Analysis of Two Vocabulary Strategies: A study to indicate which strategy, Verbal and Visual Word Association or Contextual Redefinition, is best suited for transferring new words into students' long term memory

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Abstract: Data obtained from a college readiness letter sent by ACT indicated that students who took the ACT test from the upper Midwestern school observed for this study have had a decline from 22.4 to 21.5 on the English score for the last two years. The decline, although subtle, indicates those students may not be receiving the vocabulary knowledge needed to be ready for college. This study investigated which of the two vocabulary strategies, Verbal and Visual Word Association or Contextual Redefinition, was best suited for transferring new words into students' long term memory. The study first looked at the current vocabulary strategy/strategies used with a test group of 52 ninth grade students from an upper Midwestern school. The researcher then taught and used the Verbal and Visual Word Association strategy with the same 52 students. Finally, the Contextual Redefinition strategy was taught and data was analyzed. The findings from this study indicated the students who used the Verbal and Visual Word Association strategy transferred vocabulary words to their long term memories at a slightly higher rate than when those same students used the Contextual Redefinition strategy.

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CHAPTER 1

Introduction

Adams (2010-2011) explains that starting in 1962 the verbal scores on the SAT of United States

students have been declining at an alarming rate. In the last 50 years, verbal scores have fallen 54

points to 502 out of a possible score of 800. The SAT is a guide that measures college readiness

and has been used since 1926 when Carl Brigham first developed it. The SAT is not the only

tangible evidence that verbal skills in the United States are not where they need to be. A study

was conducted between 1994 and 1998 where the United States and 19 other developed countries

assessed adult literacy levels (Sum & Taggart, 2002). The study concluded that U.S. adults over

the age of 36, participants who would have been born around 1962 before the decline in SAT

scores, were ranked in the top five. U.S. adults age 35 or younger ranked in the bottom half.

Research has indicated that there are many different reasons for a decline in the verbal scores on

the SAT and other tests measuring adult literacy levels. A major contributor of declining scores

is attributed to lack of vocabulary knowledge, which in turn inhibits students from

comprehending what they read.

Vocabulary is a skill educators have been teaching for decades. In the past, teachers put a

list of words on the board, students wrote the words down, looked them up in the dictionary, and

memorized the definitions for a test at the end of the week (Ketabi & Shahraki, 2011). Research

has indicated that students who are taught using this method do not acquire the vocabulary

knowledge they need to aid in comprehension. Educators need to use strategies that allow

students to move vocabulary meanings into their long term memories so students will be able to

use the new vocabulary in their daily lives.

Problem Statement

Data obtained from a college readiness letter sent by ACT indicates that students who take the ACT test from the upper Midwestern school observed for this study have had a decline from 22.4 to 21.5 on the English score for the last two years. The decline, although subtle, indicates that students at this school may not be receiving the vocabulary knowledge needed to be ready for college. This study will investigate which of the two vocabulary strategies, Verbal and Visual Word Association or Contextual Redefinition, is best suited for transferring new words into students' long term memory.

Rationale/Purpose for Study

In order for students at this school to stay academically competitive with their peers on a national level, they need to obtain the scores required by universities on standardized entrance exams like the ACT and SAT. If verbal scores continue to drop, some students may not be eligible to attend the university or secondary education facility of their choice. The goal of educators at this school is to prepare students for what they will encounter after high school. Continued decline in scores on exams like the ACT and SAT is a direct reflection of what educators are not doing to prepare their students for the future.

Significance of the Study

By researching vocabulary strategies, educators at this school will be able to assimilate into their curriculum a strategy that will help their students be successful in the classroom and obtain the vocabulary knowledge needed to succeed in a secondary educational setting.

Hypotheses/Questions of the Study

During this study, data will be analyzed to discover how well students know twenty new vocabulary words after the Verbal and Visual Word Association Strategy is used for ten days, and then students will be reassessed in another ten days later to discover what they still know about the twenty vocabulary words. The process will be repeated with the same ninth grade students using the Contextual Redefinition Strategy. There will be no difference in the amount of new vocabulary words transferred into long term memory and assimilated into students' daily language use between the two strategies.

Delimitations

This study is focused on students in ninth grade. Other research and vocabulary practices used at other grade levels will be looked at, but only the Verbal and Visual Word Association and Contextual Redefinition Strategies will be looked at thoroughly. Therefore, this study is not intended to question the validity of other vocabulary strategies. This study will not distinguish between students with reading or learning disabilities and students without. It will not take into consideration the IQ of individual students. This study does not intend to generalize the findings to students in urban settings or students in other grades. Finally, it will not attempt to predict future ACT/SAT success of students.

Limitations

This study is being conducted in a rural high school with a population of approximately 415 students. The researcher is taking a random sampling of 52 ninth grade students. This study is only assessing vocabulary skills using the Verbal and Visual Word Association Strategy and Contextual Redefinition Strategy.

Definition of Terms

The Content Area Literacy: an Integrated Approach 10th Edition defines the following words as (Bean, Readence, & Baldwin, 2011, pgs. 180-182):

Vocabulary: a compilation of many thousands of words and their associated meanings (p. 180).

Receptive Vocabulary: words that can be read and comprehended in print or heard and understood in spoken context (p. 180).

Expressive Vocabulary: vocabulary items that a person can use properly when speaking or writing (p. 180).

Decoding: a process whereby a coded message is converted back into thought (p. 182).

Morpheme: the smallest unit of language that possesses a definite meaning and cannot be subdivided into smaller units that have meaning (p. 182).

Morphemic Analysis: a process by which readers can determine the meaning of an unfamiliar word by analyzing its component parts (p. 182).

Summary

This study will investigate which of the two vocabulary strategies, Verbal and Visual Word Association or Contextual Redefinition, is best suited for transferring new words into students' long term memory. The study will look at vocabulary strategies students currently use with a test group of 52 ninth grade students from an upper Midwestern high school. The researcher will then teach and use the Verbal and Visual Word Association strategy with the same 52 students. After the results of that are found, the researcher will conclude the study by teaching the Contextual Redefinition strategy. Recommendations on which method of teaching vocabulary yielded the best results will be based on the findings of this study.

CHAPTER 2

Literature Review

Scores from the ACT test taken by students from an upper Midwestern high school indicate a slight decline for the last two years on the English portion of the exam. Because of this, literacy has become an important focal point for teachers from this school. One of the difficult decisions educators need to make is how to best improve their students' literacy skills. There have been multiple research studies conducted searching for the most effective way to improve literacy. Much of the research points toward a need for direct vocabulary instruction. In fact, many researchers today believe there is a direct link between vocabulary knowledge and comprehension of text; however, that was not always the case. The literature review will focus on how literacy issues have been handled in the past and how those issues are being dealt with in today's classrooms.

Evolution of Literacy Issues

Throughout the last two centuries, there have been many different perspectives about how humans acquire language and learn vocabulary. It is through the research and evaluation of language we have been able to develop current practices. This section of the review will focus on studies and articles that have driven and continue to drive the way educators view literacy and vocabulary acquisition.

Ketabi and Shahraki (2011) took a look at the way vocabulary was taught starting in the twentieth century to present day. The article highlights different approaches of teaching language/vocabulary. Each approach had strengths and weaknesses; it is the weaknesses of each approach that led to updates or changes to the next approach. Essentially, each of the nine approaches highlighted in the article built off the previous. Each approach is mostly directed at

teaching new language learners; however, the authors helped readers see how the skills used by new language learners are similar to skills needed by struggling readers. The nine approaches discussed include: Grammar Translation, Direct, Reading, Audiolingualism, Oral-situational, Cognitive, Affective-humanistic, Comprehension-based, and Communicative. The Communicative Approach has been the method of choice for the last several decades. When using this approach, vocabulary acquisition is thought of as a secondary concern. It does not advocate for direct vocabulary instruction. However, in the last three decades, researchers have begun to change their views on the importance of direct vocabulary instruction. The article concludes that more research needs to be done to instruct educators about which strategies and methods of direct vocabulary instruction are best at helping vocabulary acquisition.

Sum, Kirsch, and Taggart (2002) compiled a monograph focusing on the United States literacy performance and how that compared to other high-income countries. The monograph used the National Adult Literacy Survey conducted in 1992 and the International Adult Literacy Survey conducted from 1994 to 1998 as assessment data. It found literacy levels have declined in the U.S., even though the U.S. spent more per capita on education than nearly all other high-income countries. At best, our literacy levels matched the world average; one would assume that by spending more, the U.S. would be at the top of the literacy food chain. Unfortunately, U.S. graduates of 2002 and later were preforming at a lower average than U.S. adults who graduated in the 50s and 60s. The overall composite literacy scores placed the U.S. as 13th on the list. The authors projected in 20 years, assuming no further decline for the upcoming generation, the average literacy rates in the U.S. would decline from just above average to just below average on the international composite scale used for the study.

Adams (2010-2011) assessed what the literacy levels of college-bound students look like. She discovered that verbal scores on the SAT have not increased since 1962 when there was a 36 point decrease. She claimed that the level of difficulty in reading sections on the SAT has decreased. This should mean that SAT scores increase. However, they have not; she attributed this lack of an increase to the fact that high school students are not reading the texts they should be reading. She claimed when text books or educators provide lower level reading material, students are being denied the language, information, and modes of thought they need to increase their reading/comprehension levels. The author is in favor of direct vocabulary instruction. Furthermore, the author feels that readings should be organized across the content areas so students can systematically build knowledge in one class that will translate to the next.

An article written by Christ and Wang (2010) emphasizes the importance of vocabulary instruction in early childhood, especially for children of low income families. Christ and Wang cited a study done by Hart and Risley that claims 3-year-old children from low income families knew 600 fewer words than 3-year-old children from upper incomes. By the time these same children were in second grade, the gap had widened to about 4,000 words. The authors of the article claim there are four methods teachers can aid in young children's vocabulary acquisition: (1) provide purposeful exposure to new words, (2) intentionally teach word meanings, (3) teach word-learning strategies, and (4) offer opportunities to use newly learned words. By using the four methods listed above, teachers are helping young children gain the vocabulary they need to be successful, and they are assisting these learners in greater reading comprehension and overall academic success.

Literacy in Today's Classrooms

Thanks to all the research of the past and present, educators are able to find practices that are proven to show results. This part of the review will focus on specific practices that are being researched for use in classrooms and practices that are already being used in classrooms across the United States.

Flanigan and Greenwood (2007) took a look at how educators are implementing the research on vocabulary instruction in their classrooms. They found that most teachers find the research helpful and it provides them with useful principles and methods, but they don't use it because they don't know how to translate theory into practice. Flanigan and Greenwood provided a framework for choosing the right vocabulary words, teaching the word at the appropriate time, deciding which strategy to use, and enhancing student learning by keeping the overall learning objective in mind. The authors suggest that teachers use a four tier system to differentiate the importance of vocabulary terms. The first tier is for words that need to be taught before the lesson starts. Without knowledge of these terms or concepts students would be unable to understand the reading. The second tier words are words that are also very important to the understanding of the reading, but students only need a basic understanding before the reading to comprehend. Tier three contains words that teachers need to teach after the reading. Most of these words or concepts can be understood by constructing meaning from the text. Finally, tier four is made up of words students already know or words that don't serve the instructional purpose. Teachers do not need to do any instruction with these words. After deciding what words to teach and when, teachers need to pick a vocabulary strategy that supports the learning objective of the lesson. There is no one-size-fits-all answer to vocabulary instruction, but if teachers follow this framework, vocabulary instruction can be more meaningful for the students.

Miller and Veatch (2010) took a look at how a 19-year veteran teacher, Nancy, helped her students become proficient with their social science textbooks. Nancy had observed that year after year her sixth grade students come to her unable to comprehend their text book; they don't recognize words, have limited vocabulary, and lack the prior knowledge needed to comprehend the text. Also, they don't know how to independently use reading strategies to aid in their comprehension. The method Nancy used is referred to as the LinC cycle. It consists of assessing students' vocabulary, fluency, comprehension, and motivation; reflecting on her knowledge of students and curriculum; planning lessons with well thought out instructional strategies; and teaching and reteaching lessons with a focus on building proficient readers. Nancy used the contextual redefinition strategy with her students to introduce vocabulary words that were essential to understanding the reading, but it was only one strategy she used in assisting her students to become independent readers. The article concluded by emphasizing the idea that educators need to choose the appropriate strategies to assist the types of learners in their classrooms. The authors of this article feel there is no one right strategy that will help all students become proficient with expository texts.

Lawrence, White, and Snow (2010) conducted a study beginning in 2006 in five Boston middle schools that assessed a whole school, cross-content program based on direct vocabulary instruction. The Word Generation Program introduced students to selected academic vocabulary words in context of a high-interest passage, and students encountered the same vocabulary words all week long in content-specific activities in all their academic classes. Word Generation not only focused on vocabulary acquisition, but also on reading accuracy, fluency, syntax issues, background knowledge, and comprehension. The findings of the study indicated that this whole school, cross-content program achieved gains in 20-22 weeks equivalent to two years of

learning. The researchers concluded that it was more than just the direct vocabulary instruction that led to these gains; it was also the fact that the study included regular debates, persuasive writing, and critical thinking activities. The follow-up longitudinal study administered the following year determined students who participated in the study maintained their relative improvements. The researchers of this study advocated for a school wide program, and claimed that rich word learning translates into improved reading achievement.

A study conducted by Kelley, Lesaux, Kieffer, and Faller (2010) at seven middle schools in an urban setting focused on determining if students' reading comprehension skills could be boosted by implementing a regular, systematic instruction of academic vocabulary. To determine this, researchers developed a vocabulary program that followed three guiding principles: first, educators will focus on a deeper understanding of fewer words; second, educators will choose words that are academic words and help to deliver the content to the reader; third, educators will use direct instruction and word-learning strategies in equal amounts. The study was designed to last 18 weeks. Researchers found students in the test group had greater gains than the control group on standardized and researcher-developed measures of vocabulary, word learning, and comprehension. This vocabulary program really focused on the less-is-more theory and is believed to help prepare students to use the vocabulary strategies they will need to be successful in high school.

Harris, Schumaker, and Deshler (2011) conducted a study comparing a generative vocabulary approach, Word Mapping, to a non-generative vocabulary approach, Vocabulary LINCing condition. The study included results from 230 public school students in the ninth grade. It included both students with learning disabilities and students without. The authors described a generative vocabulary approach as one that teaches students the meaning of a given

word, and it also allows them to unlock the meaning of new words related to the word. A non-generative vocabulary approach is designed to teach students new words with the aid of a strategy/device like a mnemonic device—a techniques that only works for the target word. The study indicated that both approaches were successful at teaching the target words, but the generative approach was more successful at helping students gain the meaning of words similar to the target words.

McQuiston, O'Shea, and McCollin (2008) believe the best way to help struggling readers gain skills is by teaching phonological awareness and not necessarily direct vocabulary instruction. This article focused on teaching diverse students. Some of the strategies included using hip-hop music to introduce the idea of rhyme and rhythm, play word games with culturally specific language, use visual art, drama, dance, and movement to teach the segmentation of phonemes, or use multicultural poetry to support phonological awareness. Students who struggle with reading are capable of learning to read well, but they need sufficient time and intensity for interventions and appropriate instructional practice.

Summary

Educators today need to build on the research of the past and use strategies that allow students to move vocabulary meanings into their long term memories so students will be able to use the new vocabulary in their daily lives. By researching which vocabulary strategy, Verbal and Visual Word Association or Contextual Redefinition, is more effective, educators from the upper Midwestern school chosen for this study will be able to assimilate into their curriculum a strategy that will help their students be successful in the classroom and obtain the vocabulary knowledge needed to succeed in a secondary educational setting.

CHAPTER 3

Methodology

This study investigated which of the two vocabulary strategies, Verbal and Visual Word Association or Contextual Redefinition, was best suited for transferring new words into students' long term memory. Research conducted by Miller and Veatch (2010) indicated there is no one strategy that will help students become independent readers with a firm grasp on vocabulary. It is up to the individual teachers to choose the appropriate strategy for the task at hand. There has been a lot of research conducted to support the assertion that direct vocabulary instruction benefits students; however, educators are often at a loss as to which strategies are most effective in which situations. Therefore, the intent of this research project was to compare two different support vocabulary strategies, Verbal and Visual Word Association Strategy to Contextual Redefinition, and determine if one was more effective at helping students recognize unfamiliar words and remembering the words after the initial testing period was over. In this study, I took a look at what strategies students were currently using while reading school text books by issuing the Metacognitive Awareness of Reading Strategies Inventory Version 1.0 (Mokhtair & Reichard, 2002). I then compared the number of correct responses students gave on tests after teaching each strategy and after the students retook the tests. I also looked at possible factors that could result in students having higher or lower overall scores like amount of time students studied for their test, how much they read outside class, or their overall grade in the course.

Participants

This study was conducted in three ninth grade English classes from an upper Midwestern high school. The school serves approximately 415 students grades 9-12. The district is broken up into four education facilities with two elementary schools for children Pre-K-5, a middle school

serving grades 6-8, and a high school serving grades 9-12. The region is fairly rural, mostly non-farm.

The demographics for the school are as follows. On average 53 percent of the students are male and 47 percent are female. The majority of students are white (92 percent), with a small enrollment of American Indian (4 percent), Asian (2 percent), Black (.9 percent), and Hispanic (.9 percent). Of the students attending the school, 27 percent qualify for free or reduced lunches, leaving 73 percent that are not included in this program. It is believed that many more students would qualify; however, they choose not to bring back the required form for various reasons. Students with special needs account for about 10 percent of the district population. Of the approximately 415 students attending the high school, 4.4 percent are classified as LD, 2.6 percent CD, 1.6 percent EBD, and 1.8 percent OHI.

There were 52 students in this study, 22 females and 30 males. All students were taught by the same teacher, and the same students were followed for the duration of the study, which was 35 instructional days. There are special education students in each of the three classes, but the study is not designed to differentiate between general and special education students. A total of seven students were disqualified from the study for the following reasons:

- Two parents did not give permission for their students to participate in the study.
- One student moved out of the district during the duration of the study.
- One student was repeating the class due to failure and finished before the end of the study.
- Three students had problems with truancy, so they were not in class enough to use the strategies.

All other students were included. All surveys and assessments were given in the classroom during the school day.

Instrumentation

The study began by distributing Mokhtari and Reichard's (2002) Metacognitive Awareness of Reading Strategies Inventory (MARSI) Version 1.0 to all 52 students who received parental permission and agreed to participate in the study. This inventory produced ordinal data indicating what reading strategies students currently use while reading academic or school related material. During class assigned readings, every day, two students were asked to each pick one word that was unfamiliar. Those words were assessed on the initial and follow-up tests. The first twenty words were taught using the Verbal and Visual Word Association Strategy. Verbal and Visual Word Association Strategy is described as being "especially effective for struggling readers" (Bean, Readence, & Baldwin, 2011, p. 191). This particular strategy focused on students gaining vocabulary independence to use when teachers are not available to direct students to various word meanings. Students were given the Word Association Chart that consisted of a square with four boxes in it to record words and use as a study guide for the initial test (see appendix A). In the upper left hand box students were asked to put the vocabulary word. In the lower left hand box students put the dictionary definition. In the upper right hand box students wrote or drew a personal association for the word. Finally, in the lower right hand box students were asked to write or draw something associated with the opposite of the word. After twenty words, 10 instructional days, students were given an initial test where they needed to write the appropriate vocabulary word into a sentence (see appendix C). Ratio data was collected to determine how many vocabulary words students were able to correctly place. The day after students took the test, they were asked to take a post survey specifically developed to help determine how many

hours they studied for the test, how many of the words they knew how to correctly use in a sentence before the test, how much time they've spent reading for enjoyment for the past two weeks, and their current grade point average (see appendix D). The nominal data collected helped determine more about the students involved in the study and helped identify what possible factors could skew the results of the study. Finally, ten instructional days after the initial test, students were given a follow-up test using the same words with new sentences (see appendix E). The interval data collected helped indicate how many vocabulary words were committed to students' long term memories.

The study then replaced the Verbal and Visual Word Association Strategy with the Contextual Redefinition Strategy. The Contextual Redefinition Strategy introduced words in rich context instead of isolating the word and definition from the reading. This strategy also focused on morphemic awareness as a tool to uncover the word's meaning. To start this strategy, students were given a Contextual Redefinition Chart (see appendix B). This chart was made up of five columns: (1) Term, (2) Morphemic Units (3) Context Clues, (4) Predicted Meaning, and (5) Actual Meaning. Students filled out the columns for the twenty new vocabulary words they encountered in their required reading. As with the first strategy, after 10 instructional days, students were given an initial test where they needed to write the appropriate vocabulary word into a sentence (see appendix F). Ratio data was collected to determine how many vocabulary words students were able to correctly place. They were then given a post survey, and the nominal data collected helped determine more about the students involved in the study and identify what possible factors could skew the results of the study. Ten instructional days after the test, students were given a follow-up test using the same words with new sentences. The ratio data collected helped indicate how many vocabulary words were committed to students' long term memories.

Procedures for Data Collection

Letters were sent home to all the students' parents explaining the study and asking for permission for their child to be included (see appendix I). The students were also given letters and asked to give their consent to be included in the study. Only two parents chose to exclude their child from the study (see appendix J). The vocabulary strategies used for the study were vocabulary strategies I was already teaching in the classroom, so even if students were not a part of the study they were still expected to participate in the learning activities. However, their scores were not used in the study results. Names were kept anonymous by assigning students a number. All data was recorded by number and not name. All surveys and assessments were given in the classroom during the school day.

Procedures for Data Analysis

To measure what type of reading strategies students were currently using the Metacognitive Awareness of Reading Strategies Inventory (MARSI) Version 1.0 was administered and assessed. Students' responses were broken down into three categories and assigned a score from 1-5 depending on how they responded to each of the 30 questions. The mean score for each category was found and interpreted as high, medium, or low. The goal was to have high scores indicating the student used the strategies often.

To measure how students performed on their word of the day tests their exams were graded and assigned a score from 0-20. For each correct response students were given 1 point. The first test used the Verbal and Visual Word Association Strategy and results from this test were compared to results from the second test that used the Contextual Redefinition Strategy using the mean score of all 52 participants. I also compared how students did on the first test to how they did on the retake using the mean score.

Finally, I looked at factors that could possibly affect the outcome of the study like how long and how students studied for their vocabulary tests, what kind of overall grade they were getting in the course, and how much time they read for pleasure outside the classroom.

CHAPTER 4

Analysis of the Data

<u>Metacognitive Awareness of Reading Strategies Inventory (MARSI) Version 1.0</u>

During the first part of the study students were asked to self-report what type of reading

strategies they currently used using Mokhtari and Reichard's Metacognitive Awareness of

Reading Strategies Inventory (MARSI) Version 1.0 (2002). The inventory consists of 30

questions students answered using a 1-5 scale with 1 meaning students almost never do this and

5 meaning they always do this. The students' answers were then broken down into three

categories: Global Reading Strategies (GLOB), Problem Solving Strategies (PROB), and

Support Reading Strategies (SUP). There are thirteen questions about GLOB strategies that

include things students do before they start reading such as having a purpose in mind and

deciding what to read closely and what to ignore. There are eight questions about PROB

strategies that include things students use when reading becomes too difficult such as rereading

for understanding and adjusting the speed at which they read for comprehension. There are nine

questions about SUP strategies that include things students use outside the reading to help with

comprehension such as using a dictionary or taking notes while reading (Mokhtari & Reichard,

2002, pg. 252). These three categories were scored separately by adding together students'

responses to the questions from each category, and the mean was found by adding together all

the numbers for each category and dividing by the number of questions. The scores were

interpreted with a high, medium, or low score indicating how often the student uses strategies

from the three categories. A high score indicated the student uses the strategies often and

consisted of a mean score of 3.5 or higher. A medium score indicates the student uses the

strategies about half the time and consisted of a mean score of 2.5 to 3.4. A low score indicates

the student rarely uses the strategies and consisted of a mean score of 2.4 or lower.

Use of Global Reading Strategies By Students

33%   33%

34%

Low (scores 2.4 or lower)

Medium (scores between 2.5 and 3.4)

High (scores 3.5 or higher)

Figure 4.1

Use of Problem Solving Strategies By Students

6%

29%

65%

Low (scores 2.4 or lower)

Medium (scores between 2.5 and 3.4)

High (scores 3.5 or higher)

Figure 4.2

Use of Support Reading Strategies By Students

12%

29%

59%

Low (scores 2.4 or lower)

Medium (scores between 2.5 and 3.4)

High (scores 3.5 or higher)

Figure 4.3

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Student Number	Global Reading Strategies			Problem Solving Strategies			Support Reading Strategies		
	Low	Medium	High	Low	Medium	High	Low	Medium	High
1		X			X		X		
2	X			X			X		
3	X				X		X		
4			X			X		X	
5		X				X	X		
6	X				X		X		
7			X			X		X	
8			X			X			X
9		X				X		X	
10			X			X		X	
11			X			X		X	
12		X				X	X		
13	X			X			X		
14	X					X		X	
15	X					X	X		
16			X			X			X
17			X			X	X		
18		X				X		X	
19		X				X		X	
20	X			X			X		
21	X					X	X		
22		X				X		X	
23		X				X	X		
24	X				X		X		
25			X			X	X		
26		X				X	X		
27			X			X	X		
28	X				X		X		
29			X			X			X
30	X				X		X		
31			X			X	X		
32			X		X		X		
33	X				X		X		
34			X			X			X
35			X			X		X	
36	X					X	X		
37		X			X		X		
38	X				X		X		
39	X					X	X		
40	X				X		X		
41		X				X		X	
42	X				X		X		
43		X				X		X	
44		X			X		X		
45		X				X		X	
46			X			X		X	
47		X				X	X		
48			X			X			X
49		X				X		X	
50		X			X		X		
51			X			X			X
52		X			X		X		
Total Number	17	18	17	3	15	34	31	15	6

Chart 4.1

Students reported using problem solving strategies the most. The two vocabulary strategies

compared for this study are support strategies, which students indicated they used the least.

<u>Word of the Day Test Scores Compared with Retake Test Scores</u>

The next part of the study consisted of students being tested on twenty words of the day. Each day two unknown vocabulary words were chosen from classroom readings. The first twenty words students used the Verbal and Visual Word Association Strategy to record and study for their word of the day test. The test consisted of twenty sentences into which students needed to insert the correct vocabulary word to complete the sentence. Two weeks, 10 instructional days, after the first word of the day test, students were given another test using the same words but with new sentences. They were retested to see how many words were committed to their long term memories. Then the process started over again using the Contextual Redefinition Strategy with the next twenty words of the day.

Student Number	Score on Test 1	Score on Test 1 Retake	Difference Between Test 1 and Retake	Score on Test 2	Score on Test 2 Retake	Difference Between Test 2 and Retake
1	20	20	0	15	18	3
2	8	7	-1	11	13	2
3	18	17	-1	14	18	4
4	9	7	-2	9	6	-3
5	20	19	-1	15	16	1
6	8	9	1	5	5	0
7	20	19	-1	16	13	-3
8	19	20	1	20	20	0
9	20	20	0	20	17	-3
10	19	20	1	20	20	0
11	20	20	0	18	18	0
12	20	20	0	17	16	-1
13	18	18	0	14	13	-1
14	15	20	5	18	10	-8
15	16	20	4	19	17	-2
16	12	8	-4	6	5	-1
17	13	16	3	13	13	0
18	16	20	4	18	20	2
19	10	9	-1	11	13	2
20	10	12	2	6	9	3
21	12	2	-10	13	13	0
22	15	17	2	20	20	0
23	15	8	-7	16	9	-7
24	17	18	1	14	16	2
25	20	20	0	14	13	-1
26	13	12	-1	14	8	-6
27	18	18	0	13	15	2
28	7	6	-1	8	5	-3
29	16	18	2	20	17	-3
30	14	16	2	20	20	0
31	12	10	-2	11	12	1
32	12	18	6	20	12	-8
33	18	16	-2	19	20	1
34	16	18	2	20	15	-5
35	9	18	9	17	18	1
36	13	6	-7	13	10	-3
37	4	3	-1	6	9	3
38	5	5	0	13	5	-8
39	16	14	-2	16	16	0
40	10	8	-2	8	9	1
41	10	13	3	17	12	-5
42	15	12	-3	11	10	-1
43	12	11	-1	7	8	1
44	14	13	-1	12	10	-2
45	12	13	1	10	11	1
46	12	13	1	15	16	1
47	16	20	4	20	18	-2
48	13	15	2	20	17	-3
49	18	16	-2	11	14	3
50	20	20	0	18	16	-2
51	20	16	-4	20	14	-6
52	5	6	1	8	5	-3
Average Score	14.23	14.23	0	14.4	13.32	Chart 4.2

Students scored slightly higher on test two than test one (.17), but on the retake, the average test score was the same on test one and slightly lower on test two (1.08) indicating students retained more vocabulary words using the Verbal and Visual Word Association Strategy.

How Long Students Studied and How They Studied for Test 1 Compared to Test 2

After the first test using the Verbal and Visual Word Association Strategy and the first test using the Contextual Redefinition Strategy, I gave the students a post survey to help distinguish if there were any outside factors that could be responsible for the outcomes of the test scores. One of the factors I looked at was how much time students studied and how they studied for each test.

Student Number	Minutes Studied Test 1	Minutes Studied Test 2	Difference Between Minutes Studies for Test 1 and 2	Total Minutes Studied for Each Student
1	45	30	15	75
2	0	0	0	0
3	0	0	0	0
4	2	5	3	7
5	0	0	0	0
6	20	0	20	20
7	15	10	5	25
8	0	0	0	0
9	60	30	30	90
10	10	15	5	25
11	20	0	20	20
12	2	0	2	2
13	0	0	0	0
14	5	2	3	7
15	5	2	3	7
16	10	5	5	15
17	0	3	3	3
18	30	30	0	60
19	60	60	0	120
20	0	0	0	0
21	5	20	15	25
22	10	10	0	20
23	90	60	30	150
24	0	0	0	0
25	0	0	0	0
26	2	2	0	4
27	0	0	0	0
28	15	10	5	25
29	60	10	50	70
30	10	15	5	25
31	30	10	20	40
32	0	20	20	20
33	0	1	1	1
34	45	10	35	55
35	15	2	13	17
36	105	0	105	105
37	0	0	0	0
38	0	0	0	0
39	0	0	0	0
40	0	2	2	2
41	2	15	13	7
42	0	10	10	10
43	0	0	0	0
44	0	2	2	2
45	0	20	20	20
46	0	5	5	5
47	5	10	5	25
48	15	30	15	45
49	0	0	0	0
50	0	0	0	0
51	15	30	15	45
52	60	10	50	70
Total Minutes	768	496	272	1,264

Chart 4.3

Students Who Studied Between 0 and 15 Minutes for Tests 1 and 2
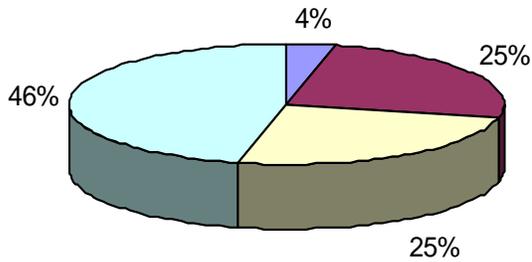
- ■ Students with Average Score on Test 1 and 2 Between 0 and 5
- ■ Students with Average Score on Test 1 and 2 Between 6 and 10
- □ Students with Average Score on Test 1 and 2 Between 11 and 15
- □ Students with Average Score on Test 1 and 2 Between 16-20

4%
25%
25%
46%

Figure 4.4

Study Time Between 0 and 15 Minutes

Average Scores for Tests 1 and 2 (out of 20)	Number of Students Who Scored in that Range
0 to 5	1
6 to 10	7
11 to 15	7
16 to 20	13

Chart 4.4

Of the students who studied no more than 15 minutes on both test one and two combined, a little less than half averaged a score 16 or above on tests one and two.

Total Study Time of 0 to 15 Minutes for Tests 1 and 2 Compared to Average Score on Tests 1 and 2	
Student Number	Average Score
2	9.5
3	16
4	9
5	17.5
8	19.5
12	18.5
13	16
14	16.5
15	17.5
16	9
17	13
20	8
24	15.5
25	17
26	13.5
27	15.5
33	18.5
37	5
38	9
39	16
40	9
41	13.5
42	13
43	9.5
44	13
46	13.5
49	14.5
50	19

Chart 4.5

24

Students Who Studied Between 16 and 45 Minutes for Tests 1 and 2
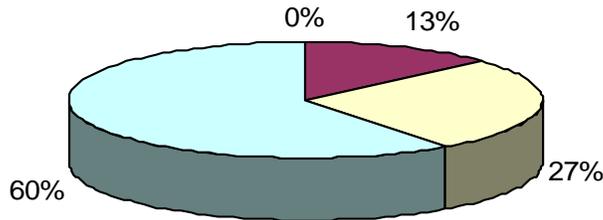
Legend:
- Students with Average Score on Test 1 and 2 Between 0 and 5
- Students with Average Score on Test 1 and 2 Between 6 and 10
- Students with Average Score on Test 1 and 2 Between 11 and 15
- Students with Average Score on Test 1 and 2 Between 16-20

0% 13% 27% 60%

Figure 4.5

Study Time between 16 and 45 Minutes

Average Scores for Tests 1 and 2 (out of 20)	Number of Students Who Scored in that Range
0 to 5	0
6 to 10	2
11 to 15	4
16 to 20	9

Chart 4.6

Total Study Time of 16 to 45 Minutes for Tests 1 and 2 Compared to Average Score on Tests 1 and 2	
Student Number	Average Score
6	6.5
7	18
10	19.5
11	19
21	12.5
22	17.5
28	7.5
30	17
32	16
35	13
45	11
47	18
31	11.5
48	16.5
51	20

Chart 4.7

Of the students who studied between 16 and 45minutes on both test one and two combined, a little over half averaged a score 16 or above on tests one and two.

Students Who Studied More Than 46 Minutes for Tests 1 and 2

- Students with Average Score on Test 1 and 2 Between 0 and 5
- Students with Average Score on Test 1 and 2 Between 6 and 10
- Students with Average Score on Test 1 and 2 Between 11 and 15
- Students with Average Score on Test 1 and 2 Between 16-20

Figure 4.6
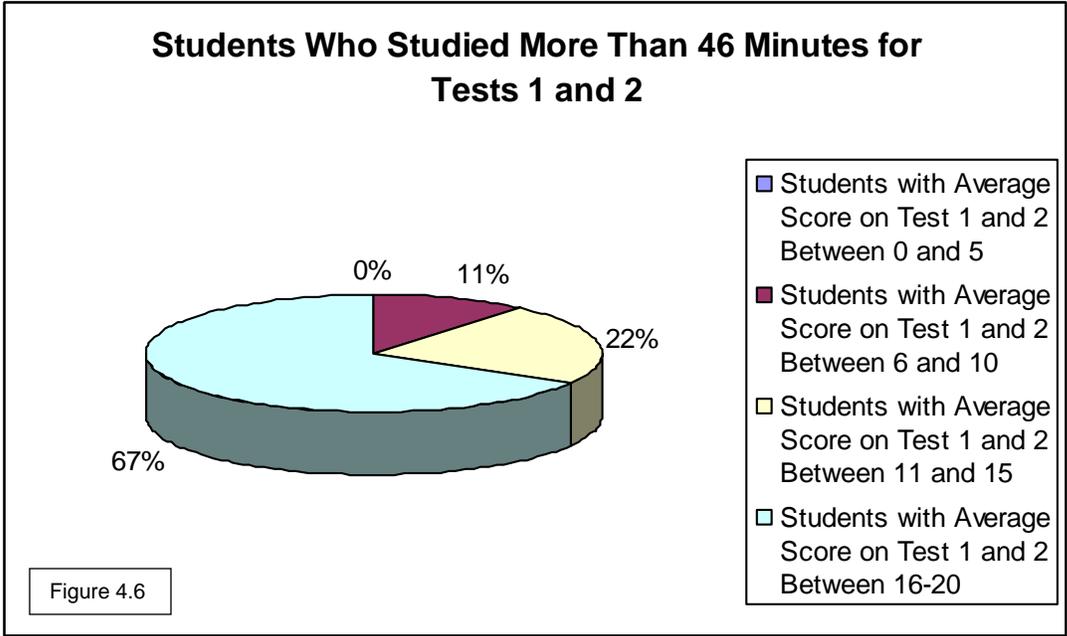
Study Time More Than 46 Minutes

Average Scores for Tests 1 and 2 (out of 20)	Number of Students Who Scored in that Range
0 to 5	0
6 to 10	1
11 to 15	2
16 to 20	6

Chart 4.8

Total Study Time of More Than 46 Minutes for Tests 1 and 2 Compared to Average Score on Tests 1 and 2	
Student Number	Average Score
1	17.5
9	20
18	17
19	10.5
23	15.5
29	18
34	18
36	13
52	6.5

Chart 4.9

*This group who studied more than 46 minutes on both test one and two combined had the highest percentage of students score 16 or above on tests one and two. This indicates **the longer students studied, the better they performed on their tests.***

How Students Studied for Exam 1

Figure 4.7
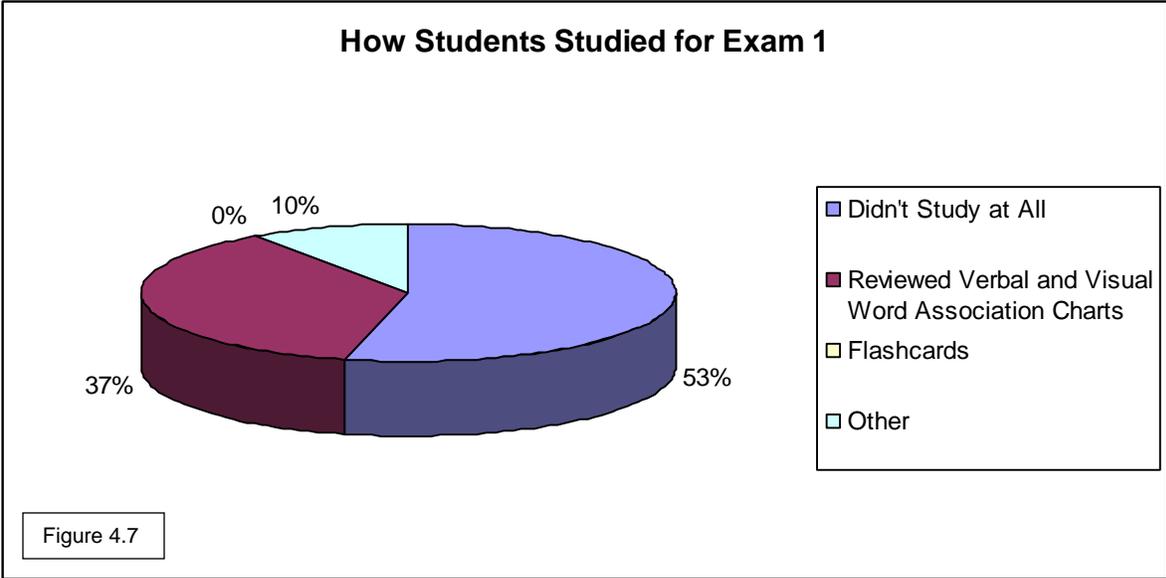
Even though students studied more overall minutes for test one (768 compared to 496), 53 percent of the students reported not studying at all compared to 48 percent of students who reported not studying for test two. Of the students who did study, the majority of them used the vocabulary strategy charts handed out in class.
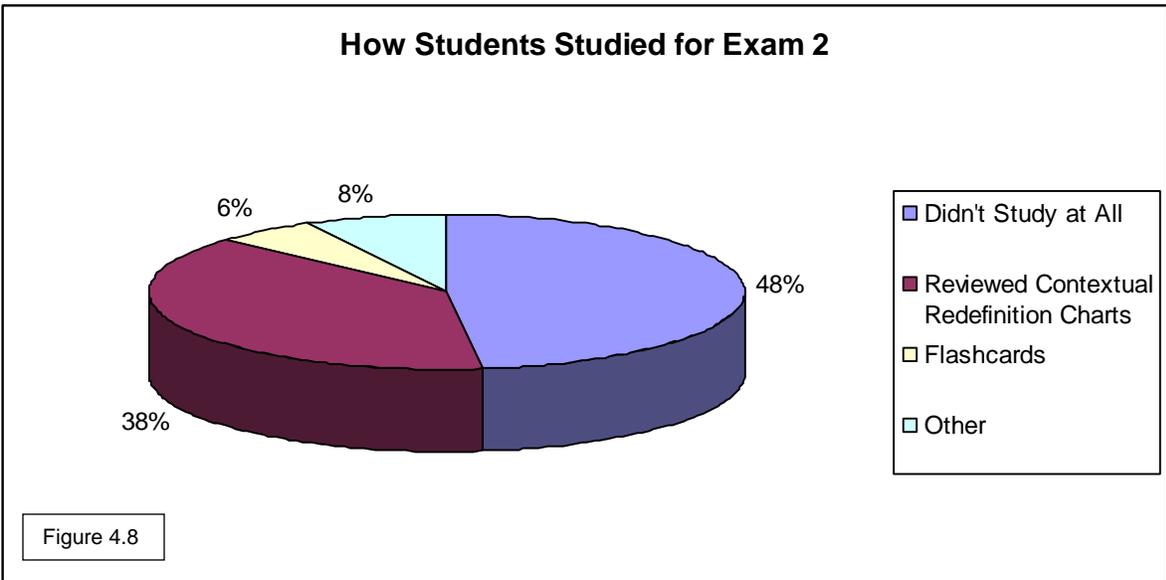
How Students Studied for Exam 2

Figure 4.8

How Students Studied							
	Test 1				Test 2		
Student Number	Not at All	Reviewed Charts	Flashcards	Other	Not at All	Reviewed Charts	Flashcards	Other
1				X		X		
2	X				X			
3	X				X			
4		X			X			
5	X				X			
6		X			X			
7		X				X		
8	X				X			
9				X				X
10		X				X		
11		X			X			
12		X			X			
13	X				X			
14		X				X		
15	X				X			
16	X				X			
17		X						X
18		X				X		
19		X				X		
20	X				X			
21		X				X		
22		X				X		
23		X					X	
24	X				X			
25	X				X			
26		X			X			
27	X				X			
28	X					X		
29		X				X		
30	X					X		
31				X		X		
32	X					X		
33	X					X		
34				X				X
35		X			X			
36				X	X			
37	X					X		
38	X				X			
39	X				X			
40	X				X			
41	X					X		
42	X					X		
43	X				X			
44	X				X			
45	X					X		
46	X					X		
47		X				X		
48	X						X	
49	X				X			
50	X				X			
51		X					X	
52		X						X
Total	28	19	0	5	25	20	3	4

Chart 4.10

How Students Perform in English Class Overall Compared to Their Grades on Both Tests

I took a look at students overall performance in English class to see if it determined how they performed on both tests.

Students Whose Overall English Grade is 90-100

- 0%
- 0%
- 0%
- 33%
- 67%

Legend:
- Test Average 90-100
- Test Average 80-89.99
- Test Average 70-79.99
- Test Average 60-69.99
- Test Average 59.99 and Lower

Figure 4.9

Students Whose Overall English Grade is 90-100					
Student Number	Test Average 90-100	Test Average 80-89.99	Test Average 70-79.99	Test Average 60-69.99	Test Average 59.99 and lower
1		X			
8	X				
10	X				
11	X				
12	X				
30		X			
47	X				
48		X			
51	X				
Total	6	3	0	0	0

Chart 4.11

There was a direct correlation between the grade students were earning overall in English class and the average score on test one and two. Students who had higher grades in English did better on their words of the day tests. No student in this group scored below an 80 percent on their words of the day quiz.

Students Whose Overall English Grade is 80-89.99

- Test Average 90-100
- Test Average 80-89.99
- Test Average 70-79.99
- Test Average 60-69.99
- Test Average 59.99 and Lower

Figure 4.10

	Students Whose Overall English Grade is 80-89.99				
Student Number	Test Average 90-100	Test Average 80-89.99	Test Average 70-79.99	Test Average 60-69.99	Test Average 59.99 and lower
7	X				
9	X				
13		X			
14		X			
15		X			
16					X
17				X	
18		X			
22		X			
23			X		
26				X	
29	X				
32		X			
33	X				
34	X				
35				X	
46				X	
49			X		
Total	5	6	2	4	1

Chart 4.12

Most students in this group scored higher than 80 percent, but there were a small percentage of students who scored below 70 percent on their words of the day quiz.

Students Whose Overall English Grade is 70-79.99

Figure 4.11

Students Whose Overall English Grade is 70-79.99					
Student Number	Test Average 90-100	Test Average 80-89.99	Test Average 70-79.99	Test Average 60-69.99	Test Average 59.99 and lower
2					X
5		X			
19					X
21				X	
38					X
41				X	
43					X
45					X
50	X				
Total	1	1	0	2	5

Chart 4.13

Most students in this group scored below 70 percent, but there were
a small percentage of students who scored above 80 percent on their
words of the day quiz.

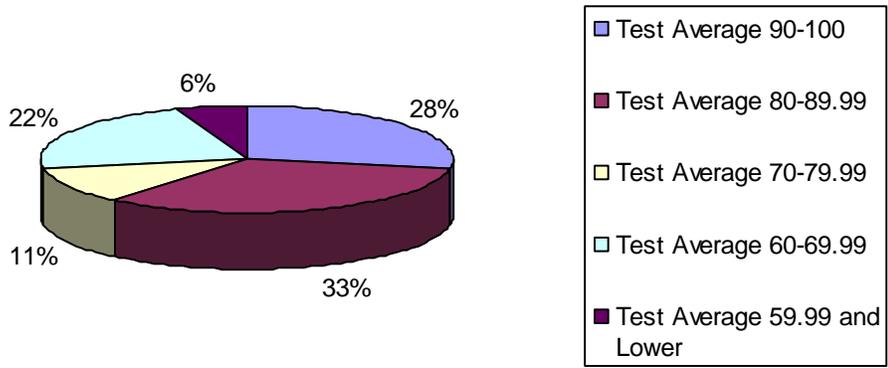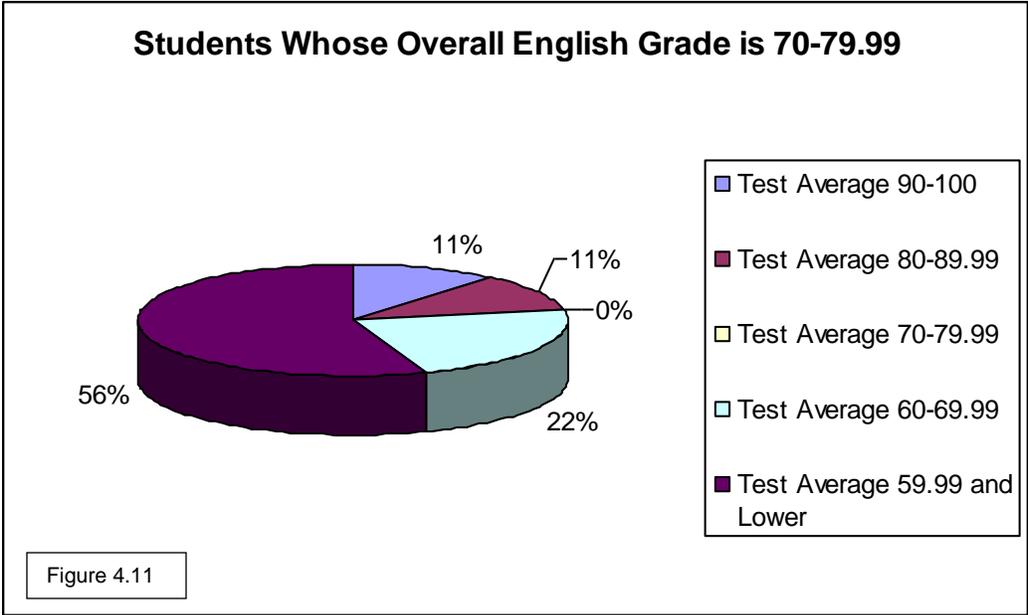## Students Whose Overall English Grade is 60-69.99

Legend:
- Test Average 90-100
- Test Average 80-89.99
- Test Average 70-79.99
- Test Average 60-69.99
- Test Average 59.99 and Lower

Figure 4.12

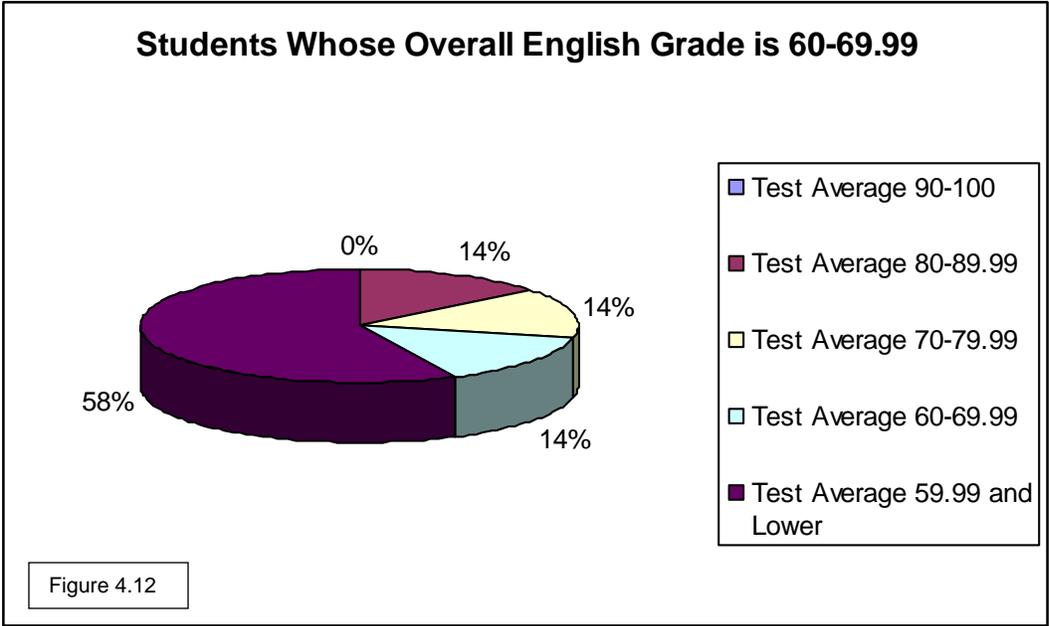| Students Whose Overall English Grade is 60-69.99					
Student Number	Test Average 90-100	Test Average 80-89.99	Test Average 70-79.99	Test Average 60-69.99	Test Average 59.99 and lower
24			X		
28					X
31					X
37					X
39		X			
44				X	
52					X
Total	0	1	1	1	4

Chart 4.14

Most students in this group scored below 60 percent, but there were a small percentage of students who scored between 60 and 90 percent on their words of the day quiz.

Students Whose Overall English Grade is 59.99 and Lower

Legend:
- Test Average 90-100
- Test Average 80-89.99
- Test Average 70-79.99
- Test Average 60-69.99
- Test Average 59.99 and Lower

Pie chart values: 0%, 22%, 11%, 11%, 56%

Figure 4.13

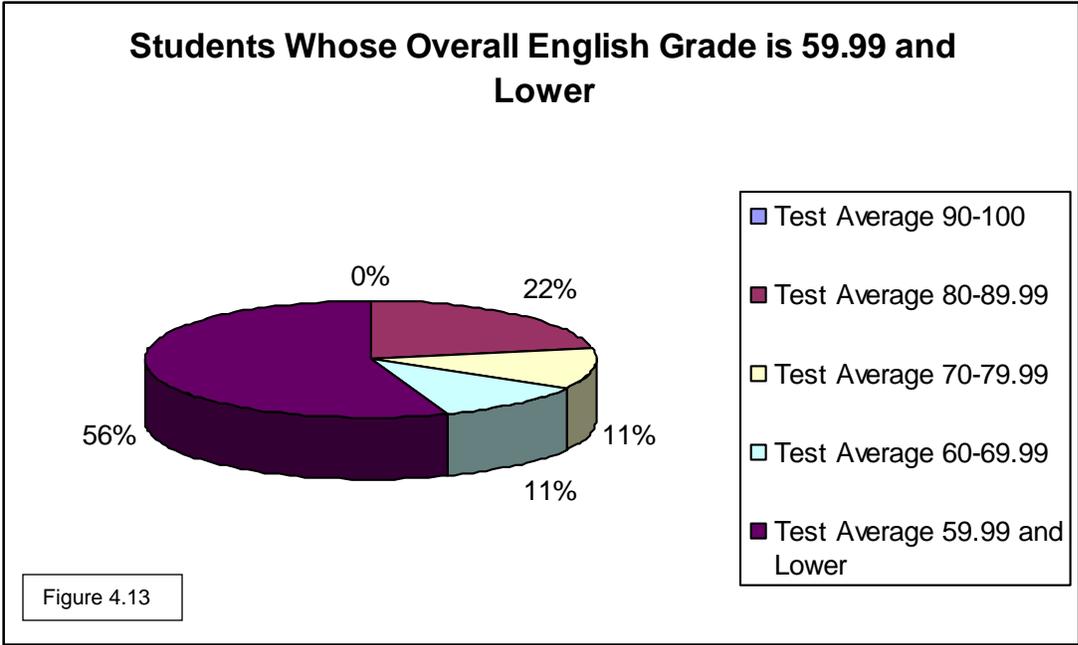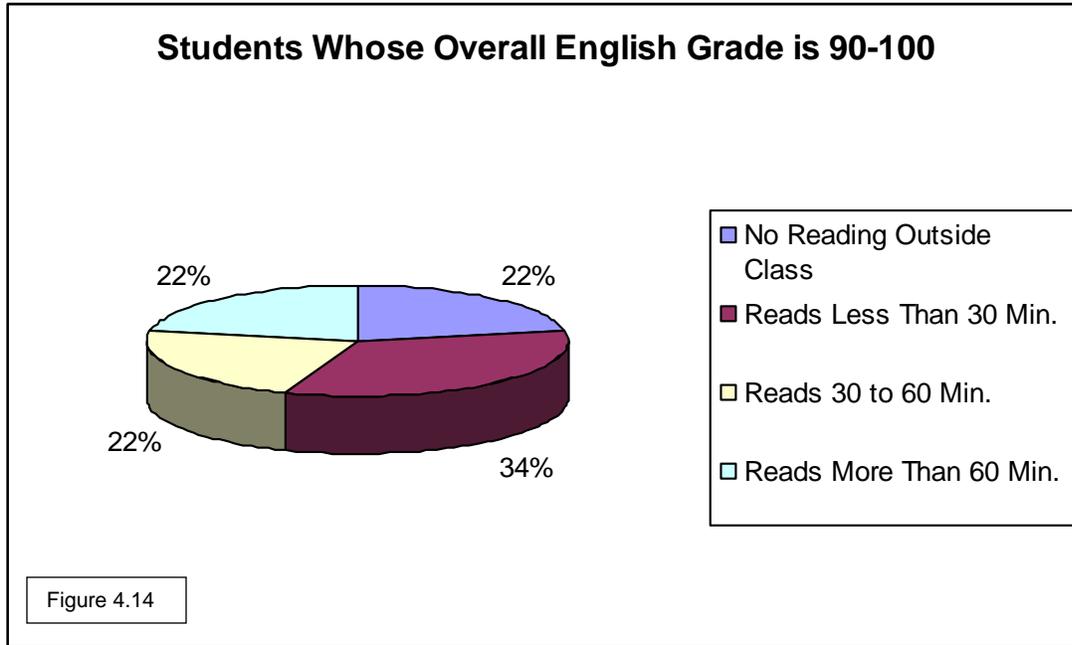| Students Whose Overall English Grade is 59.99 and Lower					
Student Number	Test Average 90-100	Test Average 80-89.99	Test Average 70-79.99	Test Average 60-69.99	Test Average 59.99 and lower
3		X			
4					X
6					X
20					X
25		X			
27			X		
36				X	
40					X
42					X
Total	0	2	1	1	5

Chart 4.15

Most students in this group scored below 60 percent, but there were a small percentage of students who scored between 60 and 90 percent on their words of the day quiz.

Student Number	English Semester Grade	Grade Test 1	Grade Test 2	Average Test Grade
1	94.57%	100%	75%	85%
2	79.01%	40%	55%	47.50%
3	47.15%	90%	70%	80%
4	49.90%	45%	45%	45%
5	71.34%	100%	75%	87.50%
6	58.43%	40%	25%	32.50%
7	87.17%	100%	80%	90%
8	92.99%	95%	100%	97.50%
9	89.62%	100%	100%	100%
10	96.49%	95%	100%	97.50%
11	94.11%	100%	90%	95%
12	95.18%	100%	85%	92.50%
13	81.06%	90%	70%	80%
14	87.81%	75%	90%	82.50%
15	81.54%	80%	95%	87.50%
16	82.99%	60%	30%	45%
17	88.92%	65%	65%	65%
18	89.52%	80%	90%	85%
19	79.98%	50%	55%	52.50%
20	39.13%	50%	30%	40%
21	72.28%	60%	65%	62.50%
22	85.34%	75%	100%	87.50%
23	81.75%	75%	80%	77.50%
24	61.57%	85%	70%	77.50%
25	48.80%	100%	70%	85%
26	89.17%	65%	70%	67.50%
27	57.81%	90%	65%	77.50%
28	65.93%	35%	40%	37.50%
29	89.53%	80%	100%	90%
30	93.83%	70%	100%	85%
31	67.81%	60%	55%	57.50%
32	87.60%	60%	100%	80%
33	82.93%	90%	95%	92.50%
34	88.07%	80%	100%	90%
35	82.70%	45%	85%	65%
36	50.31%	65%	65%	65%
37	66.57%	20%	30%	25%
38	71.25%	25%	65%	45%
39	61.45%	80%	80%	80%
40	52.92%	50%	40%	45%
41	77.95%	50%	85%	67.50%
42	57.28%	75%	55%	65%
43	78.44%	60%	35%	47.50%
44	62.56%	70%	60%	65%
45	70.12%	60%	50%	55%
46	86.09%	60%	75%	67.50%
47	93.52%	80%	100%	90%
48	91.44%	65%	100%	82.50%
49	89.42%	90%	55%	72.50%
50	72.08%	100%	90%	95%
51	92.19%	100%	100%	100%
52	67.54%	25%	40%	32.50%

Chart 4.16

How Students Perform in English Class Overall Compared to Outside Reading

I looked at how much time students read for pleasure outside class to see if that could be a possible indicator of how well students performed overall in their English class.

Students Whose Overall English Grade is 90-100

22%   22%

22%   34%

- ☐ No Reading Outside Class
- ☐ Reads Less Than 30 Min.
- ☐ Reads 30 to 60 Min.
- ☐ Reads More Than 60 Min.

Figure 4.14

Students Whose Overall English Grade is 90-100				
Student Number	No Reading	Less Than 30 Min.	30 to 60 Min.	More Than 60 Min.
1	X			
8				X
10		X		
11		X		
12		X		
30	X			
47				X
48			X	
51			X	
Total	2	3	2	2

Chart 4.17

There was no direct correlation between the grade students were earning overall in English class and the amount of time they spent reading outside class. The student reported reading time was evenly spread between those who reported not reading at all and those who reported reading anywhere between 30 to 60 minutes
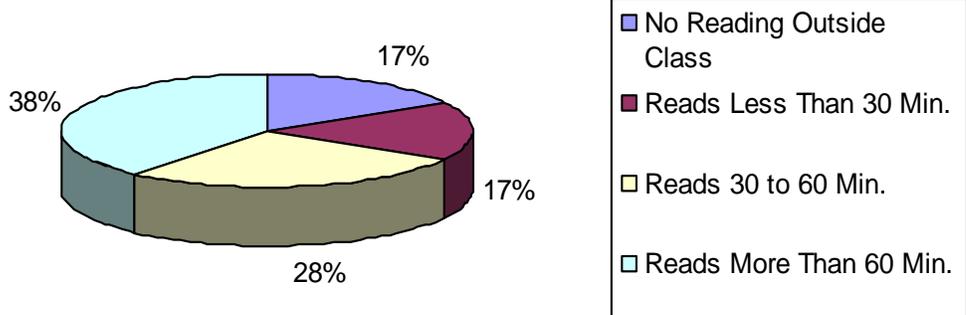
Students Whose Overall English Grade is 80-89.99

17%

38%

17%

28%

- No Reading Outside Class
- Reads Less Than 30 Min.
- Reads 30 to 60 Min.
- Reads More Than 60 Min.

Figure 4.15

Students Whose Overall English Grade is 80-89.99				
Student Number	No Reading	Less Than 30 Min.	30 to 60 Min.	More Than 60 Min.
7			X	
9		X		
13		X		
14			X	
15			X	
16				X
17				X
18				X
22	X			
23		X		
26	X			
29			X	
32	X			
33				X
34				X
35			X	
46				X
49				X
Total	3	3	5	7

Chart 4.18

This group of students was performing at an 80 to 89.99 percent in English but reported having the highest percentage of students who read more than 60 minutes a week outside of class.
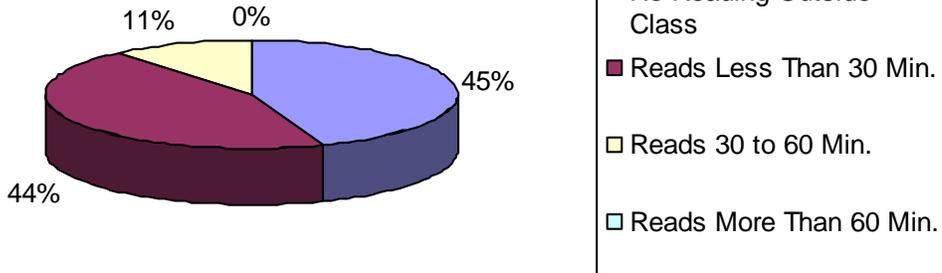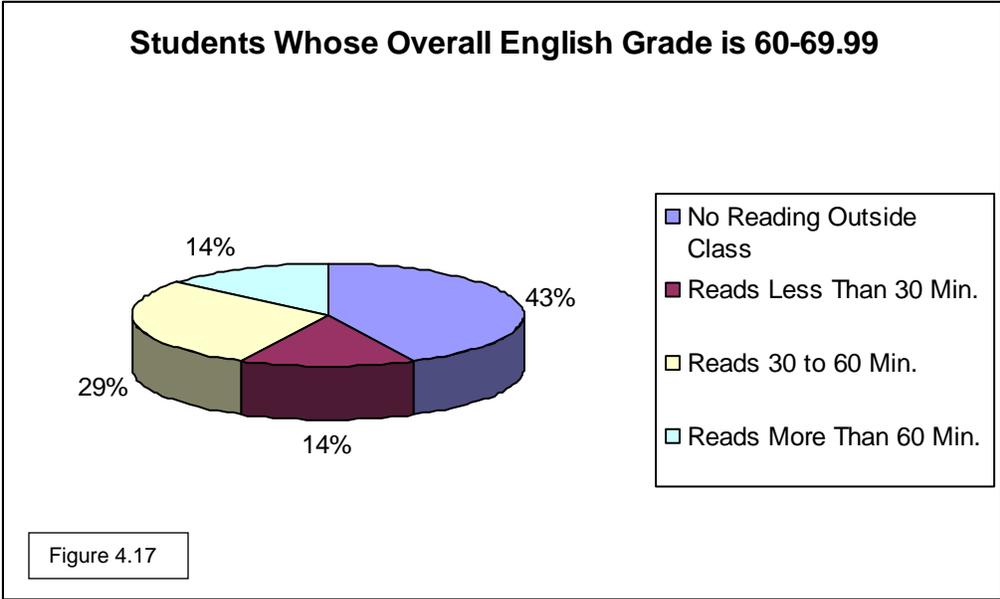
36

Students Whose Overall English Grade is 70-79.99

Figure 4.16

Students Whose Overall English Grade is 70-79.99				
Student Number	No Reading	Less Than 30 Min.	30 to 60 Min.	More Than 60 Min.
2	X			
5	X			
19		X		
21		X		
38	X			
41	X			
43		X		
45		X		
50			X	
Total	4	4	1	0

Chart 4.19

This group of students was working at a 70 to 79.99 percent in English but had a high percentage of students who reported not reading at all or reading less than 30 minutes a week and no students from this group read more than 60 minutes a week.
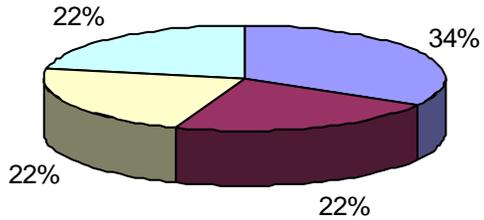
Students Whose Overall English Grade is 60-69.99

Figure 4.17

Students Whose Overall English Grade is 60-69.99				
Student Number	No Reading	Less Than 30 Min.	30 to 60 Min.	More Than 60 Min.
24	X			
28			X	
31			X	
37	X			
39				X
44	X			
52		X		
Total	3	1	2	1

Chart 4.20

This group was performing at a 60 to 69.99 percent in English but had a fairly even distribution of students reading at

Students Whose Overall English Grade is 59.99 and Lower

- No Reading Outside Class
- Reads Less Than 30 Min.
- Reads 30 to 60 Min.
- Reads More Than 60 Min.

34%
22%
22%
22%

Figure 4.18

Students Whose Overall English Grade is 59.99 and Lower				
Student Number	No Reading	Less Than 30 Min.	30 to 60 Min.	More Than 60 Min.
3				X
4			X	
6			X	
20	X			
25				X
27		X		
36	X			
40	X			
42		X		
Total	3	2	2	2

Chart 4.21

This group was performing the worst overall in English class but once again had an even distribution of students among all the increments.

39

	Time Student Reads Outside Class				
Student Number	Not at all	Less Than 30 Min.	30 to 60 Min.	More Than 60 Min.	Overall English Grade
1	X				94.57%
2	X				79.01%
3				X	47.15%
4			X		49.90%
5	X				71.34%
6			X		58.43%
7			X		87.17%
8				X	92.99%
9		X			89.62%
10		X			96.49%
11		X			94.11%
12		X			95.18%
13		X			81.06%
14			X		87.81%
15			X		81.54%
16				X	82.99%
17				X	88.92%
18				X	89.52%
19		X			79.98%
20	X				39.13%
21		X			72.28%
22	X				85.34%
23		X			81.75%
24	X				61.57%
25				X	48.80%
26	X				89.17%
27		X			57.81%
28			X		65.93%
29			X		89.53%
30	X				93.83%
31			X		67.81%
32	X				87.60%
33				X	82.93%
34				X	88.07%
35			X		82.70%
36	X				50.31%
37	X				66.57%
38	X				71.25%
39				X	61.45%
40	X				52.92%
41	X				77.95%
42		X			57.28%
43		X			78.44%
44	X				62.56%
45		X			70.12%
46				X	86.09%
47				X	93.52%
48			X		91.44%
49				X	89.42%
50			X		72.08%
51			X		92.19%
52		X			67.54%
Total	15	13	12	12	

Chart 4.22

CHAPTER 5

Summary of Study/Conclusions from Data

According to a study conducted by Sum and Taggart (2002), since 1962 American verbal scores on tests like the SAT have been declining. This is often attributed to a lack of vocabulary knowledge. This study investigated which of the two vocabulary strategies, Verbal and Visual Word Association or Contextual Redefinition, was best suited for transferring new words into students' long term memory.

The research for this study was conducted in a ninth grade classroom in an upper Midwestern high school. The study began by finding out what type of reading strategies students were using to assist them with comprehension before the two new vocabulary strategies were introduced. The Metacognitive Awareness of Reading Strategies Inventory Version 1.0 was used, and results indicated that most students use problem solving strategies (PROB) to assist in comprehending words or reading passages they don't understand (Mokhtair & Reichard, 2002).

Next, students were taught the Verbal and Visual Word Association strategy which consisted of students associating, with pictures or words, things they were already familiar with to the new vocabulary word. They were scaffolding information by comparing the new word to things they were already familiar with. After ten instructional days, 20 new vocabulary words, students were given a test to see how many of the new words they could accurately place in a sentence. Two weeks later the students were given another test with the same vocabulary words but new sentences to place the words into. While using this strategy the mean scores for test one and the retake were the same, 14.23 out of 20. Students were able to retain 14 out of 20 new vocabulary word meanings and assimilate them into their long term memories.

Finally, the students were taught the Contextual Redefinition strategy which consisted of breaking the new word down into morphemic units, using context clues from the whole sentence, predicting meaning of the word, and finally looking up the actual meaning in the dictionary to compare with the predicted meaning. After ten instructional days, 20 new vocabulary words, students were given an initial test to see how many of the new vocabulary words could be properly placed in a sentence. Two weeks later the students were given another test with the same vocabulary words but new sentences to place the words into. This strategy produced slightly higher mean scores than the Verbal and Visual Word Association strategy, 14.4 compared to 14.23. However, on the retake students scored 1.08 points lower than the initial assessment, 14.4 on the initial and 13.32 on the retake. Therefore, this strategy was not as effective at helping students retain the new vocabulary words into their long term memories.

After the initial testing was done, students were polled to find out what outside factors could possibly have had an effect on their test scores. The first thing that was looked at is how long students studied for their tests. For test one students studied a total of 768 minutes, but 53 percent of the students reported not studying at all. For test two students studied a total of 496 minutes, and only 48 percent reported not studying at all. So, fewer students studied longer for test one than test two. The data also indicates students who studied for longer periods of time had a higher percentage of students who scored in the 16-20 point range. In other words, students who studied longer did better on their tests.

Next, the student's overall grade was looked at and compared to the average grade of test one and two to see if student performance in the overall class had any indication of how they scored on their two vocabulary tests. Students who were getting A's in the class had 67 percent in the A range and 33 percent in the B range. Students who were getting B's in the class had 28

percent in the A range, 33 percent in the B range, 11 percent in the C range, 22 percent in the D range, and 6 percent in the F range. Students who were getting C's in the class had 11 percent in the A range, 11 percent in the B range, 0 in the C range, 22 percent in the D range, and 56 percent in the F range. Students who were getting D's in the class had no students score in the A range, 14 percent in the B range, 14 percent in the C range, 14 percent in the D range, and 58 percent in the F range. Students who were getting F's in the class had no students score in the A range, 24 percent in the B range, 13 percent in the C range, 13 percent in the D range, and 62 percent in the F range. The data indicates the better the student was doing overall in the class the better average grade they received on test one and two.

Finally, students were asked to report how much time they spend outside class reading for pleasure to see if students who read more outside of class score higher on their overall English grade. The data suggested there was no real pattern as to overall grade in the English class and time students read outside class.

Implications

Research conducted by Miller and Veatch (2010) indicated there is no one strategy that will help students become independent readers with a firm grasp on vocabulary. Teachers need to pick and choose the appropriate strategy for the appropriate situation. The Verbal and Visual Word Association strategy produced a higher average score on the retake then the Contextual Redefinition strategy indicating it was better equipped for assisting students in retaining vocabulary words into their long term memories. However, the study only provided two weeks between the initial test and the retake. If more time had been allotted between the initial assessment and the retake would the same outcome be reached? Also, the overall mean score for the exam using the Verbal and Visual Word Association strategy was only 14.23 out of 20. If the

teacher's goal is to have students learn many vocabulary words is the Verbal and Visual Word Association strategy the best choice? There has not been a lot of research conducted on individual vocabulary strategies and comparisons between strategies to assist educators in choosing the right strategy for the right student and situation. More research is needed in this area.

Summary

The upper Midwestern school chosen for this study received a college readiness letter from ACT indicating that the students who took the test from this school have had a decline from 22.4 to 21.5 on their English score for the last two years. The decline, although subtle, indicates those students many not be receiving the vocabulary knowledge needed to be ready for college. It also mirrors what has been happening on a national scale. Adams (2010-2011) explained that verbal scores on the SAT began declining at an alarming rate in 1962. This decline is attributed to lack of vocabulary knowledge which in turn inhibits students from comprehending what they read. Teachers need to be aware of students' lack of vocabulary knowledge and begin explicitly teaching vocabulary. However, it can be difficult to choose the right strategy for the right situation.

However, the study did not prove that one strategy was better than the other at initially teaching students vocabulary words. Furthermore, the results from the study were somewhat disappointing because the overall mean score for test one and two were in the C range if using a 100 point scale where 90-100 is an A, 80-89 is a B, 70-79 is a C, 60-69 is a D, and anything 59 and below is an F.

There were outside factors that may have contributed to testing outcomes including students who studied longer got better scores on their tests, and students who had higher grades

in the class overall got better scores on their tests. The need for vocabulary instruction is not going to go away. Educators and researchers need to keep looking for the most effective ways to help students learn new vocabulary words and commit them to their long term memories if students want to attend post-secondary schools and compete globally.

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APPENDICES

Appendix A:

Verbal and Visual Word Association Chart

Vocabulary Word	Write or Draw Personal Association
Dictionary Definition	Write or Draw Opposite of Word

Appendix B:

Contextual Redefinition Chart

Term	Word-level Clues	Context Clues	Predicted Meaning	Actual Meaning

Appendix C:

Initial Test for Verbal and Visual Word Association Strategy

Word Bank			
Retribution	Crypt	Discreet	Virtue
Definitively	Subsiding	Sentiment	Dispersal
Surmounted	Garment	Embrace	Undulating
Gait	Faltered	Enthralled	Boisterous
Catacomb	Ravages	Vigilant	Immensely

1. The football player had _____ large biceps, and when he flexed they were as big as your thigh.

2. The boat was _____ in the smooth ocean waves for days before the captain brought it ashore.

3. _____ and honor are qualities many people admire because most people want to do what is right.

4. The baby was _____ with the new rattle and couldn't pay attention to anything else.

5. Her _____ at the funeral was one of sadness.

6. The eagle _____ on the dead animals it finds on the side of the road by ripping and tearing them apart with its beak.

7. The lovely _____ was draped over the manikin, and I thought it was real person wearing the outfit I wanted to buy.

8. The old TV show *Tales from the* _____ is really scary because it takes place in underground vaults that are used for burial.

9. I could tell it was Tom coming towards me because of his_____; he always swings his arms in a certain way when he walks.

10. The beautiful young woman _____ answered no to the persistent young man's request to go out on a date.

11. The pressure _____ or overcame the young doctor, and he finally had a nervous breakdown.

12. For shop lifting, the young man had to perform _____ by completing five hours of community service.

13. Ancient civilizations buried their dead in an underground _____.

14. The pain in my side was _____ as soon as I stopped running.

15. The newborn horse _____ and fell over when it tried to stand for the first time.

16. Please keep the information I gave you _____ because I don't want anyone to know.

17. The little girl could not wait to get home from summer camp and _____ her mom and dad by wrapping her arms around their necks in a long hug.

18. The _____ security guard caught the thief before he could steal the valuable necklace.

19. The _____ of all the leaflets went well, and everyone had the information they needed in a matter of minutes.

20. The _____ children were showing no restraint as they walked through the hallway disturbing the classes with their loud noises.

Appendix D:

Post Survey for Verbal and Visual Word Association

1. Score on exam _____/20.

2. Circle the response that most closely resembles the way you studied for this quiz:

   a. Not at all

   b. Reviewed the Verbal and Visual Word Association charts we filled out in class

   c. Made flashcards to memorize words and meanings

   d. Other:

   _____

   _____

   _____

3. Out of the following twenty words, circle the ones you knew how to correctly use in a
   sentence before we went over them in class:

Retribution	Crypt	Discreet	Virtue
Definitively	Subsiding	Sentiment	Dispersal
Surmounted	Garment	Embrace	Undulating
Gait	Faltered	Enthralled	Boisterous
Catacomb	Ravages	Vigilant	Immensely

4. How many minutes or hours, if any, did you spend studying before the
   test?_____

Appendix E:

Second Test for Verbal and Visual Word Association Strategy

Word Bank			
Retribution	Crypt	Discreet	Virtue
Definitively	Subsiding	Sentiment	Dispersal
Surmounted	Garment	Embrace	Undulating
Gait	Faltered	Enthralled	Boisterous
Catacomb	Ravages	Vigilant	Immensely

1. The _____ teenagers were wild and crazy at the party showing no restraint as they disturbed the neighbors causing the police to be called.

2. The food shelf's _____ of all the canned goods went well, and many families were able to fill their cupboards.

3. The _____ mother was hysterical, but she was able to catch the baby putting a small object into his mouth and pull it out before he could choke.

4. The young man and woman shared a long _____ on the pier upon her return from a six month deployment with the United States Navy.

5. I have a secret to tell you, but you need to keep it _____ because I don't want anyone to know I told you the confidential information.

6. The little boy _____ on the ice while ice skating for the first time.

7. My foot pain began _____ only after I took Motrin for the pain and soaked it in Epson salt.

8. Some ancient civilizations turned their dead into mummies while others buried them underground in a _____.

9. In order to perform _____ to the community, the young law breaker had to perform sixteen hours of community service.

10. The air pressure in the tire _____ to the point where the tire had no more room for air and blew up throwing rubber pieces everywhere.

11. The teacher _____ decided she would not give the students the answers to the test, and she stuck to her word.

12. The man's _____ is very easy to identify because he had polio as a child and walks with a limp.

13. The keeper of a _____ would have a horrible job because they would be in underground vaults that are used for burial.

14. The seamstress made a lovely _____ out of silk curtains that used to hang in her living room, and she wore it to dinner on a blind date.

15. A starving child _____ any food he can find, even scraps from the garbage, to keep from starving to death.

16. The dead woman's daughter gave an eulogy that was filled with such a sad _____ even people who didn't know her well cried.

17. The travelers were _____ with the neon lights of Las Vegas and couldn't their eyes off them, which caused them to rear end the car in front of them.

18. When people choose to do the right thing even when no one is watching, they are said to have _____ and honor.

19. The _____ large boulder the Cyclops threw at Odysseus and his men almost caused their ship to crash into the rocks along the shoreline.

20. The flag was _____ in the soft breeze, and the ripples in the fabric reminded me of ocean waves slowly rolling up on the shoreline.

Initial Test for Contextual Redefinition Strategy

```
┌─────────────────────────────────────────────────────────────┐
│                        Word Bank                            │
│                                                             │
│  Guile          Trivial        Besieged       Devour        │
│                                                             │
│  Brimming       Sustained      Sternward      Accursed      │
│                                                             │
│  Sluggish       Tumult         Seething       Promontory    │
│                                                             │
│  Sniveling      Contending     Jostled        Coddled       │
│                                                             │
│  Beetling       Brine          Memoir         Eloquent      │
│                                                             │
└─────────────────────────────────────────────────────────────┘
```

1. If you use _____ language in you memoir, the readers will be moved.

2. If you put an egg in _____ it will float because salt water makes objects more buoyant.

3. Many Americans are _____ because they are treated indulgently.

4. Odysseus is known as a man who strives in opposition against his enemies; in other words he is skilled at _____.

5. A rich man wanted to build his house on the _____ that jutted out over the raging ocean.

6. Protestors outside the capital building caused quite a _____ in the peaceful town of Madison.

7. The _____ woman could not get rid of the doomed feeling deep in her bones.

8. The cold weather survival gear packed in the woman's trunk had food, water, and a flashlight that _____ her until help could arrive.

9. The hungry children will greedily _____ a cake in about three minutes.

10. The student had a _____ attitude about the test because he didn't think the information had any value to him in the real world.

11. The young man had to use his _____ to trick the police officer into believing that he had not thrown eggs at his teacher's house.

12. The soldiers _____ the enemies fort and there was no way for them to escape because they were surrounded.

13. The cup was _____ over with hot chocolate, and the woman could not put whipped cream on top without it spilling over onto the counter.

14. The captain of the ship sent all the sailors _____ so the painters could paint the front of the ship.

15. When the girl was in a _____ mood she would stay on the couch all day watching television, and her mother would yell at her claiming she was lazy and inactive.

16. When I am cooking macaroni, I wait for the water to be _____ in the pan so the churning, boiling water will quickly cook the pasta.

17. Young boys, trying not to cry in front of their friends, were weeping weakly or _____ instead.

18. The wrestler was _____ around on the mat while she was trying to get position for a take down.

19. The Brule River has a few spots where _____ rocks jut out and overhang making it hard to pass in a canoe.

20. In ninth grade English you all will be writing a _____ about your personal experiences.

Appendix G:

Post Survey for Contextual Redefinition Strategy

1. Score on exam _____/20

2. Circle the response that most closely resembles the way you studied for this quiz:

    a. Not at all

    b. Reviewed the Contextual Redefinition Chart we filled out in class

    c. Made flashcards to memorize words and meanings

    d. Other:

    _____

    _____

    _____

3. Out of the following twenty words, circle the ones you knew how to correctly place in a sentence before we went over them in class.

Guile	Trivial	Besieged	Devour
Brimming	Sustained	Sternward	Accursed
Sluggish	Tumult	Seething	Promontory
Sniveling	Contending	Jostled	Coddled
Beetling	Brine	Memoir	Eloquent

4. How many minutes or hours, if any, did you spend studying before the test?_____

5. Approximately how many minutes a week do you spend reading for pleasure?

    a. 0 minutes

    b. Less than 30 minutes

    c. 30 to 60 minutes

    d. More than 60 minutes a week

Second Test for Contextual Redefinition Strategy

Word Bank			
Guile	Trivial	Besieged	Devour
Brimming	Sustained	Sternward	Accursed
Sluggish	Tumult	Seething	Promontory
Sniveling	Contending	Jostled	Coddled
Beetling	Brine	Memoir	Eloquent

1. Completing a journal about your childhood should help prepare you to write your

   _____.

2. The football player in the defensive position really _____
   around the opponent.

3. _____ or boiling, churning water helps to cook pasta
   faster.

4. If you are in the _____ part of the boat you can't see
   where the boat is going; you need to be in the front of the boat for that.

5. He _____ the enemy's compound, and it took a lot of
   stealth and skill because he didn't want the enemy to see him surrounding them.

6. Her _____ feelings about the disease caused her to be
   careless, and she didn't follow any of the universal precautions suggested by the center
   for disease control.

7. The survivors _____ themselves for six days in the middle
   of the desert by drinking their own urine.

8. The _____ of reporters outside the courtroom spilled into the streets and caused the traffic to be backed up all the way down the block.

9. The United States military is skilled at _____ because they strive in opposition against their enemies.

10. When swimming in the ocean, all the salt can make a person feel like they are soaking in a _____.

11. In order to move an audience to tears, a speaker needs to use _____ language.

12. In the past most parents never _____ their children by treating them indulgently; they made their children work hard for everything.

13. It is very expensive to build a house on a _____ that juts out over the ocean.

14. The _____ man couldn't believe his bad luck when his car was stolen and his house was broken into on the same day; it felt as if he was cursed.

15. Some children like cookies so much they _____ them greedily so they can get as many as possible.

16. When you need to trick someone into believing a lie it would be helpful to use your _____.

17. The pie was _____ over the pan while it was cooking in the oven, and now pie filling is burnt on the bottom of the oven.

18. The coach took the baseball player out of the game because he was too _____ and walked to the ball instead of running to it.

19. My mom used to always tell me to stop _____ because weeping weakly is a sign of weakness.

20. When we went down the river, I hit my head on the _____ rocks that were hanging over the narrow pass.

Appendix I:

Parental Consent

Dear Parents of Ninth Grade Students,

My name is Mrs. Wiese, and I am your child's ninth grade English teacher this semester. Currently, I am attending classes at the University of Wisconsin Superior and working towards my master's degree in special education. During the semester, I will be conducting research in my classroom to use on my thesis.

This research consists of two vocabulary strategies I already currently use. Your child will be asked to fill out a survey at the beginning of our vocabulary lesson that will help me identify what reading strategies your child already uses. Your child's name will not appear on this survey. Next, your child will be asked to follow a specific strategy for vocabulary retention. They will then be tested on these strategies by taking a Word of the Day Quiz. Your child will be expected to use the specific vocabulary instruction and take the Word of the Day Quizzes whether they are involved in the study or not. Your child's name will be on the quizzes for the purpose of the class, but will not be recorded for the purpose of the study. Your child's privacy is very important to me, and using students' names is not necessary for me to distinguish what strategy best helped your child and their classmates retain vocabulary words.

If you have any questions regarding the study or vocabulary strategies used, please contact me by phone 715-363-2434 ext. 3056 or e-mail me at lwiese@maple.k12.wi.us. If you do not want your child to be involved with the study, please check the appropriate circle at the bottom of the page. If you decide at any time you would like to withdraw your child from the study, please let me know.

Thanks for your help and support,

Mrs. Wiese

- Yes, you may use my child's results for your study, but you will not use my child's name in association with those results.
- No, I don't want my child to participate in the study (the student will still have to participate in the vocabulary strategies and the quizzes for the purpose of the class)

Parental Signature_____Date_____

Appendix J:

Student Consent

Dear Ninth Grade English Students,

Currently, I am attending classes at the University of Wisconsin Superior and working towards my master's degree in special education. During the semester, I will be conducting research in my classroom to use on my thesis.

This research consists of two vocabulary strategies we will be using this semester. You will be asked to fill out a survey at the beginning of our vocabulary lesson that will help me identify what reading strategies you are currently using while reading academic or school related material. Your name will not appear on this survey. Next, you will be asked to follow a specific strategy for vocabulary retention. You will then be tested on these strategies by taking a Word of the Day Quiz. This strategy will be used in the classroom whether you participate in the study or not, and you will be tested on the material whether you participate in the study or not. Your name will be on the quizzes for the purpose of the class, but will not be recorded for the purpose of the study. Your privacy is very important to me, and using your name is not necessary for me to distinguish what strategy best helped you and your classmates retain vocabulary words.

If you have any questions regarding the study or vocabulary strategies used, please contact me by phone 715-363-2434 ext. 3056, e-mail me at lwiese@maple.k12.wi.us, or come and talk with me personally. If you do not want to be involved with the study, please check the appropriate circle at the bottom of the page. If you decide at any time you would like to withdraw from the study, please let me know.

Thanks for your help and support,

Mrs. Wiese

- Yes, you may use my results for your study, but you will not use my name in association with those results.
- No, I don't want to participate in the study (but I will still have to participate in the vocabulary strategies for the class).

Student Signature_____Date_____