To What Degree Will Learning To Use Context Clues Impact Students' Reading Comprehension Scores?

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A Master' Paper

Submitted in Partial Fulfillment of

The Requirements for the Degree of

Master of Science in Education – Reading

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Major Advisor's Signature

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Date

University of Wisconsin – River Falls
2011

Abstract

Teachers of English Learners (EL) are continually looking for ways to improve their students' reading comprehension. This action research focuses on improving learners' English reading comprehension by teaching students to use context clues. There is debate among the research on the value of teaching context clues to ELs and some of the research stresses the importance of increasing student vocabulary over the use of context clues. The author of this study agrees that increasing student vocabulary will be one of the most effective tools in increasing reading comprehension, but sees a need to give students strategies, which they can use independently to increase their reading comprehension outside of the classroom. The study pre-tested adult EL students on non-fiction and fiction texts, gave them explicit instruction and modeling on how to use seven types of context clues and then post-tested the students on both non-fiction and fiction texts. The results showed significant increases in the comprehension scores of all adult EL students on at least one of the text genres. However, when students were given a time limit for the reading task, only two students continued to increase their reading comprehension scores. A follow up study was conducted with a group of EL fifth grade students. The study pre-tested the students' reading comprehension on a non-fiction reading passage, gave them explicit instruction and practice on using five types of context clues, and then post-tested the students on a second non-fiction reading passage. The students showed a 5% to 21% gain in reading comprehension after receiving context clues instruction.

To What Degree Will Learning To Use Context Clues Impact Students' Reading Comprehension Scores?

Overview

A balanced ESL program will help students improve their English language skills in speaking, listening, reading and writing. To improve students' skills in these areas, instructors often design curriculum that includes lessons in conversation, grammar, reading comprehension and writing to communicate. English vocabulary is embedded in all of these lessons, since increasing students' ability to use and understand English words will produce improvement in students' English speaking, listening, reading and writing skills. ELs often have low levels of English vocabulary knowledge and this negatively impacts their ability to understand spoken and written text (Burgoyne, Kelly, Whiteley, &Spooner 2009).   Lervag and Aukrust (2009), examined the impact vocabulary has on reading comprehension in first language learners and in second language learners. They found that vocabulary skills were a critical predictor of successful reading comprehension in both groups but that vocabulary skills were an even stronger predictor of reading comprehension growth in the ELs.

In Minnesota, funding for Adult EL education programs is based on the ability of the students to show yearly improvement in their English reading comprehension scores on the CASAS (Comprehensive Adult Student Assessment System) or the TABE (Test for Adult Basic Education) test. In the K-12 school system students in third grade and above must show adequate yearly progress on the MCA (Minnesota Comprehensive Assessment) and, in some districts, on the MAP (Measures of Academic Progress) tests,

or schools can be penalized. These tests often use vocabulary that students are not able to understand, and students then struggle to show yearly improvement. The challenge of the English instructor is to help students increase their English vocabulary knowledge and to enable students to independently figure out new vocabulary words that they will encounter on the tests.

In classroom activities, the instructor is able to scaffold and support students, helping them to understand new and difficult English vocabulary words. In addition to offering support to students in class, instructors want to teach students the strategies they need to use to be independent and to develop a self- extending system for understanding new English vocabulary. Teaching students to use context clues to understand new English vocabulary would enable students to be more independent and to hopefully improve their scores on standardized tests at all educational levels.

What Are Context Clues?

Context clues are information in the text, which can be used to help deduce the meaning of an unknown vocabulary word within the text. Context clues are words, pictures, graphs, tables, and side notes, all of which might be included in the text. Context clues can be clear and direct the reader easily to the meaning of the word.   Clear context clues will provide information about the definition or synonym of a word. For example – "Madagascar, an island off the coast of Africa, has many unique animal species."   Clear clues may be examples of a word meaning (Yama is a Japanese word for mountain.), opposites of the word (She is a volatile child, but she can sometimes be calm

and easy going.), or expressions such as " that is" or "in other words". A reader may also

infer a word's definition by using context clues combined with logic or prior knowledge.

(Hartmann & Blass, 2007) For example, "The fireman ascended the tree and brought the

little girl's kitten back down to her." If the reader knows that trees are tall and that

kittens like to climb high to feel safe, then the reader can guess that "ascended" means to

climb.

   Context clues can also be indirect and ambiguous and offer the reader little help. In

fact, ambiguous context clues can hinder the reader and lead the reader to give up an

initial understanding of a word for an incorrect understanding of a word derived from

unclear context clues. For example, " Macaques (little furry rascals) display different

behaviors when they are raised in isolation."   The context clue " little furry rascals" does

not contribute enough useful information to help the reader understand the word

"macaques". Webb's research shows that " initial gains resulting from meeting an

unknown word in an informative context may be reduced in subsequent meetings if those

contexts are less informative or misleading." (Page 240, Webb, 2008)

A second problem with some context clues is that the entire text may be too far above the

student's reading level or outside of the student's area of prior knowledge, thus the

student may be unable to access the context clues even when the clues are clear and

direct. (Frantzen, 2003 and Padak &Raskinksi, 2000)   It is important that both the

assessments used and the practice texts are at the students' independent reading level; this

will allow lower level readers to understand and use context clues with reading strategies.

(Watts &Truscott, 1996)

When teaching students how to use context clues, an instructor must be very explicit in his/her description and modeling of how to use the strategy with text. The instructor will need to guide and encourage students as they try to use the strategy, slowly increasing the reading difficulty of the text. (Blachowicz, Fisher, Ogle, & Watts-Taffe, 2006 and Bishop, Reyes, & Pflaum, 2006)

It is also helpful to explicitly teach students how to identify what kind of context clues are clear and useful, and which clues are confusing and not useful to the reader.

Is It More Important for Students To Learn How To Use Reading Strategies Or To Simply Learn More English Vocabulary Words?

Research on the topic of vocabulary seems to agree that increasing a student's vocabulary will increase the student's reading comprehension. (Qian, 1999 and Nassaji, 2004) There is some disagreement over the benefits of teaching students to use context clues.   Some research concludes that it is more important for students to increase the depth and breadth of vocabulary knowledge than it is to learn to use context clues. Nassaji, based on his research, concluded that second language learners "need good vocabulary knowledge to be able to successfully derive word meanings from context."(Page 126, Nassaji, 2004)

The author of this action research plan agrees that students with a high number of known vocabulary words will be more successful at using context clues than less advanced students.   However, that does not rule out the possibility that all students can increase their individual reading comprehension level by using context clues to help understand unknown words.   Campbell and Malicky (2002), found that adult literacy

students at all levels were able to use prior knowledge and make effective use of reading strategies which focused on meaning.   In research conducted by JoDee Walters (2006), on University level ELs, it was discovered that the teaching of context clues did not improve the students ability to infer the meaning of unknown words from context as hoped, but did improve the students' overall reading comprehension, their overall understanding of the content of the text.

Baumann, Edwards, Boland, Olenejnik and Kame'enui (2003), compared the effects of two groups of fifth grade students' reading comprehension on a social studies textbook.   One group of fifth graders was taught specific textbook vocabulary and the other group was taught morphemic (looking at word parts: roots prefixes and suffixes i.e. "dis" and "honest" in the word "*dishonest*") and contextual analysis instruction (examining the other words in the sentences with and around the unknown word- "The *dishonest* girl lied to her mother, telling her she found the money when in fact she had taken it from a classmate's backpack.") The researchers found that the specific vocabulary group tested higher on understanding those specific words and that the morphemic and contextual analysis instruction group was more successful at inferring the meaning of novel words. However, there was no significant difference between the groups in content comprehension of the social studies textbook lesson. The authors concluded that: "both groups experienced enhanced content learning, albeit in different ways, through their unique interventions." (Page 486, Baumann et al., 2003.)

There is a need for more research on the specific reading styles and needs of ELs as a diverse group and especially on adult ELs. At this time, it is important to continue focusing on increasing the learner's depth and breadth of vocabulary knowledge.

However, it appears that it is also important to teach reading strategies such as context clues that might increase each individual learner's reading comprehension.

Will Teaching Context Clues Strategies In Combination With Other Reading Strategies and Vocabulary Techniques Positively Impact Students Reading Comprehension?

The National Reading Panel (2000) recommends that vocabulary be taught as a combination of teaching specific words and word-learning strategies. Contextual analysis (using all of the words around an unknown word to help decode its meaning – "He is a *botanist*; he studies flowers and plants, for Baily's Nursery.") is one of the recommended word-learning strategies, along with dictionary use (looking up the meaning of a word in a dictionary), morphemic analysis (understanding the meaning of the prefix "un" and the root word "able" in an effort to understand the whole word "unable"), and cognate awareness. Cognate awareness is knowing if two words from different languages are related in origin and if they share an ancestral root word, for example the English word "alphabet" and the Spanish word "alfabeto" both originate from the Greek words "alpha" and "beta", this knowledge helps an English speaker figure out the meaning of the Spanish word. A combination approach to teaching vocabulary is compatible with English language teaching theory, which emphasizes a layering of the student's knowledge to build a greater depth of understanding: linking new material to known material, and exposing the student to the same content in multiple locations. This

combination approach to learning and applying vocabulary to improve overall reading comprehension: has been tested by teachers working with ELs**.**

Montelongo, Hernandez, Herter, and Cuello (2011), wrote about using cognates to scaffold context clues for Latino English Learners. This combination strategy works best with Latino students that have literacy experience in Spanish. In this combination strategy, students first identify what kind of context clue is being used in the sentence. Then, students carefully read the words around the unknown word, looking for cognates; they use their knowledge of Spanish – English cognates to better deduce the meaning of the unknown word or phrase. Students use the meaning of the cognates combined with context clues to make an educated guess at the meaning of the unknown word. The students were taught how to identify and use six different types of context clues: synonyms, antonyms, definition, examples, appositive word or phrase, and punctuation. In a synonym context clue, a synonym to the unknown word is used in the same sentence or in a sentence before or after to give the reader the meaning of the more difficult word, "He is *envious* of her new car, feeling <u>jealous</u>, since he drives his grandpa's old car." Antonym clues use words that are the opposite of the unknown word to better explain the unknown word to the reader, " He sometimes acts *idiotic*, but he is actually very <u>smart</u>." A definition type of context clues will state the definition of the unknown word, "A *lemur* is a <u>type of monkey</u> that lives on the island of Madagascar." Example clues will list examples of the unknown word, often in the same sentence, " The boy likes to eat lots of *red meat*, such as <u>hamburgers, steaks</u>, and <u>beef roasts</u>." Appositive word or phrase context clues are when an extra group of words explains the unknown word, " The children took a field trip to an *orchard*, or <u>apple farm</u>." Punctuation is a style of context

clue in which the punctuation signifies that a definition or clue is being given for the

unknown word, "The boy was *relentless* (persistent) in trying to convince his parents to

buy a dog." The authors received positive feedback from classroom teachers and

students on the usefulness of these two combined strategies in extending the students'

ability to make meaning from text.

Greenwood and Flanigan (2007), wrote about combining context clues and semantic

gradients in teaching students to comprehend novel texts. Semantic gradients are lists of

words which have similar meanings and move from one extreme of meaning to another.

For example, frigid, cold, chilly, tepid, warm, hot, and blistering are semantic gradients

for temperature. The authors taught the use of context clues by using manipulated cloze

text. A manipulated cloze is when a teacher removes a word from a sentence that has

been specifically written to teach a skill. The teacher leaves a blank line in place of the

removed word to indicate to the students that they need to fill in the blank line. In this

exercise students then choose the best word for the blank line, from a supplied list of

semantic gradient words: i.e. tiny, little, average, big, huge, gargantuan. The practice

sentences increase in the use of specific context clue information and students are better

able to choose the exact word from the list of words provided.

Example:
First sentence: Gus was dressed for the _____ weather.
Semantic gradient words: frigid cold cool warm hot sweltering scorching
Second sentence: Gus wore his hat, mittens, and new boots.

Students learned the subtle differences between the semantic gradient words, increasing

their vocabulary knowledge of specific words as well as gaining an explicit

understanding of how to identify and use context clues. Greenwood and Flanigan (2007)

"believe the real benefit of overlapping these two strategies is enabling students to

reconnect individual word meanings to the text, helping them bridge the divide between vocabulary and comprehension."(Page 253) Although this lesson was not designed specifically for ELs, learning this combination of strategies will greatly improve their specific vocabulary knowledge, allowing the students to comprehend the details of the text and not just the general meaning as many ELs are too often limited to doing in novel texts.

In most American classrooms ELs spend the majority of their instructional time in classrooms with English Only peers (EO). It is important to find methods of improving reading comprehension that will work with both EL and EO learners, enabling classroom teachers to reach the needs of all of their students. Carlo et al. (2004), conducted research with both ELs and EOs using a combined vocabulary approach of teaching direct word instruction and word- learning strategies. They combined methods that had previously been successful with only one of the language groups. The research showed equal degrees of improved vocabulary understanding, improved word analysis skills and improved reading comprehension for both ELs and EOs.   It is significant that both groups of students benefited from the same combination of direct vocabulary instruction combined with explicit teaching of context clues, morphological analysis and cognate usage. This research is evidence that good explicit teaching is beneficial for all students and can lead to increased levels of reading comprehension.

Conclusion

Research indicates that the depth, the amount known about a word, and the breadth, the number of known words, both have an effect on students' reading comprehension.

Some research validates the benefits of teaching students to use context clues in order to improve student reading comprehension. There is also opposing research, which questions the use of context clues, stating that it is better to focus on building students' overall English vocabulary. In addition, a group of researchers has shown that a combination of reading strategies, which include teaching context clues, can increase the reading comprehension of ELs. There was a shortage of research using adult ELs as the participants and more research is still needed in this area.

The author of this action research plan concedes that building up the depth and breadth of students' vocabulary will provide the greatest gains in reading comprehension. However, the goal as a teacher is to both increase students' English vocabulary through classroom lessons and to teach students a strategy they can use independently to understand unknown English words they encounter in testing and in life outside of the classroom. Since it is already known that increased vocabulary correlates with increased reading comprehension scores, the main action research question is: To what degree will learning to use context clues impact English Learners' reading comprehension scores? The following subsidiary questions will also be examined: Is a student's use of context clues impacted by the text reading level and text genre?   Are context clues equally useful for students at all English levels? Will the use of context clues impact the reading comprehension of adults and children differently?

Action Research

To What Degree Will Learning To Use Context Clues Impact Students' Reading

Comprehension Scores?

The following research involves two different studies, which focused on the same question: To what degree will learning to use context clues impact students' reading comprehension scores? The researcher first conducted a pilot study with a group of adult English Learners in a community education class. Secondly, the researcher narrowed the focus of the pilot study and explored the implications of the research with elementary age students. The final section of this research paper compares the results from both studies and reflects on the similarities and differences between both groups of English Learners and the impact of context clues strategies on their English reading comprehension scores.

Pilot Study

Methodology

Participants

Nine adult English language learners participated in this study. The students vary in years of formal education from partial completion of elementary school to completion of a college Bachelor's degree. The students also vary in their English skill levels from low- intermediate to having graduated from the English language program into the basic

adult education, proficient skills level. All of the students (six women and three men)

attend a Community Education English language class for six hours each week.

   Materials

    A variety of reading texts were used in the pre-test and post-test phases of the study:

four texts were life skills non-fiction texts from an ESL work book, four texts were 6th

grade reading level daily warm-up text (one folktale, one historical fiction, one mystery,

one fantasy), one text was a newspaper article, and two texts were from the Minnesota

Comprehensive Assessment (MCA) practice tests published in the St. Paul Pioneer press-

one 3rd grade reading level, one 10th grade reading level (See Appendix A). The texts

were chosen to test students reading comprehension on a variety of literature genres and

at varied reading levels. State-mandated standardized reading tests, the Comprehensive

Adult Student Assessment System (CASAS) and the Test for Adult Basic Education

(TABE), were also used in the pre-test and post-test phase.   A six point Likert scale was

used in connection with some of the readings - students were asked to rate the difficulty

level of the text as it pertained to the students' own reading ability. (See Appendix B)

In the post-test phase, the researcher had a casual discussion with the students, soliciting

their opinions on the usefulness of context clues in helping them read and understand the

texts.

Procedures

   The action research plan was explained to all of the students as well as the reason for conducting the research. It was explained to the whole class that everyone would participate in the activity as part of the class curriculum, but that each student could decide to include or exempt his/her scores from the written research results.   Before the data collection began, the classroom teacher chose the reading comprehension texts that would be used for the pre-test and post-test phases of the research. The pre-tests and post-tests were carefully correlated to match both the genre of the text and the reading level of the text. The texts were not analyzed to determine if they would fit well with the use of context clues, nor were they altered in any way, since the goal was to see if context clues would help with independent reading occurring on standardized tests and in life outside the classroom.   Over the course of two weeks, students independently completed the pre-test reading comprehension activities in the Community Education English class. On any given day students completed 1-3 of the activities. On three of the days, students also rated the difficulty level of the texts on a six-point Likert scale. The teacher corrected all the students' pre-tests. The results were not shared with the students.

    After all of the pre-tests had been administered, the students began to receive daily instruction on the use of context clues.

Day 1: The classroom teacher reviewed two previously taught reading strategies, prediction and accessing prior knowledge. These two reading strategies are foundational to being able to use context clues. The teacher gave explicit instructions and modeled context clues, using the book Comprehension Skills Context Level B as a base. Students completed unit lessons 1 and 2. As a whole class, the teacher went over the answers for

unit 1 and explicitly demonstrated what context clues were used to arrive at the correct answers.

Example:

"Jumping beans_____because a worm lives inside. The worm lies still when it is cool. But when it gets warm, the worm moves around. Hold a jumping bean in your hand. The heat from your hand will make the worm move. And that makes the bean jump.

_____1. The word that best completes the sentence is

A. hear   B. hop   C. push"

(page 6, Beech, McCarthy & Townsend, 2001)

Day 2: The classroom teacher conducted a one-hour lesson on context clues, using the book Quest Reading and Writing as a base. Students were given a labeling system for determining what type of context clues are available, for example definitions within the sentence, opposites of a key word in the sentence, text in other parts of the story that give additional information, and situations that call upon students' prior knowledge. Each context clue had a practice sentence that allowed students to use a specific type of context clue to figure out the definition of the unknown word. An example of a sentence used in the book is "Humans have adapted to an omnivorous diet – a diet of both plants and animals- over millions of years." (page 52, Hartmann & Blass, 2007) The teacher gave additional examples of each type of context clue, working to simplify the English vocabulary words used in the examples.

Day 3: The classroom teacher continued to use the seven different types of context clues listed in the Quest Reading and Writing book, but made many adaptations to the explanations and the examples, creating a new explanation and examples sheet for the

students to take home. This lesson was used as a re-teaching and reviewing lesson. (See

Appendix C) Students were questioned about their understanding and given time to ask

questions and clarify any information that they did not understand.

Day 4: The students worked independently on unit 3 in the <u>Comprehension Skills</u>

<u>Context Level B</u> book. These cloze passages were similar to the those used from the same

book on Day 1.   The teacher worked individually with students to answer questions

about context clues in the lesson and to teach new vocabulary words at each student's

level.

Day 5: The students had not met for five days, so the teacher took time to review what

had been taught in previous lessons. The teacher created a handout sheet with practice

sentences representing each of the seven types of context clues taught in previous lessons.

(See Appendix D)   The teacher went over the earlier examples with the whole class and

 asked students to independently complete the practice portion of the handout. The

teacher went over the answers, explaining what words in each sentence were used to

identify the meaning of the unknown word.

   After five days of explicit instruction, modeling, and practicing of context clues, the

students began to take both the standardized tests and reading comprehension post-tests.

Findings and Results

The quantitative data shows that six out of seven students made gains in their reading

comprehension scores on non-fiction texts. The students' scores on the five different non-

fiction texts were added together and converted to percentages. Figure 1, below, graphs
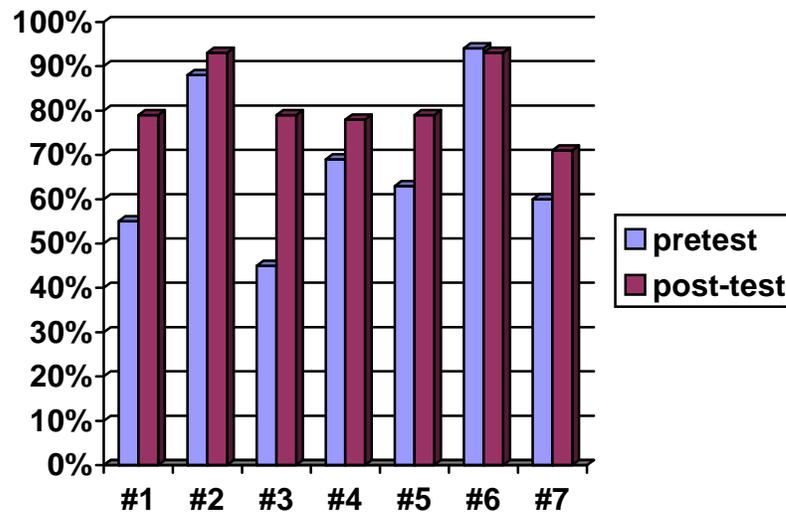
the results.

Figure 1

The most advanced student, #6, post secondary level, was the one student that did not

make any gains in his comprehension score. The other six students made gains ranging

from 5% to 34% in comprehending non-fiction texts.

    On the four fiction texts, six out of seven students made gains in their reading

comprehension scores.

Each student's scores on all four tests were added together and converted into

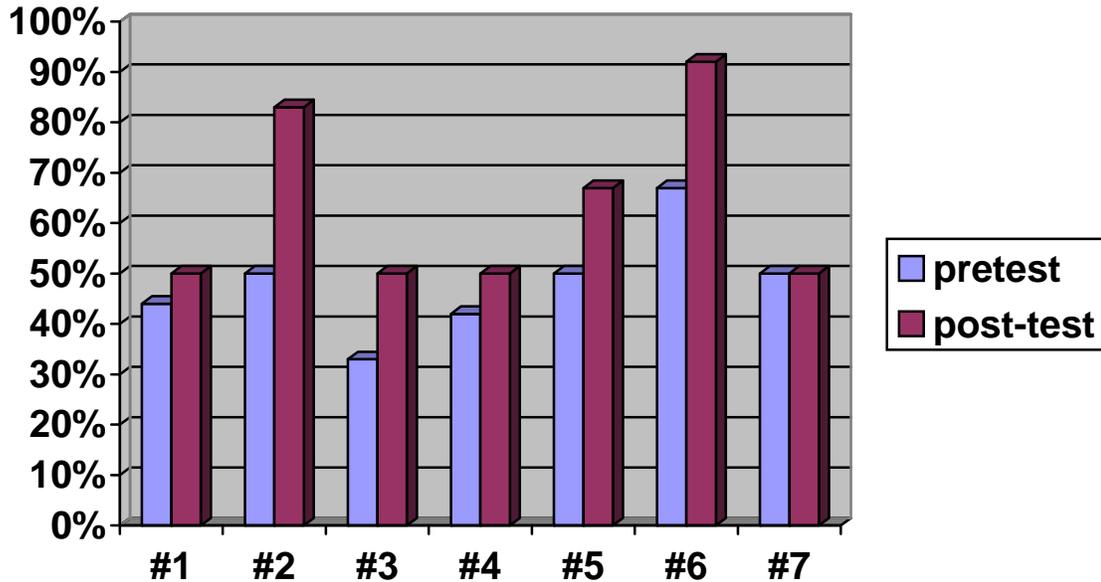percentages. Figure 2, below, graphs the results.

Figure 2

Student #7 the lowest EL student, low intermediate level, did not make any gains.

Students #1 - #6 made gains of 6% - 33% on their reading comprehension of fiction texts.

 The quantitative data shows that on the 10th grade reading level of the Minnesota

Comprehensive Assessment test (MCA) all seven students made gains in their reading

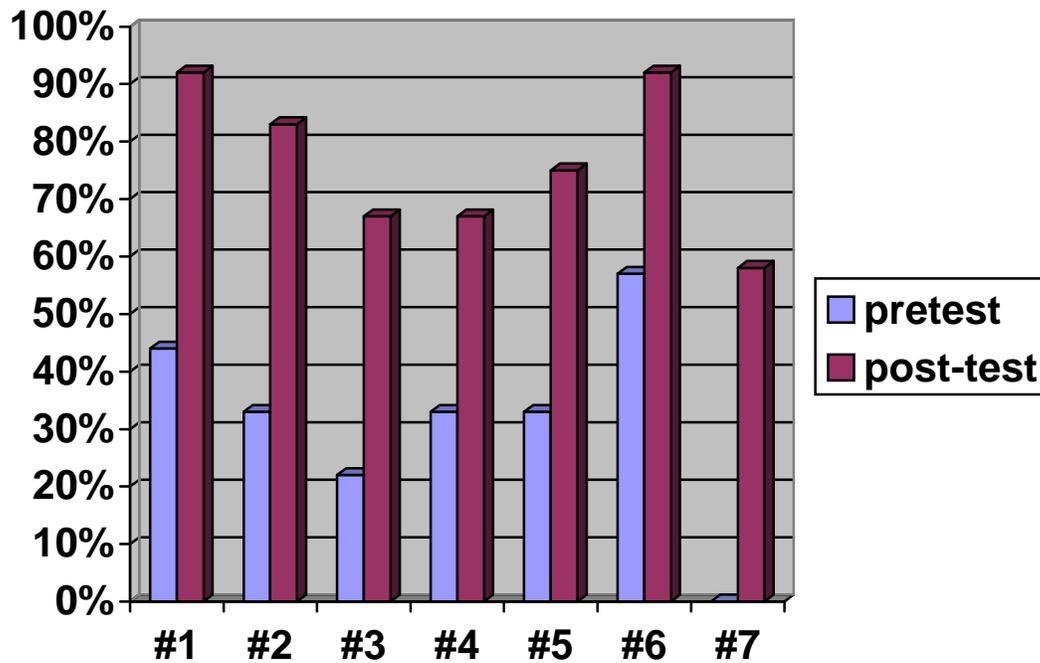comprehension scores. Figure 3, on the next page, graphs the results.

Figure 3

The gains ranged from 34% - 58%, with the low intermediate EL student making the

most gains.

The quantitative data for the CASAS and TABE show that one student's score went

down, three students' scores stayed the same and two students' scores went up. (See

Figure 4 below) Of the two student scores that went up, one moved into a higher English

level. The student that went up an English level was originally at the lowest English

level in the class.

Student #6 was not able to test in April due to the retest rules of the TABE test.   Figure
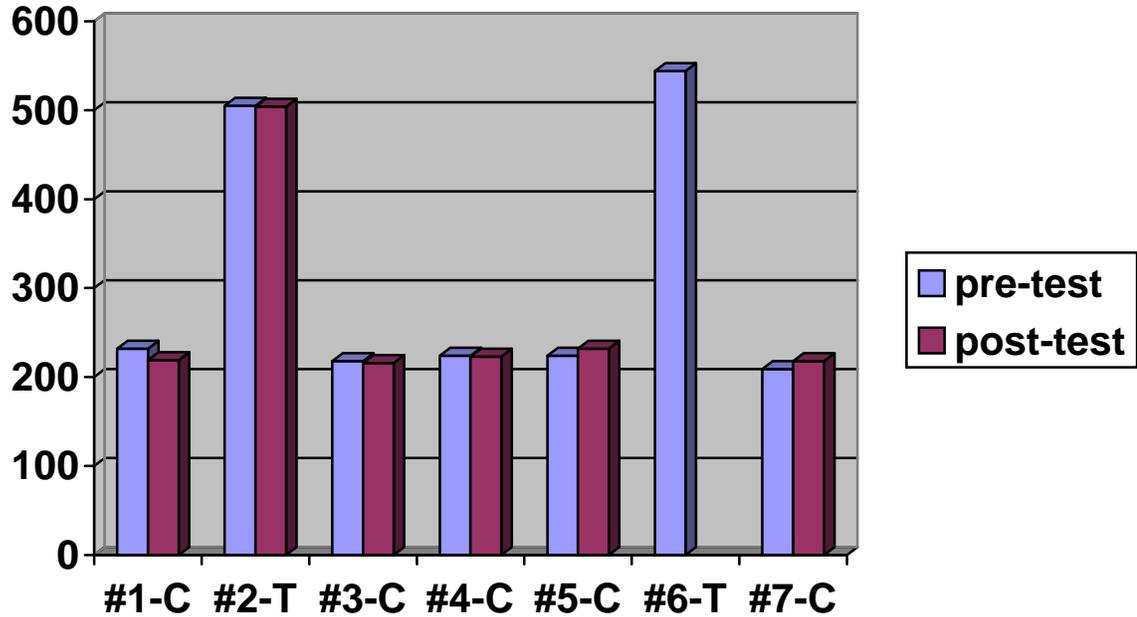
4, below, graphs the results.

Figure 4

Interpretation and Analysis of Results

It is evident that context clues strategies were useful to all of the students. Each

student made significant gains in reading comprehension on at least one of the reading

texts. Students' reading levels and prior experience with a variety of text genres may

have impacted their ability to use the context clues strategies. However, the results of the

study show that students at low intermediate – post secondary levels are able to improve

their reading comprehension when using context clues to help understand unknown

vocabulary words.

The English language learners involved in the research have used non-fiction texts on a regular basis in their English class. The non-fiction texts used in the research were at a lower reading level than the other texts used in the research. The two highest students in the class read at an English level above that of the non-fiction texts, therefore they would have encountered few unknown words in both the pre-test and post-test non-fiction texts, and had less need for context clues on those texts. This can explain the lack of substantial gains in their post-test scores. The high intermediate and advanced English language learners seemed to have benefited most from using context clues on these non-fiction texts.

The English learners as a group have minimal class experience reading fiction texts; in addition, the fiction texts were pulled from a variety of genres: fantasy, historical fiction, mystery, and folk tales. While these fiction texts were all at the 6th - grade reading level, the students all encountered new vocabulary words. The students were also less likely to be able to draw on prior knowledge when reading these texts, which were outside of their life experiences. It is not surprising that the two students with the highest levels of English were able to make the highest gains on the fiction texts. These students had more known words to use as anchors in the sentences and were better able to use the context clues strategies to help figure out the few unknown words that they encountered in the texts.

The 10th - grade reading MCA test was used to ensure that even the higher - level students would encounter a text at their English reading level. The reading comprehension gains on this text were the greatest overall, 34% -58% increases in the reading comprehension scores on the post-test. These scores also demonstrate that

students from a wide range of English reading levels can benefit from the use of context clues. It is hard to know if some of the improvement was due to other factors such as students having more background knowledge on the subject of the post-test text. The pre-test text was about the changes in housing prices in the U.S. and the post-test text was about the changes in the level of adult obesity rates in the U.S. Both texts dealt with non-fiction adult topics and were both written at a 10th - grade level.   As part of the lessons on how to use context clues, students were also re-taught how to draw upon their prior knowledge to help them read and comprehend the texts.

The use of context clues only helped one student increase a level on the federally - mandated CASAS test. The majority of the students showed no significant change in score and one student even went down a level. The CASAS and TABE tests are different from the other texts used in the study because they are timed tests. Students are only given one hour to complete the tests and most students are forced to randomly mark answers on the questions remaining at the end of the hour. Thus, students do not have time to use any reading strategies on the questions remaining at the end of the time limit. In addition many students have negative feelings about these tests and would prefer not to take them.

Reflection

The use of context clues appears to have had a positive effect on the reading comprehension scores of all of my students, although some students benefited more than others. The text genre did impact each student's ability to benefit from the use of context clues.   I will continue to teach context clues in an explicit manner and model the use of context clues in texts of all genres. Through explicit instruction, modeling and tailored

re-teaching, all of the students in the class were able to understand the seven types of

context clues and were able to apply some of the types in their reading. Students

expressed positive feelings about the use of context clues and the two highest English

level students stated that they had used these strategies in their reading outside of the

class.

   This action research has brought to my attention the need to teach my students how to

approach a variety of fiction texts. I plan to begin teaching about the unique features of

historical fiction, folk tales, mystery, and fantasy stories. I will also continue to look for

reading and test - taking strategies, which may help improve my students' scores on the

federally mandated tests that they must take each year.

Further Exploration of Context Clues Action Research
As it Applies to Fifth Grade Students

Methodology

Participants

Eight fifth grade English Learners (EL) participated in this study. The students vary in their English skill levels. The students also vary in their reading levels, from beginning third grade to beginning fifth grade reading levels as measured by the Benchmark Assessment System (BAS).   All of the students attend an English Language class for 30 minutes each day with a certified English as a Second Language instructor. The parents of five of the eight students gave their permission to use their child's pre-test and post-test data in this paper. (All further reference to student data will pertain to these five students only.)

Materials

The pre-test and post-test texts, used in the study, were third grade practice MCA tests: "Astronomical Event on New Year's Eve Occurs once in a Blue Moon" and "Owls Everywhere" both published in the Pioneer Press Newspapers in Education section. Fourth and fifth grade texts were prepared, but students did not complete these texts due to the time limits of the English class.   Consequently, these texts were eliminated from the study.   A four point Likert scale was used with the pre-tests and post-tests. (See Appendix E) Students were asked to rate the difficulty level of the texts and the comprehension questions. Students were given colored gel pens to use on the post-test. In the three daily lessons, the students had been taught to use the gel pens as detective tools to search for context clues within the text.

Procedures

   The action research was explained to all of the students. It was explained that the pre-test and post-tests would be used for a University of Wisconsin- River Falls graduate paper. Students were told that their parents would be asked permission to use their test data and that the test data would not contain any student names.   Each student chose a number, to use as his or her name on the tests. The research followed the same procedures as the first round of research with the adult EL students. The pre-tests and post-tests were carefully correlated to match both the genre of the text and the reading level of the text. The texts were not analyzed to determine if they would align well with the use of context clues, nor were they altered in any way, since the goal was to see if context clues would help with independent reading occurring on standardized tests. Students were given three MCA texts, one each at third, fourth, and fifth grade levels. Students had a thirty- minute class period to complete as much of the three pre-tests as possible. The researcher would have liked to give students adequate time to complete the three texts; however, it was determined to be unethical to use that much class time for the researcher's own benefit. At the end of the MCA text, students completed a Likert scale rating the perceived difficulty of the text and comprehension questions. The teacher corrected the pre-tests and the results were not shared with the students. After the pre-tests were completed, the students began to receive daily instruction on the use of context clues.

Day 1: The classroom teacher conducted a thirty-minute lesson on context clues, using the book Quest Reading and Writing as a base (Hartman & Blass 2007). The same base was used to correlate the style of context clues taught with the lesson given to the adult

EL students in the previous research. However, many changes were made to make the

text readability level more appropriate for the 5th grade students. Students were given a

labeling system for three different common types of context clues: definitions within the

sentence, synonym of the key word in text, and examples of a key word given in the text.

Each of the three different types of context clues had three example sentences printed

below the explanation of the context clue type. Table 1, below, shows the examples the

students were given.

Table 1
Context Clues #1 - #3
    1. Definition
    The definition is given after the words: is, are, means, in other words, also known as, that is…
    Examples
    a.   Lemurs are a kind of monkey that live on the island of Madagascar.
    b. He got a "hole in one", in other words when he hit the ball with the golf club it went right in the hole.
    c. A paleontologist, also known as a dinosaur hunter, found a fossil of a dinosaur in Montana.

    2. Definition or synonym after a comma ", " a dash " – " or inside parenthesis "( )"
    Examples
    a. Mrs. Reardon, an English and reading teacher, is teaching you about context clues.
    b. Madagascar – an island off the coast of Africa- has many unique animals living on it.
    c. Newport Elementary (the best school in the world) has around 300 students.

    3. Examples of words are often given after the phrases: such as, for example, including, and other…
    Examples
        a. Some cultures follow old superstitions such as avoiding unlucky numbers, walking under ladders, and walking in front of a black cat.
        b. She eats a lot of fruits and vegetables including apples, oranges, carrots, and peas.
        c. He does many extremely dangerous things, for example sky diving out of a plan, riding fast on a motorcycle, and climbing tall mountains in the winter.

The teacher gave each student a colored gel pen to use as a detective tool. The students

were instructed to look at the example sentences and use the pen to underline the part of

the sentence that helped them better understand the key word in the sentence.   The

teacher then reviewed which part of the sentence helped identify the key word. The

Table 2, below, shows such a parsed sentence.

Table 2
Parsed Sentences
    <u>Definition</u>
    The definition is given after the words: is, are, means, in other words, also known as, that is…
    Examples
    a.   <u>Lemurs</u> are a kind of monkey that live on the island of Madagascar.
    b.   He got a <u>"hole in one"</u>, in other words when he hit the ball with the golf club it went right in the hole.
    c.   A <u>paleontologist</u>, also known as a dinosaur hunter, found a fossil of a dinosaur in Montana.

Day 2: The English teacher conducted a thirty minute lesson on context clues,

introducing two more types of common context clues: information in a sentence before or

after the key word and using prior knowledge and personal experience combined with

information in the sentence to help understand the key word. Table 3, below, shows the

definitions and examples the students were given; the context clue information that

helped the students understand the underlined word is printed in blue. (See Appendix F

for full lesson worksheet)

Table 3
Types of Context Clues #4 - #5
4. Information in a sentence before or after the word or even in another part of the story may help the reader understand the unknown word.
Examples
    a.   The <u>neko</u> was frightened. It climbed into the little girl's lap. When the little girl petted the <u>neko</u>, it began to purr and meow. The <u>neko</u> and the little girl loved each other.
    b.   A blue moon on New Year's Eve is very <u>unusual.</u> This will be the first time it has happened since 1971 and only the fourth time since 1900.
    c.   The <u>synodic</u> period of the moon is 29.5 days. That's the time it takes the moon to cycle through its different phases.
5. The reader's own experience, prior knowledge, and logic may help him or her learn about the unknown word.
Examples
    a.   The fireman <u>ascended</u> the tree to bring the kitten back down to its owner on the ground.
    b.   The boats were <u>mammoth</u> carrying everything from pins to pianos and sometimes even cars on them.
    c.   The double-decker bus was <u>enormous</u> and had a difficult time turning the corner and driving into the parking lot. It could not find a parking spot big enough to park the bus.

The students followed the same procedures as Day 1, using gel pens to identify the useful

parts of the example sentences. The teacher then went over each example sentence

making sure the students were able to understand how to use that specific type of context

clue. The students were then given six cloze style paragraphs and asked to apply their

context clues training to figure out which word of the three words listed, best fit into the

blank space in the paragraph.   The cloze style paragraphs came from the same book used

with the adult EL students, <u>Comprehension Skills Context Level B </u>(Beech, McCarthy &

Townsend 2001). The book is written at a second grade reading level.   The six

paragraphs used were selected from two different units in the book, to control the

vocabulary and match it to the EL reading levels.   The teacher worked to make all of the

instruction comprehensible for the students, to keep the focus on learning the skill of

using context clues. Most students finished three of the six cloze paragraphs on Day 2.

Day 3: Students were introduced to context clues combined with semantic gradients.

The teacher created four sets of sentence strips with one word missing from each of the

main sentences. The students were given six –seven words listed in semantic gradients

and asked to choose the best word for the blank in the main sentence. After students had

chosen a word, the teacher revealed a second sentence, which gave more information

about what was happening in the main sentence. Students were then asked to review

their answers and make a final decision about which of the words was the best fit for the

main sentence.

Example:
Main sentence: *Jose's mom _____ during the movie.*
Semantic gradient words: s*obbed, cried, sniffled, giggled, chuckled, laughed*
Second sentence: *It was the saddest movie she ever saw.*

This lesson was based on information the teacher obtained from reading the lesson plan

"Solving Word Meanings: Engaging Strategies for Vocabulary Development" by

Greenwood and Flanigan (2007). After going over all four sets of sentence strips, the

students were asked to complete the six comprehension cloze paragraphs from the day

before and to write their own set of sentences that would fit with one of the four sets of

semantic gradient words used by the teacher. An example of a student-generated

sentence is: "Mr. T _____ all the way home." The students then read their

sentences out loud to the class and asked their classmates to choose the best word to

complete the sentence. The students used the list of semantic gradient words that the

teacher had used in her lesson.

Day 4: The teacher quickly went over the five types of context clues, which had been

introduced on Day 1 and Day 2. The students were given the remainder of the thirty-

minute class time to complete the MCA third grade post-test passage.

Findings and Results

The quantitative data shows that all five students made gains in their reading

comprehension scores on the practice third grade MCA reading passage, shown in Figure
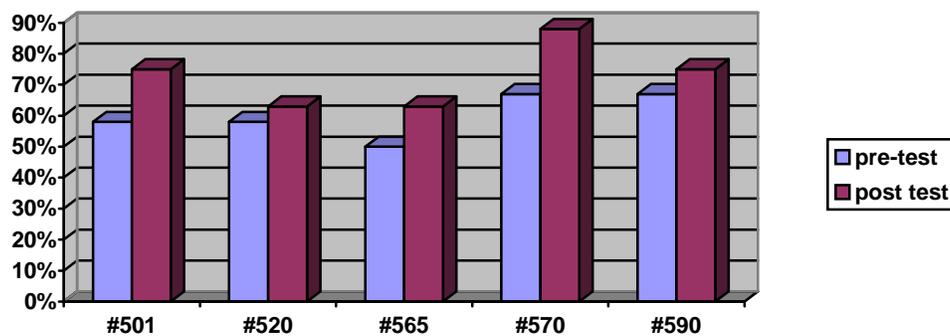
5.

Figure 5

The students reading comprehension scores increased by 5% to 21% after receiving

three thirty minute lessons of instruction on context clues. The students reading levels

range from low third grade level to fifth grade level. The student with the lowest reading

level made the most gains and had the highest score overall on the post-test.

There was no significant change in the students perceived level of difficulty between the

pre-test and post-test, based on a four point Likert scale that the students filled out after

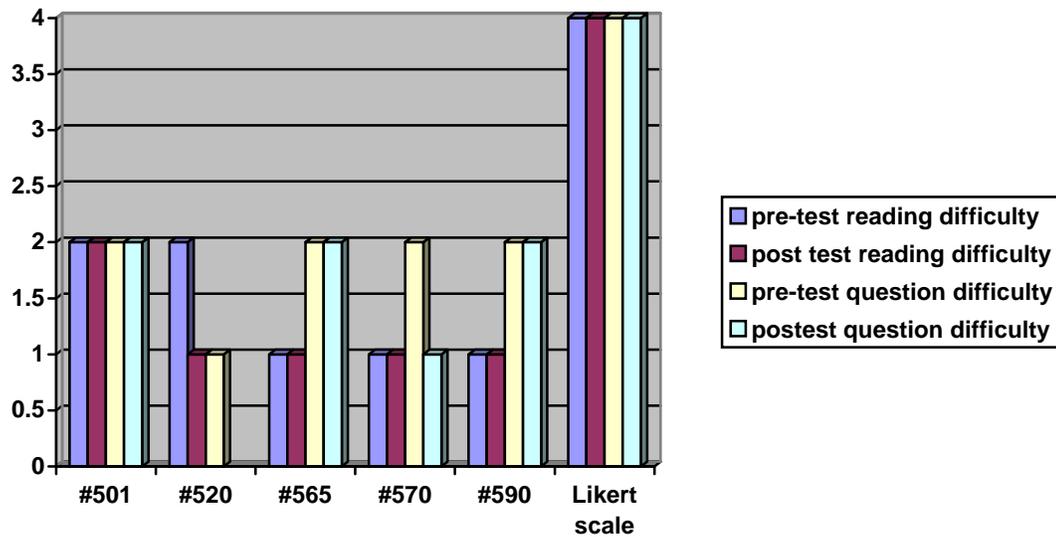completing each test. Figure 6, below, graphs the results.

Figure 6

Interpretation and Analysis of Results

In this second round of research, it was again evident that context clues were useful to

all of the students, although to varying degrees. It is interesting that the lowest reader

made the most significant gain in reading comprehension after learning to use context

clues and that the lowest reader had the highest comprehension score on the post-test.

This is a positive indicator that all students can benefit from instruction in using context

clues, not just the "at grade level" readers.

The pre-test scores revealed that all of the students' comprehension abilities are below their general reading level. The students BAS assessment results showed them reading between a low third to fifth grade reading level, yet not one student scored above a 70% on the third grade MCA reading passage.   This is common among EL students. EL students can develop basic reading skills with general comprehension years before they are able to fully comprehend what they read at an in-depth level involving inference, analysis, and synthesis of the information. This difference between basic comprehension and full academic comprehension is one of the biggest difficulties teachers face in preparing ELs for the unrealistic demands of high stakes state mandated tests.

The research results of the Likert scale suggest that the students do not realize what they do not comprehend. The students all rated the pre-test reading and questions as "not difficult" or only "a little difficult", yet all of the students scored below 70% comprehension on this reading passage. The students are consistently taught at a level above their ability and may not realize how it feels to fully understand what they are reading. In addition when someone is learning a new language, it is common to try to grasp the "big picture", the overall meaning and students may not even realize that they are missing some important information.

Reflection

The most important information gained from this research is the mismatch between the students reading ability and their comprehension ability. It is critical for students to have comprehensible input in order to grow academically and to stay engaged in the learning process. I will recommend to all staff who work with these students, that the students have access to a wider range of reading texts and that specific reading skills be

taught using texts written at the students' actual academic comprehension level. I want students to know what it feels like to be successful, to fully understand, and to be able to use higher level thinking skills to discuss and analyze the reading passages.   As Vygotsky would say, students should be met where they are academically and the teaching must be scaffolded to work within the student's "zone of proximal development".(1978)

   This small study suggests that context clues were useful to the students and the students would benefit from more practice using context clues on a variety of genres and levels of text. Students enjoyed working with context clues and semantic gradients and these types of lessons can increase their specific vocabulary knowledge, allowing students to use known words to better understand new vocabulary with slightly different meanings.

Limitations

   The 5th grade research sample is very small and the results cannot be generalized to all English Language Learners. The research was conducted in a short amount of time because the principal of the school had an ethical obligation to set limits on the use of students' class time. He required that only students that needed to improve their use of context clues strategies be involved in the lessons. In addition it was important that very little class time be used for the administration of pre-tests and post-tests. Student time needed to be spent on instruction.   The researcher had hoped to assess students with a variety of MCA reading passages, but students were only able to complete one of the reading passages in the thirty-minute class period.

The number of students in the study was also restricted by the need to have signed parent permission slips. The researcher was only able to write a parent permission slip in English, which meant that many of the parents may not have been able to understand the permission slip. The children were enlisted to help translate the form for their parents.

Comparison of Research Projects

The first action research on the adult English Learners was conducted with a greater variety of reading passages and over a longer period of time. The adult students were community education students with the single goal of improving their English ability. The students and the instructor had considerably more freedom in choosing what and how to learn. The researcher had been the English instructor for the adult class for one and a half years and had developed a strong relationship with the class. The researcher had a clear understanding of the academic level of each student and also knew a lot about the learning styles of the students.

The 5th grade English Learners have many goals with only one of them being to improve their English: their other goals focused on acquisition of specific academic skills. The instructor had a limited amount of time to devote to the research. The lesson on context clues was the first time that the researcher had worked with this specific group of students, although as an English teacher, the researcher will continue to work with the students on other academic skills after the research is completed. The researcher was just learning about the students and developing a sense of their personal academic levels and learning styles.

With the difference in research structure, it is surprising that both groups of students showed positive results in the increase of reading comprehension. In an effort to compare compatible data, the growth in the MCA assessment scores of each group is summarized in Figure 7, below, and will be examined together.
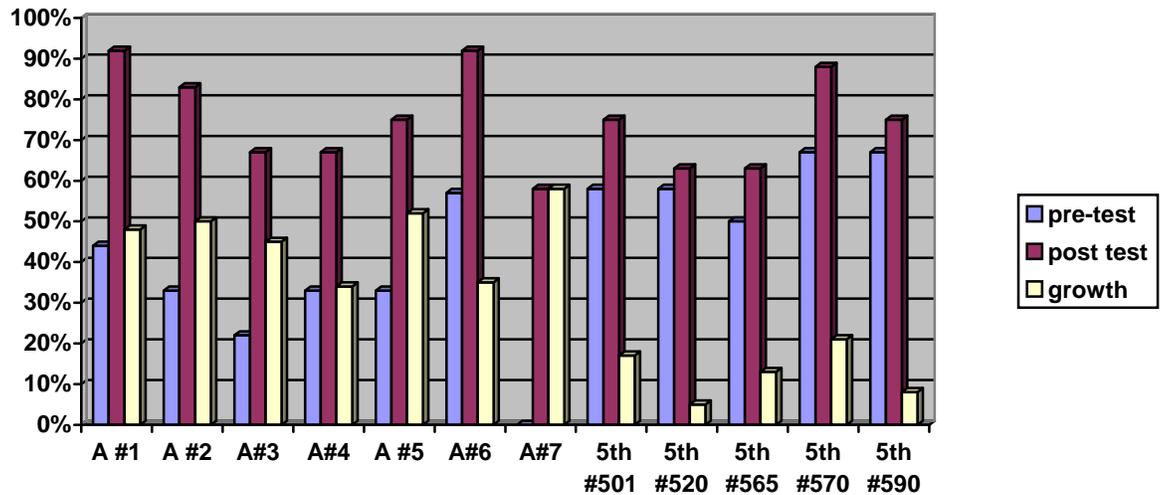

Figure 7
Adult English Learners' MCA scores on 10th grade test
Compared to
Fifth grade English Learners' MCA scores on 3rd grade test

The adult students clearly made more growth than the fifth grade students. The instruction content of both groups was similar in nature, but not equal in terms of time. The fifth grade students received 1 ½ hours of instruction spread out over 3 days and the adult students received 5 hours of instruction spread out over 5 days. These differences resulted in the adults receiving a more detailed and in-depth introduction to the use of context clues in reading.

The fifth grade students spent 1 hour learning about 5 different types of context clues, while the adults spent 3 hours learning about 7 different types of context clues. The adults also took time to ask questions and clarify any misunderstandings that they may have had.

The fifth grade students completed 6 cloze style paragraphs using context clues to help fill in the one missing word from each paragraph. The adult class completed 18 cloze style paragraphs from the same book and the instructor had time to go over the answers for each paragraph. The fifth grade group did not have time to go over the answers; however, four of the five students had 100% on the lesson and one student had missed only one question. The fifth grade students demonstrated competence in using context clues in short paragraphs written at a second grade reading level.

Each group had one lesson that the other group did not have at all. The adult class began with a review lesson on the use of prediction and accessing prior knowledge when reading a new text. The instructor had worked with the students for a long time and had created a strong base for using prediction and prior knowledge- both foundational skills to being able to use context clues. Going into the fifth grade group, the researcher was unaware of their experience using prediction and prior knowledge and would have liked to spend time on these skills, but that was not an option at that time.

The fifth grade group did benefit from learning context clues combined with the use of semantic gradient word lists. The researcher discovered information on this combination lesson while preparing to work with the fifth graders. The students seemed to understand the lesson well and were actively involved during the lesson. The lesson had the added bonus of teaching vocabulary words while enhancing the understanding of context clues.

The adults had comprehension growth ranging from 34% to 58%. The fifth grade students had comprehension growth ranging from 5% to 21%. Considering that the fifth grade students had less than one-third as much instructional time as the adult students had, it would be interesting to retest the fifth graders after giving them an equal amount of instruction time. In both groups the least academically experienced student made the most growth over all. This would indicate that students at a range of academic levels would benefit from learning to use context clues to strengthen their reading comprehension abilities.

Conclusion

Based on the data collected from both research studies, learning to use context clues had a positive impact on all of the English Learners' reading comprehension scores. The use of context clues appeared to have a more positive affect on the adults' reading comprehension.   However, this may be misleading since the adults received more instruction on using context clues than the fifth grade students received. There is not enough research to conclude that the adults benefited more from context clues. The researcher does wonder if the adults' added life experience gives them an advantage in applying context clues to their reading, especially when students combine the use of context clues with prior knowledge.

The fifth grade students only pre-tested and post-tested on the third grade non- fiction MCA passages, so the research does not provide any data on how the use of context clues may be impacted by text level and genre.   The adult research group did use a wide variety of text levels and genres. The adults had the most comprehension growth on the

tenth grade MCA text: which was at a higher reading level than all of the fiction and non-fiction texts, but may have been lower than some of the CASAS and TABE texts.

Context clues seemed to be useful to all students, but not equally useful. Among the participants in these studies, the least academically experienced students showed the most growth, but the trend did not last across all academic levels from the lowest to the highest. It was also not consistent across all text genres. The academically least experienced adult had 0% growth using context clues on the fiction texts, while two of the most academically experienced adults had more growth on fiction texts than all the other adults had. There may be some interaction among academic English levels and text genres when it comes to predicting reading comprehension growth due to the use of context clues. More research needs to be done to determine the best way to increase the reading comprehension among English Learners of all ages.

These research results have encouraged the researcher to continue explicit instruction of context clues in addition to vocabulary instruction in her English classroom. In addition the researcher would like to continue to teach context clues in combination with semantic gradient word lists hoping to enable students to notice the fine differences between similar words. It will continue to be a balancing act to teach skills which will increase the overall reading comprehension of English Learners and to teach test taking skills which will increase state mandated test scores, thus keeping the state funding flowing to the programs.

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Appendix A
List of Adult English Learners Pre-test and Post-test by Source

Source: **Daily Warm-Ups Reading Grade 6**
1. Masking the Odor   page 90
2. Rewarding Dinner   page 93
3. Dust off the Memories   page 111
4. A Nation Divided   page 115
5. Nocturnal Neighbors   page 143
6. The Case of the Missing Violin   page 150
7. The Flying Machine   page 165
8. The Singing Elves   page 166

Source: **Life Skills and Test Prep** level 3
1. Dear Mrs. Garnett   page 34
2. Thank You   page 35
3. Hi Lori   page 61
4. How to Make an Emergency Kit   page 78

Source: **Life Skills and Test Prep** level 4
1. One Cold Night   page 73
2. Are You Prepared   page 74
3. Local Stores Involved in Deceptive Advertising   page 87

Source: **Pioneer Press, Newspapers in Education, MCA practice tests**
1. Owls Everywhere - 3rd grade
2. Hot Housing – 10th grade
3. U.S. Adult Obesity Rates Leveling Off – 10th grade

Source: **News for You, Adult Education /ESL / GED Newspaper**
          www.newsforyouonline.com
1. The Detroit You Know May Soon Cease to Exist – April 14, 2010
2. U.S. States Collect Unused Medications – March 3, 2010

Appendix B

6 Point Likert Scale

Please rate the difficulty level of this text.

1---------Very Easy

2---------Easy

3---------Just Right

4---------A Little Difficult

5---------Difficult

6---------Very Difficult

Appendix C

Teacher Created Context Clues Examples

Guessing the Meaning from Context

1. **Definitions after the word "is", "are", "means":**
Example: *Lemurs* are a kind of monkey that live on the island of Madagascar.
Example: Minnesota government offices are known for having a ***lot of red tape***, meaning you have to fill out a lot of forms and wait in a lot of lines to get anything done at a government office.

2. **Definition or synonym after a comma "," or a dash "-" or in "( ) ":**
Example: ***Kery***, an English teacher, works for Stillwater Area School District.
Example: ***Madagascar*** - an island off the coast of Africa- has many unique animals.

3. **Examples of a word are often given after the phrases "such as", "for instance", "for example", "and other":**
Example: Some cultures follow old ***superstitions*** such as avoiding unlucky numbers and making the sign of the cross when passing a cemetery.

4. **Opposites of the word are sometimes used and often follow the words "but" and "however" :**
Example: The driving laws may seem ***trivial***, but they are actually very important and if you don't follow them, you may get a ticket.
Example: He sometimes acts ***idiotic***, however he is very smart.

5. **The readers own experience or logic may help him/ her learn an unknown word:**
Example: One player ***pitches*** the ball and another catches the ball.
Example: The fireman ***ascended*** the tree and brought the little girl's kitten back down to her.

6. Information in another part of the story or in a separate sentence may help the reader figure out the unknown word:
Example: The ***neko*** was frightened. It climbed into the little girl's lap. When the little girl petted the ***neko***, it began to purr and meow. The ***neko*** and the little girl loved each other.

7. **Certain expressions mean a definition or more information is coming, "in other words", "that is", and "i.e.":**
Example: He got a ***hole in one***, in other words, when he hit the golf ball it landed in the hole on the first hit. (This example can also use prior knowledge if the reader knows about golf.)

Appendix D

Context Clues Practice

Practice Using Context Clues

1. **Yama`** is a Japanese word for mountain.

2. She is a **volatile** child, but she can sometimes be calm and easy going.

3. Countries such as Bolivia and Mongolia are **landlocked** and depend on agreements with other countries to give them access to the ocean.

4. Many Buddhist believe it is important to **extinguish** all desires, just as a firefighter **extinguishes** a fire at a burning house.

5. The two countries were on the **brink of** war, in other words, a war could start between the two countries very soon.

6. He is a **botanist;** he studies flowers and plants, for a garden company.

7. The little boy likes to eat fruit and lots of **red mea**t, such as, hamburgers, steaks, and beef roasts.

Appendix E

4 Point Likert Scale

How difficult was this reading passage?

1--------------------not difficult

2--------------------a little difficult

3--------------------difficult

4---------------------very difficult

How difficult were the questions that went with the reading passage?

1--------------------not difficult

2--------------------a little difficult

3--------------------difficult

4---------------------very difficult

Appendix F

Context Clues Labeling and Examples

Types of Context Clues

2.   Definition
The definition is given after the words: is, are, means, in other words, also known as, that is…
Examples
 a. Lemurs are a kind of monkey that live on the island of Madagascar.
d.   He got a "hole in one", in other words when he hit the ball with the golf club it went right in the hole.
e.   A paleontologist, also known as a dinosaur hunter, found a fossil of a dinosaur in Montana.

2. Definition or synonym after a comma ", " a dash " – " or inside   parenthesis "( )"
Examples
d.   Mrs. Reardon, an English and reading teacher, is teaching you about context clues.
e.   Madagascar – an island off the coast of Africa- has many unique animals living on it.
f.   Newport Elementary (the best school in the world) has around 300 students.

3.   Examples of words are often given after the phrases: such as, for example, including, and other…
Examples
   a.   Some cultures follow old superstitions such as avoiding unlucky numbers, walking under ladders, and walking in front of a black cat.
   b.   She eats a lot of fruits and vegetables including apples, oranges, carrots, and peas.
   c.   He does many extremely dangerous things, for example sky diving out of a plan, riding fast on a motorcycle, and climbing tall mountains in the winter.

4. Information in a sentence before or after the word or even in another part of the story may help the reader understand the unknown word.
Examples
d.   The neko was frightened. It climbed into the little girl's lap. When the little girl petted the neko, it began to purr and meow. The neko and the little girl loved each other.
e.   A blue moon on New Year's Eve is very unusual. This will be the first time it has happened since 1971 and only the fourth time since 1900.
f.   The synodic period of the moon is 29.5 days. That's the time it takes the moon to cycle through its different phases.

5. The reader's own experience, prior knowledge, and logic may help him or her learn about the unknown word.
Examples
d.   The fireman ascended the tree to bring the kitten back down to its owner on the ground.
e.   The boats were mammoth carrying everything from pins to pianos and sometimes even cars on them.
f.   The double-decker bus was enormous and had a difficult time turning the corner and driving into the parking lot. It could not find a parking spot big enough to park the bus.