A TEXT ANALYSIS OF CONTEXT CLUES IN NONFICTION LITERATURE

by

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CHAPTER ONE: INTRODUCTION

> American English is a dynamic, spirited, democratic system of communication. All words and expressions are invited to participate in the system whether they are ancient, newly coined, or taken from other languages. Some words and expressions eventually disappear, never to be seen or heard again. Others enter the language and remain, working their way up from slang to "acceptable" English. Some words leave for a while and then reappear with meanings different from their original meanings. Our language is a pulsating mixture that reflects history, sense of humor, creativity, and technological advances of our people.
>
> -Johnson & Johnson, *Words: The Foundation of Literacy* (2011, p.7)

According to the Global Language Monitor, on January 1, 2014 the estimated number of words in the English Language was 1,025,109.8, with a new word being included every 98 minutes (languagemonitor.com)! Since English is such a dynamic and ever-changing language, pre-teaching vocabulary is something that I have used numerous times in my teaching and strongly believe in. The adult English Language Learners (ELLs) that I have worked with appear to appreciate the pre-teaching of words and have a better understanding of the text when unknown words are defined and discussed. Especially when learners do not fully understand the context of a reading, pre-teaching vocabulary has been a very effective teaching strategy to use.

Research has shown that failure to recognize even 2% of words in a text limits comprehension, making general vocabulary knowledge the best predictor of reading comprehension (Proctor, Carlo, August, & Snow, 2005). The single best predictor of an

ELL's academic achievement is his or her vocabulary knowledge (White, Graves, & Slater, 1990, as cited in Wessels, 2011). Vocabulary knowledge is considered extremely important because if students do not understand the meaning of words within a text, then they will have trouble understanding the content within that text, resulting in lack of or no comprehension (Wessels, 2011). Past research on vocabulary knowledge has stressed the importance of the number of words known and its direct correlation to reading comprehension for native and non-native speakers (August, Carlo, Dressler & Snow, 2005; Graves, Slater, & White, 1990, as cited in Wessels, 2011; Nation, 2006; Quian, 2002, as cited in Wallace, 2007; Schmitt, Jiang, & Grabe, 2011; Wallace, 2007). If there are too many unknown words in a text for language learners, then comprehension can easily be disrupted (August et al., 2005). In a school setting, it is necessary that language learners have sufficient vocabulary to be able to read well because reading is an essential aid in learning a second language (Grabe, 2009, as cited in Schmitt et al., 2011; Hudson, 2007, as cited in Schmitt et al., 2011; Koda, 2005, as cited in Schmitt et al., 2011). In a study done with 661 non-native speakers of English on the percentage of words known in a text and comprehension, if all the words in the text were known (100%), then 75% of the material was comprehended; if 90% of the words were known, then 50% of the material was comprehended (Schmitt et al., 2011). This study reinforces the notion that vocabulary knowledge is critical to one's reading comprehension. Even when non-native speakers of English knew the majority to all (98%-100%) of the words in a text, they didn't understand the texts completely (Schmitt et al., 2011).

Since the importance of vocabulary knowledge has been discussed to show the importance for reading comprehension, the importance of reading academic context for comprehension will now be discussed. English language learners need to be able to read and comprehend large quantities of academic information in order to successfully complete college courses (Lei, Berger, Allen, Plummer, & Rosenberg, 2010). Goldenberg (2008) notes that ELLs need to learn not only English but "academic English," defined as

> the abstract, complex challenging language that involves such things as relating an event or series of events to someone who was not present, being able to make comparisons between alternatives and justify a choice, knowing different forms and inflections of words and their appropriate use, and possessing and using content-specific vocabulary and modes of expression in different academic disciplines (p.9).

In order to participate successfully in a classroom setting, ELLs must be able to speak and write academic English (Goldenberg, 2008). Academic English is difficult to master because it draws on new vocabulary, more complex sentence structures, and rhetorical forms that are generally not used outside of a classroom (Goldenberg, 2008).

While understanding the language of academic English is important for successful students, understanding the language of literature is important for reading comprehension of ELLs in general. Since literature is culture-bound, authors expect readers to share common background information; however, ELLs are not always aware of these ideas (Claire & Haynes, 1994, as cited in Mikulecky, 2011). Figurative language interpretation

is based on learners' background knowledge and in order to comprehend a figurative phrase, learners must be familiar with the cultural values and beliefs that form the context of the phrase (Palmer & Brooks, 2004). Story themes that are not common in a language learners' culture may be difficult to comprehend (Haynes, 2007).

As aforementioned a language learner's background knowledge affects their comprehension in the target language. In a study done by Bifuh-Ambe (2009) on the success of an English language learner at a university, the learner had difficulties comprehending course content due to lack of prior knowledge, poor word recognition, and the inability to understand the internal structures of texts. These factors led to an inability to participate in class discussions and required the learner to read texts multiple times and use additional readings in order to aid in the comprehension of the material.

ELLs face difficulties due to their word breadth (the number of words known) and their word depth (the meaning of words) when it comes to academic reading comprehension (Lei et al., 2010). Vocabulary breadth and depth are equally important factors for the performance of ELLs on academic reading (Quian, 2002, as cited in Wallace, 2007). An ELL's vocabulary breadth and depth also impact their ability to understand English.

In a review of vocabulary studies from eight different countries done on high school and university English as a Second Language (ESL) learners and English as a Foreign Language (EFL) learners, Laufer (2000, as cited in Schmitt, et al., 2011) found that their vocabulary size ranged from 1,000 to 4,000 words. A minimum of 3,000 to

5,000 words is needed for extensive reading, an approach to reading in which the student reads a large number of unassigned reading materials outside of the classroom and focuses on the meaning rather than on the language (Carrell & Carson, 1997; Wallace, 2007). In 1998, Day and Bamford (as cited in Mikulecky, 2008) documented the benefits of extensive reading: development of a positive attitude toward reading in a second language, motivation to read more, increased reading fluency, gains in vocabulary and grammar knowledge, and improvement in writing in the second language.

In a study done by Nation in 2006, it was concluded that a very large range of vocabulary, much more than previously thought, was needed to read authentic texts (e.g., newspaper, novel). Earlier research by Laufer in 1997 (as cited in Prichard, 2008) implied that about 3,000 *word families*, or "group[s] of words sharing the same root or base" (Harris & Hodges, 1995, p. 282), provided the lexical resources necessary for an ELL to read authentic materials independently. However, Nation argues that 8,000-9,000 word families are needed, along with the ELL reader knowing 98% of the words in the text for adequate unassisted comprehension. Most L2 learners do not have word-families as extensive or inclusive as native speakers of English (Nation, 2006). According to Kurnia (2003, as cited in Nation, 2006), few L2 learners gained adequate comprehension with 98% word knowledge (1 unknown word in 50) when working with a nonfiction text. This information coincides with the aforementioned study from Schmitt et al.(2011), that non-native speakers of English who knew the majority to all (98%-100%) of the words in a text didn't understand the texts completely. Therefore, other factors must be mentioned

that affect a language learner's vocabulary knowledge and comprehension; these are one's first language, mental schemata and cultural background. These factors will be further discussed in Chapter Two.

While different factors affect one's vocabulary knowledge and comprehension, it is extremely important for language learners to become proficient readers. Reading is considered one of the most important academic skills and is highly correlated with student achievement (Bishop, 2003, as cited in Brown, 2007; Krashen, 1995, as cited in Brown, 2007). Ultimately, in academic settings, reading is the basis of instruction in all aspects of language learning: reading textbooks for language courses, writing, revising, developing vocabulary, acquiring grammar, editing, and using computer-assisted language learning programs (Mikulecky, 2008).

Since vocabulary knowledge is so important to reading, and reading is extremely important to language learning, I was curious about other ways, besides pre-teaching words, ELLs may learn the meanings of unknown words in texts. My own experience coming across unknown words back in college and even today, piqued my interest in how one learns new vocabulary.

Background of Researcher

During my first year of college, even as a native speaker of English, there were many words that I did not know the meanings of in my readings. I was able to decipher meanings using the context of the texts, since biology books and other academic books have specific word clues that make it easier to decipher meaning. For example, certain

phrases such as *known as*, *is called*, *refers to*, and *is defined* as are extremely helpful in identifying what the definition of a word is within a sentence. These phrases, which can be labeled *context clues*, help to identify which surrounding words should be looked at in order to understand meaning. Other techniques such as noticing bolded, italicized or underlined words also help readers to identify important words or which word is being defined within that text.

Having used the context clues found in academic content books, I was curious about the context clues that are used in literary texts. I was interested in finding out to what extent literature uses context clues for vocabulary and reading comprehension and what those clues are.

Words are not often explicitly identified through the use of bold, italics, or an underline in literature, except in students' books in K-12 schools. Literature readings also do not frequently (if ever) provide convenient context clue words such as *defined as* to help readers comprehend unfamiliar or new words. This piqued my curiosity about how teachers use context in literature readings to help ELLs understand meanings of unknown words without pre-teaching the majority of the words. Research has shown activities that use the context in readings are beneficial for learners because confidence in their abilities to guess at the meanings of unfamiliar words is developed (Fukkink & De Glopper, 1998).

A technique that native speakers of any language can easily use (if they are proficient enough) when they come across an unknown word in a reading is to see if they

can identify the root form of the unknown word. This is known as using the morphology of a word, such as suffixes, prefixes, and root form (Ying, 2001), to understand it. If readers can identify the root form of a word, they can make a more accurate prediction of the meaning of that word. Recently, I was reading Barak Obama's book "Dreams from My Father," which is very well written and contains quite a few words I do not know the exact definition of. I was able to predict the meaning of 'judicious' by identifying that the root form was the word 'judicial'. In this case I was tired and not thinking clearly (I often read when I can't sleep) and could not think of the meaning right away. I paused and thought of the words 'judicial' and 'judge' and thought it must have something to do with one's judgment. Then I continued reading the rest of the sentence "She was teased mercilessly for her name, Stanley Ann (one of Gramps's less judicious ideas - he had wanted a son.)" (Obama, 2004, p. 19). I re-read the sentence and based on my knowledge of the word 'judge,' the placement of the word, and the context of the sentence, I was able to confidently predict the meaning of 'judicious,' an adjective that refers to one's judgment. I did not predict the exact denotation of the word through my strategies but I had enough knowledge not to misconstrue the meaning of the sentence. I want to be able to teach my learners these skills, but my lack of knowledge about how to do it causes me to be concerned.

One of my ESL professors shared a story about a time when one of her English language learners had done a writing assignment on the topic of families. In one sentence the language learner wrote, "The mother is the *basement* of the family." My professor

understood that the learner should have written, "The mother is the *foundation* of the family." This shows that even when words have similar meanings, there are certain contexts in which the words are not interchangeable. Many English words are polysemous (having multiple meanings), and the exact meaning of a word is largely determined by the context. So even though dictionaries provide the definitions of a word, they do not specify which meaning is appropriate in a certain context (Mori & Nagy, 1999). Full knowledge of a word includes its abstract core features and its use in particular contexts (Bolger, Balass, Landen, & Perfetti, 2008), which is difficult knowledge to attain, even for native speakers, because of the ever-changing use and expansion of meanings of words (Henriksen, 1999). From firsthand experience, I know how frustrated learners get when they learn a definition of a new word but that definition changes depending upon the context the word is used in. Therefore, I am interested in being able to help ELLs use the context to gain some knowledge of unknown words they encounter in readings.

Purpose of Research

A couple years ago, I was working as the reading teacher at an English as a Second Language (ESL) adult evening school. My director noticed how often I pre-taught vocabulary and told me to stop and have the learners focus on the context of the readings in order to understand the meanings of words. I have some issues with this teaching strategy because the learners do not know how to use the context to do this, and I do not know the best way to teach my learners how to properly do so. I realize this is a

gap in my teaching ability and a serious disadvantage to my learners, for using context to learn vocabulary is a beneficial skill to have when there is no one to pre-teach them vocabulary (Jenkins, Matlock, & Slocum, 1989; Nagy, Herman, & Anderson, 1985).

When I did not pre-teach 'difficult' (unknown) words before a reading to my learners, they would either get out a bilingual dictionary and look up the meaning/s of the unknown word or raise their hand and ask me to describe the meaning of the word. Even when students did look up unknown words in their bilingual dictionaries, it was not always to their benefit because the meaning of the word was dependent upon the context in which it was used. Also, using a dictionary does not always improve comprehension, for looking up words interferes with the ELL readers' short-term memory and prevents them from focusing on the text as a whole (Bensoussan, Sim & Weiss, 1984, as cited in Prichard, 2008; Koyama & Takeuchi, 2004, as cited in Prichard, 2008; Knight, 1994, as cited in Prichard, 2008). Sometimes language learners locate the wrong dictionary entry, leading to miscomprehension (Bogaards, 1998, as cited in Prichard, 2008; Luppescu & Day, 1993, as cited in Prichard, 2008; Tang, 1997; as cited in Prichard, 2008). Even when language learners use electronic dictionaries and are able to look up a greater number of words in a shorter time than when using printed dictionaries, comprehension is not increased (De Ridder, 2002, as cited in Prichard, 2008; Koyama & Takeuchi, 2004, as cited in Prichard, 2008).

In addition to consulting a dictionary or another individual, Fraser (1999) has identified other strategies that second language readers use when confronting an

unfamiliar word. These include ignoring the word and continuing reading, or inferring word meaning on the basis of linguistic and contextual cues. Since my director did not want me to continue pre-teaching vocabulary and I did not want my learners to be so dependent their dictionaries or their teachers, I became curious about the linguistic and contextual cues (context clues) that learners can use to help them with unknown words.

In order to find out more about context clues, this study uses text analysis. Text analysis is "any systematic reduction of a flow of text to a standard set of statistically manipulable symbols representing the presence, the intensity, or the frequency of some characteristics relevant to social science." (Roberts, 1997, p. 14).

The text analysis was conducted on excerpts from two nonfiction stories. One story was found in a book used to prepare for the GED exam and the other in a book used for a college freshman English class. The readings in the two books were analyzed and compared to find to what extent they used context clues. The learner population in mind during this text analysis was adult ELLs preparing for their GED exams and ELLs wanting to successfully complete college literature courses.

Nonfiction literature was chosen because I am personally drawn to it because I think there are many interesting true stories. It was also chosen because I thought the chances of the authors making up their own words would be much lower in nonfiction than fiction. A specific example of this that I encountered occurred when J.K. Rowling's 1998 book "Harry Potter and the Sorcerer's Stone" was assigned to my advanced ESL learners for summer school reading. There were many words throughout the book that

J.K. Rowling made up. 'Muggle' is an example of such a word which means 'a person who does not have magical powers'. In order to understand the meaning of these made-up-words one had to use the surrounding context to predict the meaning, for none of these words were explicitly defined throughout the story. My learners struggled with these words for they could not look them up in a dictionary, but more so because they didn't fully understand how to use the surrounding context. This hindered their ability to make confident predictions of the meanings of the unknown words. For the purpose of this study I wanted to analyze more familiar words (which can be found in a dictionary); therefore, I thought nonfiction was the best choice for this analysis.

During this analysis the focus was on finding what context clues are used in nonfiction literature. I wanted to find context clues in literature that help readers to understand unfamiliar or unknown words. Context clues can be useful for guessing the meanings of unknown words, which leads to better overall comprehension of a text (Greenwood & Flanigan, 2007; Huckin & Bloch, 1993). Using the context of a reading to understand the meanings of words and the intended message is a beneficial and necessary skill for ELLs to have when becoming academically proficient in a language. There were twelve specific context clues that this text analysis looked for based on two studies: Ying's 2001 study on context clues and Palmer and Brooks's 2004 study on figurative language. The twelve context clues are further discussed and defined in Chapter Two. By examining stories found in a GED preparation book and a college freshman literature

book, a text analysis was conducted to find what context clues are used within literature at those levels.

Research Questions

There were two specific questions that I expected the text analysis would answer:

1. *To what extent does nonfiction literature, found in freshman college books and GED preparation books, contain context clues that could be used to facilitate vocabulary and reading comprehension?*
2. *What kinds of context clues are used in nonfiction literature?*

Summary and Chapter Overviews

In this chapter the importance of vocabulary knowledge on reading and language learning was discussed. My background as a researcher was also discussed. Then the purpose of this study, a text analysis to find context clues, was examined along with the two questions that I hoped to answer after completing the text analysis on the two nonfiction stories.

Chapter Two provides a literature review on the vocabulary learning of native speakers and second language speakers, the importance of vocabulary knowledge and reading for language learning. Comprehension, interpretation and reading comprehension of ELLs will be discussed. The contexts and different types of context clues used for this analysis will be reviewed along with the gap that I perceive there to be regarding context clue identification in second language learning.

Chapter Three describes the research design and the methods used to analyze the two texts. Chapter Four will present the results of the text analysis I did on the reading taken from the GED book and the reading taken from the college freshman literature book. Then Chapter Five will reflect on the finished text analysis, the data I collected, along with limitations, implications, strategies and recommendations for teaching learners how to use context clues found in literature readings in order to improve their reading comprehension.

CHAPTER TWO: LITERATURE REVIEW

The purpose of this study was to perform a text analysis to find out what kind of context clues are used in nonfiction literature that can help readers with unknown or unfamiliar words. By conducting a text analysis I wanted to answer the following questions: *To what extent does nonfiction literature, found in freshman college books and GED preparation books, contain context clues that could be used to facilitate vocabulary and reading comprehension? What kinds of context clues are used in nonfiction literature?*

It has been widely acknowledged that native speakers of a language are able to infer meaning of unknown words from the surrounding context and this skill is largely responsible for a native speaker's extensive vocabulary size (Walters, 2006). Since the meaning of unknown words can be relatively clear in some contexts yet opaque or misleading in others (Webb, 2008), identifying specific context clues may be a strategy that can help ELLs more accurately identify meanings.

The text analysis was done on a short nonfiction story taken from a GED book and a short nonfiction story taken from a college freshman literature book. The main goal was to find out what context clues are used in nonfiction literature and identify what types and which clues are used most often.

In this chapter, literature on the vocabulary learning of native and non-native language speakers will be discussed. Then the importance of vocabulary knowledge, including morphemes will be analyzed. Comprehension and interpretation will be compared, then reading comprehension of native speakers and ELLs will be examined. Different contexts will be defined and the contexts that pertain to this study will be identified. Different types of context clues will be also defined and research on how they have been used to help learners better understand readings included. Discussion of the gap I perceive there to be in the current literature regarding context clues for ELLs' vocabulary and reading comprehension will conclude this chapter.

Vocabulary Learning for L1 and L2 Speakers

For native speakers, vocabulary learning is a complex process where the learner is challenged with three different (but related) tasks to acquire word meaning: 1) *labeling*, 2) *packaging*, and 3) *network building* (Aitchinson, 1994, as cited in Hendriksen, 1999). *Labeling*, also known as *mapping*, is the process of recognizing which sequence of sounds can be used as a name for an entity or thing; for example, creating a link between a concept, sign, and referent (Aitchinson, 1994, as cited in Hendriksen, 1999; Clark, 1993, as cited in Hendriksen, 1999). *Packaging* is the process of recognizing which things can be packaged together under one label and transferring or applying the same label to other occurrences so as to discover the range of meanings for the same words, such as the derived and figurative meanings of words and phrases (Aitchinson, 1994, as cited in Hendriksen, 1999). *Network building* is the process of recognizing sense

relations or intensional links between words, otherwise known as fitting words together into semantic networks (Aitchinson, 1994, as cited in Hendriksen, 1999). *Mature lexical entry* is a term used by Wesche (1996, as cited in Hendriksen, 1999) to describe the mental representation of the extended knowledge base of the kind an adult native speaker will have developed beyond the initial knowledge obtained through labeling or mapping during the vocabulary learning process.

A native speaker's knowledge of a certain lexical item moves from mere word recognition (acknowledging that the word exists in the target language) through different degrees of partial knowledge towards precise comprehension during the process of acquiring word meaning (Brown, 1994, as cited in Henriksen, 1999). In research based on first language data, Nagy and Scott (2000, as cited in August et al., 2005) state that knowing a word implies knowing many things about the word: its literal meaning, its various connotations, the sorts of syntactic constructions into which it enters, the morphological options it offers and a rich array of semantic associates, such as synonyms and antonyms. Yet no native speaker will ever develop an exhaustive knowledge of a word's meaning potential, for their understanding is changed and increased as experience of both the world and language is expanded upon (Henriksen, 1999).

Young children often very quickly assign one particular meaning or a limited aspect of a meaning to a word based on only a few exposures to the lexical item (Henriksen, 1999). Word association studies have shown that adult native speakers and adult second language learners give more meaning-related responses to word association

tests than native-speaking children and second language learning children (Cremer, Dingshoff, de Beer, & Schoonen, 2010). In 1993, Verhallen and Schoonen (as cited in Cremer et al., 2010) conducted a study comparing monolingual and bilingual children's knowledge of word meaning and found that there was a significant difference in the number and range of meaning aspects given by the different groups of learners. Data from the bilingual children showed "missing links, gaps, or fuzzy relations" in the meanings of words given to them (p. 362), indicating that their vocabulary knowledge wasn't strong enough to remember correct meanings and that strong vocabulary knowledge is important in meaning retention of words.

ELLs also need sufficient vocabulary knowledge in order to read efficiently, yet at the same time, extensive reading is a necessary component for acquiring a sufficient vocabulary (Wallace, 2007). The benefits of extensive reading include fluency, vocabulary acquisition, awareness of grammar, models for writing, and an immersion in the culture of the second or foreign language (Day & Bramford, 1998, as cited in Brown, Waring, & Donkaewbua, 2008). The language learning process from extensive reading is incidental, which is learning something without the intention of doing so (Brown, et al., 2008). Regarding language acquisition, incidental learning is an effective way of learning vocabulary from context (Brown et al., 2008; Nagy, Herman, & Anderson, 1985). However, the second or foreign language words only can be learned incidentally if they are met in context enough times, causing this to be a very gradual process of vocabulary learning (Webb, 2008). In addition, the context very much determines the

actual gains in vocabulary learning. For example, if unknown words repeatedly appear in informative contexts, their meaning may be learned relatively quickly, but if the contexts are less informative or misleading, it may take learners much longer to gain knowledge of the meanings of the unknown words (Webb, 2008). One beneficial strategy for understanding unknown English words is the use of morphemes and root words (Haynes, 2007; Nation, 2006; Perez, 2004, as cited in Ransinki, Padak, Newton, & Newton, 2008; Ransinki, et al., 2008).

Morphemes and Word Knowledge

The English language is morphophonemic: The spelling system is based on both the representations of sounds (phonemes) and units of meaning (morphemes) (Carlisle & Stone, 2005). Studies on L1 have shown that morphological awareness is related to word reading (Carlisle, 2000, as cited in Carlisle & Stone, 2005; Fowler & Liberman, 1995, as cited in Carlisle & Stone, 2005; Singson, Mahoney, & Mann, 2000, as cited in Carlisle & Stone, 2005). Adult native language readers break words down into morphemes and memorize them (including bound morphemes that cannot stand alone such as the suffix -ly), which then plays a role in word recognition, benefitting their reading comprehension (Schreuder & Baayan, 1995, as cited in Carlisle & Stone, 2005; Schreuder, Grendel, Poulisse, Roelofs, & van de Voort, 1990, as cited in Carlisle & Stone, 2005; Taft, 2003, as cited in Carlisle & Stone, 2005; Taft & Zhu, 1995, as cited in Carlisle & Stone, 2005).

Reichle and Perfetti (2003, as cited in Carlisle & Stone, 2005) maintain that using morphemes for word identification is dependent upon the number of exposures to those

morphemes in different word contexts. So if a person hears or reads *graceful* but does not know the word or its morphemes (*grace* and *-ful*), then these morphemes cannot facilitate word identification (Carlisle & Stone, 2005). For derived words (words with one or more prefixes or suffixes) the number of words with the same base morpheme and the frequency of words in that word family (words with the same base morpheme) affects adults' L1 speed of recognition of the base word (Nagy, Anderson, Schommer, Scott, & Stallman, 1989, as cited in Carlisle & Stone, 2005). If a word has a large word family, then it is more likely that the base word will facilitate recognition of words, even if these words are new to the individual, as *lovenest* might be (Carlisle & Stone, 2005). Again, *word families* are "a group of words sharing the same root or base" (Harris & Hodges, 1995, p. 282). Since *love* and *nest* are common words that are the root of many others words, they each have a large word family.

Morphological awareness is related to the readers' reading of derived words (Carlisle, 2000, as cited in Carlisle & Stone, 2005; Verhoven Schreuder, & Baayan, 2003, as cited in Carlisle & Stone, 2005), and to their decoding skills (Fowler & Liberman, 1995, as cited in Carlisle & Stone, 2005; Singson, Mahoney, & Mann, 2000, as cited in Carlisle & Stone, 2005). In 2000, Singson et al. (as cited in Carlisle & Stone, 2005) revealed a relatively high correlation of .58 between word reading and morphological awareness.

Poor readers experience difficulties recognizing morphemes of words that are not clear in sound and spelling, for example; *revision* (Carlisle, Stone, & Katz, 2001, as cited

in Carlisle & Stone, 2005; Champion, 1997, as cited in Carlisle & Stone, 2005; Leong, 1989, as cited in Carlisle & Stone, 2005; Windsor, 2000, as cited in Carlisle & Stone, 2005). Poor readers are found to benefit when the morphemic structure is clear; for example, *rained* (Elbro & Arnbak, 1996, as cited in Carlisle & Stone, 2005). Therefore, recognition of high-frequency base words and affixes helps readers decode long and unfamiliar words, such as *unputdownable* or *telescope straw* (Carlisle & Stone, 2005).

Two studies were done in 2005 by Carlisle and Stone to show if morphemes affect speed and accuracy in lower and upper elementary students' L1 reading. They found that even at a lower grade level, students were able to read words with suffixes more accurately and rapidly than the words without suffixes. They claimed the segmentation of the derived words led to activation of mental representations of base words and suffixes (e.g., *hill* and *-y* within *hilly*), which then facilitated speed and accuracy of word reading (Taft, 2003, as cited in Carlisle & Stone, 2005). It was concluded that the base word (e.g., *hill* in *hilly*) in common derived words tends to be more familiar than the derived word (e.g., *hilly*). Therefore, familiarity with both the base word and the suffix may have facilitated word recognition (Carlisle & Stone, 2005).

Now that the processes of vocabulary learning for native and non-native speakers, along with the benefits of using morphemes have been examined, the following section will discuss comprehension and interpretation because although comprehension and interpretation are different, they are dependent upon each other and influence ones' language learning, especially in reading.

Comprehension and Interpretation

Comprehension, as defined by Harris and Hodges (1995), is the "intentional thinking during which meaning is constructed through interactions between text and reader" (p.39). Readers derive meaning from text when they engage in intentional, problem-solving thinking processes. Comprehension involves the simultaneous use of learner's schemata (prior knowledge), knowledge of text structures, and the ability to actively search for information (Gillet & Temple, 2000, as cited in Palmer & Brooks, 2004). Word recognition and linguistic comprehension are two components that make up comprehension (McElvain, 2010). Word recognition involves accurate sight word recognition, decoding, fluency, and access to meaning of words in a reader's lexicon (words known or used by the reader), while linguistic comprehension involves knowledge of concepts, text structures, vocabulary (words found in dictionaries), and verbal reasoning strategies (McElvain, 2010). While decoding is extremely important to the development of independent readers, comprehension is the quintessence of reading (Palmer & Brooks, 2004).

Reading comprehension of academic discourse is especially challenging for ELLs because the academic texts are often filled with complex syntax, technical vocabulary, and lack context that is easy to understand (Brown, 2007). Academic reading is not only challenging and frustrating for the learners but for the teachers as well because there are certain factors that greatly impact a learner's ability to understand the syntax, vocabulary, and context of a reading. Three factors that greatly impact a learner's reading

comprehension are word factors, contextual factors, and individual differences in learners (Bolger et al., 2008). Words vary greatly in their semantic and syntactic properties, along with the contexts that they are found in, which can easily mislead a learner (Bolger et al., 2008). Continued attention toward vocabulary development is necessary for reading comprehension (Carver, 1994, as cited in August et al., 2005).

According to Zwiers (2008), *interpretation* is defined as "the process of understanding messages and underlying meanings from a text" (p. 71). Harris and Hodges (1995) defined interpretation as "reading between the lines and inferring beyond the literal meaning" (p. 122). Tinker and McCullough (1968) define interpretation as "the thinking side of comprehension" (cited in Harris & Hodges, p.122, 1995).

It is important to acknowledge that ELLs' language and culture cannot be separated and greatly influence their comprehension and interpretation of texts. Language knowledge and thinking patterns are socially constructed within a cultural setting, and each language/culture fosters its own way of understanding the world. This is why readers from two different cultural backgrounds can read the same text and have very different ideas of what the text means (Mikulecky, 2008). Their different background knowledge, expectations about how a text should present information, and ways of creating meaning influence their comprehension and interpretation of texts (Mikulecky, 2008). To be able to read well in English means one must be able to interpret a text in ways that are expected by mainstream culture (Mikulecky, 2011). An observation taken from the aforementioned information is that one's comprehension of a text is directly

linked to one's interpretation of a text, which is deeply influenced by one's culture. Therefore, if one doesn't comprehend the text according to the culture the text was written in, one's interpretation will vary greatly from others and more than likely be considered incorrect in a school or formal educational setting. This is important because accurate interpretation of texts is an essential skill when studying for a GED or doing college assignments on readings. The recognition and use of context clues could greatly help learners in their comprehension and interpretation of texts, especially since teachers and learners can often find very different meanings from the same text (Zwiers, 2008). Therefore, understanding and using the context within a reading is essential for understanding the meanings of the words used and for accurate interpretation.

Using the context to help understand unknown words is known as *contextual guessing*, which is used by native speakers and language learners alike. This will now be discussed for it is considered a useful skill to have for language learning.

Contextual Guessing

Although not much research has been done on context clues in second language learning, contextual guessing has been viewed as beneficial for language learning. Van Parreren and Schouten-Van Parreren (1982) claim contextual guessing is the best skill to have when learning to read in foreign language, due to the higher number of unknown words the reader will encounter. According to Van Parreren and Schouten-Van Parreren (1982), language learners act on four different linguistic levels when

contextually guessing while reading in a foreign language: *syntactic*, *semantic*, *lexical*, and *stylistic*.

When readers are trying to sort out the grammatical structure of the sentence, they are acting on a *syntactic* level. At this level the reader must be able to grammatically analyze and to parse sentences and be acquainted with the most frequent syntactic patterns of the target language. Syntactic awareness, the level of sensitivity to the grammatical structure of a language, has been found to be related to the development of reading and spelling skills (Bentin, Deutsh, & Liberman, 1990 as cited in Jongejan, Verhoeven, & Siegel, 2007; Chiappe, Siegal, & Wade-Wooley, 2002, as cited in Jongejan et al., 2007; Siegle & Ryan, 1988, as cited in Jongejan et al., 2007). It also has been shown to be relevant for isolated word reading and spelling (Chiappe et al., 2002, as cited in Jongejan et al., 2007; Willow & Ryan, 1986, as cited in Jongejan et al., 2007). Syntactic awareness tasks are often times more challenging for L2 learners than L1 learners because the tasks require a certain degree of language proficiency (Jongejan et al., 2007).

On a *semantic* level, readers explore the immediate or wider context of the unknown word in order to find its meaning. Readers act on a *lexical* level when they inspect the word form in order to derive its meaning. Lexical access, which is the ability to efficiently access lexical information, is highly related to one's reading skill and is often measured in rapid naming tests (Compton, 2003, as cited in Jongejan et al., 2007; De Jong & Van der Leij, 1999, as cited in Jongejan et al., 2007; Kirby, Parrila, & Pfeiffer,

2003, as cited in Jongejan et al., 2007; Lindsey, Manis, & Bailey, 2003, as cited in Jongejan et al., 2007; Schnider & Naslund, 1993, as cited in Jongejan et al., 2007; Wagner, Torgesen, Rashotte, 1994, as cited in Jongejan et al., 2007; Wolf & Obregon, 1992, as cited in Jongejan et al., 2007).

Knowledge about a fair number of words in the target language is needed when acting on the semantic and lexical levels. On a stylistic level, readers try to appreciate the exact, stylistic usage of the word; the essential meaning of the word has already been determined (Van Parreren & Schouten-Van Parreren, 1982). Stylistic is the highest level, then lexical, semantic, and syntactic is the lowest, most basic level. Also, a reader has a higher percentage of comprehending correctly on a certain level if there are no major problems on any of the lower levels (Van Parreren & Schouten-Van Parreren, 1982).

Having discussed contextual guessing because it is considered a beneficial skill in reading for language learners, specific contexts that pertain directly to this study will now be identified and defined.

Context

According to Kumaravadivelu (2003), there are four contexts that help create successful language communication: linguistic, extralinguistic, situational, and extrasituational context. Only linguistic and situational contexts will be discussed, because both include written language while extralinguistic and extrasituational are referring to contexts using spoken language. Linguistic context refers to the immediate

environment in which words are found, the grammatical and lexical levels within a sentence or between sentences in a text (Kumaravadivelu, 2003). The linguistic environment may contain context clues to help one understand grammatical or lexical items, and noticing the linguistic environment in which a word occurs can ensure proper understanding of that word, but only if the learner understands the linguistic environment the word is in (Kumaravadivelu, 2003). For example, take into account the meaning of the word *table* in the following sentences:

1. There is a large *table* in the dining room.
2. She used a multiplication *table* to do her math problems.

The common meaning of the word as a flat surface supported by four legs is depicted in sentence 1 but the linguistic environment surrounding the word *table* in sentence 2 provides clues (*multiplication* and *math*) to figure out a different meaning for that particular context. Therefore, noticing the linguistic environment in which a word occurs can help provide a proper understanding of that word in that context, its linguistic context (Kumaravadivelu, 2003).

Situational context refers to the fact that words and utterances can have different meanings and functions in different contexts; therefore, the setting, participants, and the purpose of the communication influence the meaning of the words (Kumaravadivelu, 2003). For example, a college student who sends an evolution essay to his biology professor may have a different intended meaning than one who sends an evolution essay to his religion professor or priest/pastor. A student may give his biology professor an

essay on evolution in order to complete a written assignment requirement, while giving that evolution essay to a religion professor or other religious person may be an act of defiance. The situations are different; therefore, the intended meaning of the evolution essay is different.

Identifying the context of written words is important in recognition of meaning and intended purposes of words, along with identifying figurative language, which will now be discussed.

Figurative Language

It is important to be able to identify if words are being used literally or figuratively in a text. Another factor essential to understanding the context in a reading, especially in literature, is the ability to identify the use of figurative language. Figurative language is "any type of expression that does not literally mean what is says; it provides a connotative rather than a denotative meaning" (Palmer & Brooks, 2004, p. 370).

According to Palmer and Brooks (2004) there are seven common types of figurative language: metaphors, similes, personifications, hyperboles, idioms, proverbs, and allusions. Metaphors are comparisons between two things, where an important characteristic of one thing is used to describe another. In the metaphor *The child was a bolt of lightning*, characteristics of lightning are connected with the child's quick movements. A simile is a nonliteral comparison that uses the words *like* or *as*. *Her face shone like the sun* and *busy as a bee* are examples of similes. A personification is when an inanimate object is described by giving it human characteristics, such as *The sea sang*

its lullaby and soothed me to sleep. Hyperboles are gross exaggerations used to draw attention to a particular point, for example, *John was on top of the world when he passed his driver's exam. On top of the world* is used to represent extremely happy. Idioms, such as *burning the midnight oil* and *having a ball*, do not mean what they literally say and the literal meaning of many idioms are often only relevant to a specific sub-group within a language community. Idioms are often language specific and frequently lose their meanings in translation, and "can be confusing to learners because they must be interpreted figuratively rather than literally" (Tompkins, 2001, pp. 256-257, as cited in Palmer & Brooks, 2004). Proverbs are concise memorable sayings including a culture's commonly accepted beliefs and values. *One rotten apple spoils the bunch* conveys the belief that one individual can have a detrimental effect on the attitudes of others in a group. They are also expressed in rhymes, such as *An apple a day keeps the doctor away*. Allusions are indirect references that are often literary or historical in nature. *The virus that attacked my computer was a Trojan hors*e refers to the story of the Greek invasion by trickery of the ancient city of Troy to describe a type of computer virus that is disguised in a valuable file or program. The most difficult examples of figurative language are allusions because they require the reader to possess a specific and sophisticated bank of background knowledge (Palmer & Brooks, 2004).

Since figurative language interpretation is dependent upon a learner's schemata of the world and its conventions, ELLs need a substantial amount of assistance to develop the necessary schemata for interpreting figurative language (Palmer & Brooks, 2004).

Oral language comprehension requires figurative language interpretation, which is also a necessary skill to have to become a successful reader (Palmer & Brooks, 2004). Constant references to prior knowledge from a speech-based culture are required for reading (Gibbs, 1994, as cited in Palmer & Brooks, 2004).

Lazar, Warr-Leeper, Nicholson, and Johnson (1989, as cited in Palmer, Shackelford, Miller, & Leclere, 2007) reported that 11. 5% of classroom lectures they studied contained figurative language and about 1 in 10 words used by the teachers when addressing the class contained idiomatic expressions, at an elementary level. Idioms do not translate well from language to language causing ELLs to have difficulties in decoding social and academic phrases that include figurative language (Palmer et al., 2007). The ability to understand and generate figurative extensions for English words is an important vocabulary-building skill for language learners (Lazar, 1996).

Now that linguistic and situational contexts have been identified as the contexts that were used for this study, context clues will be defined along with their importance in reading comprehension and the different types of context clues that were used in the text analyses of the two nonfiction stories.

Context Clues

According to Harris and Hodges (1995), context clues are defined as information from the immediate textual setting that helps identify a word or word group. These context clues can be words, phrases, sentences, illustrations, syntax, typography, etc. Studies have shown that L1 learners use different types of context clues for different

situations in order to help them understand a text (Bolger et al., 2008; Cai & Lee, 2010; Haynes, 1993, as cited in Cai & Lee, 2010; Huckin & Bloch, 1993; Ying, 2001). Context clues are also very important for broadly understanding text as well as for specifically learning new words (Greenwood & Flanigan, 2007).

Haynes (1993, as cited in Cai & Lee, 2010) identified two clues around an unknown word that help learners infer meaning: an unknown word with *local co-text clues,* "words whose meanings could be inferred by using the immediate sentence context" (p. 3), and an unknown word with *global co-text clues,* which are defined as "words whose meanings could be inferred by integrating information through the text" (p.3).

Local co-text clues are clues found in a sentence in which a target word occurs and the clues are acknowledged through cohesive ties, coherence relations, or both (Cai & Lee, 2010). Cohesive ties are synonyms, antonyms, superordinates, and collocations (Halliday & Hasan, 1976, as cited in Cai & Lee, 2010). A collocation, which is defined in Harris and Hodges' *The Literacy Dictionary,* is "the habitual association or co-occurrence of words within some grammatical structure" (p. 35, 1995). Specific examples of collocations are *weapons of mass destruction, strong tea,* and *broad daylight* (Manning, 1999). The following paragraph illustrates the use of local co-text clues:

> Some evolutionary biologists suspect that warm-blooded dinosaurs were the ancestors of living birds. Scientists have recently proposed the research into the

> ways of turtles may explain the great mystery of the dinosaurs. This may sound astonishing. The turtle and the dinosaur, the first *depermate*[1] in size and sea-dwelling, the second gigantic and land-living, seem as remote from each other in function as they are in form. It seems hard to imagine any relationships between them.
>
> (Dubin and Olshtain, 1993; modified, from Cai & Lee, p. 7, 2010)

The word 'depermate' has two local co-text clues: "a cohesive tie, which is the antonymic relationship between the words 'gigantic' and 'depermate,' and a coherence relation, which is the contrastive relations between the propositions conveyed in 'the first depermate in size and sea-dwelling' and 'the second gigantic and land-living' " (Cai & Lee, p. 8, 2010).

A global co-text clue is where "overall understanding of the text by integrating information throughout is needed for successful understanding of the target word, where no specific part of the text provides direct clues for the word" (Cai & Lee, p. 8, 2010). The following paragraph illustrates the use of global co-text clues.

> The chips in your computer could soon be kept cool thanks to help from butterfly wings. This does not mean that when you open your new computer you will find a host of butterflies inside furiously fanning the chips with their wings. Instead, researchers at Tufts University in Maryland are studying the structure of butterfly wings to find out how they *reboam*[2] heat. They are hoping to copy the trick

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[1] A made-up word by Cai and Lee for this example.
[2] A made-up word by Cai and Lee for this example.

> butterflies have developed and use them to keep chips within their working temperatures. (Ward, 1998; modified, from Cai & Lee, p. 8, 2010)

'Reboam' is the target word and no specific word or phrase suggests the meaning, but one can infer its meaning as 'dissipate' from the theme of the text: "Researchers are trying to mimic the structure of butterfly wings to dissipate heat in a chip" (Cai & Lee, p. 8, 2010).

In Haynes' study (1993, as cited in Cai & Lee, 2010), learners were more successful at inferring the meaning of words with local co-text clues than with global co-text clues in reading comprehension. In a study done by Cai & Lee (2010) on listening comprehension, in addition to using *local co-text clues* and *global co-text clues*, they included a third context clue which they name an *extra-textual clue*, which refers to there being no direct clues in the reading for the meaning of a word so the learner has to fall back on background knowledge to infer meaning. An example of an extra-textual clue can be found in the following paragraph in which there are no specific words or an abstracted theme to help conclude the meaning of the word 'sloration.'

> When it comes to planets crashing into the Earth, there is good news and there is bad news. First the bad, the impact that is supposed to have led to the *sloration*[3] of the dinosaurs about 65 million years ago would enormously change the ecological system. For instance, the impact throws huge amounts of dust into the

[3] A made-up word by Cai and Lee for this example.

atmosphere and converts much of the water in the atmosphere into acid rain. The good news is that mass climate-changing impact on this scale is extremely rare.

(Hughes, 1996; modified, from Cai & Lee, p. 8, 2010)

The extra-textual clue is "the reader's/listener's general world knowledge that dinosaurs existed in the past and became extinct; therefore, the key word in the reading is *dinosaur,* for it helps trigger background knowledge that is needed to decipher the meaning of 'sloration' "(Cai & Lee, p. 9, 2010).

The results of Cai and Lee's study on contextual clues showed that in listening comprehension learners used global co-text clues and extra-textual clues more frequently than the local co-text clues. It is important for teachers and learners to recognize that different context clues are used depending upon the type of comprehension that is being measured: reading comprehension or listening comprehension.

Huckin and Bloch (1993) also identified three general types of context clues, which are the same as local co-text clues, global co-text clues, and extra textual clues. They identify them as *local linguistic constituents* (syntactic or semantic collocations), *global text representations* (text schemas and permanent memory), and *world knowledge* (all the facts, beliefs, and other concepts that comprise one's nonlinguistic knowledge of the world). The most frequently used and effective clue that helped learners decode meanings was the *local linguistic constituent*, especially a collocating clue-word (Huckin & Bloch, 1993). It is interesting how this study completely contrasts with Cai and Lee's

2010 study in which contextual clues are used. This information implies that readers' use of contextual clues changes.

More specific context clues have been used in past studies in attempts to enhance readers' comprehension strategies. A study with L1 elementary students by Baumann, et al. (2002) used eight context clues: definitions, synonyms, appositives, antonyms, examples, summary, figurative language, and mood, tone, or setting. These context clues were used in inferential strategies to compare morphemic analysis and contextual analysis. The results did not show a significant improvement in students' performances.

Walters (2006) did a study with ELLs using ten context clues present in academic texts that proved to be most common and useful: reference, contrast, restatement in the same clause, inference, adjectives/clauses/phrases, punctuation, restatement in another clause, grouping, examples/illustrations, and descriptions. The ELLs involved in the study were trained to recognize and interpret these context clues to help them infer meaning. The results found that learners did improve their reading comprehension through the training in the recognition and interpretation of context clues.

Ying (2001) used twelve types of context clues in her teaching, which she found to help her language learners increase their vocabulary and reading comprehension: *morphology, reference words, cohesion, synonyms and antonyms, hyponyms, definitions, alternatives, restatement, example, summary, comparison and contrast,* and *punctuation.* Students can derive word meaning by looking at the morphological features such as the prefixes, suffixes, and root word. Reference words refer to referents of pronouns that

may provide a clue to an unfamiliar word. Cohesion[4] refers to words in the same or adjacent sentence that give an indication of the meaning because they regularly co-occur with the unfamiliar word. Hyponyms are words that give a general concept followed by a specific example that help readers with unfamiliar words. Alternatives are where the writer provides a familiar word to make the meaning clear of an unfamiliar word in a text. Punctuation such as quotation marks, dashes, parentheses, brackets, and italics also help readers to infer meaning.

For this study almost all of the context clues used were taken from Ying's 2001 study for they were clearly defined. Twelve of Ying's context clue types were used: reference words, cohesion (renamed collocation), synonyms and antonyms, hyponyms, definitions, alternatives, restatement, example, summary, comparison and contrast, and punctuation. An additional context clue was used, lexical cohesion, which will now be defined and compared to collocation.

Lexical Cohesion

In 1976, Halliday and Hasan discussed *cohesion* of a text and proposed a cohesive device for text *coherence* and organization called *lexical cohesion*. When a text has cohesion, the sentences "stick together" to function as a whole. The sentences and phrases have a quality of unity and are about same topic or thing (Morris & Hirst, 1991). *Cohesion* does not deal with what a text means but how the text is constructed as a semantic structure. *Cohesion relations* are relations among elements in a text. Reference,

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[4] This is not a standard definition of *cohesion*, but a standard one for *collocation*.

ellipsis, substitution, conjunction, and lexical cohesion are examples of cohesion relations. There is a difference between *cohesion* and *coherence*. *Coherence* refers to the text making sense, and *coherence relations,* therefore, refer to the relations between clauses or sentences that contribute to their making sense (Morris & Hirst, 1991). Elaboration, support, cause, and exemplification are examples of coherence relations.

Lexical cohesion is defined as "the cohesion that arises from semantic relationships between words" (Morris & Hirst, 1991, p. 21). For a text to have lexical cohesion, there must be some recognizable relation between the words. Reiteration and collocation are two types of dependency relationships that exist between words that help make up lexical cohesion (Halliday & Hasan, 1976, as cited in Morris & Hirst, 1991). Reiteration is the identity of reference or repetition of the same word, along with the use of superordinates, subordinates, and synonyms (Morris & Hirst, 1991).

Collocation is the semantic relationship between words that often co-occur. They have two categories of relationship: systematic semantic and nonsystematic semantic. Systematic semantic includes antonyms, members of ordered sets, such as numbers, days of the week or months of the year, and members of unordered sets, such as names of colors (Morris & Hirst, 1991).

Nonsystematic semantic relationships are still collocations but are more problematic to identify for they are more subjective in that they describe things that tend to occur in similar situations or contexts in the world (Morris & Hirst, 1991). For

example, *post office, service, stamps, pay, leave* are context-specific words that are identified as nonsystematic semantic relationships.

Sternberg (1987, as cited in Mori & Nagy, 1999) presented evidence that the ability to derive meaning of an unknown word is a function of three factors: the learner's knowledge acquisition processes, the richness of clues surrounding the unknown word, and moderating variables that affects the learner's ability to make use of existing clues. For this study identifying the existing clues in the nonfiction excerpts was the focus. This skill could be passed on to ELLs to help them guess the meaning of unknown words by using the existing clues.

Having defined three general types of context clues and several specific kinds that will be used for this study, the summary and gap that this study expects to fill regarding the current lack of research on the context clue identification in literature are examined below.

Summary and Gap

This chapter reviewed past literature on the vocabulary learning of native speakers and second language learners. Vocabulary learning is a complex process that is very dependent upon background knowledge and the number of exposures to the vocabulary. Therefore, is not uncommon to come across unknown words frequently when learning vocabulary in a second language. Using morphemes during vocabulary learning was then discussed, for identification of morphemes has been shown to be useful in second language learning. The difference between comprehension and interpretation was

discussed because they are closely related (yet different) and greatly influence one's understanding of a text. Contextual guessing for reading comprehension was discussed for it is considered a beneficial skill for language learning. Past studies and definitions of different types of contexts and different contexts clues were then discussed, to identify and define which contexts and context clues would be included in this study.

From the research it has been shown that the more vocabulary a language learner knows, the greater their comprehension (Schmitt et al., 2011), and the more language learners read, the better their vocabulary becomes (Mikulecky, 2008). The importance of vocabulary knowledge for successful reading comprehension has been discussed, for even if language learners recognize 100% of the words in a text, their comprehension is not always 100%, due to the polysemy of many words (Schmitt et al., 2011). In situations where ELLs do not comprehend 100% of the material read, the research (Bolger et al., 2008; Cai & Lee, 2010; Haynes, 2007; Huckin & Bloch, 1993; Ying, 2001) maintains that context and context clues are extremely beneficial factors in reading comprehension.

Not much research has been done on the use of context clues in literature, especially in second language learning. Therefore, the focus of this study was to identify what kinds of context clues are used in nonfiction literature readings. Context clues are intended to help readers understand the meaning of unknown words. By doing a text analysis on literature texts and finding out what kinds of context clues are used, language teachers could then inform ELLs of these context clues to facilitate and improve their English vocabulary knowledge and overall reading comprehension of literature.

CHAPTER THREE: METHODOLOGY

This study was designed to identify and compare the context clues of a nonfiction story found in a GED preparation book and a nonfiction story found in a college freshman literature book. In this analysis the following questions were expected to be answered: To what extent does nonfiction literature use context clues for vocabulary and reading comprehension? What kinds of context clues are used in nonfiction literature?

Overview of Chapter

This chapter identifies the type of text analysis that was done and the methods used to perform it. The text analysis was done on two short nonfiction readings found in a GED book and a college freshman literature book, looking for what kinds of context clues are used in nonfiction literature and how frequently context clues are used. The purpose of this analysis was to find words that can be identified as context clues that would help readers of nonfiction literature to predict the meanings of unknown words. This information could be used to inform language teachers about context clues found in nonfiction literature. Then the teachers could use this knowledge about context clues in nonfiction to help ELL students with their vocabulary and reading comprehension. This text analysis was mostly a quantitative analysis because statistics were collected from the data, but qualitative analysis was also included because reading and identifying the context clues within the texts occurred. Reading itself is identified as a qualitative

process, even if numerical accounts are a result of that reading (Krippendorff, 2004), which was precisely the case in this study. Overall this study was more quantitative than qualitative, for a quantitative study portrays a world of variables and static states, while a qualitative study describes people acting in events (Firestone, 1987, as cited in Krippendorff, 2004).

Quantitative Text Analysis Research Paradigm

The methodology used in this analysis was identified as quantitative according to the definitions given by McKay (2006). In quantitative research, the researcher's role is to observe, measure, and exert control over variables in which statistical analysis and technical language are used, and reality is broken down and parts are studied. In this text analysis the text was broken down into parts in order to observe and measure it and then numerical values were used to show data. The parts were identified as *context clues,* which was the technical language used in this analysis.

According to Roberts (1997) there are four stages of a text analysis. In the first stage, the text is collected in either written or spoken form. The second stage involves the texts to be preprocessed to simplify analysis or enable various research goals. This stage involves doing things such as reducing the size of the material to a manageable proportion and replacing proper names to preserve anonymity. The third stage involves extracting items of interest from the preprocessed texts, such as explicit content like specific words or phrases or implicit content, or a combination of both. The fourth stage involves an analysis of the obtained data, where probabilistic inferences are made, and

the application of a statistical procedure is applied in which conclusions are drawn about the topic of interest afterwards.

Texts for Analysis

For this analysis two short works of nonfiction from a GED preparation book and a college freshman literature book were compared. The GED book is entitled "Contemporary's GED Language Arts, Reading," written by John M. Reier in 2002. It is a book containing short stories and questions about those stories intended to help students prepare for the high school equivalency exam. The college freshman literature book is entitled "Ways of Reading: An Anthology for Writers" (ninth edition) by David Bartholomae and Anthony Petrosky, written in 2011. It is also used at Hamline University for a level 1110 English course, *Writing and Reading Texts.* The book contains twenty-seven readings taken from influential academic and cultural works with assignments designed to create conversation between students. These texts were chosen because they are authentic materials that ELLs may have to read that were not written with non-native speakers in mind; therefore, they are in their natural state and were not altered for language learners in any way.

From the GED book an excerpt taken from Malcolm X's autobiography, "The Autobiography of Malcolm X" written with Alex Haley in 1965, was chosen. The excerpt depicted the library in the prison where he was incarcerated. From the "Ways of Reading" book, an excerpt taken from John Edgar Wideman's 1984 book "Brothers and Keepers" that depicted John's brother visiting his friend in the hospital was chosen.

These two excerpts were chosen because they were both nonfiction and very descriptive in nature. Malcolm X describes the library, the books, and the inmates in his story, while Wideman describes his brother's dying friend and the hospital where the friend was a patient. They were also chosen because the probability of the authors making up their own words was lower than if fictional stories were chosen.

Thematic and Semantic Text Analysis

The type of text analysis conducted was a combination of thematic and semantic text analysis. In a thematic text analysis, one examines occurrences of themes (or concepts), where a semantic text analysis is a quantitative text analysis method (of sentences or clauses) where not only themes but also grammatical relations among themes are encoded (Roberts, 1997).

For the text analyses performed, certain steps were used from Roberts' platform of thematic text analysis. Word frequencies were counted, the number of words in each text were counted along with the number of context clues and the number of words that were used for each context clue. Occurrences of words, word units (two word collocations and other context clues) and text strings (phrases) were counted and categorized in to specific context clues. Non-textual information in conjunction with the text analyses, the statistics, charts and graphs, was used to portray the numerical values of the context clues.

Semantic text analysis is a three-step encoding process (Roberts, 1997). All three of these steps were used in the text analyses of the nonfiction stories selected for this

study. In the first step the researcher isolates a population of texts that are relevant to the phenomenon under investigation. This was done by choosing two nonfictional stories, "The Autobiography of Malcolm X" and "Brothers and Keepers" to analyze for context clues. In the second step, a semantic grammar must be obtained that specifies the relations that will be encoded among the themes in the texts. The semantic grammar is the theme or question the researcher is trying to answer. For this study, the theme was "Context Clues." In the third step the texts' themes are encoded according to the relations specified in the semantic grammar. This was done through the identification, coding, and comparison of the different context clues found in the excerpts from "The Autobiography of Malcolm X" and "Brothers and Keepers."

Data Collection

Technique 1

First the total number of words used in the excerpt of Malcolm X's autobiography found in the GED preparation book were counted, then a similar amount of words from the excerpt of John Wideman's "Brothers and Keepers" found in the college literature book were counted. The exact number of words as found in the GED book excerpt were not taken because breaking up sentences just to have the same number of words did not seem sensible or practical for this study. There were 372 words in the excerpt taken from Malcolm X's autobiography in the GED book. In the college literature book, the first two paragraphs of "Brothers and Keepers," comprising 369 words, were used.

Technique 2

The excerpts from "Brothers and Keepers" and "The Autobiography of Malcolm X" were typed up and multiple copies printed. Then words and phrases were highlighted and categorized based on 13 different context clue types: *reference word, collocation, synonym, antonym, hyponym, definition, alternative, restatement, example, summary, compare/contrast, punctuation,* (all taken from Ying's 2001 study) and *lexical cohesion*. *Lexical cohesion* focused on four different parts of speech: *nouns*, *verbs, adjectives,* and *adverbs*. Lexical cohesion was included because many words that comprise sentences and phrases are unified and are about same topic or thing, and help to convey the overall meaning of the reading.

Some of the seven different types of figurative language identified by Palmer and Brooks (2004), *metaphors, similes, personifications, hyperboles, idioms, proverbs,* and *allusions*, were identified as *collocations*, *compare/contrast, and lexical cohesion.* For example, *Wilt the Stilt* is an allusion but also a collocation; it was identified as a collocation context clue (see Chapter Four for further discussion of this). Figurative language was identified because it is so prevalent in English language and literature and being able to identify figurative language is important in the comprehension of readings (Lazar, 1996; Palmer & Brooks, 2004; Palmer et al., 2007).

Data Analysis

The words coded into the thirteen context clue types were compared through statistics. How many *reference words, collocations, synonyms, antonyms, hyponyms,*

definitions, alternatives, restatements, examples, summaries, comparison and contrast words, punctuations, and *lexical cohesion* words were tallied, recorded and put into charts and graphs.

After identifying and highlighting the 13 different types of context clues in both the readings, each excerpt was typed into MAXQDA[11] ® (http://www.maxqda.com/ products/maxqda). MAXQDA[11] ® is a computer software program designed for text analysis that allows for vocabulary analysis, dictionary creation, and quantitative content analysis. It also allows for qualitative methods as well, so a mixed method approach can be used. Word frequency lists can be created along with indexes of selected words and there is also an autocoding feature that codes data based on categories and search results from dictionaries that create data matrices for more statistical analysis. It also permits for the creation of a codebook that is easily transferable to an Excel spreadsheet.

In MAXQDA[11] ®, words and phrases were coded into the 13 context clue types; subcodes and notes were also included. The first step involved creating a new document and naming it. The documents were names of the thirteen context clues. Then in the appropriate context clue document, codes, subcodes, and notes (additional information: e.g., if a word/phrase was an allusion or idiom) were created in order to make charts and graphs. For example, in the document titled "Reference words" where the excerpt of "Brothers and Keepers" was typed, the code was titled "Reference words" and the subcodes were titled: reference to Garth, reference to you, reference to Garth's head, reference to Garth' s arms and legs, and reference to Robby in order to keep a tally of

each. Each code and subcode was assigned different colors for easy identification in the text and for formatting into charts and graphs. In MAXQDA there is an option to put all the codes and subcodes into charts and graphs and compare them to others. After coding the context clues, MAXQDA[11] ® created color-coded charts and graphs comparing the different types of context clues and giving statistical data (numerical and statistical) gathered from coded context clues.

By double clicking on the codes (context clues), MAXQDA[11] ® converted all the coded context clues (words and phrases) into Excel spreadsheets which were printed. These Excel spreadsheets showed all the words and phrases for each context clue identified and were used in order to properly tally how many words in total were used as a context clue out of all the words in each excerpt. Each word used in context clue type was then highlighted in both excerpts and a total of how words tallied.

Verification of Data

Words and phrases were coded into one of the 13 different context clues. This coding easily allowed MAXQDA[11] ® to make charts and graphs comparing the different context clues. The internal validity of my study was high because authentic texts were used in their authentic settings. Internal validity deals with the question of how research findings match reality (Merriam, 2009). My text analyses had high ecological validity because real words were used and identified in their natural texts (Nagy, Herman, & Anderson, 1985); the words were not changed or altered for these analyses in any way. As for external validity, the extent to which the findings of one study can be applied to

other situations (Merriam, 2009), this was also identified as high because the results found would certainly be applicable to other nonfiction texts under analysis.

Coding the clues by hand (rechecked numerous times) and then coding them again in the MAXQDA[11] ® program decreased the occurrence of human error for it was done multiple times and more time was spent working and reading through the excerpts.

Summary

In this chapter, the qualitative methods (the reading and identifying of context clues) and the quantitative methods (the statistics and graphs created using MAXQDA[11] ®.) used for the text analyses were described. Data collection was explained and information on the software program MAXQDA[11] ® was given. The validity of this study was also discussed. Chapter Four will discuss the results found from the text analyses on "The Autobiography of Malcolm X" and "Brothers and Keepers." Chapter Five will examine the major findings, limitations, implications and necessary further research concluded from this study.

CHAPTER FOUR: RESULTS

Text analyses on excerpts from "The Autobiography of Malcolm X" and "Brothers and Keepers" were done to answer the following questions:

1. *To what extent does nonfiction literature, found in freshman college books and GED preparation books, contain context clues that could be used to facilitate vocabulary and reading comprehension?*
2. *What kinds of context clues are used in nonfiction literature?*

Knowledge of how the English language is used, how verbs and nouns are related, along with the use of proper punctuation, gives ELLs clues to the meaning of unknown words (Nassaji, 2003). For this research paper, the focus was to identify what specific context clues are used in nonfiction literature. This knowledge could give ELLs clues to the meanings of unknown words, broadening their strategies for comprehending new vocabulary beyond looking at verbs or nouns, using a dictionary, or having words pre-taught to them.

Overview of Chapter

This chapter reports the results of the text analyses conducted on excerpts from "The Autobiography of Malcolm X" and "Brothers and Keepers." First the context clues found in "The Autobiography of Malcolm X" are reported followed by the context clues

found in "Brothers and Keepers." Charts and graphs created in MAXQDA+[11] ® are included in these findings. A section reflecting on the context clues found is also included, followed by the conclusion.

Results

In each of the texts, different words and phrases were categorized into 13 context clues: reference word, collocation, synonym, antonym, hyponym, definition, alternative, restatement, example, summary, comparison and contrast, punctuation, and lexical cohesion. Some of the aforementioned context clues were coded objectively, while others such as collocations and lexical cohesion clues were coded more subjectively. Therefore, a different researcher may have found different numbers of collocations and lexical cohesion clues because these are dependent upon the language user's vocabulary and are also culturally bound.

Context Clues in "The Autobiography of Malcolm X"

In "The Autobiography of Malcolm X" there were a total of 154 context clues identified: 30 reference words, 31 collocations, 1 synonym, 1 restatement, 5 examples, 2 compare/contrast, 2 punctuation, and 82 lexical cohesion context clues. Out of the 372 words used in the excerpt, 134 words (36.0%) were identified in one or more of the eight types of contexts found.

The eight different types of context clues found and their frequency are shown in Figure 1.

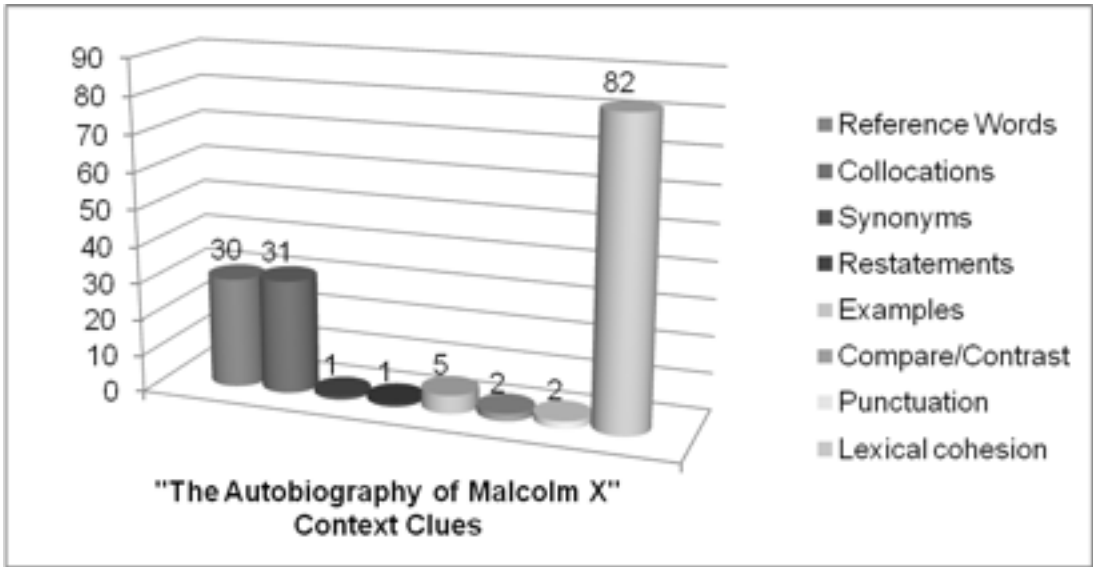

Figure 1. The numerical values of the different types of context clues identified in "The Autobiography of Malcolm X."

The number of context clue words compared to the number of non-context clue words is shown in Figure 2 (punctuation is not included).

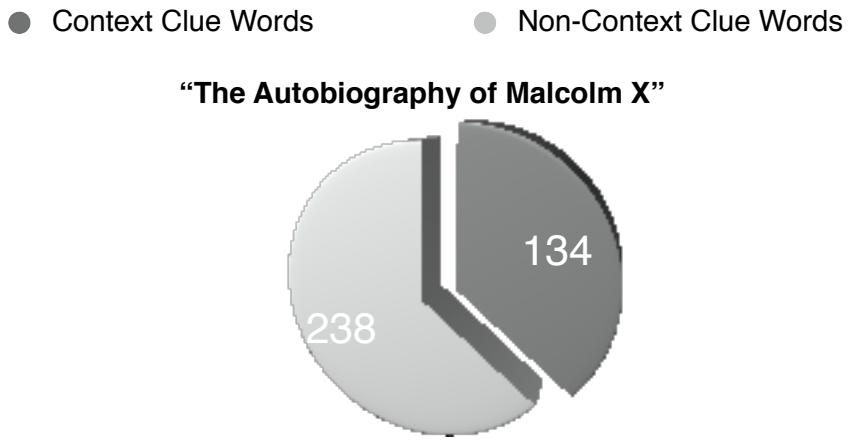

Figure 2. The numerical values of the context clue and non-context clue words in "The Autobiography of Malcolm X."

Reference words. Reference words were coded because 'identifying the referents of pronouns may provide a clue to meaning of an unfamiliar word' (Ying, 2001, p.19). There were nine referents in "The Autobiography of Malcolm X": Malcolm X, Parkhurst, books, glow, inmates, instructors, library, "lights out," and the reader (you). Thirteen reference word context clues were identified: *I, me, my, he, them, it, some, many, they, who, itself, there*, and *you.*

This excerpt used reference words that alluded to Malcolm X fifteen times: *I* (eight occurrences)*, my* (five occurrences)*, me* (two occurrences); Parkhurst once: *he*; books once: *them*; the glow once: *it*; inmates five times: *some, many, they*, *he, who*; instructors once: *who*; the library twice: *itself, there*; "lights out" once: *it*; and the reader thrice: *you* (three occurrences). Since words such as *he* were used to refer back to different people (*inmate* and *Parkhurst*), it is important that the reader use the surrounding context to be able to correctly identify which reference refers to which person.

The number of reference word context clues identified for each of the nine referents in "The Autobiography of Malcolm X" is shown in Figure 3.

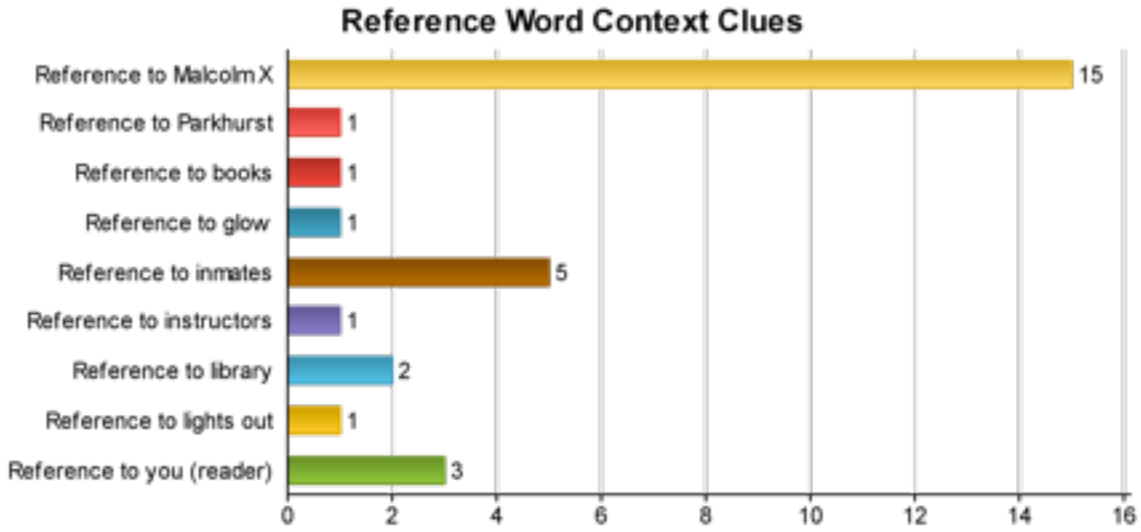

Figure 3. The numerical values of reference word context clues identified in "The Autobiography of Malcolm X."

Thirty (8.1%) of the 372 words were identified as reference word context clues in "The Autobiography of Malcolm X."

Collocations. Collocations are words that regularly co-occur with one another (Ying, 2001). Thirty-one collocations were identified in the "The Autobiography of Malcolm X": *Norfolk Prison Colony, school building* (two occurrences)*, Harvard [university], Boston university, inmate teams, worked up, library's shelves, general subject, private collection, special interest, general circulation, college library, heavy emphasis, smiled upon, intense interest, sizable number, well-read, popular debaters, walking encyclopedias, devour literature, new world, check out, total isolation, serious reading, "lights out"* (two occurrences)*, catch me, right in the middle of something, right outside,* and *corridor light.*

Two word collocations were compared to three or more word collocations as shown in Figure 4.

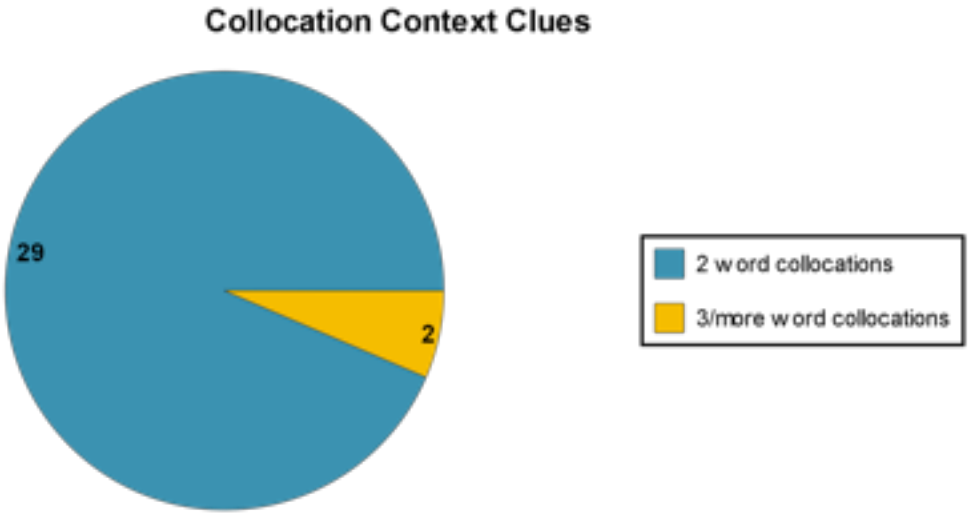

Figure 4. The numerical values of collocation context clues identified in "The Autobiography of Malcolm X."

Sixty-seven (18.0%) of the 372 words were identified as collocation context clues in "The Autobiography of Malcolm X."

Synonyms. One synonym, a phrase, was identified in "The Autobiography of Malcolm X." In the sentence "Some of them looked ancient: covers faded, old time parchment-looking binding," the phrase *old time* was identified as a synonym for the word *ancient*.

Two (0.5%) of the 372 words were identified as a synonym context clue in "The Autobiography of Malcolm X."

Restatements. There was only one restatement found in "The Autobiography of Malcolm X." A restatement "gives enough explanation for a meaning to be clear" and "gives clarification for a previously used word" (Ying, 2001, p. 20). In the sentence "*Much of the big private collection that Parkhurst had willed to the prison was still in crates and boxes in the back of the library—thousands of old books,*" *thousands of old books* was a restatement for *the big private collection.*

Four (1.1%) of the 372 words were identified for a restatement context clue in "The Autobiography of Malcolm X."

Examples. Five examples were found in the "The Autobiography of Malcolm X." *Harvard and Boston universities* were examples of "places." "*Should Babies Be Fed Milk*?" was an example of a "subject" and *the popular debaters* was an example of *a sizable number of well-read inmates*. The fifth example was interesting because it could have also been coded as a definition due to the way it was written. In the sentence "*No university would ask any student to devour literature as I did when this new world opened to me, of being able to read and understand,"* the phrase *of being able to read and understand* was a metaphorical definition of *this new world*. As my advisor pointed out, real-world language usage is messy and not everything can easily be coded into categories. This is a clear example of how language usage is complex. This phrase was coded in as an example instead of a definition because it was not a literal definition that the author had of *new world* but a metaphorical one.

The number of examples identified for “new world,” “place,” “subject,” and “well-read inmates” is shown in Figure 5.

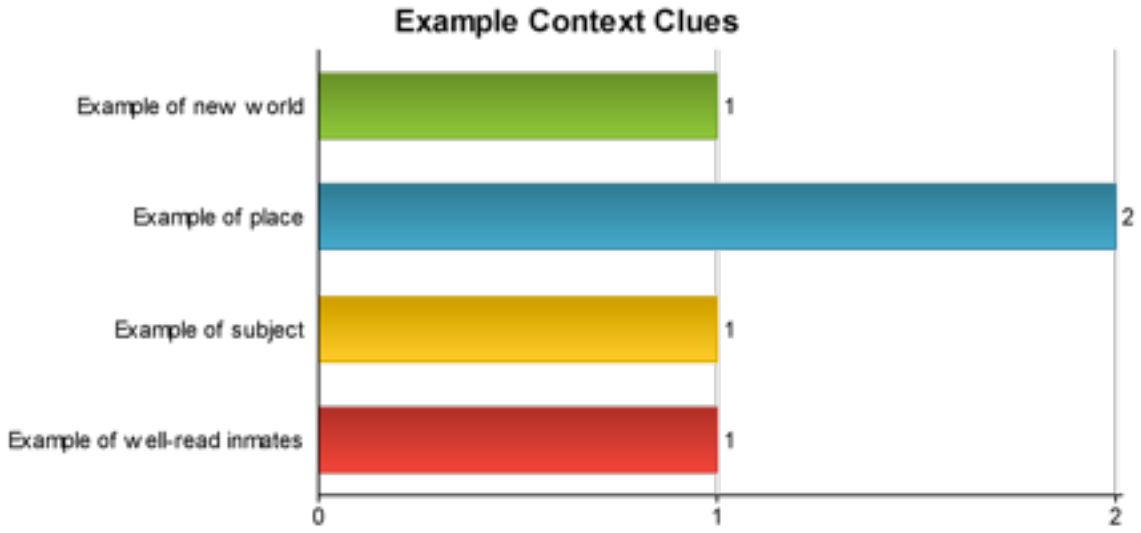

Figure 5. The numerical values of example context clues identified in “The Autobiography of Malcolm X.”

Eighteen (4.8%) of the 372 words were identified as example context clues in “The Autobiography of Malcolm X.”

Compare/Contrast. There were two compare/contrast context clues identified in “The Autobiography of Malcolm X.” One figurative language phrase was also identified as a compare/contrast context clue as well as a collocation, because figurative language is often used to compare things. The idiom *walking encyclopedias* was identified as a compare context clue. This was used to compare the *well-read inmates* to *walking encyclopedias*. The other comparison found was the word *celebrities* in the sentence following “*Some were said by many to be practically walking encyclopedias.*” It was

used to compare the *walking encyclopedias* (*well-read inmates)* to *celebrities* to convey their popularity.

Three (0.8 %) of the 372 words were identified for compare/contrast context clues in "The Autobiography of Malcolm X."

Punctuation. Only certain punctuation marks that were considered "unusual" were identified as context clues for both "The Autobiography of Malcolm X" and "Brothers and Keepers." Periods, commas, and other punctuation marks in "The Autobiography of Malcolm X" were properly used. However, in "Brothers and Keepers" many sentences were not complete, only fragments. Therefore, periods and commas were identified as punctuation context clues in "Brothers and Keepers" for the sentence structure was unusual for writing (written more how a person would speak) and the commas and periods in the fragmented sentences supported that unusual style of writing.

In "The Autobiography of Malcolm X" only two punctuation marks were identified as "unusual"; therefore, were considered context clues. A *colon* and an *em dash* were identified as context clues in "The Autobiography of Malcolm X." One colon was used to show a list of items "*ancient: covers faded, old-time parchment-looking binding*." One em dash was used to set off an explanation (Weber, 2009) for the restatement: "*...library—thousands of old books*."

In total there were 48 punctuation marks (periods, commas, apostrophes, hyphens, question marks, quotation marks, em dash, colon) used in "The Autobiography of Malcolm X", but only 2 (4.2%) were considered punctuation context clues.

Lexical cohesion. In "The Autobiography of Malcolm X" there was one adjective, *ancient,* and three settings with strong lexical cohesion: prison, library, and school. The words identified as lexically cohesive to *ancient* were *faded* and *old-time parchment-looking*. Therefore, three context clues consisting of one single word, *faded*, and two compound words, *old-time, parchment-looking*, were identified. Five words out of 372, or 1.34% of the words in the text were lexically cohesive to the word *ancient.*

Fourteen lexical cohesion context clues comprised of 21 words (5.6% of the text) were identified for "prison." There were eight single words: *prison* (three occurrences)*, rehabilitation, inmate* (three occurrences)*, isolation* and six two-word or more word phrases: *Norfolk Prison Colony's, inmate teams, convict debaters, "lights out"* (two occurrences)*, corridor light* .

Thirty lexical cohesion context clues comprised of 32 words (8.6% of the text) were identified for "library." Two were compound words: *well-read*, *check out*, and the remaining 28 were single words: *library* (four occurrences)*, subjects, library's, shelves, books* (five occurrences)*, subject, collection* (two occurrences)*, covers, binding, circulation, encyclopedias, literature, read* (four occurrences)*, understand,* and *reading* (three occurrences).

Thirty-five lexical cohesion context clues comprised of 42 words (11.3 % of the text) were identified for "school": *school building, classes, instructors, Harvard, Boston universities, debates, teams, school building, debaters, audiences, subjects, books* (five occurrences)*, subject, covers faded, history, religion, college library, well-read, debaters,*

walking encyclopedias, university, student, literature, read (four occurrences), *understand,* and *reading* (three occurrences).

The number of words that were found lexically cohesive to "ancient," "library," "prison," and "school" is shown in Figure 6.

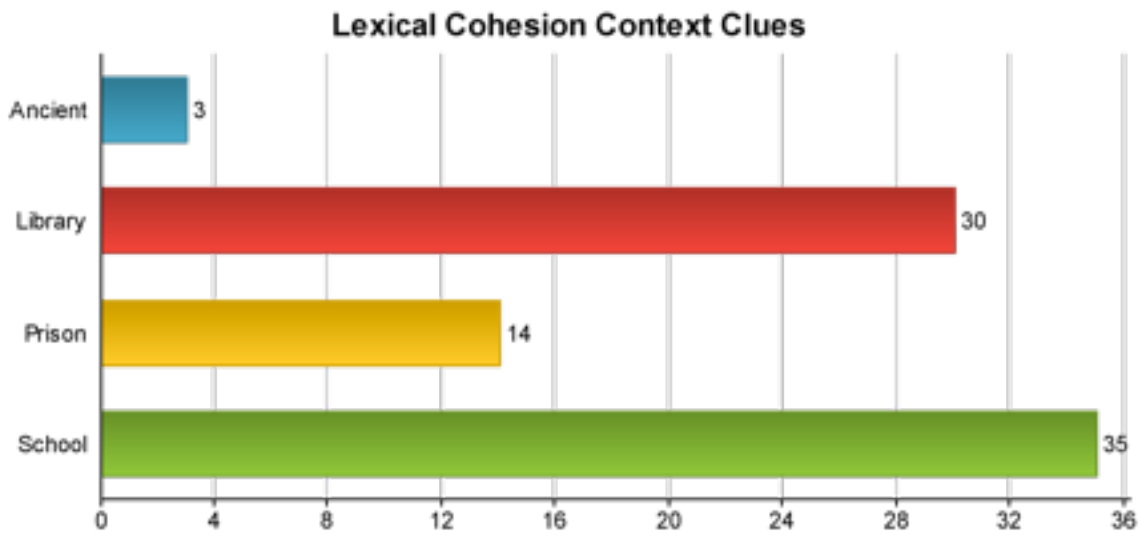

Figure 6. The numerical values of lexical cohesion context clues identified for "ancient," "library," "prison," and "school" in "The Autobiography of Malcolm X."

Some of the same words were identified as being lexically cohesive to "prison," "library," and "school" but were not counted more than once for the total of all the words identified as lexical cohesion context clues. In total, 76 (20.4%) of the 372 words were identified as lexical cohesion context clues in "The Autobiography of Malcolm X."

Antonyms, hyponyms, definitions, alternatives, & summaries. There were zero antonyms, hyponyms, definitions, alternatives, and summaries identified in "The Autobiography of Malcolm X."

Context Clues in "Brothers and Keepers"

In "Brothers and Keepers" there was a total of 152 context clues identified in the excerpt: 31 reference words, 38 collocations, 1 definition, 13 compare/contrast, 21 punctuation marks, and 48 lexical cohesion context clues were found. Out of the 369 words used in the excerpt, 291 words (78.9%) were identified in one or more of the six types of context clues found.

The six types of context clues found and their frequency is shown in Figure 7.

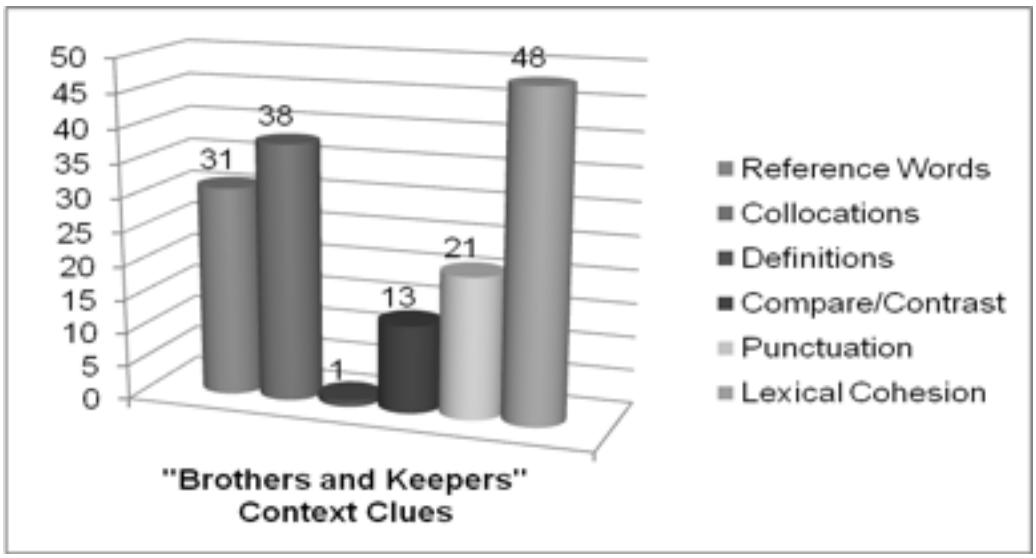

Figure 7. The numerical values of the different types of context clues identified in "Brothers and Keepers."

The number of context clue words compared to the number of non-context clue words is shown in Figure 8.

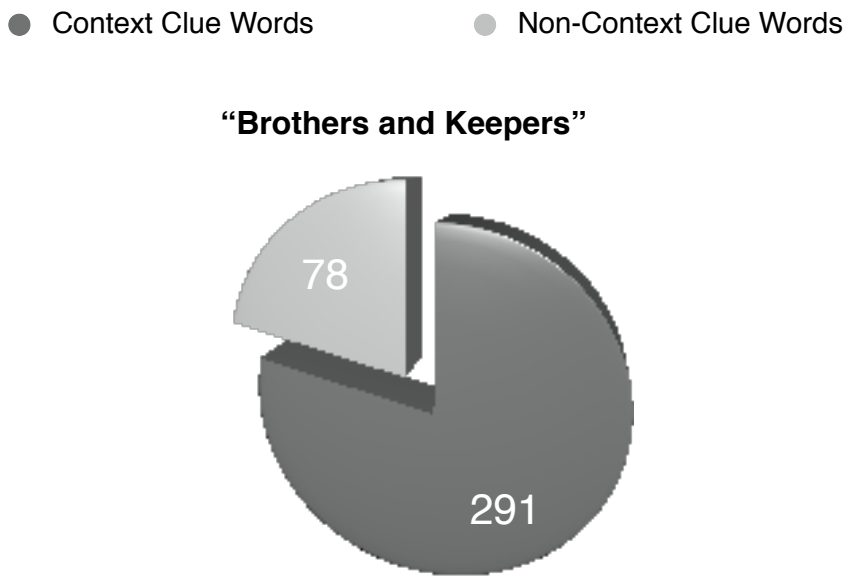

Figure 8. The numerical values of the context clue and non-context clue words in "Brothers and Keepers."

Reference words. In "Brothers and Keepers," there were two characters, Garth and Robby, discussed within the 369 words that were analyzed. There were five referents in "Brothers and Keepers": Garth, Garth's arms and legs, Garth's head, Robby, and the reader (you). Ten reference word context clues were identified: *he, his, him, he's, he'd, you, you'd, their, them, and it's.*

There were 14 reference words referring to Garth: *he* (four occurrences)*, his* (seven occurrences), *him (*two occurrences) and *he's.* There were eight reference words addressing the reader: *you* (six occurrences) and *you'd* (two occurrences). There were two reference words that referred to Garth's arms and legs: *their* and *them*. One reference

word was used to refer to Garth's head: *it's*. Six reference words were used referring to Robby: *he'd, his* (three occurrences)*, him,* and *he*.

The amount of reference words found for the five different referents is shown in Figure 9.

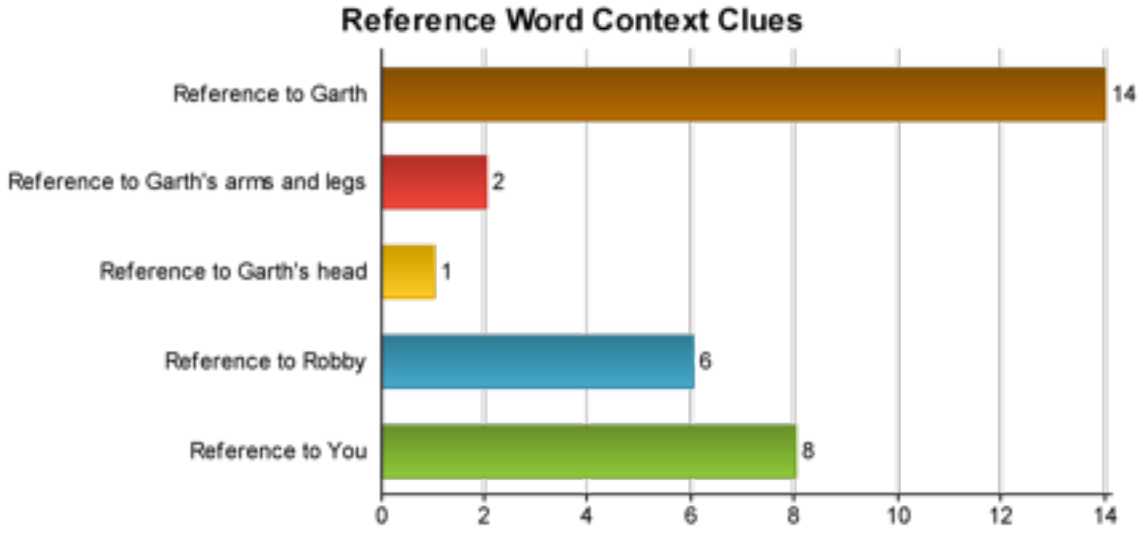

Figure 9. The numerical values of reference word context clues for *Garth, Garth's arms and legs, Garth's head, Robby*, and *you* identified in "Brothers and Keepers."

Thirty-one (8.4%) of the 369 words were identified as reference word context clues in "Brothers and Keepers.

<u>Collocations.</u> Collocations were common throughout "Brothers and Keepers." There were 38 collocations (18 were two word collocations, 20 were three words or more) comprised of 105 words: *looked bad, Ichabod Crane, bones poking through his skin, made you want to cry, yellow as pee, make you laugh, walking down the street, Wilt the Stilt, high waist, palm a basketball, pool cue, couldn't play a lick, trucking down, trying*

to remember, roller skates, knobby joints, out of whack, arms and legs flailing, too far, down the street, didn't make sense, stood back and watched, pretended you hadn't seen, a million times, nothing funny, hospital sheets, tennis ball, way up there, shrunken skull, reach over, under the covers, wasting away, bad enough knowing, stick arm, main man, come off, as gentle as, and *long ash.*

Two word collocations were compared to three or more word collocations as shown in Figure 10.

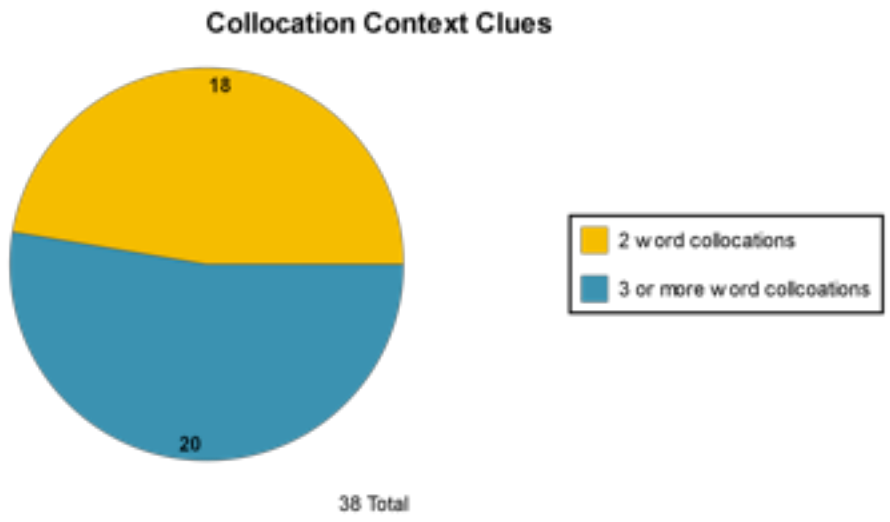

Figure 10. The numerical values of collocation word context clues identified in "Brothers and Keepers"

One hundred five (29.0%) of the 369 words were identified as collocation context clues in "Brothers and Keepers."

Compare/contrast. "Brothers and Keepers" was rich with figurative language, used to compare Garth's body and clumsiness to other objects or situations. Metaphors (*Ichabod Crane anyway*, *but now he was a skeleton*), allusions (*Ichabod Crane*, *Wilt the Stilt*),

similes (*Awkward as a pigeon on roller skates*), along with comparatives (*higher*) and conjunctions (*as*, *than*) were used to convey comparison.

There were 13 words and phrases comprised of 97 individual words that portrayed comparison: *bad; real bad; Ichabod Crane anyway, but now he was a skeleton; his smooth, medium-brown skin yellow as pee; Ichabod legs; he was split up higher in the crotch than anybody else; Wilt the Stilt with a lean bird body perched on top his high waist; hands could palm a basketball easy as holding a pool cue; awkward as a pigeon on roller skates; Garth's head always looked small as a tennis ball; now it's a yellow, shrunken skull; pitiful stick arm;* and *the arm would disintegrate, like a long ash off the end of a cigarette.*

Ninety-seven (26.0%) of the 369 words were identified as compare/contrast context clues in "Brothers and Keepers."

Definition. One definition was identified in "Brothers and Keepers." In the sentence, "*Knobby joints out of whack, arms and legs flailing, going their separate ways*,..." , "*going their separate ways*" was identified as a definition for "flailing."

Four (1.1%) of the 369 words were identified as definition context clues in "Brothers and Keepers."

Punctuation. "Brothers and Keepers" had many sentence fragments. The author, John Wideman, wrote in a style that reflected the way a person would talk, informally and fragmented. Due to this "unusual" style of writing, periods and commas used within

those sentence fragments were identified as punctuation context clues for they supported this uncommon style of writing.

The excerpt of "Brothers and Keepers" consisted of 29 'sentences'; 15 (51.7%) of the sentences were fragmented:

- *Real Bad.*
- *Ichabod Crane anyway, but now he was a skeleton.*
- *Three-quarters leg so you knew it had to be Garth the way he was split up higher in the crotch than anybody else.*
- *Wilt the Stilt with a lean bird body perched on top his high waist.*
- *Size-fifteen shoes.*
- *Hands could palm a basketball easy as holding a pool cue.*
- *Fingers long enough to wrap round a basketball, but Garth couldn't play a lick.*
- *Never could get all that lankiness together on the court.*
- *Awkward as a pigeon on roller skates.*
- *Knobby joints out of whack, arms and legs flailing, going their separate ways, his body jerking to keep them from going too far.*
- *Nothing funny now, though.*
- *White hospital sheets pulled to his chest.*
- *Bad enough knowing Gar was dying.*
- *Didn't need that pitiful stick arm reminding him how close to nothing his main man had fallen.*

- *So fast.*

Since 15 of the sentences were fragmented, 15 periods were identified as punctuation context clues, along with 6 commas that were used within four of those sentence fragments. In the except of "Brothers and Keepers" a total of 62 punctuation marks (periods, hyphens, commas, apostrophes) were used; 21 (33.9%) were identified as punctuation context clues.

Lexical cohesion. Lexical cohesion centered around four different characteristics related to Garth: tall, skinny, clumsy, and sick, for which many words and phrases were identified as lexically cohesive. For the word "tall," there were 11 phrases comprised of 69 words (18.7%) that were identified as lexical cohesion context clues: *Ichabod legs; long hands; long feet; Three-quarters leg so you know it had to be Garth the way he was split up higher in the crotch than anybody else; Wilt the Stilt; his high waist; size-fifteen shoes; hands could palm a basketball; fingers long enough to wrap around a basketball; knobby joints;* and *Garth's head always looked small as a tennis ball way up there on his shoulders.*

Seven words and phrases comprised of 19 words (5.1%) were identified as being lexically cohesive to the word "skinny": *Ichabod Crane; skeleton; bones poking through his skin; Ichabod legs; Wilt the Stilt; lean bird body;* and *pitiful stick arm*.

For the word "clumsy" there were eight phrases comprised of 62 words (16.8%) that were cohesive to it: *Garth couldn't play a lick; never could get all that lankiness together; think that nigger ain't walking, he's trying to remember how to walk; awkward*

as a pigeon on roller skates; knobby joints out of whack, arms and legs flailing, going their separate ways; his body jerking to keep them from going too far; and *moving down the street like that wouldn't work.*

There were 20 words and phrases comprised of 78 words (21.1%) that were identified as lexical cohesion context clues to the word "sick": *looked bad; real bad; skeleton; lying there in the bed; bones poking through his skin; made you want to cry; Garth's barely able to talk; his smooth, medium-brown skin yellow as pee; nothing funny now; white hospital sheets; yellow, shrunken skull; ward; under the covers, wasting away; in the bed; dying; pitiful stick arm; how close to nothing his main man had fallen; as gentle as he could would not be gentle enough;* and *the arm would disintegrate.*

In total, 212 (57.5%) of the 369 words were identified as lexical cohesion context clues in "Brothers and Keepers." It is important to note that some of the same words were used in different context clue types. For example, *Wilt the Stilt* was identified as a collocation and a lexical cohesion context clue for "tall." This does not mean it was counted as six words, but was counted as three words for the total count of words used as a context clue for the excerpt of "Brothers and Keepers."

The number of words that were found lexically cohesive to "clumsy," "sick," "skinny," and "tall" is shown in Figure 11.

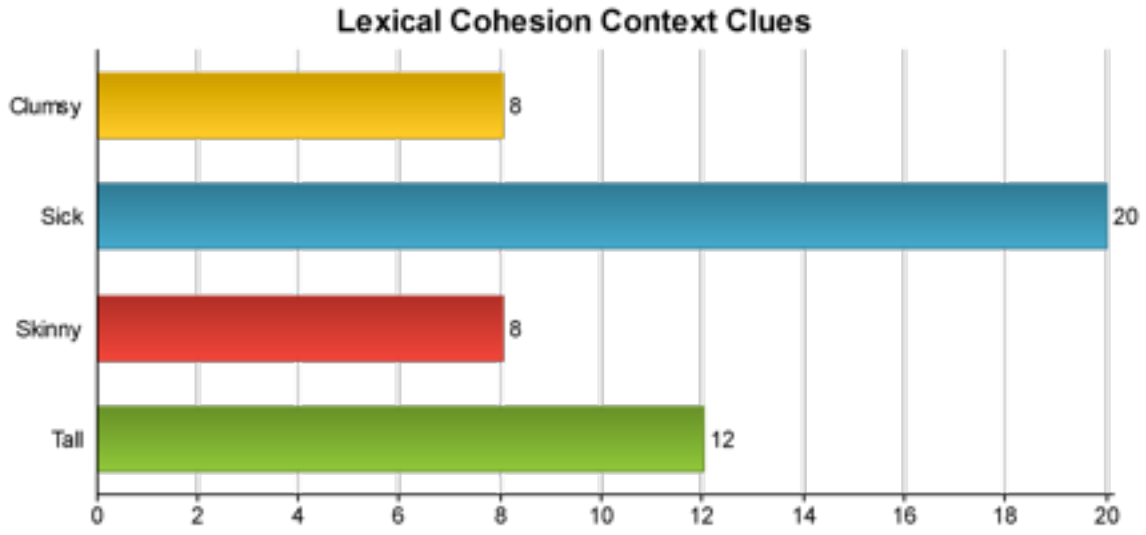

Figure 11. The numerical values of lexical cohesion context clues identified for "clumsy," "sick," "skinny," and "tall" in "Brothers and Keepers."

Synonyms, antonyms, hyponyms, alternatives, restatements, examples & summaries. Zero synonyms, antonyms, hyponyms, alternatives, restatements, examples, or summaries were identified in "Brothers and Keepers." These results were not very surprising for the aforementioned context clues are more commonly found in academic texts, from my observations and experiences with academic texts. Also, since this excerpt was written very informally and figuratively, the author did not seem to place much importance on making denotative meanings of words clear.

Conclusion

By conducting text analyses on "The Autobiography of Malcolm X" and John Edgar Wideman's "Brothers and Keepers," it was confirmed that context clues are found within nonfiction literature. Out of the thirteen context clues, five types were found in

both nonfiction stories: reference words, collocations, compare/contrast, punctuation, and lexical cohesion. "The Autobiography of Malcolm X" also contained synonyms, restatements, and examples, while "Brothers and Keepers" also contained a definition. Neither story contained antonyms, hyponyms, alternatives, or summaries. In total 154 context clue types were found in "The Autobiography of Malcolm X" and 152 in "Brothers and Keepers."

Reference words, collocations, and lexical cohesion were the most common context clue types in both "The Autobiography of Malcolm X" and "Brothers and Keepers." These results show that both authors made frequent references to the characters in the stories, used words that regularly co-occur with one another, and used words where there were recognizable semantic relations between them. Lexical cohesion context clues had the highest frequencies for both stories, implying both authors wrote in a style that wanted to convey stories with clear meanings/descriptions. In "The Autobiography of Malcolm X" the lexical cohesion context clues helped create strong senses of place: library, prison, school. In "Brothers and Keepers" the lexical cohesion context clues helped give a clear description of Garth's characteristics: tall, skinny, clumsy, and sick.

The thirteen context clues and their frequencies identified in "The Autobiography of Malcolm X" and "Brothers and Keepers" are shown in Table 1.

Table 1

Context Clues identified in Nonfiction Literature

Context Clue Types	"The Autobiography of Malcolm X"	"Brothers and Keepers"
Reference Words	**30**	**31**
Collocations	**31**	**38**
Synonyms	1	0
Antonyms	0	0
Hyponyms	0	0
Definitions	0	1
Alternatives	0	0
Restatements	1	0
Examples	5	0
Summaries	0	0
Compare/Contrast	2	13
Punctuation	2	21
Lexical Cohesion	**82**	**48**

Note. Highest frequency context clues are in boldface.

After looking at the 13 types of context clues and the final results, it does seem logical that reference words, collocations, and lexical cohesion context clues would be the most frequently used clues in literature, for the other context clue types seem more favorable to academic texts than literature.

Although the sample size of each text was not large, a substantial number of context clue words were found within each story. Of the 372 words in "The

Autobiography of Malcolm X" excerpt, 134 words (36.0%) were identified within a context clue type. Of the 369 words in the "Brothers and Keepers" excerpt, 291 words (78.9%) were identified within a context clue type.

The percentages of context clue words and non-context clue words for both stories are shown in Figure 12.

Context Clue Words and Non-Context Clue Words in "The Autobiography of Malcolm X" and "Brothers and Keepers"

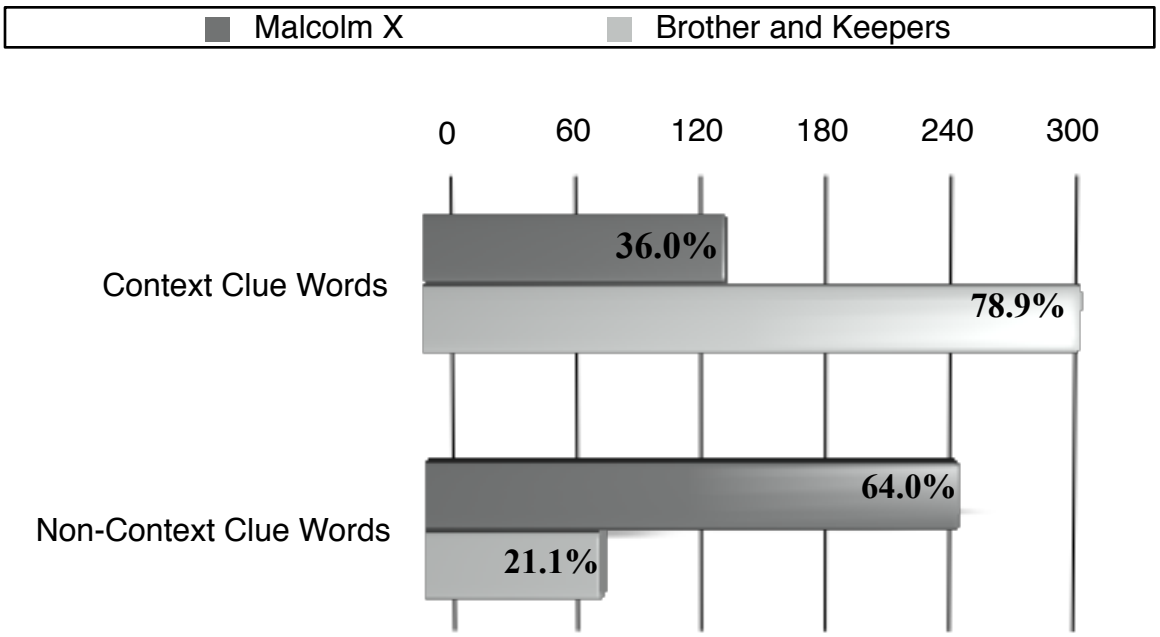

Figure 12. Percentages of context clue words and non-context clue words for "The Autobiography of Malcolm X" and "Brothers and Keepers."

Both stories had a similar amount of context clues types, 154 in "The Autobiography of Malcolm X" and 152 in "Brothers and Keepers," yet they did not have a similar amount of words identified as Context Clue words. "Brothers and Keepers" was rich in figurative language; 105 words were used in collocations and 212 words were

used in lexical cohesion context clues. "The Autobiography of Malcolm X" was more literal and only had a few examples of figurative language; 67 words were used in collocations and 76 words were used in lexical cohesion context clues. "Brothers and Keepers" also had 97 words that were used in compare/contrast context clues, while there were only 3 words used in compare/contrast context clues in "The Autobiography of Malcolm X". This implies that collocations are more frequent in figurative language than literal language, and since figurative language is used for comparison, more words would be identified a compare/contrast clues in "Brothers and Keepers".

In Chapter Five the major findings of this study will be discussed, along with its limitations. Implications for teaching different strategies on how to use and identify context clues will also be discussed. Discussion on additional observations and how knowledge obtained from this study will be disseminated will be acknowledged. Final reflections will conclude Chapter Five.

CHAPTER FIVE: FINDINGS AND CONCLUSION

By conducting text analyses on nonfiction literature the following questions were answered:

1. *To what extent does nonfiction literature, found in freshman college books and GED preparation books, contain context clues that could be used to facilitate vocabulary and reading comprehension?*
2. *What kinds of context clues are used in nonfiction literature?*

Major Findings

The data from the text analyses conducted on "The Autobiography of Malcolm X" and "Brothers and Keepers" concluded that context clues were used in these excerpts of nonfiction literature. In "The Autobiography of Malcolm X" 36% of the words in the excerpt were used in context clues. In "Brothers and Keepers" 78.9% of the words in the excerpt were used in context clues. Five context clue types were found in both nonfiction stories: reference words, collocations, compare/contrast, punctuation, and lexical cohesion. Both stories had a similar amount of context clue types, 154 in "The Autobiography Malcolm X" and 152 in "Brothers and Keepers", even though a significantly larger number of words was used in the context clue types for "Brothers and Keepers".

Synonyms, restatements, and examples were also found in "The Autobiography of Malcolm X," and a definition was identified in "Brothers and Keepers." Neither story contained antonyms, hyponyms, alternatives, or summaries. Further observations on both pieces of nonfiction literature and conclusions that could be drawn from the analyses will now be discussed.

In "The Autobiography of Malcolm X," there were no fragmented sentences. This implies he wanted to convey that he was an educated man who wrote complete sentences that were easy to read. In the excerpt there were 22 complete sentences and 22 periods. In "Brothers and Keepers" the multiple fragmented sentences implied that Wideman was being more informal and casual, writing more how a person would speak. In his excerpt, there were only 14 complete sentences and yet 29 periods, so 15 of his sentences were fragments.

"Brothers and Keepers" was more challenging to read (even as a native speaker) than "The Autobiography of Malcolm X" due to the fragmented sentences and thick use of figurative language. Research was necessary to look up the meaning of some allusions (*Wilt the Stilt)* and idioms (*On the set*) found in "Brothers and Keepers." Not being a basketball fan, I was unfamiliar with *Wilt the Stilt*. *Wilt the Stilt* was used to reference Wilt Chamberlain, an American basketball player who was 7'1" and played from 1959 to 1973 (basketball-reference.com). This was a cultural reference that was unfamiliar because of the time-period (I was not born until 1983 and am not a follower of basketball

or past basketball stars). *On the set* refers to "a neighborhood that is claimed or represented by a group of people" (urbandictionary.com).

Some collocations are figurative, as was the case in this excerpt of Malcolm X's autobiography. *Walking encyclopedias*, *worked up*, and *devour literature* are a few examples. Figurative language is very culture-specific; therefore, these phrases may easily be confusing to ELLs. Being able to use the context surrounding these phrases could allow the reader further insight into the meaning of it. In other words, being able to identify the local co-text clues in the story is beneficial to readers (Haynes, 1993, as cited in Cai & Lee, 2010). An observation taken after reading the stories was there was not as much figurative language used in this story as in "Brothers and Keepers." The majority of Malcolm X's story was literal, describing the prison, the library, the inmates, and Malcolm X's interest in books and reading.

Again, the identification of collocations was subjective because they are dependent upon if they are habitual or customary of one's language usage. For example, in the phrase "*Awkward as a pigeon on roller skates,*" *awkward as a* could be considered a collocation to the reader if that is something that is frequently used in their group of language users. Since collocations are culturally-based and subjective, the coding of them would have varied from researcher to researcher. Education, cultural differences, and age greatly factor into how one identifies what they consider a collocation to be (Mikulecky, 2011).

As gentle as was identified as a collocation because it was language that was customary to this researcher. Some of the collocations identified were also specific types of figurative language: idioms, similes, and allusions for example. Collocations are characterized by limited compositionality and idioms are the most extreme version of non-compositionality, since they are not being used literally (Manning, 1999). Both authors, John Wideman and Malcolm X, directly address the reader in these two stories using the word *you*. This is called an "authorial intrusion," when the author directly addresses the reader (literary-devices.com).

Since I read through the book "Brothers and Keepers" and looked up information on it, it was found that Wideman was actually addressing his brother throughout the majority of the book, *you know*, *you remember*, etc. Since only an excerpt of the story was taken and used in the college literature book, that fact is unknown to the reader. In this excerpt though, Wideman appears to have switched from addressing his brother as *you* to the reader as *you* because he is describing what Garth looked like as his brother Robby went to visit him in the hospital.

An allusion used in "Brothers and Keepers" that is not commonly seen in writing today was the word *nigger*. To understand the intended meaning of this word in this excerpt, it is important to know the context of the reading as well as who wrote the book. John Wideman is an African-American man who wrote the book talking about another African-American man, Garth, who was also his brother's friend. So here *nigger* is used as a friendly reference back to Garth. In another context it could also be used as a

derogatory term to reference a person of African-American descent. This word is a good example of how knowing the situational context (Kumaravadivelu, 2003) of a word determines the connotation or intended meaning of a word.

No summary context clues were found in either "The Autobiography of Malcolm X" or "Brothers and Keepers." It could be hypothesized that because both stories were sections taken out of their original context (books in their entirety), that summary context clues would be more common at the end of chapters or the end of the whole story instead of the middle of them. Even then summary context clues might not occur because literature doesn't often include summaries at the end of chapters or entire stories.

Limitations

Due to the small sample size (372 and 369 words) of the nonfiction texts, identifying the kinds of context clues used and their frequency was limited for these text analyses. Further research of a larger sample size would have strengthened the results of this study and allowed for further hypotheses to be made. To improve this study, coding a larger amount of nonfiction text would have been greatly beneficial. Also some additional categories for the coding of context clues would greatly increase the validity of this research. Morphemes, for example, could be identified as context clues since they are known to be a beneficial strategy for understanding unknown words (as discussed in Chapter Two). Even including more people to be coders for these text analyses would have improved the validity of this research and strengthened the analysis in the

qualitative method of it all. More coders would have also broadened the words and phrases identified as collocation and lexical cohesion context clues.

Doing a text analysis on fictional literature to compare to the nonfiction literature would also have been interesting and informative. In a text analysis of fictional literature the researcher would have had the chance of encountering words that the author had made up (such as J.K. Rowling did in her books) which would allow for a new category of coding for context clues. Although this text analysis was done on a small sample of text, it was informative in the different types of context clues that were found in nonfiction literature: reference words, collocations, compare/contrast, punctuation, and lexical cohesion.

It would have been interesting to analyze nonfiction that was more recently written (within the last couple of years or so) to see the different words and cultural references that are more relevant to today. Since English is such an ever-changing, culturally bound language it would be interesting to see different allusions and other slang that is used today, along with other figurative language that is more currently used. Although the reading excerpts used for this text analysis were from the past (1965 and 1984), it did allow for finding information about context clues that are still used in today's nonfiction. Overall, this study gave compelling information about the use of context clues in nonfiction literature and highlighted the use and identification of context clues for teaching reading comprehension. Without argument, improvement could have

been made to this study, but even with the small amount of text used for these text analyses insight was gained that could benefit teacher and learner alike.

Implications

Research has shown that using-the-context activities are beneficial for language learners because these activities help learners develop confidence in their abilities to guess the meanings of unfamiliar words to gain an initial understanding of the unknown words (Fukkink & De Glopper, 1998; Montelongo, Hernández, Herter, & Cuello, 2011). It is a useful (and often unconscious) strategy for native speakers to guess the meaning of unknown words using the context of the surrounding words, so it's logical to teach ELLs to use the same strategy when learning English. Using-the-context strategy and its relation to vocabulary size is nicely summarized by Walters (2006): "It is widely acknowledged that native speakers of a language are able to infer the meanings of unknown words from context, and that this ability accounts for a large part of a native speaker's considerable vocabulary size" (p. 176).

One way to help English language learners expand their vocabulary is to teach them to guess a word's meaning by looking at the words immediately around it (local co-text clues). One specific activity is when the teacher takes an excerpt from a reading and omits a word the learners need help with. Then the teacher draws a circle on the board to represent the unknown word and the learners guess possible words while the teacher writes their words around the circle on the board until they guess the correct word or complete their guesses and the teacher tells them the omitted word (Peregoy & Boyle,

2001). For example, a teacher can take a newspaper article and white out a difficult word in the article and then give each of the learners a copy with the blocked out word. The learners will then have to use the local co-text clues to help them guess what the word is. This activity helps the learners gain confidence and develops their vocabulary further by giving synonyms for a new and difficult vocabulary word (Peregoy & Boyle, 2001).

Since Wideman wrote in fragmented sentences, the numerous periods used could be misleading or confusing for an ELL that is used to seeing periods at the end of complete sentences. The author's fragmented sentences often did not involve a subject, which may also lead to confusion. To understand this reading, it would be beneficial to use the surrounding context (local co-text clues) to understand the intended meaning of these sentence fragments and to whom they were referencing. Especially for this story, it would be beneficial to use an activity that helps the students pick out the topics or theme of the reading. By skimming through a reading with the teacher and the rest of the class, learners could pick out words that show a common topic or theme throughout the reading. Looking for repeated characters, places, or issues to help learners get a gist of what the story or article is about may help them become more comfortable with the assigned reading. Even just looking at the first couple of sentences at the beginning of the reading and having the learners guess what the topic or theme is about based upon the words that comprise the beginning sentences would be beneficial. By having the learners keep the topic or theme in their minds it would better help them understand the lexical cohesion of the text.

Another activity that could be done would be to skim through the reading with the learners and ask them what words they do not know and go through a dictionary with them to pick out the correct meaning. This would allow the teacher to point out the importance of using the context of the story in order to pick out the correct definition of the word.

A specific activity to help language leaners focus on the context of the reading would be to have them identify local co-text clues and global co-text clues (as discussed in Chapter Two) in a reading. First the teacher and learners would skim through the reading together and the leaners would pick out and underline words that they did not know the meanings of and the teacher would write those words on the board. Then the teacher would instruct the learners to look at the words within the sentence of the unknown word (local co-text clues) to see if they can guess the meaning of the unknown word. The words that learners identified within the sentence would be written on the board underneath the unknown word, along with their guesses of the definition of the unknown word. If students could not determine the meaning of the unknown words using the immediate words in the same sentence, then the focus would turn to using global co-text clues. The teacher would instruct the learners to look through the entire reading to see a common topic or theme and then have the learners guess at the meaning based on the theme or topic.

After using this technique with learners multiple times, worksheets could be created that allow the learners to identify and list the local co-text and global co-text

clues on their own. These teaching strategies of context clues seem more logical to use for language learners than having them identify the 13 specific types that were used for this study. Having said that, a teaching technique that could be used for upper level ELLs would be one that teaches the meanings of reference words, collocations, and lexical cohesion context clues and then had the learners identify these clues in a reading.

Figurative language interpretation strategies are important to note as well, for figurative language comprehension is essential for student's social and academic success (Qualls & Harris, 1999, as cited in Palmer et al., 2007). According to Nippold (1998, as cited in Palmer et al., 2007), the "inability to interpret figurative language leads to a breakdown in text comprehension, which can frustrate readers and discourage them from continuing the reading task (p. 370). Because ELLs have difficulties with figurative language interpretation, direct instruction is frequently needed to provide the knowledge necessary to understand them and the surrounding context (Palmer & Brooks, 2004).

Additional Observations

As mentioned in Chapter Two, if contexts are less informative or misleading, it may take language learners much longer to gain knowledge of the meanings of unknown words (Webb, 2008). Being able to identify words as context clues may allow the context to be less misleading for learners. Also by having language learners identify context clues, it would allow them to be working on the semantic level of contextual guessing as Van Parreren & Schouten-Van Parreren (1982) discussed in Chapter Two. It would also require language learners to become aware of the linguistic context (immediate

environment) of the words (Kumaravadivelu, 2003), which may increase understanding of unknown or unfamiliar words. Since word recognition is one component of reading comprehension (McElvain, 2010), repeated use of identifying certain words (e.g., pronouns) as context clues may also improve their word recognition.

Discussion

The findings from this research will cause me to look at texts differently, in the sense that I will be more aware of if there are clear topics or themes in readings. When choosing reading material for my learners, I will now focus on the lexical cohesion of the reading and the amount of figurative language versus literal language in the reading. I will also look for collocations that may not be familiar with my learners so we may have a discussion before working with the reading material. Also if the reading is an article or short piece of work taken from longer material, I will inform my learners of where the reading was taken from and what the whole story is about in order to expand their background knowledge so they can get 'the bigger picture' of the written material.

Overall, I was surprised at the number of context clues found in both of the stories. At the beginning of this project, I did not think I would find many context clues considering literature doesn't clearly acknowledge or define unknown or unfamiliar words as in academic texts. After reading through the stories and seeing how much figurative language was used in "Brothers and Keepers," I assumed more context clues would be found in the literal story of "The Autobiography of Malcolm X." The results show this was an incorrect assumption, for the figurative language increased the number

of compare/contrast context clues and contributed to a good number of collocations and lexical cohesion context clues as well. I learned that context clues can be found in any genre of written material; one just has to be knowledgeable of the different types of context clues in order to properly identify them.

Disseminating Results

Knowing what I now know from conducting these text analyses on literature, I think it would be beneficial to pass this knowledge about context clues onto other ESL teachers. This could be done through sharing lesson plans at staff meetings or presenting this information at a TESOL conference. By teaching other teachers the different types of context clues that there are and helping them look for the lexical cohesion throughout readings, they can use this knowledge to create new teaching strategies that may help their language learners when reading literature. Sharing this knowledge may also give me insight about what other teachers think additional context clue types could be to help ELLs.

Final Reflections

From this study insight was gained from the fact that context clues are available in literature but one must be educated in what a context clue is and the different types there are in order to be able to identify them. Even then, the identification of certain context clues is subjective: collocations and lexical cohesion clues, for example.

While this study did not cover a large sample size of texts, a substantial number of words were identified as context clues. Regardless of this sample size, knowing that there

are context clues in nonfiction literature gives teachers useful information. Identifying and using context clues in nonfiction literature is a possible teaching strategy instead of just pre-teaching words or supplying dictionaries to ELLs. This would allow ELLs to become more independent readers and perhaps help them gain confidence knowing they have another strategy to use when confronted with unknown words.

Overall, this study confirmed that there are context clues in nonfiction literature. As an ESL teacher, this knowledge will happily be used to try to benefit advanced English Language Learners.

APPENDICES

APPENDIX A: “The Autobiography of Malcolm X” excerpt

APPENDIX B: “Brothers and Keepers” excerpt

APPENDIX A

The Norfolk Prison Colony's library was in the school building. A variety of classes was taught there by instructors who came from such places as Harvard and Boston universities. The weekly debates between inmate teams were also held in the school building. You would be astonished to know how worked up convict debaters and audiences would get over subjects like "Should Babies Be Fed Milk?"

Available on the prison library's shelves were books on just about every general subject. Much of the big private collection that Parkhurst had willed to the prison was still in crates and boxes in the back of the library—thousands of old books. Some of them looked ancient: covers faded, old-time parchment-looking binding. Parkhurst, I've mentioned, seemed to have been principally interested in history and religion. He had the money and the special interest to have a lot of books that you wouldn't have in general circulation. Any college library would have been lucky to get that collection.

As you can imagine, especially in a prison where there was heavy emphasis on rehabilitation, an inmate was smiled upon if he demonstrated an unusually intense interest in books. There was a sizable number of well-read inmates, especially the popular debaters. Some were said by many to be practically walking encyclopedias. They were almost celebrities. No university would ask any student to devour literature as I did when this new world opened to me, of being able to read and *understand*.

I read more in my room than in the library itself. An inmate who was known to read a lot could check out more than the permitted maximum number of books. I preferred reading in the total isolation of my own room.

When I had progressed to really serious reading, every night at about ten P.M. I would be outraged with the "lights out." It always seemed to catch me right in the middle of something engrossing.

Fortunately, right outside my door was a corridor light that cast a glow into my room. The glow was enough to read by, once my eyes adjusted to it. So when "lights out" came, I would sit on the floor where I could continue reading in that glow.

Excerpt taken from "The Autobiography of Malcolm X" with Alex Haley (1965).

APPENDIX B

Garth looked bad. Real bad. Ichabod Crane anyway, but now he was a skeleton. Lying there in the bed with his bones poking through his skin, it made you want to cry. Garth's barely able to talk, his smooth, medium-brown skin yellow as pee. Ichabod legs and long hands and long feet, Garth could make you laugh just walking down the street. On the set you'd see him coming a far way off. Three-quarters leg so you knew it had to be Garth the way he was split up higher in the crotch than anybody else. Wilt the Stilt with a lean bird body perched on top his high waist. Size-fifteen shoes. Hands could palm a basketball easy as holding a pool cue. Fingers long enough to wrap round a basketball, but Garth couldn't play a lick. Never could get all that lankiness together on the court. You'd look at him sometimes as he was trucking down Homewood Avenue and think that nigger ain't walking, he's trying to remember how to walk. Awkward as a pigeon on roller skates. Knobby joints out of whack, arms and legs flailing, going their separate ways, his body jerking to keep them from going too far. Moving down the street like that wouldn't work, didn't make sense if you stood back and watched, if you pretended you hadn't seen Garth get where he was going a million times before. Nothing funny now, though. White hospital sheets pulled to his chest. Garth's head always looked small as a tennis ball way up there on his shoulders. Now it's a yellow, shrunken skull.

Ever since Robby had entered the ward, he'd wanted to reach over and hide his friend's arm under the covers. For two weeks Gar had been wasting away in the bed. Bad enough knowing Gar was dying. Didn't need that pitiful stick arm reminding him how close to nothing his main man had fallen. So fast. It could happen so fast. If Robby tried to raise that arm it would come off in his hand. As gentle as he could would not be gentle enough. The arm would disintegrate, like a long ash off the end of a cigarette.

Excerpt taken from "Brothers and Keepers" by John E. Wideman (1984).

REFERENCES

August, D., Carlo, M., Dressler, C., & Snow, C. (2005). The critical role for vocabulary development for English language learners. *Learning Disabilities Research & Practice*, *20*(1), 50-57.

Basketball-reference.com. (n.d.). *Wilt Chamberlain.* Retrieved from http://www.basketball-reference.com/players/c/chambwi01.html

Bartholomae, D., & Petrosky, A. (2011). *Ways of reading: An anthology for writers* (9th ed.). Boston, MA: Bedford/St. Martin's.

Baumann, J. F., Edwards, E. C., Font, G., Tereshinski, C. A., Kame'enui, E. J., & Olejnik, S. (2002). Teaching morphemic and contextual analysis to fifth-grade students. *Reading Research Quarterly, 37*(2), 150-176.

Bifuh-Ambe, E. (2009). Literacy skills acquisition and use: A study of an English language learner in a U.S. university context. *Adult Basic Education and Literacy Journal, 3*(1), 24-33.

Bolger, D. J., Balass, M., Landen, E., & Perfetti, C. A. (2008). Context variation and definitions in learning the meanings of words: An instance-based learning approach. *Discourse Processes, 45*(2), 122-159. doi:10.1080/01638530701792826

Brown, C. L. (2007). Supporting English language learners in content-reading. *Reading Improvement, 44*(1), 32-39.

Brown, R., Waring, R. & Donkaewbua, S. (2008). Incidental vocabulary acquisition from reading, reading-while-listening, and listening to stories. *Reading in a Foreign Language, 20*(2), 136-163.

Cai, W., & Lee, B. (2010). Investigating the effect of contextual clues on the processing of unfamiliar words in second language listening comprehension. *Australian Review of Applied Linguistics, 33*(2), 1-28.

Carlisle, J. F., & Stone, C. (2005). Exploring the role of morphemes in word reading. *Reading Research Quarterly*, *40*(4), 428-449. doi: 10.1598/RRQ.40.4.3

Carrell, P. L., & Carson, J. G. (1997). Extensive and intensive reading in an EAP setting. *English for Specific Purposes, 16*(1), 47-60.

Cremer, M., Dingshoff, D., de Beer, M. &, Schoonen, R. (2010). Do word associations assess word knowledge? A comparison of L1 and L2, child and adult word associations. *International Journal of Bilingualism, 15*(2), 187-204. doi: 10.1177/1367006910381189

Fraser, C. A. (1999). Lexical processing strategy use and vocabulary learning through reading. *Studies in second language acquisition*, *21*(2), 225-241.

Fukkink, R. G., & De Glopper, K. (1998). Effects of instruction in deriving word meaning from context: A meta-analysis. *Review of Educational Research, 68*(4), 450-469.

Greenwood, S. C., & Flanigan, K. (2007). Overlapping vocabulary and comprehension: Context clues complement semantic gradients. *The Reading Teacher*, *61*(3), 249-254.

Goldenberg, C. (2008). Teaching English language learners. *American Educator, 32*(2), 8-23, 42-44.

Harris, T.L., & Hodges, R.E. (1995). *The literacy dictionary: The vocabulary of reading and writing.* Newark, DE: International Reading Association.

Haynes, J. (2007). *Getting started with English language learners; How educators can meet the challenge*. Alexandria, VA: Association for Supervision and Curriculum Development.

Henriksen, B. (1999). Three dimensions of vocabulary development. *Studies in Second Language Acquisition, 21,* 303-317.

Huckin, T., & Bloch, J. (1993). Strategies for inferring word-meanings in context: A cognitive model. In T. Huckin, M. Haynes & J. Coady (Eds), *Second Language Reading and Vocabulary Learning*. Norwood, MA: Ablex.

Jenkins, J. R., Matlock, B., & Slocum, T.A. (1989). Two approaches to vocabulary instruction: The teaching of individual word meanings and practice in deriving word meaning from context. *Reading Research Quarterly, 24*(2): 135-149.

Johnson, D.D., & Johnson. B. (2011). *Words: The foundation of literacy*. Boulder, CO: Westview Press.

Jongejan, W., Verhoeven, L., & Siegel, L. S. (2007). Predictors of reading and spelling abilities in first- and second-language learners. *Journal of Educational Psychology, 99*(4). 835-851. doi: 10.1037/0022-0663.99.4.835

Krippendorff, K. (2004). *Content Analysis: An introduction to its methodology.* Second Edition. Thousand Oaks, CA: Sage Publications, Inc.

Kumaravadivelu, B. (2003). *Beyond methods: Macrostrategies for language teaching.* New Haven, CT: Yale University Press.

Languagemonitor.com (2014). *Number of words in English language.* Retrieved from http://www.languagemonitor.com/new-words/number-of-words-in-the-english-language-1008879/

Lazar, G. L. (1996). Using figurative language to expand students' vocabulary. *ELT Journal, 50*(1), 43-51.

Lei, S. A., Berger, A. M., Allen, B. M., Plummer, C. V., & Rosenberg, W. (2010). Strategies for improving reading skills among ELL college students. *Reading Improvement*, *47*(2), 92-104.

Literary-devices.com. (n.d.). *Authorial Intrusion*. Retrieved from http://literary-devices.com/content/authorial-intrusion

Manning, C. D. (1999). *Foundations of statistical natural language processing*. H. Schütze (Ed.). MIT press.

MAXQDA 11 ®. [Computer software]. Berlin, Germany: VERBI GmbH.

McElvain, C. M. (2010). Transactional literature circles and the reading comprehension of English learners in the mainstream classroom. *Journal of Research in Reading, 33*(2), 178-205. doi: 10.1111/1467-9817.2009.01403.x

McKay, S. L. (2006). *Researching second language classrooms*. New York, NY: Routledge.

Merriam, S. B. (2009). *Qualitative research: A guide to design and implementation.* San Francisco, CA: Jossey-Bass.

Mikulecky, B. S. (2008). *Teaching reading in a second language.* White Plains, NY: Pearson Education, Inc.

Mikulecky, B. S. (2011). *A short course in teaching reading: Practical techniques for building reading power.* White Plains, NY: Pearson Education, Inc.

Montelongo, J. A., Hernández, A. C., Herter, R. J., & Cuello, J. (2011). Using cognates to scaffold context clue strategies for Latino ELs. *The Reading Teacher 64*(6), 429-434. doi: 10.1598/RT.64.6.4

Mori, Y., & Nagy, W. (1999). Integration of information from context and word elements in interpreting novel Kanji compounds. *Reading Research Quarterly, 34*(1), 80-101.

Morris, J., & Hirst, G. (1991). Lexical cohesion computed by thesaural relations as an indicator of the structure of text. *Computational Linguistics*, *17*(1), 21-48.

Nagy, W., Herman, P. A., & Anderson, R. C. (1985). Learning words from context. *Reading Research Quarterly, 20*, 233-253.

Nassaji, H. (2003). L2 Vocabulary Learning From Context: Strategies, Knowledge Sources, and Their Relationship With Success in L2 Lexical Inferencing. *TESOL Quarterly, 37*, 645–670. doi: 10.2307/3588216

Nation, I. S. P. (2006). How large a vocabulary is needed for reading and listening? *Canadian Modern Language Review, 63*, 59-82.

Obama, B. (2004). *Dreams from my father: A story of race and inheritance*. New York, NY: Three Rivers Press.

Palmer, B. C., & Brooks, M. A. (2004). Reading until the cows come home: Figurative language and reading comprehension. *Journal of Adolescent & Adult Literacy*, *47*(5), 370-379.

Palmer, B. C., Shackelford, V. S., Miller, S. C., & Leclere, J. T. (2007). Bridging two worlds: Reading comprehension, figurative language instruction, and the English language learner. *Journal of Adolescent and Adult Literacy, 50*(4), 258-267. doi: 10.1588/jaal.50.4.2

Peregoy, S. F., & Boyle, O. F. (2001). *Reading, writing, and learning in ESL: A resource book for K-12 teachers* (3rd ed.). New York, NY: Longman.

Prichard, C. (2008). Evaluating L2 readers' vocabulary strategies and dictionary use. *Reading in a Foreign Language, 20*(2), 216-231.

Proctor, C. P., Carlo, M., August, D., & Snow, C. (2005). Native Spanish-speaking children reading in English: Toward a model of comprehension. *Journal of Educational Psychology*, *97*(2), 246. doi: 10.1037/0022-0663.97.2.246

Rasinski, T. V., Padak, N., Newton, R. & Newton, E. (2008). *Greek and Latin roots: Keys to building vocabulary.* Huntington Beach, CA: Shell Educational Publishing.

Reier, J. M. (2002). *Contemporary's GED language arts, reading.* Lincolnwood, IL: McGraw-Hill/Contemporary.

Roberts, C. W. (1997). *Text analysis for the Social Sciences: Methods for drawing statistical inferences from texts and transcripts*. Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Rowling, J. K. (1998). *Harry Potter and the sorcerer's stone.* New York: A.A. Levine Books.

Schmitt, N., Jiang, X., & Grabe, W. (2011). The percentage of words known in text and reading comprehension. *The Modern Language Journal, 95*(1), 26-43. doi: 10.1111/j.1540-4781.2011.01146.x

Urbandictionary.com (n.d). *Set*. Retrieved from http://www.urbandictionary.com/define.php?term=set&defid=1227872

Van Parreren, C. F., & Schouten-Van Parreren, M. C. (1982). Contextual guessing: A trainable reader strategy. In Jung, Udo O. H., *Reading: A symposium* (pp. 235-248). Oxford, England: Pergamon Press.

Wallace, C. (2007). Vocabulary: The key to teaching English language learners to read. *Reading Improvement, 44*(4), 189-193.

Walters, J. (2006). Methods of teaching inferring meaning from context. *RELC Journal, 37*(2), 176-190. doi:10.1177/0033688206067427

Webb, S. (2008). The effects of context on incidental vocabulary learning. *Reading in a Foreign Language, 20*(2), 232-245.

Weber, M. (2009, September 11). Hyphens, En Dashes, and Em Dashes. The GrammarPhile Blog. Retrieved from http://www.proofreadnow.com/blog/bid/25759/Hyphens-En-Dashes-and-Em-Dashes

Wessels, S. (2011). Promoting vocabulary learning for English learners. *The Reading Teacher, 65*(1) : 46–50. doi: 10.1598/RT.65.1.6

Wideman, J. E. (1984). *Brothers and keepers.* New York, NY: Holt, Rinehart and Winston.

X, M., & Haley, A. (1965). *The autobiography of Malcolm X*. New York, NY: Grove Press.

Ying. Y. S. (2001). Acquiring vocabulary through a context-based approach. *English Teaching Forum, 39*(1), 18-34.

Zwiers, J. (2008). *Building academic language: Essential practices for content classrooms*. San Francisco, CA: Jossey-Bass.