategies have produced positive results, but no one method has proven significantly more effective than another (Baker, Simmons, & Kameenui, 1995; Beck et al., 2002; Goldenberg, 2008; Manyak & Bauer, 2008).

Noted researchers, like Robert Marzano (2009) and Claude Goldenberg (2008), agree that all students benefit from clear goals and structure, challenging and motivating contexts, appropriately paced instruction, opportunities for practice, application, and feedback on correct and incorrect responses. Goldenberg (2008) also points out that there must be instructional modifications for ELLs. His proposal of specific modifications for building vocabulary in English include incorporating visual representations of concepts, using words from texts likely to interest students, providing multiple exposures, manipulation and analysis of word meaning, activities that encourage active engagement and the use of the student's primary language for support. Language development can be supported by including cognates into a vocabulary lesson or pre-teaching words in the student's primary language (Manyak & Bauer, 2008; Nation, 2001).

Calderón et al. (2005) noted only two empirical studies done between 1998 and 2005 that provided experimental evidence on the best ways to instruct children during the transition period where they first receive education in a second language. In one of the studies, Calderón, Hertz-Lararowits, and Slavin (1998) investigated the Bilingual Cooperative Integrated Reading and Composition (BCIRC) program. The study was conducted in three experimental (n=250) and four control (n=250) schools in El Paso, Texas. In the study students were pretested with the district's language proficiency test and post-tested after second and third grades in the areas of English reading and writing using the Texas Assessment of Academic Skills and the Norm-Referenced Assessment Program for Texas standardized tests. By the end of the third grade BCIRC program student scored almost one standard deviation higher than comparison students. The purpose of the study was to evaluate an intervention for children transitioning from reading in Spanish to English based on decoding skills and comprehension in a second language.

Vocabulary was taught in the context of reading, first with simple sequenced readers, then building up to grade-level readers. Vocabulary development was addressed through pre-reading, during reading, and post-reading activities. The intervention included cooperative learning, teaching of vocabulary through strategies, direct teaching of comprehension skills, and opportunities for independent reading. The success of the study provided promising evidence on the effectiveness of using the previously mentioned teaching strategies to ease the transition from learning content in one's home language to that of content in English.

To conclude, the findings of Carlo et al. (2004) demonstrate that the study started once the necessary vocabulary for the study was determined. Next, the research team developed, implemented, and assessed an intervention designed to enrich the vocabulary knowledge and increase the reading comprehension of Spanish-speaking fifth-grade ELLs and their English-only peers. The participants were 254 bilingual (Spanish-English) and monolingual English-speaking children from nine fifth grade classrooms in four schools in California, Virginia, and Massachusetts. The systematic method for choosing vocabulary created by Beck and colleagues (2002) was used to identify vocabulary. The instructional strategies used as intervention included: pre-teaching vocabulary, developing vocabulary through discourse around text, oral language activities to build vocabulary, and finally assessment. Children were pretested in the fall 2002 and post-tested in spring 2003 with the Woodcock Language Proficiency Battery-Revised (WLPB-R). The results of the study found that a challenging curriculum that focused on teaching academic words, strategies for inferring word meaning from context, and tools for analyzing morphological and cross-linguistic aspect of word meaning did improve the performance of both ELL and native English fifth graders to equal degrees, thus confirming that approaches designed for ELLs can be used in mix language mainstream classrooms.

This study reinforces the reasons for incorporating reading strategies, like inferring meaning through the usage of context clues, as a tool for increasing vocabulary. Acquiring language through the use of context clues has been touted as one of the more natural ways to learn new words (Gardner, 2008). The thought behind this is that reading words in context provides the opportunity for multiple exposures to a word. This is much like the explanation for how young learners acquire the bulk of their vocabulary merely by being exposed to words in everyday life experiences.

Shintani (2011) compared the effects of two types of vocabulary instruction, input-based and output-based. Input-based instruction focuses on the learners' comprehension of input, where as output-based (otherwise known as production-based) instruction involves the learner in speaking or writing. The terms input and output-based instruction were coined from linguistic educational researcher Stephen Krashen (1998). Thirty-six Japanese children ages 6-8 participated in the study. Students were randomly assigned to one of three groups: (a) the input-based (IB) group receiving input-based instruction, (b) the production-based (PB) group receiving production-based instruction, and (c) the control group received a set of three activities (English songs, Total Physical Response, and alphabet practice) without being exposed to any target words. Four tests were made to measure knowledge of the target vocabulary; two of them were production based. Assessment tools included a multiple-choice listening test, category task test, discrete-item production test, and a same or different test. Interestingly, the results showed the two groups had nearly the same levels of effect. This study concludes that both input and production based instruction lead to both receptive and productive vocabulary knowledge.

The one overarching theme found in these studies and others is that teaching new words appears subordinate to the goal of teaching about words. Once a child understands the makeup

of words he or she has an easier time linking concepts to other prior knowledge. The problem for secondary level students is there are limited interventions available to teach word knowledge in secondary education. By the time children enter middle school their teachers are trained in a specific content area and because of both state and local standards there is little room for word exploration in the curriculum

According to Nagy (1988) the best vocabulary programs include a combination of both definitional and contextual approaches. While Nagy was primarily focused on learning vocabulary through the context of traditional reading texts, these same two approaches have been used by researchers (Legg, 2009; Li, 2009) using song lyrics as the text.

Using Music to Enhance Student's Vocabulary Development

Creating a learner-centered classroom involves providing instruction that is appropriately leveled, but also engaging. The value of fostering creativity and enhancing literacy instruction through music is vital in today's diverse classrooms (Peregoy & Boyle, 2008). However, the inclusion of music as a teaching tool does not exclude the importance of continuing to provide direct instruction. Paquette and Reig (2008) highlight the necessary steps for adding music to a language lesson. These are used in addition to the more traditional approaches to word study.

1. When possible, play the song in the background for several days so it is familiar when it is introduced to the students.
2. Sing along with a recording to have students join in when they feel most comfortable.
3. Teach actions when applicable, then teach the words meaning (or vice versa).
4. Teach the song one phrase at a time. Then, combine the phrases.

There are a number of reasons that songs, particularly pop songs, might be helpful for second-language learners. First, according to Murphey's (1992) analysis, popular songs use language and topics commonly associated with the level of 11-year-old native English speakers. Then there is what Murphey (1990) referred to as the "song stuck in my head phenomenon." Music contains lyrics that are presented within a repetitive structure providing multiple opportunities to listen to and use language in a single song. This increases the relationship between lyrics and rhythm making new words easier to remember (i.e., linguistic memory).

Music has been used in elementary classrooms to support the early literacy needs of students for years (Paquette & Rieg, 2008). Additionally, a significant amount of research in arts education has concentrated on the possibility that music can positively influence children's academic achievement (Hallam, 2010). Theorists like Stephen Krashen have noted the important role music can play in assisting ELLs through the developmental stages of language acquisition (Krahnke, 1985). Even experienced teachers have reported positive effects from the addition of music in their language classrooms (Lake, 2002). Since much of the enthusiasm for using music in teaching vocabulary comes from individual teachers and theorists it's important to carefully look at the results of empirical studies relating to music's effectiveness on language acquisition for students who already have a firm handle on the basic skills of language (i.e., students older than 4th grade).

Music has been studied as an intervention to enhance vocabulary development for a number of years, but studies aimed at ELLs in the United States are still few and far between. Legg (2009) conducted an experimental study aimed at discovering whether using music as a teaching tool could accelerate pupils' learning of French vocabulary. The study was conducted in southern England during part of the normal school day. Target vocabulary was associated

with the *passé composé*. Two 8th grade classes were selected. The two chosen classes were comprised of students in their second year of French instruction in Set 2 meaning the students performance at the end of 7th grade was above average, but not good enough to be placed in A.P. French. The division of students into Music and Non-Music groups was achieved through a computer generated random spreadsheet. The Non-Music group studied the required phrases and words according to usual policy. This included studying a short poem, relating its events to daily life, having the teacher as well as student volunteers read the poem aloud, allowing time for student questions, writing down definitions, having students take them poem home to practice for homework, and then playing memory games involving key phrases and concepts. The Music group received similar introduction to the poem's words and phrases. This included the teacher read aloud, and sufficient time to ask questions. However, rather than building familiarity through word games, the teacher reinforced the Music group's knowledge by rehearsing and performing a musical version of the poem. The song was composed by the teacher with specific goals in minds: first the song needed to be simple (easy to learn), and it was imperative that the melody be 'catchy' or appealing to the audience. The musical style eventually chosen was Blues/style. Examination of the pretests showed the groups were not statistically different prior to the intervention. Post study posttests were analyzed using the same t-test method, this time the Music group achieved significantly higher marks than the Non-Music group, thus providing evidence that music as an intervention did accelerate vocabulary learning.

Li (2009) examined the effectiveness of varying use of songs on vocabulary acquisition, language usage, and meaning for university students preparing for graduate school in the People's Republic of China. To be accepted in the graduate program all subjects had to pass a national entrance exam in English. Subjects were randomly assigned to one of three groups,

each receiving varying degrees of music intervention. In the first group (all music) music was used exclusively in teaching the target English language. In the second group (half music) music was used half the time in teaching the target English language. The final group (no music) was taught the vocabulary from word lists and other non-music instructional materials identical to the content in the other two treatment groups. Post-testing indicated that music/song based approaches appear to be highly effective in teaching English both in achievement and with regard to student attitude.

Summary

The research on recommended practices to promote student involvement in their learning process and the research on effective content area instruction for ELLs in secondary education overlaps in many ways. This suggests that mainstream teachers who use effective strategies for ELLs will be using many of the practices that are recommended for higher achievement of all students.

Every study and synopsis of a study used to generate this literature review clearly stated, vocabulary must be explicitly taught to ELLs if they are to catch up to grade-level standards. As stated by Calderón et al., carefully designed direct vocabulary instruction improves vocabulary knowledge (2005). At the same time, this vocabulary instruction must be a part of a comprehensive language/literacy program. In addition, differentiation among English learners is critical. Somehow teachers need to develop a way to learn about who is in our classroom to detract from the tendency to group ELLs at one level (a level that says we, as teachers, can't reach them on our own). Educational programs also need to acknowledge what experiences and educational background these students to have, as well as develop better assessments targeting

knowledge rather than language proficiency. This task is enormous, but essential if we are to meet the needs of all students.

Chapter 3

Research Method

Research Question

- 1) Will using vocabulary raps from the WordUp Program in conjunction with specific vocabulary learning strategies affect academic vocabulary development as measured by:
 - 1a. In class summative assessments
 - 1b. Participant use and acknowledgement of class vocabulary in real life settings

- 2) Research Question 2: Will student attitudes about learning vocabulary change after being exposed to the intervention as measured by:
 - 2a. Student generated responses to a vocabulary survey

Place and Time of the Study

This classroom action research was carried out during two 7th grade Language Arts classes at McNeel Middle School in Beloit, Wisconsin. On average the intervention lasted for the first 20 minutes of each class period (Monday through Friday). The research was held from March to May of 2011. No intervention was used the week of March 28th, due to spring break, and May 9th, due to MAPs testing.

The Subjects of the Research

In an effort to minimize teaching style differences and to ensure similar routines/expectations, all of the students in the 7th grade "Blue House" at McNeel Middle School were chosen as participants. Students had been delegated to houses based on four criteria: gender,

WKCE test scores, discipline referrals, and the need for support services. The first step in grouping the 7th graders into houses is to identify those who need support services (ESL or Special Education). After grouping for support services there is an attempt to evenly distribute students so that each house has near equal students by gender, those with discipline referrals, and a wide range of academic performance (as measured by the WKCE test). The 7th grade Blue House is the house with a bilingual support teacher; as a result all ELLs with a composite score of 3.5 or lower on the ACCESS test are placed in this "house." (The ACCESS test is an English proficiency test that is given annually to English as a Second Language (ESL) students to mark progress in English proficiency.) No students requiring Special Ed. services are placed in the house. The study started with 51 students; throughout the semester four students transferred out of district- data from these 4 students was removed. In total 47 students participated in the full study. The students varied socioeconomically, ethnically, and academically (measured by reading levels and ACCESS English Proficiency levels). The sample contained 17 Caucasian students, 10 African-American, 1 Haitian, and 19 Hispanic students. Of the 19 Hispanic students 12 were first generation Mexican immigrants, and one was Quechua (born in Ecuador). This student lived in Ecuador until she was nine years old, then she moved to Spain for three years. When the study began, she had been in the United States two weeks. The single Haitian student was a first generation Haitian immigrant. She had limited formal education in her native language and nine months of education in the United States. Clear socioeconomic breakdown of the participants was not obtained, however 83% of the students at McNeel Middle School qualify for free and reduced lunch.

Classroom Action Research

Classroom action research was used to conduct the study. According to Richard Sagor (2005), "Action Research is research conducted by the person or the people empowered to take action concerning their own actions, for the purpose of improving their future actions (p4)." As a researcher I chose the classroom action research model because I wanted to determine if notable research based strategies for increasing engagement in learning academic vocabulary would be effective for my classroom. I wanted to know if the strategies and intervention I felt was best for my students could be intertwined with the curriculum designated by the School District of Beloit. I also wanted to know if using specific strategies would be more effective for activating student engagement in class vocabulary lessons. Lastly, I wondered if the outcome was favorable, would I end the study believing I could replicate it with future classes.

Choosing an intervention

With the commitment made to focus on an action research project targeting academic vocabulary, I needed to find an intervention that was malleable enough to be intertwined within the current curriculum in Beloit and yet engaging enough to be of interest to my students. Past experiences taught me that generally my students bemoaned even the mention of lessons focusing on academic vocabulary. Therefore, I wanted something that was engaging, culturally relevant, and fun. All of which seemed to be included by the addition of music as an intervention because music has a natural tendency to include rhymes, rhythmic patterns, and catchy phrases that are easy to remember. After reading the previously mentioned study by Li and Brand (2009), I wondered if I would find similar results if I combined vocabulary and music within a multidimensional teaching tool.

Intervention: The WordUp Project by Flocabulary

Vocabulary lists and opportunities for reading each word in context were obtained from the WordUp Project (Harrison, Siciliano-Rosen, & Gutkovich, 2009). WordUp is a vocabulary program published by Flocabulary, LLC. The program uses rap songs to engage students in learning academic vocabulary. WordUp was chosen because the program is research-based and standard-based (Educational Research Institute of America [ERIA], 2009). It was also a favorable intervention because it included auditory support and extension exercises, so I believed it would be both engaging and culturally relevant to the students in the study. Another reason for choosing WordUp was that it included predesigned word-work activities that I felt were manageable extensions considering the amount of time we had during class to conduct the study.

Vocabulary was chosen from Flocabulary starting with Unit 1 and Ending with Unit 4. Ten of the fifteen words in each of the four units were used. The ten words were chosen by the teacher-researcher. For convenience purposes five words were chosen from the first and second half of the song. The chorus was used as a transition point between the two lessons. The five words that were eliminated from the study were done so because the teacher-researcher felt the students already knew the words, or the word was not likely to be seen or used frequently.

Example words eliminated from Unit 2 included: chorus, firebrand, magnetic, toxic, and urgent.

Table 3.1

Target vocabulary retrieved from Flocabulary

Unit 1		Unit 2		Unit 3		Unit 4	
<i>Week 1</i>	<i>Week 2</i>	<i>Week 3</i>	<i>Week 4</i>	<i>Week 5</i>	<i>Week 6</i>	<i>Week 7</i>	<i>Week 8</i>
Trivial	Affliction	Addict	Gravity	Poised	Radiant	Vicious	Vistas
Wincing	Perceived	Sullen	Subtle	Ajar	Prior	Acrid	Retort
Abate	Robust	Quench	Wary	Saga	Annihilate	Potential	Dumbfounded
Rupture	Abrupt	Mirth	Conjure	Infamous	Avert	Lavish	Docile
Grim	Incredulous	Acquire	Aspire	Incident	Pending	Flaw	Acclaim

Unit Design

Each week the new vocabulary was broken down into four manageable lessons each aligned with a day of the week; these lessons were followed by a summative quiz on Day 5. Each day of word discovery focused on one or more skills for understanding and retaining new vocabulary.

Day 1 (Class time needed 25 minutes): To begin the weekly word study, each of the two groups was introduced to the new vocabulary by receiving a class list of the "words of the week" in isolation. To ensure there was not a reading mistake in students' initial examination of each word, the teacher used the technique of "I say, then you say" to correctly model the pronunciation of each word. In this technique the teacher first states the word and students listen to the pronunciation, then the class chorally repeats the word. To ascertain a level of individual prior-knowledge, no further teacher led or pupil shared discussion of word meaning occurred until after each student had the time to personally reflect on their individual comfort with each

word. This process took 1-2 minutes; during the process each student labeled their comfort with the target words by using the code of: N, S, K, A. These letters stood for word knowledge of,

N= "I've never seen or heard this word before."

S= "I've seen this word, but I don't know the meaning."

K= "I know the word meaning, but I'm not comfortable using it myself"

A= "I can apply this word in my own discourse."

Following this process, students shared what they knew about each word through a class discussion. During the class discussion the teacher noted student generated definitions, text connections, and examples/non-examples on the SMART Board. These notes were used in the second half of the daily lesson and were saved for further analysis if necessary throughout the week.

The next step in the vocabulary lesson focused on determining word meaning through the usage of context clues. Over the past 30 years, a large body of literature has promoted reading as the major source of students' vocabulary development (Gardner, 2008). Since new vocabulary is often noticed first through the context of reading to oneself (Beck et al., 2002), I felt one of the strategies students needed to feel comfortable with was the skill of using context clues to determine meaning. Each student was given a worksheet that included purposefully extracted sentences from the week's Word Up rap. The target words were underlined in the sentences to ensure there was no confusion about what words were to be studied. The expectation was that students would read the sentence containing the vocabulary word and use context clues (other words in the sentence) to help determine meaning. These helper words were circled within the sentence; then on the lines provided under the sentence a student generated definition or synonym of the word was written. This process was repeated for each of the five sentences.

When students finished, they were encouraged to compare/discuss their results with the person sitting next to them. This was done using the "Think-Pair-Share" method.

The last few minutes of the word study lesson for Day 1 ended with an introduction to the rap song. This was done to provide exposure to the song and to establish a level of interest on the part of the students. During this portion of the lesson, the students began by simply listening to the song and reading along with the lyrics on the SMART Board. The song was then played a second time; this time students began chorally singing the lyrics by following along to them on the SMART Board.

Day 2 (30 minutes): The second day of each week started with another opportunity to listen and practice the rap song. Following practice of the song direct instruction in combination with the Frayer model concept for vocabulary development was used to generate graphic organizers for each word. The graphic organizer was later used by students as a tool for repeated contextual reference in studying the words outside of class- continued practice was considered home work. The Frayer model is an interactive tool for deeper study of word meaning by using a graphic organizer designed to help students activate prior knowledge and develop relationships or connections to new terminology (Rekrut, 1996). The model used in this study included the categories of word meaning (established by definitions, synonyms, or cognates), followed by characteristics or illustration, application in real life: examples of real life sentences or collocations (collections of words that often go together), and non-examples.

Day 3 (10 minutes): Engaging in an all class attempt to sing the rap song, followed by individual student attempts. This time as a teacher I purposefully covered up the vocabulary terms in the song so that students would need to insert the correct word through memory. This was followed by 5 minutes of partner practice using the Frayer model graphic organizers as a tool for quizzing

each other about word meaning. The lesson ended with a "thumbs-up" or "thumbs-down" check in which each student rated their comfort with the terms. (More practice would have been provided if needed, however none was necessary in the duration of this study.)

Day 4 (25 minutes): The fourth day of each week was used to practice real life application. The day started with a warm-up which included sentences with purposeful errors in usage of the vocabulary terms. (These sentences were either researcher generated or were taken from the Flocabulary Project. Sentences that came from the Flocabulary Project were taken from the sections titled, "Fix the Mistake" and "Understanding What You Read" a non-fiction paragraph.) Students had to identify the mistake and replace the incorrect word with the appropriate word for each of the 5 sentences. This was followed by an activity engaging students in active practice of the vocabulary as they would in real life situations. Utilized practice included vocabulary skits and classroom debates. To conclude the vocabulary lesson for Day 4 practice of the terms via the rap song was once again used.

Day 5 (15 minutes): Researcher-designed assessments were developed in the form of weekly summative vocabulary tests. Each assessment varied as the vocabulary changed, but for consistency purposes the same structure was used for each test. The purpose was to assess vocabulary meaning and vocabulary acquisition in the form of student knowledge on how to use the word in a real life situation.

Data Collection Tools

Three researcher-designed instruments were developed to collect data. Each of the instruments was designed to assess a different component of word knowledge. The instruments included 1) weekly summative vocabulary tests, 2) a questionnaire for gathering information

about students' attitudes and comfort toward learning new vocabulary, and 3) a tally chart documenting student recognition and attempts to use the target words personally (most often noted through class discussions and written class work). Additional documentation related to student engagement was kept in the form of teacher field notes/ lesson reflections.

Summative Assessments

Summative assessments (Appendix A) in the form of vocabulary quizzes were administered every Friday (5th day) of the vocabulary study. The vocabulary quizzes provided quantitative data regarding student knowledge of the target vocabulary in terms of word meaning. Though not identical each of the quizzes had a similar structure, an opportunity to prove word meaning by providing definitions, synonyms, or cognates for each word, then a second set of incomplete fill in the blank sentences requiring students to place the proper word in the blank making coherent sentences. Each quiz totaled 10 points; one point was awarded for each question or fill in the blank answer. One extra credit point was awarded for any additional evidence of application. Examples included students describing where they saw or heard one of the words in real life, or where or how they might use the word independently. One extra credit point was given for each word; no more than three extra credit points were given for any single test.

The results of the summative tests were analyzed by creating an Excel data table. Test scores were first separated by ELL and Non-ELL. The results were then entered into the appropriate data table for ELL or Non-ELL. Each student's score was recorded in columns for each of the eight tests. Means score and standard deviations were obtained for each test. Notable observations were recorded for later comparison with trends shown in the other two assessment tools.

Vocabulary Survey

The second instrument, a vocabulary survey (Appendix B) contained 6 questions each of which required students to respond on a Likert-type scale. The Likert scale produced quantitative data regarding student's feelings and attitudes toward learning vocabulary and their comfort with strategies or tools for learning new words. The rating scale ranged from a 1 to a 6; each number equating to a level of agreeability.

Rating Scale:

- 1= Strongly Disagree
- 2= Disagree
- 3= Somewhat Disagree
- 4=Somewhat Agree
- 5=Agree
- 6=Strongly Agree

Anecdotal Field Notes

Teacher recorded anecdotal field notes (Appendix C) were kept to document the number of times students attempted usage or noticed other people's usage of the target vocabulary. Records were recorded next to participant's names using three categories: verbal attempts, written attempts, and noticing others' use the vocabulary. "Noticing others' use the vocabulary" was recorded most often by student reported instances both inside and outside of class. For instance, if a student mentioned seeing one of the target vocabularies in a novel, on a billboard, or in any "noticed" instance a tally was used to record this occurrence.

At the conclusion of the study this data was compiled into a single Excel data table. Results were not disaggregated for ELL and Non-ELL as the purpose was to compare student application of these words over the entire length of the study. The results of the initial teacher

recorded tallies were added up and re-recorded as a total number of occurrences for each of the four units rather than a total number for each individual student. (Note: each unit was two weeks long.) This data was then entered into the appropriate category on the Excel spread sheet. Additionally, a column was added for the "Total number of students contributing to the data (out of 47)" and "The percentage of students participating."

Chapter 4

Data Analysis

The objective of this research project was to evaluate the effectiveness of an intervention designed to improve the vocabulary acquisition of the students participating in the study. The method of direct instruction relied on usage of the Frayer Model graphic organizer, a multifaceted tool for deeper word knowledge by incorporating not only word meaning, but also visualization and reinforcement of the connections between the target words and already known words. Several tools were used to measure the effectiveness of the intervention. Each of the three assessment tools was marked independently and then analyzed for evidence to the research questions. Notable observations were recorded for comparison with trends shown within the assessment tools.

Analysis of the results

Summative Quizzes: The data obtained from the post-test summative quizzes was used to answer the research question:

Research Question 1: Will using vocabulary raps from the WordUp Program in conjunction with specific vocabulary learning strategies affect academic vocabulary development as measured by:

1a. In class summative assessments

Data from both classes were combined and then separated into ELL and Non-ELL data tables. Tables 1 and 2 summarize the means and standard deviations of quiz scores for each of the two groups. Figure 1 is a comparison of scores for both the groups over the entire length of the study.

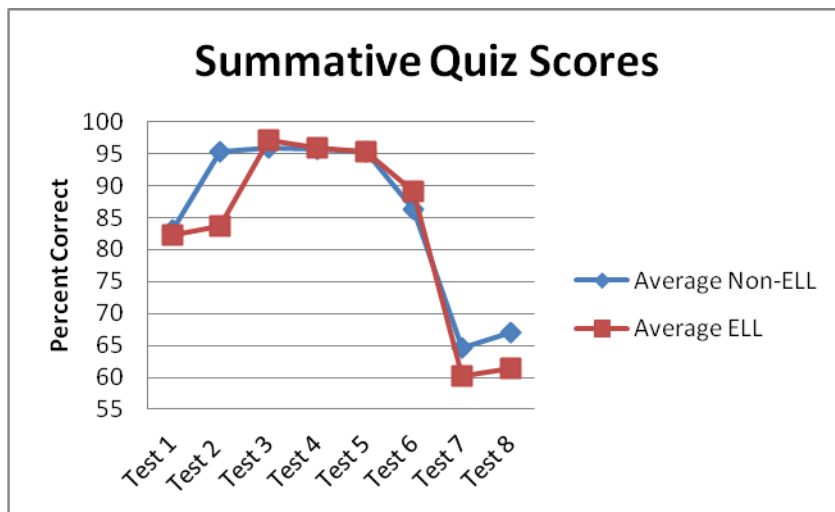
Table 4.1
Mean Scores and Standard Deviations for Summative Quizzes for all Non-ELL students

<u>Non-ELL Weekly Quizzes</u>								
	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8
Average	83.04	95.39	95.87	95.65	95.3	86.35	64.57	66.96
STDEV	22.7	13.59	10.05	14.72	10.67	14.75	13.56	8.22

Table 4.2
Mean Scores and Standard Deviations for Summative Quizzes for all ELL students

<u>ELL Weekly Quizzes</u>								
	Test 1	Test 2	Test 3	Test 4	Test 5	Test 6	Test 7	Test 8
Average	82.25	83.75	97.2	96	95.4	89.1	60.25	61.5
STDEV	17.95	33.27	10.21	12.31	12.53	13.91	17.51	14.24

Figure 4.1



Analysis of the results indicated notable progress for the first three weeks of the intervention. From week 1 to week 2 the Non-ELL group increased an average of 12.35 points. This equates to more than one grade level; on average from a B to an A. Similar results were obtained the following week for the ELL group. From week 2 to week 3 the ELL group increased an average of 13.45 points; again an entire grade level. Weeks 3 to 5 of the study both groups maintained grade level averages in the A-range. During the middle weeks of the study, the ELL group outperformed the Non-ELL group for 4 consecutive weeks (week 3 to week 6). The final two weeks of the study indicate quiz scores lower than even the first two weeks of the intervention. Ells started week one averaging 82.25%, but by week 8 they dropped to an average of 61.5%. Non-ELLs started week one with an average of 83.4%, but ended week 8 with an average of 66.96%.

Records of Vocabulary Application: Data obtained through teacher recorded tallies of students applying the term over the course of the study was use to answer the research question:

Research Question 1: Will using vocabulary raps from the WordUp Program in conjunction with specific vocabulary learning strategies affect academic vocabulary development as measured by:

1b. Participants use and acknowledgement of class vocabulary in real life settings

Each unit of study (two weeks per unit), teacher documented records were kept recording students using the vocabulary terms in their oral speaking, written work, and also through recognition of the vocabulary when other people used them (both inside and outside of class).

Table 4.3

Teacher recorded field notes recording student application of vocabulary by unit.

Units of Study	Verbal	Written	Reported Recognition	Total Number of students contributing to the data (out of 47)	% of student participating
Unit 1	3	0	3	5	10.64%
Unit 2	9	6	7	15	31.91%
Unit 3	9	7	9	21	44.68%
Unit 4	21	24	17	33	70.21%

Figure 4.2

Vocabulary application by unit

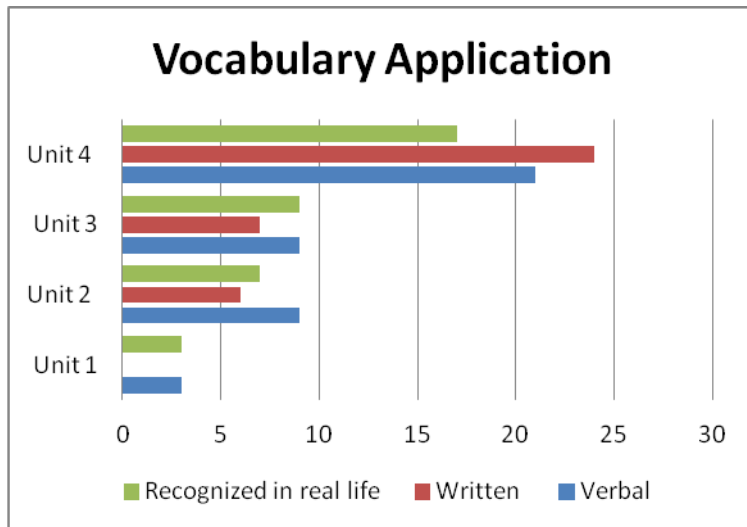
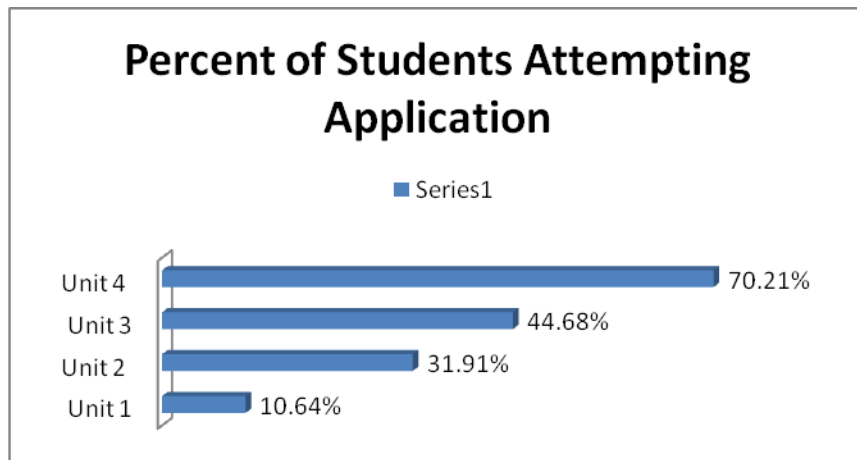


Figure 4.3

Percentage of students attempting application of the target vocabulary by unit



Analysis of the verbal attempts to apply the terms yields only 3 total attempts for the first unit of 10 words, however by Unit 2 this number tripled to 9 attempts. Comparing Unit 1 to Unit 4 (beginning to the end of the study) the attempts to verbally use the language were seven times higher at the end of the study than they were in the beginning. Written application, one of the most difficult in terms of literacy development, yields the greatest signs of improvement. In Unit 1 there was no attempt to apply any of the terms in written form. However, by the last unit there were 24 attempts made. Recognition of the vocabulary in real life (both in class and outside of class) also increased throughout the study. Similar to the verbal attempts, the recognition of these words nearly increased by six times that from which it started in Unit 1. The data from Unit 1 shows 3 instances of students noticing the words, where as Unit 4 yielded 17. It's not surprising that verbal attempts and recognition of the terms grew at similar rates. Some of the data on recognition came directly from students noticing either the teacher or other students using the desired terminology in class. As a teacher the results that are the most noteworthy come from the percentage of total students participating in the application of the desired terms.

In the beginning of the study only 10.64% of the total students were participating in any form of application beyond the expected class work, however by the end of the study 70.21% were contributing in one form or another, and the highest number of attempts came in the form of written application.

Perception Survey: The data obtained through the student perception survey was used to answer the research question:

Research Question 2: Will student attitudes about learning vocabulary change after being exposed to the rap intervention as measured by:

2a. Student generated responses to a vocabulary survey

A survey was used to gain information related to student's opinions about vocabulary word study in school. Specifically the survey provided data on importance of learning vocabulary and the level of comfort students have with methods for learning new vocabulary. Both pre and post surveys were given. The surveys not only yield student opinions, but also data regarding the effectiveness of the intervention. (i.e., the music intervention, repeated practice with the skill of using context clues, and the Frayer-model graphic organizer) A Likert rating scale was used to measure student perceptions. The scale ranged from a 1 being "strongly disagree" to a 6 equating to "strongly agree."

Table 4.4

Mean Response to Vocabulary Survey from ELL Students

<u>ELL Average</u>		
	Pre-Study	Post Study
Q #1	4.8	4.65
Q #2	3.85	4.15
Q #3	4.1	4.25
Q #4	2.8	3.3
Q #5	3.63	4.45
Q #6	3.95	4.35

Figure 4.4

Mean Response to Vocabulary Survey from ELL Students

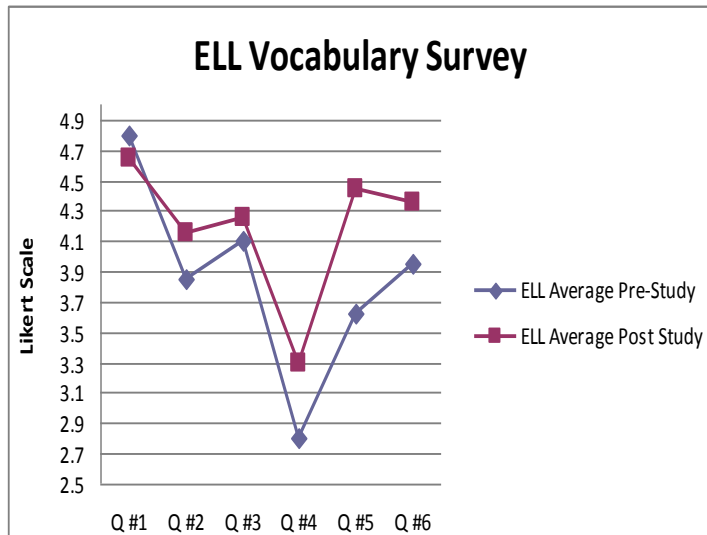


Figure 4. Results of the pre and post survey given to ELL students to gauge student perceptions related to vocabulary word study.

Table 4.5

Mean Response to Vocabulary Survey from Non-ELL Students

<u>Non-ELL Average</u>		
	Pre-Study	Post Study
Q #1	4.61	4.91
Q #2	3.02	3.78
Q #3	4	4.48
Q #4	3.15	3.87
Q #5	3.82	4.83
Q #6	3.91	4.83

Figure 4.5

Mean Response to Vocabulary Survey from Non-ELL Students

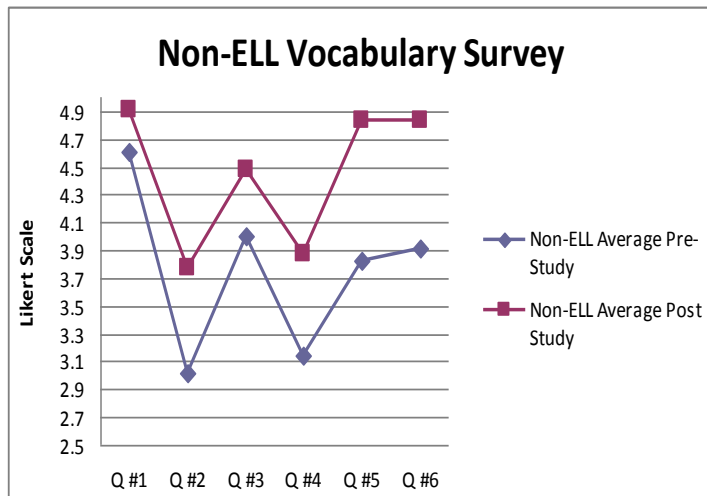


Figure 5. Results of the pre and post survey given to Non-ELL students to gauge student perceptions related to vocabulary word study.

With the exception of the first question, student perceptions increased post study. The first question, "I believe learning new vocabulary is important," was the only question that decreased. The decrease was small (4.8 to 4.65) and existed in only the ELL survey group. Question #5 increased for both the ELL and the Non-ELL groups. The mean score for the ELL group moved from 3.63 pre-study to 4.45 post-study. The Non-ELL group moved from 3.82 pre-study to 4.83 post study. Question #6 also produced noteworthy results. The ELL average on Question #6 pre-study was 3.95 and post-study was 4.35. For Non-ELLs the change was even more noteworthy (0.92% nearly a percentage point) from 3.91 pre-study to 4.83 post-study.

Chapter 5

Discussion and Conclusion

The research findings testify to the assumption that incorporating a high-interest active vocabulary program in conjunction with predictable repetitive multidimensional word analysis and direct instruction concentrating on building independence for finding meaning through context clues contribute to improvement for students in obtaining academic vocabulary. Data from both the ELL and Non-ELL groups often produced similar trends, thus providing evidence to the hypothesis that what is good for ELLs is also good for monolingual learners.

In analyzing the perception survey the most significant results were generated from Question #2, Question #5, and Question #6. The Likert scale provided quantitative data to levels of agreeability; the most noteworthy changes needed a full percentage increase to determine significant differences. Question #2 produced evidence on how "fun" students thought learning vocabulary could be. Both groups increased only slightly in total points (ELL from 3.85 to 4.15 and Non-ELL from 3.05 to 3.78), but the increase is actually more significant than it appears. On this particular survey a 3 equated to "somewhat disagree" and a 4 as "somewhat agree." Post-intervention analysis shows that both groups were more optimistic that vocabulary development could be fun. Question #5 related to comfort with one's ability to learn vocabulary for tests. This question produced the most significant change. The ELL Average changed from 3.63 to 4.45 and the Non-ELL Average changed from 3.82 to 4.83. This is the most significant change because both groups started closer to the "3= Somewhat Disagree" range, but the post study generated results closer to the "5= Agree" range. Important gains were also seen in Question #6, "I am familiar with ways that I can learn and remember vocabulary well enough to use it on my own." These gains were also more substantial with the Non-ELL group, however both groups

yielded significant results. The Non-ELL group increased from 3.91 to 4.83 and the ELL group increased from 3.95 to 4.35. Question #5 and Question #6 indicate that students perceive using vocabulary raps as a worthwhile technique for retaining new vocabulary.

While it is true that most of the trends from the collected data yield support for incorporating a program such as the one in this study, some of data offered conflicting results. For instance, Question #1 on the ELL perception survey decreased, but the decrease cannot be considered significant because an average decrease from 4.8 to 4.65 using the Likert scale does not change the meaning of the results; either way the students still rated their level of importance toward learning new vocabulary as "Somewhat Agree." Similarly, at first glance it might appear that the final two weeks of the Summative Quiz results bear potentially conflicting data, however when you compare all of the data for the last two weeks of the study the Summative Quizzes seem less important. For instance, the quiz results did drop dramatically, the evidence of student engagement remained strong. By the end of the study 70.21% of the students were engaged in vocabulary application. Attempts to show word usage through written and spoken application increased dramatically. In these circumstances both indicate a better understanding and use of vocabulary. The time of the year that the quizzes were complete may be a reason for lower quiz scores. Since weeks 7 and 8 were both in late May, less than three weeks before the end of the school year.

Analysis of the field notes, recording students attempting to apply the words, provides the strongest support for a program like the one in this study. As the weeks progressed procedures for in class word discovery and repeated practice of academic vocabulary grew stronger as evidenced by the number of students attempting to use the terminology in their daily speaking and writing. Productive language (writing and speaking) particularly the written piece

tend to be the most challenging for ELLs (Cummins, 2007). Since 20 of the 47 students in the study were English language learners, the final unit's data shows that 33 of the 47 students were working to apply the terms. The increase in student participation is evidence to substantiate the assumption that incorporating a multifaceted word study like the Frayer-model and a high-interest form of repeated practice such as a vocabulary rap are both worthwhile interventions. Even more substantial is the number of recorded attempts to include the terms in written form. At the beginning of the study there was no attempt to write any of the initial 10 words, however by the final unit a recorded 24 attempts had been made. It's likely that increased scores on the summative tests and the application of the words increased because a routine had been established.

The opportunities for reading academic vocabulary in the context of the Flocabulary raps, the Flocabulary non-fiction paragraphs, and the student generated vocabulary skits were all very effective for reinforcing the skill of inferring and connecting to word meaning within context. Each of the three forms were effective because they were purposefully designed to provide directive contexts. Directive contexts are contexts that seem likely to lead the reader to a specific, correct meaning for a word (Beck, McKeown, & Kucan, 2002). For the purpose of reinforcing the skill of acquired meaning from context, the directive contexts were more effective than general contexts which often provide enough information for the reader to place the word in a general category, but are not as effective for inferring accurate meaning (Beck et al., 2002). It should be noted, most often general contexts are the context from which we encounter new words in everyday situations. Another study analyzing the effectiveness of context clues in general contexts would be beneficial, however the directive contexts were age appropriate and language level appropriate for the students in this study.

Suggested Modifications for Future Studies

One major flaw in this research study comes from the lack of data related to students prior knowledge. Before the study began, I should have pretested each participant with regard to their knowledge of the words that would be addressed in the study. This data would have allowed for statistical comparison of the final results. If I were to conduct a similar study again, I would run a more traditional 4 week vocabulary study prior to the addition of music or the Frayer-model graphic organizer. From past experience, I suspect I would find that participation and engagement in the lessons differ between traditional word study and word study incorporating music and metacognitive skills. Metacognitive skills include the practice of making connections and visualization; both of which are included in the Frayer-model word analysis. As a teacher/ researcher I'm unsure if there would be a difference in data gathered through summative quizzes. I suspect the data would be similar because both methods use consecutive practice with the same number of words within a concentrated period of time.

To improve this study I would pre-test and post-test the vocabulary knowledge through a word knowledge test that includes opportunities for students to categorize their familiarity with a word and then prove meaning (Appendix D). Labeling each word with a level of knowledge would help me as a researcher to determine if some of the answers on the pre-test were just good guesses.

Modification of the pre and post student survey would also be beneficial. Rather than solely surveying attitudes related to elements of vocabulary development, I would survey students in an effort to gain information related to the vocabulary strategies they already know and use (Appendix E). Instead of asking them a question related to their comfort with learning

vocabulary, I would survey them for comfort with strategies for determining word meaning. In hindsight this type of a survey would have been more beneficial because it would yield information on the strategies student used prior to the study and those they acquired as the study progressed. Asking students to reflect, in the form of a reflection journal (Appendix F) on how they feel about a technique addressed in class (Frayer model vocabulary cards, music, and visualization) would also have given more useful information.

Conclusion

True vocabulary development is gained through opportunities that support both receptive and productive components of vocabulary. Both Marzano (2004) and Cummins (2007) found the productive elements of vocabulary acquisition are often the most difficult for learners to attain. They are also the most important for gauging authentic learning. The interventions used in this study were worthwhile as evidenced by student participation and word knowledge post-intervention, however they were also very time consuming and if pursued fully would require year long commitments. Given that this word study took nearly 20 minutes of a 45 minute class period five days a week, it's not realistic to think it could be implemented long term within the current Language Arts curriculum in my school. Modifications are needed to reduce the required class time. Programs like Word Generation, another multidimensional word study created by Harvard University professor Catherine Snow are showing progress and are have proven to be realistic in today's classrooms. One major difference between the Word Generation intervention and the intervention used in this study is that Word Generation involves participation from Math, Science, Language Arts, and Social Studies teachers. Since the intervention is broken down into manageable parts and teachers share the responsibility for teaching the weekly words there is a

greater commitment to the program and more opportunities for cross-content focus, both of which enable students to understand the variety of ways words are related and obtain multiple exposures for deeper understanding.

Today, English language learners represent an increasing proportion of U.S. middle and high school enrollment. As a result, mainstream content-area teachers are more likely to have ELLs in their classroom. At the same time, policymakers are demanding improved academic literacy development and performance for all students. District wide measures of achievement in Beloit, WI indicate that ELL students are not faring well. While this is likely due, in part, to testing instruments, there is undeniable evidence (dropout rates, grade reports, student and teacher comments) that these students are not thriving in our current secondary education system. Something needs to be done to reach this population of students. This research has shown that vocabulary interventions must incorporate direct instruction and repeated practice in order to enculturate word meaning. Vocabulary instruction is most effective when a combination of direct context clues and culturally relevant engaging practice are included in language development. Flocabulary, provides fun meaningful use of language that incorporates music as a medium of learning.

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Appendix A

Summative Quiz

Vocabulary Quiz

Name: _____ Hour: _____ Date: _____

Section 1: On the lines below prove you know what each word means by providing a definition, synonym or cognate for each word. (1 point each)

Extra Credit: Extending the meaning- Show what you know about these words by describing where you've heard them, seen them, or how you would use them in your life. *1pt. extra credit for each word. No more than 3pts. on this test

1. Trivial _____

2. Winced _____

3. Abate _____

4. Rupture _____

5. Grim _____

Section 2: Fix the Mistake

Each of these sentences has a mistake. The wrong vocabulary words have been used resulting in incoherent sentences. Your job is to fix the sentence by writing the correct vocabulary word on the line . (1 point each)

Word Bank:

Trivial	Wincel	Abate	Rupture	Grim
---------	--------	-------	---------	------

1. The balloon **Wincel** when I poked it with a pin. _____
2. Sarah always freaks out about her grades even though, in my opinion, the difference between an A- and a B+ is pretty **Grim**. _____
3. The weather man said the storm would **Trivial** as the day progressed. His weather forecast called for sunshine and only a few clouds in the afternoon. _____
4. After looking at my x-ray, the doctor said my outlook was **Rupture**. _____
5. I **Ruptured** when I put my had on the hot stove. _____

Appendix B
Vocabulary Survey

How I Feel About Vocabulary

Rate each statement based on your feelings.

I believe learning new vocabulary is important.

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

I believe learning vocabulary can be fun.

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

I believe people with larger vocabulary are more successful than those who don't have a large vocabulary.

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

I believe I have enough of a vocabulary to be successful all through life. (Even as an adult)

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

I know how to memorize vocabulary for my tests.

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree

I am familiar with ways that I can learn and remember new vocabulary well enough to use it on my own.

1	2	3	4	5	6
Strongly Disagree	Disagree	Somewhat Disagree	Somewhat Agree	Agree	Strongly Agree





Appendix D

Suggested Vocabulary Pre-test

Vocabulary Pre-test

Name: _____

Unit # _____

Word	I have never heard/ seen this word 	I have heard/ seen this word 	I know this word, but I can't apply it 	I know this word and can apply it 	Word Meaning (definition, sentence, or example)
Trivial					
Wince					
Abate					
Rupture					
Grim					
Affliction					
Perceive					
Abrupt					
Incredulous					

Appendix E

Vocabulary Strategy Survey

Name: _____

Class Period: _____

Vocabulary Strategy Survey

Directions: Complete the following survey by thinking about what you do when you come across a word you don't know.

1. I ask other people what the word means.

Never

Sometimes

Often

2. I look the word up in a resource like a dictionary, thesaurus, or online resource.

Never

Sometimes

Often

3. I chunk the word into parts, looking for smaller words I do know.
(prefixes, suffixes, roots)

Never

Sometimes

Often

4. I use context clues (the other words in the sentence or paragraph) to make inferences about what the word means.

Never

Sometimes

Often

5. I read around (read back and/or read aloud) the word to look for clues.

Never

Sometimes

Often

6. I think back to what happened before and decide what other words I already know that would make sense to the situation.

Never

Sometimes

Often

Appendix F

Reflection Journal

Name: _____

Please reflect on each vocabulary intervention listed. Circle the statements that fit your feelings best. Then elaborate on your response by explaining how the activities helped you remember new vocabulary words.

Music

- 1) Didn't help me at all
- 2) Helped me some
- 3) Helped me a lot

Explain how you feel about using music when learning vocabulary.

Context Clues

- 1) Didn't help me at all
- 2) Helped me some
- 3) Helped me a lot

Explain how you feel about practicing the skill of learning vocabulary through context clues.