# The Efficacy of a Vocabulary Acquisition Program in Young English Language Learners 

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#### Abstract

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Walden University 2010


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Renée Mimbs Powers

Doctoral Study Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

Walden University
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Teachers know that many nonnative English language learners (ELLs) have problems with successful negotiation of academic English vocabulary. The purpose of this study, working from a behavioralist perspective as espoused by Thorndike, Skinner, and Bandura, was to determine if a vocabulary program influenced word acquisition in first grade ELLs. The research questions focused on the degree to which the program affected the learner's vocabulary and helped to alleviate word poverty from among the 34 participants in the study. In this quantitative pretest - posttest design, ELL students were exposed to 9 weeks of intense instruction. The vocabulary acquisition of ELL students in first grade at a K-5 elementary school was measured. Data were assessed statistically using paired samples $t$-tests. Results indicated a statistically significant improvement in ELL vocabulary. Implications for social change include providing information that can assist teachers and school districts in selecting effective vocabulary strategies for those at risk for low school performance.


The Efficacy of a Vocabulary Acquisition Program in Young English Language Learners

## by

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Doctoral Study Submitted in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

Walden University
December 2010

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## Dedication

This doctoral study is dedicated to special people from the two generations that frame my existence: to my parents, James Byron Mimbs and Barbara Stevens Mimbs, who adopted me into their lives and gave me just about the best childhood any girl could hope for; and to my daughters, Amy Elizabeth and Jenna Greer Ni, who bring continuous activity and opportunity and fill my days with pride and joy.

## Acknowledgements

Nine years ago, I was working in a doctor's office. Nice people surrounded me, but I felt professionally unfulfilled. The persistent notion came upon me to go to graduate school. That was a decision I had a perfect peace about. I have never looked back. A master's degree in teaching soon followed. Then, I completed an education specialist degree. Now, the doctorate has reached its culmination. It has been the most intense, most gratifying time of my life. Moreover, by this I do not mean just the part about me as a student-I also mean the part about me as a classroom teacher. Never will I forget my first week as a teacher, when, in September 2001, terrorist attacks shook our country. My excitement of entering the classroom found resistance by an unwelcome intrusion of force and caused my third graders (now high school seniors) and me to wonder, why?

My doctoral committee, Dr. Joe Ann Hinrichs, chair, and Dr. Ashraf Esmail, has provided me with invaluable assistance and insight. Dr. Hinrichs is the kind of school leader that I admire. She has become a true friend and colleague to my family. Dr. Esmail's assistance with the methodology made simpler what could have been a tedious component of the work.

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At the beginning of the second millennium, new immigrants were coming to the United States at a rate of more than one million per year, resulting in a population where three in 10 people were not White (Frey, 1999). The influx and proliferation of Hispanic immigrants in 2006 outnumbered the nation's African American constituency, and in another quarter of a century, predictions point to the possibility that at least one in four Americans will be Asian or Latino (Day, 2010). This forecast of social change mandates that educational leaders acknowledge the changing face of public school learners and the challenges that accompany those who enter those schools with no background in English, which is still the primary language of instruction in the United States.

The focus of this quantitative study was to determine if the introduction of a particular vocabulary acquisition program had an affect on the reading comprehension of first grade students whose native language was not English. Over the span of 2 consecutive months during a school year, first-grade English language learners (ELLs) of one public, elementary school participated in the implementation of a vocabulary acquisition program, while their native English-speaking peers were not. Change in the two groups was measured by students' performance on pre- and posttests.

Section 1 includes a definition of the problem and a rationale for the study. It also presents definitions, the significance of the study, the guiding research questions, a review of literature, the implications of the study, and a summary. This introductory section finds guidance from the wisdom of Frederick Buechner (1993), who said, "The magic of words is that they have power to do more than convey meaning; not only do they have the power to make things clear, they make things happen (p. 54)." Buechner's
observation applies completely to the bulk of this investigation in that it takes into account the abundance of opportunities, in and out of school, for those who command language.

## Problem Statement

The effectiveness of early grades vocabulary acquisition programs among ELLs is not demonstrated clearly in the literature. Vocabulary acquisition is a fact of schooling that affects ELLs, who often lack the English vocabulary knowledge they need to succeed academically. In order to address this academic need, teachers need to understand that "the need to provide better instruction for ELLs requires an updated, invigorated approach to their schooling" (Mohr, 2004, p. 18).

There are many possible factors contributing to the problem of ELL dearth in English vocabulary. One is that English does not find reinforcement as the language of the home. Another is that recent immigration does not allow for time for children to assimilate into United States culture before they enroll in schools. Yet another is the lack of social/intellectual stimuli die to poverty (August \& Hakuta, 1997). This study contributed to the body of knowledge needed to address this problem by testing a specific vocabulary acquisition program and its efficacy with first-grade ELLs in one public elementary school.

Teachers who work with ELLs understand the struggle that they face during their early years in school. The observations of classroom teachers of students who have to be receptors of academic vocabulary find validation through research. "A student's level of vocabulary knowledge has been shown to be an important predictor of reading ability
(fluency) and reading comprehension for English-language learners" (Hickman, PollardDurodola, \& Vaughn, 2004, pp. 720-721). In other words, for reading comprehension to occur, students must know the meanings of the words they read (Richek, 2005). Thus resides the ongoing and knotted nature of knowing words and knowing how to read. Mohr (2004) argued that a high expectation of ELL students is essential to helping them fulfill their potential in primary grades reading. To maintain high expectations for their ascendancy into English Language, Mohr (2004) asserted that

Educators need to perceive ELLs as capable students who want to meet and exceed the high expectations teachers hold for them. They are already competent in one language and can use this language base to acquire English. The challenge is to find ways to accelerate their various acquisition levels of English, especially in academic literacy. (p. 20)

The continued classroom practices that assume an ELL non intellectual inferiority to native English speaking learners suggests that an educational atmosphere, enriched with high sensory stimulation and achievement expectation, will elicit growth from among their ranks. This study contributed to the body of knowledge needed to address this problem by exploring vocabulary acquisition strategies that claim to improve reading comprehension in ELLs. The aim of this study was to determine the degree to which a focused reading series that accents vocabulary acquisition had on outcome attributable to increased reading comprehension.

## Research Questions

1. Is there a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pretest to posttest among the ELL groups' data?

Null Hypothesis: There was no statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pretest to posttest among the ELL groups' data.

Alternative Hypothesis: There was a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pretest to posttest among the ELL groups' data.
2. Is there a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pretest to posttest among the ELL groups' data?

Null Hypothesis: There was no statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pretest to posttest among the ELL groups' data.

Alternative Hypothesis: There was a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pretest to posttest among the ELL groups' data.
3. Is there a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pretest to posttest among the non ELL groups' data?

Null Hypothesis: There was no statistically significant change in vocabulary acquisition from pretest to posttest among the non ELL groups' data.

Alternative Hypothesis: There was a statistically change in vocabulary acquisition as measured by the Rigby Reading Assessment from pretest to posttest among the non ELL groups' data.
4. Is there a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pretest to posttest among the Non ELL groups' data?

Null Hypothesis: There was no statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pretest to posttest among the non ELL groups' data.

Alternative Hypothesis: There was a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pretest to posttest among the non ELL groups' data.

## Purpose

The purpose of this study was to determine if the introduction of a program of vocabulary influences word acquisition of first grade ELLs. Further, this study checked for any modifications in reading comprehension among ELL students who took delivery of supplemental vocabulary instruction over a 9-week period. Instruction consisted of 15 lessons that included oral and visual presentations of vocabulary words, followed by planned oral reading of popular children's literature.

## Theoretical Framework

Perspectives of Three Behavioral Theorists
The views of Thorndike, Skinner, and Bandura are germane here as a link between educational psychology and the precepts of the study of teaching vocabulary to English second language learners. "A well developed theory base helps us develop a congruent set of principles and practices to guide our teaching" (Soderman, Gregory, \& O'Neill, 1999, p. 7). It is essential to understand the theoretical principles that underpin the research as it unfolds.

Thorndike and education. To some, Thorndike is the father of educational psychology (Gibbony, 2006). He was strongly predisposed to the scientific methods of Darwin, as evidenced by his numerous studies on animal intelligence. The legacy of Thorndike in education is significant. At least one researcher reasoned that contemporary teaching practices reflect a "carrot and stick" approach to education, where "children are regarded as machines in need of programming" (Merogliano, 2005, p. 6). Thorndike's ideas about order and control focus through continuous improvement measures and the need to make all things empirical (Gibbony, 2006).

Thorndike's view of learning was mechanistic, and his influence surfaces in many educational reforms of the last half of the $20^{\text {th }}$ century. In particular, the ideas that drive No Child Left Behind (NCLB, 2002) legislation align with Thorndike's opinion that educational experts alone are worthy of deciding "what to teach, how to teach it, and how to evaluate it (Gibbony, 2006, p. 170). Indeed, the most talked about and written about features of NCLB stem from educational assessments that label schools as successful or
unsuccessful and are deemed acceptable or in need of improvement based on empirical evidences wrought by educational policy makers.

Thorndike comes into contrast with his contemporary, Dewey, the Constructivist. For example, Thorndike reasoned human transfer of learning as a thing quite different from measures of intelligence (Gibbony, 2006). Dewey saw love of learning, or attitude for learning, as a chief goal of education, which is a more generous and expansive view of transfer (Gibbony, 2006). Thorndike, the behavioralist, saw humans as machines, while Dewey saw them more in the image of life in society (Gibbony, 2006). So, the polarization of these two important commentators on American schooling is evident, and their seminal ideas are present, in varying degrees, in existing educational practices.

Three laws of learning distinguish Thorndike from other theorists:

1. Readiness: Instructors must help students to understand why a thing needs to be learned or explains what is about to be learned.
2. Exercise: Learners must practice what they have learned in order to master it. They use it or they lose it.
3. Effect: Learners must experience success in order to have more successes. Instructors orchestrate lessons with this in mind, giving appropriate feedback to help learners build an internal locus of control and efficacy of self (Gibbony, 2006).

The administrators of public education in the $21^{\text {st }}$ century United States have chosen a path much more aligned with Thorndike than with the more prolific and more widely quoted Dewey. "One cannot understand the history of education in the United States during the twentieth century unless one realizes that Edward L. Thorndike won and

Dewey lost" (Lagemann, 1989, p. 189). This fact cannot be denied, given any surface understanding of federal legislation regarding public education.

Skinner and education. At the start of his career, Skinner described America's classrooms as being adverse to student learning (Altus \& Morris, 2004). His research gave rise to the outcomes based, programmed instruction that is prevalent today. Further, he advocated behavioral objectives in lesson plans, small frames of instruction, selfpacing, active learner response to inserted questions, and immediate positive or negative feedback from teachers.

Skinner felt that teachers needed to break habits and bring desired behaviors under many sorts of stimulus control. He determined that teaching should be broken into progressive steps with reinforcement following each stage. Skinner supported the idea of using technology to instruct and reinforce learning. He argued that technology would never duplicate a teacher's relation to learning (Barrett, 2002). Skinner thought that instrumental assistance in learning improved teacher-student relations, and allowed more time for student focus. He became the champion of what he called operant conditioning. "In operant conditioning, the organism learns that a particular behavior produces a particular consequence. If the consequence is useful . . . the organism will tend to repeat the behavior . . . If the response is unpleasant, the organism will tend not to repeat" (Berger, p. 43). For Skinner, learning is not an action or doing a thing; learning is changing something. One thing that Skinner advocated was change. In Walden Two (1948), Skinner wrote,

God knows, the outside world is not exactly profligate in the education of its children. It doesn't spend much on equipment or teachers. Yet, in spite of its
penny-wise policy, there's still enormous waste. A much better education would cost less if society were better organized." (p. 118)

Skinner felt that people acquire behavior as they move through the process of being educated. He believed that personal actions are the result of the processes associated with meaningful intentions. Culture, for Skinner, rewards those members who are good and right and who do useful or interesting things.

Bandura and education. Building on the work of Vygotsky (1930), who said that learning could not be estranged from a social context, and Miller and Dollard (1939), who reasoned that all learners must be attentive and active, Bandura was able to construct a new frame for understanding social learning with the publication of Social Foundations of Thought and Action: A Social Cognitive Theory (1985). However, under what he had called observational learning theory (Bandura \& Walters, 1963), the ingredients of the theory fell in place two decades earlier. Coming from the scientific orientation of behavioralism, Bandura believed that learners need sensory input in order to recall past events and to learn from them. Bandura named the theory social cognitive for the ways in which it is applicable to social learning. Through it, he was able to show how the activities of cognition, behavior, and environment exist in triangulation and are in support of his conclusions about how societies change.

It is helpful to take up an understanding of Bandura's theory (Bandura, 1985) by way of a brief introduction to his four essential steps in social cognition (learning):

1. Attention: If people are to learn, they must pay attention to modeled behaviors. This is complicated, for it involves the person doing a behavior,
the person who might learn, and the environmental stimuli that accompanies it.
2. Retention: A person retains information as they modeled activities are recalled. Recalling images and language also assist in this.
3. Reproduction: People convert symbols into actions. People organize responses to align with patterns that have modeled. As people rehearse, they improve.
4. Motivation: If people are to imitate a behavior, they must be motivated to do it. People need incentives. People get incentives through past, promised, and vicarious things or people that reinforce (Bandura, 1985).

According to Bandura's social cognitive theory, behaviors organize into symbols. Then, they rehearse, as it were, through repetition. Next, they code, as they are imitated, into words and images that help people to store them in ways that they can be recalled. The more a person receives esteem, the stronger the propensity exists for modeling that person's behavior; the more the outcomes of a certain behavior are valued, the more prone a person is to adopt the behavior.

Bandura saw behavior as regulated in this way: observation of self, judgments of self, and, responses to self. This self-regulation becomes self-esteem. Most individuals, most of the time, according to Bandura, respond to poor self-esteem in three ways: they compensate, meaning they have delusions of grandeur; they are inactive which results in depression; or, they escape to a fantasy world (Bandura, 1969, 1973).

In each of these four processes, it is relatively easy to note the difference between behavioralism and constructivism. In constructivism, the learner comes up with new
ideas based on experience or knowledge. Using Bandura's theory, learners learn through modeled behaviors and through motored recurrence. By going beyond the confines of traditional behavioralism, Bandura (1985) believed in a reciprocal determination wherein the world causes a person's behavior and a person's behavior causes the world.

## Operational Definitions of Terms

English language learners (ELL): Students known as ELLs are those for whom English is not the first language of communication (Giambo \& Szechsi, 2005). Expressive vocabulary: The body of words a person is able to define, describe, or explain either orally or in writing is known as a person's expressive vocabulary (National Institute for Literacy, 2007).

Reading comprehension: The ability for students to understand what they have read at "a deep level" is known as comprehension in reading (Tolman, 2006, p. 21). Comprehension is the ability to understand written text (Tannenbaum, Torgesen, \& Wagner, 2006, p. 381). Receptive vocabulary: The listening comprehension of spoken words is a vocabulary that is truly received. The body of words known well enough to understand when heard or read is our receptive vocabulary (National Institute for Literacy, 2007).

## Scope and Delimitations

This study was limited to native English speaking students and English language learners in the first grade population one elementary school northeast Georgia. All of the non-native ELLs spoke Spanish as their first language, or as the language of their homes. This criteria represented the scope and delimitations of the study.

## Assumptions

This study was grounded in the following assumptions: Even though the work was limited to the first graders of one school, its findings should not be interpreted as being consequential to only first graders or even to those who speak English as a second language. Highly motivated, emergent kindergartners as well as those second graders whose reading comprehension lags behind expected norms, may also benefit from supplemental vocabulary exercise, whether through existing or teacher produced instruments.

The students whose scores are included in the study are a representative sample of students in the district in which the research took place. The data obtained represent each participant's best efforts on the material presented. Each student at the school is was there because it is the school to which they have been assigned in accordance with the school system's districting policies.

## Limitations

Because of the transient nature in the population of the high poverty (Title I) school that served as the research site, I lost some student data due to student relocation. Likewise, some students transferred to the school during the time of study. These students were not included, because they could not participate in the entire process.

## Significance of the Study

This study carries significance in the field of vocabulary acquisition. Richek (2005) stated, "Vocabulary knowledge is among the best predictors of reading
achievement" (p. 414). Students whose first language is not English make up an increasing portion of school populations (Mohr, 2004). Many of these students have difficulty comprehending what they read. A major cause of this difficulty is their lack of understanding English words (Lehr, Osborne, \& Hiebert, 2004). "English-language learners are one of the largest groups of students who struggle with literacy in general and vocabulary and comprehension in particular" (Hickman et al., 2004, p.720). The research indicates that vocabulary acquisition promotes reading comprehension. The findings of this study provide data to support the need for a vocabulary program in early primary education within the research site and other elementary schools with similar student constituencies.

Research suggests that an educational atmosphere, enriched with high sensory stimulation and achievement expectation, will elicit growth in ELL learners. Leaders in education must focus on change and reform efforts that find mandate in the direction of individual schools from District Offices, the State Departments of Education, and the Federal Government. Data driven decision-making and instruction is a requirement of NCLB and undergoes diagnosis in order for leadership teams to lead schools in the direction of academic excellence. Researchers are persistently working to improve and are always in search of a better way to make schools run more efficiently and excel academically.

Transition

Section 2 of this study presents a review of the literature on several thoughts related to vocabulary acquisition in English language learners. Section 3 focuses on the methodology of this quantitative study. Sections 4 and 5 focus on research findings and implications respectively.

## Section 2:

## Review of the Literature Introduction

In this section, the theoretical positions that framed the study are described. Here, the problem is elaborated and the questions, hypotheses, special terms, limitations, assumptions, purpose, and the overall significance of the study are expressed. Also, within this section, the purpose of the research, along with relevant terminology, and guiding questions is clarified. The significance of this study rests in its concrete linkage of theory with practice. This chapter reviews literature that pertains to the topic of vocabulary acquisition in early grades English language learners. This section finds resonance with the thoughts of John Locke (1983) who opined that "reading furnishes the mind with only the materials of knowledge; it is thinking that makes what is read ours ( p . 549)." In keeping with Locke's practical view that reading, to be life changing, must be wed to our best contemporary, cumulative thought, most of the review is embodied by scholarship that has been conducted over the last 5 years. Educational databases were consulted, using key search words such as vocabulary acquisition, reading comprehension, English language learners, vocabulary curriculum, and academic readiness. I included several personal visits to my local academic library where I augmented my electronic searches with hands-on experiences with full text journal articles and books.

## The Complicated Problem of Vocabulary

The early grades acquisition of vocabulary and its long reach into the future academic success of students has been studied for many years. "The influence of meaning vocabulary is one of the most enduring findings of educational research" (Richek, 2005, p. 414). Indeed, studies offered herein have affirmed that a child's vocabulary is indispensable to educational attainment. These and other findings have done much to shape current understanding of vocabulary and young children. Further, they have done much to dictate the methods through which the vocabularies of young children are nourished.

## History of Pertinent Research

It is instructive to understand the recent history of scholarship in the area of vocabulary acquisition. Interest in this area has experienced peaks and valleys (Cassidy \& Cassidy, 2005/2006). Classroom teachers who are conscientious about their vocabulary practices have many questions about how to design and implement instruction that research can guide and answer.

One of the most defined areas of need when it comes to literacy education is to know more about how readers' vocabulary knowledge and their ability to understand what they read connect (Davis, 1944, 1968; Terman, 1916). This is an issue that is addressed each day during instructional periods. Teachers know that difficult words make reading a tedious task for readers.

The history of research in vocabulary instruction is not linear. Periods came and went when vocabulary instruction did not shape as the result of prior research (Dale,
1974). A mere quarter century ago, research on vocabulary instruction was deemed to be out of date and received little notice from scholars (Calfee \& Drum, 1978). As late as the mid 1980s, vocabulary instruction received minimal attention from those who produced reading texts for teachers (Pearson, Kamil, Mosenthal, \& Barr, 1984).

Nevertheless, the Harvard Review sought to ignite attention to emergent readers with a resurgent article by Becker (1977) that tied disadvantaged student failure at school to issues of vocabulary. Therefore, the growing notion that "vocabulary size and subsequent theorization about vocabulary development, its growth, and appropriate instruction" (Blachowicz, Fisher, \& Ogle, 2006, p. 525) was of importance, further conversations about this topic ensued. In a sense, this dialogue continues to this day.

The parameters of vocabulary are targets for research teams. Coyne, Simmons, and Slater (2004) recently studied the vocabulary gap and its correlation between the economically disadvantaged and poor school performance. Disparities in word knowledge have long been a concern of scholars (Chall, Jacobs, \& Baldwin, 1990; Graves, Brunetti, \& Slater, 1982).

Parental income and welfare status has been determined by Hart and Risley (2003) to reveal significant disparities between academic achievement and the lack thereof. Poor children are exposed to fewer words and, therefore, make slower lexical gains. Goswami (2001) found phonemic awareness the most important literacy skill and a thing that the economically oppressed sorely lack. Despite ELL learners' large native language vocabulary, their lack of command with English words provides their strongest reason for not keeping pace with their native English speaking peers in school (Garcia,

1991; Goldenberg, Rezaei, \& Fletcher, 2005; Verhoeven, 1990).
Blachowicz, Fisher, and Ogle (2006) concur, saying,

Although individual teachers may be successful in using a variety of strategies for vocabulary instruction, what is needed is a comprehensive, integrated, school wide approach to vocabulary in reading and learning. By integrated, we mean that vocabulary is a core consideration in all grades across the school and in all subject areas across the school day (pp. 525-526).

Early Vocabulary Knowledge
One of the major commentaries in the literature surrounds the topic of early intervention with those who, by demography, fall into an at risk category as struggling readers. Even when young learners seem to command vocabularies, their spoken words often mask their true knowledge. "Although some children start school with vast vocabulary knowledge, many begin with relatively limited knowledge" (Silverman, 2007, p. 97).

We must, out of necessity, face the obvious. We know that ELLs are the fastest growing group of students in U.S. schools (Daniel \& Hoelting, 2008). We also know that ELLs make good educational strides until about Grade 4, when they begin to fall behind their non-ELL peers because of "the changing cognitive demands of print-based instruction" (Olsen, 2006, p. 1). At least one other research team agrees:

By the fourth grade, most of these students have acquired the basic, interpersonal English they need to communicate with their classmates and teachers, but continue to lack the academic English vocabulary to comprehend content area
texts. These learners, along with many of their native English-speaking classmates, require thoughtful, targeted instruction in academic English vocabulary in upper elementary school (Kieffer \& Lesaux, 2007, p. 135). It is academic language that favors English speakers over those who are learning English and performing grade level expectations simultaneously (Hadaway, 2009). Justice (2006) organized the academic expectations into four domains: print knowledge, alphabet knowledge, phonological awareness, and writing (Restrepo, Towle-Harmon, 2008). Alone, Justice's claims are not sufficient predictors of academic success, because student native-language performance also predicts literacy skills. The whole ordeal for these students rests upon the expectation that they will learn English as they engage in content area knowledge.

If a student lacks vocabulary strength, they may not be able to access text meanings, even if their teachers provide "appropriate scaffolding with respect to decoding these words by reading them aloud" (Kieffer \& Lesaux, 2007, p. 134). Children from low-income homes begin their school experience already behind. They have smaller vocabularies than their counterparts. Sadly, the chasm between what they know and can do widens over time.

What can be done? The struggle for these students is comprehension. Particularly, these students find it difficult to converse in academic language. Rupley, Logan, and Nichols (1998/1999) argued that "vocabulary is an essential and overlooked component in any balanced literacy program..." (as cited in Kieffer \& Lesaux, 2007, p. 134) and found academic vocabulary to be a most important need in assisting students to meet and surpass academic success. The reciprocal relationship between reading
comprehension and vocabulary acquisition is obvious. A greater vocabulary leads to greater comprehension, while a better grasp of the meanings of words fosters an increasing number of words that students can use to construct meaning from their studies (Stanovich, 1986). This rule applies to both native English speakers as well (Garcia, 1991; Proctor, August, Carlo \& Snow, 2005).

Early ELL Home Environment
Languages used in the homes of children have long been linked to vocabulary lexical development. Tabors and Snow (2001) suggested that many non-English native speakers begin school already behind their native English-speaking peers, even though those peers are monolingual. This appears to be because oral language serves as building blocks for literacy. The landmark report of the National Reading Panel (2000) found that vocabulary "is key to learning to make the transition from oral to written forms, whereas reading vocabulary is crucial to the comprehension processes of a skilled reader" (Restrepo, Towle-Harmon, 2008, p. 15). Clearly, from the literature, a child's first 5 year home environment holds powerful keys to word recognition.

By far, the largest bilingual subgroup in the United States is the Spanish/English group. Not only is it the largest ELL subgroup, it is also the fastest growing subgroup (McCardle et al, 2005). Unfortunately, this group represents the highest subgroup to experience grade repetitions and school dropout (August \& Hakuta,
1997). Perie et al (2005) reported that $56 \%$ of Latino fourth grade students scored below basic grade expectations. This is not surprising, for NCLB requires the testing of ELLs rewards schools, monetarily, for meeting and exceeding annual yearly progress (AYP)
goals. Academic words are crucial to the success of ELLs since they allow ELLs to express new ideas as they form them.

ELL teachers, since they embrace cultural differences as part of their normal functioning, are good to study when investigating the home lives of ELL learners. By 2020 almost half of the public school learners will be from families whose native language is not English (Nieto, 2002). This fact changes the face of public schools as well as the primary needs of them. Teachers who practice culturally relevant pedagogies in the classroom find that their practices promote ELL participation and academic growth (Boyd et al, 2006).

It can take up to seven years for an individual to develop fully in a second language (Collier, 1987; Krashen, 1994), yet most schools require language learning students to become immersed in English-only classroom environments. It is possible, according to Cadiero-Kaplan \& Rodriguez, 2008 that this silences and marginalizes those whose language and culture are different from status quo.

## Widening Problem of Vocabulary

Not only is there a problem with ELL English proficiency, academic targets associated with NCLB are difficult for states to meet as ELLs struggle with reading competencies (Zehr, 2008). "Absent instructional intervention, the gap between children with vast versus limited vocabulary knowledge may widen over time (Silverman, p. 98). So, it is no surprise that the scores of ELLs lag behind those of their English speaking peers. Biemiller and Boote (2006) reason that less advantaged children will continue to
be handicapped by all of this until their schools begin to emphasize vocabulary acquisition.

We are informed by existing research. Strong evidence suggests that emergent literacy skills brought by children from their preschool and kindergarten years match the problems they encounter with learning to read (Farver, Nakamoto, \& Lonigan, 2006). Three fundamental skills are predictive of reading ability at the age of beginning first grade: phonological awareness- the ability to detect and manipulate sounds in oral language independent of meaning; print knowledge; and, oral language - vocabulary and grammar (Lonigan, 2006; Scarborough, 1998).

Whitehurst and Lonigan (1998) find that students with essential emergent literacy skills learn to read sooner and experience more satisfaction with reading than do those with fewer emergent skills. As far back as 1985, Butler et al reported longitudinal studies with preschoolers that predicted with accuracy their reading ability in grades 1 and 2.Students who struggle with learning English predictably lag behind English-speaking peers and never appear to catch up on assessment spectrums. Curiously, research reported by Viadero (2009) suggested that even those non-native English speaking students who possessed high emergent reading skills prior to Grade 1 , tended to hold their own with native English speakers but their progress fell off sharply after Grade 4. When tracking the most successful of these subjects, the gap had resulted in a reading chasm by the time they reached high school. This impacts an estimated 5.1 million English-language learners (Viadero, 2009).

Reading teachers are concerned that as more ELLs are mainstreamed, more support for their reading development will be required. English proficiency becomes
these students' major indication for participation in literacy activities (Yoon, 2007). Naturally, the problem is made worse as language minority students exhibit lower academic performance and higher dropout rates than do native-born students (Abedi \& Lord, 2001; Capps et al., 2004; Chang \& Singh, 2006; Schmid, 2001; Chang, 2008; Wang \& Goldschmidt, 1999, 2003).

## Traditional Vocabulary Instruction

Fluent oral vocabulary does not determine a student's reading achievement at an appropriate grade level (Cadireo-Kaplan \& Rodriguez, 2008). Such students are in a learning predicament. The ability to read is necessary for acquiring vocabulary, and sufficient vocabulary is necessary for reading development. "While students learning to read in their first language have already acquired from 5000 to 7000 words before they begin formal reading in school, this word count is not commonly found in ELLs" (Wallace, 2008, pp. 36-37).

The number of words known is considered to be the breadth of a student's reading performance. Knowing word meanings is referred to as a student's reading depth, and with depth comes word characteristics such as "phonemic, graphemic, morphemic, syntactic, collocational, and phraseological properties" (Wallace, p. 37). Stahl (2003) has reported that vocabulary knowledge is the most important indicator of oral language proficiency and, as such, drives both spoken and written language. Stahl's work asserts that the failure to understand even $2 \%$ of a text begins to erode student comprehension.

Proctor, Carlo, and Snow (2006) produced a study that indicates the critical nature of vocabulary knowledge in relationship to reading comprehension. Their work summarized a pronounced need to improve vocabulary knowledge with Spanish-speaking

ELLs. The dual role of learning to speak and read English at the same time is challenging, yet those who have developed an extensive word bank can retrieve them effortlessly and find richer meaning as they are exposed to new, grade level texts. Helman and Burns, 2008 point out that ELLs and non ELLs develop word skills and reading skills comparably. Calderón et al, (2005) have investigated the acquisition of sight words and find that ELLs have a much harder go of this than do non ELLs because "recent immigrants are less familiar with the vocabulary, syntax, and phonology of English (p. 115).

Gersten et al (2007) point out the effectiveness of assisting struggling ELLs with daily small group instruction that focuses on similar needs. This kind of intervention has been found to produce sustained improvement (Denton, Anthony, Parker, \& Hasbrouck, 2004; Gunn, Smolkowski, Biglan, \& Black, 2002; Vaughn, Mathes, et al., 2006). Programs that work best will be those that encourage fast-paced interaction and encourage active student participation with phonological awareness, phonics, vocabulary, fluency, and comprehension.

Flexible, small group reading intervention is a research based strategy that is aimed at helping ELLs to perform reading tasks toward grade level. Most elementary classroom teachers rank the instruction of non-English speaking children as their biggest pedagogical challenge (Rieg \& Paquette, 2009). "Mastery of academic language is arguably the single most important determinant of academic success...its importance cannot be overstated (Francis et al., 2006).

Dickenson and Smith (1994) report the value of reading books to children in an analytical style. Biemiller and Boote (2006) report the value of word walls. Further, they
compared repeated readings of texts with and without direct instruction. Their findings reveal that direct instruction produces more word gains. When review is added to direct instruction, even more words come under the command of emergent readers, but "under the best circumstances, vocabulary instruction only enriches children's vocabularies by about 300 words per school year" (Silverman, 2007, p. 99).

Robust vocabulary teaching strategies that meet the criteria mentioned earlier in this paragraph, also assist early readers to remember words they learn. Researchers Carlo et al. (2005) developed a curriculum in an effort to build a bridge toward higher literacy levels. They created a list of words that are commonly found in print but are seldom used in conversational English. Narrow reading is a practice that is aimed at intermediate level ELLs. In narrow reading, students are exposed to the reading of texts that focus on a particular subject or on a tightly defined theme or on the work of a single author (Hadaway, 2009).

Meyer (2000) asserts that teachers must consider the cognitive loads of instruction as well as the language instruction itself. The rationale is that texts that carry many new words have a higher load and that teachers need to consider how the loads of their text lessons impact ELL understanding. Meyer's call is for a balance between load and level. Of course, diligent teachers are constantly augmenting their lessons with picture books, easy readers, and chapter books. "Research has repeatedly pointed out the vocabulary situation that English-language learners face: insufficient class time for vocabulary growth and insufficient knowledge for reading comprehension" (Tran, p. 61).

Teachers who tie instruction to word meanings find more success than those who do not according to Stahl and Fairbanks (1986). A few of the methods used to do this
during classroom instruction include the use of graphic organizers, word webs, concept maps, and building on prior knowledge. Mathes et al. (2005), the National Reading Panel Report (2000), and Whitehurst et al. (1994) all concur that early reading interventions are key to prevent reading disabilities that will linger in a child's academic experience. Systematic, explicit, intense instruction in phonological awareness brings students closer to a working knowledge of letters and vocabulary.

Also, environments that are rich in vocabulary and word learning strategies help with the development of vocabulary breadth and depth. Pearson, Kamil, and Hiebert (2005) opine that educators need to design classroom experiences that are multifaceted, if students are to acquire new words."

Teachers should consider reading experiences that include both read alouds and independent reading, because research reveals that children pick up linguistic contexts from an immersion in both kinds of experiences. Research also supports the efficacy of explicit vocabulary instruction and word analysis strategies and context clues (Baumann, Ware, \& Edwards, 2007). Garcia (2008) urged teachers to use visuals, gestures, and dramatization to illustrate key textual concepts. Student background knowledge should be tapped through resources such as graphic organizers and other demonstrations. Below grade level ELLs need interventions if they are to gain essential literary skills (Huebner, 2009).

Vocabulary Growth

Biemiller and Slonim (2001) found that schooling seems to have little influence on the vocabulary development of grades K-5 children. In independent research,

Biemiller (2003) noted that effective intervention may enable some children to catch up to their peers in K-2 classrooms. Around grade 4, many children experience a slump in reading comprehension (Biemiller \& Boote, 2006).

Scarborough (1998/2001)reasoned that vocabulary size in kindergarten is an effective predictor of reading comprehension in the middle elementary years. Cunningham and Stanovich (1997) orally tested vocabulary at the end of Grade 1 and found it to be a predictor of reading comprehension a decade later. Chall et al. (1990) found that children with restricted vocabulary by Grade 3 have declining comprehension scores in the later elementary years. None of the studies in this paragraph had any evidence that schooling was responsible for vocabulary size.

Virtually nothing is done in schools to correct the problem of divergent vocabulary levels between non ELLs and ELLS (Biemiller \& Boote, 2006). Schools cannot change what happens before a child starts schools.

We've done a good job of building up reading skills to the point where students can decode words and read them, but they don't necessarily have the language abilities that would allow them to construct a representation of the text at a very high level. (Viadero, 2009, p. 22)

National Reading Panel
The National Reading Panel's (2000) meta analysis of vocabulary instruction indicated that studies of vocabulary instruction have used various ways of evaluating children's vocabulary learning that have led to different results. To focus more clearly, more uniform assessment procedures are needed so that teachers can work with receptive
and expressive tasks (Silverman, p. 100). The panel determined that almost no decoding strategies are used with vocabulary instruction in the primary grades (National Reading Panel, 2000). Current school practices allow widening of vocabulary gaps in the primary years. Unlike spelling or decoding, there is no established method of teaching vocabulary in the primary grades (Biemiller \& Boote, 2006).

Instruction in areas such as phonemic awareness, phonics, fluency vocabulary, and text comprehension is beneficial for ELLs as well as for other students (August \& Shanahan, 2006). "There is a growing consensus that ELLs are less likely to struggle with the basic skills -phonemic awareness and phonics -than with the last three components fluency, vocabulary, and comprehension" (Huebner, 2009, p. 90). ELLs tend to falter in mid elementary school when they are expected to make the important transition between "learning to read and reading to learn (Francis et al., 2006). Teachers need to choose specific interventions.

## Correlation Between Vocabulary and Reading

The link between vocabulary and reading is strong. The more words a student knows typically results in higher reading comprehension. Despite this fact, Biemiller and Boote's (2006) extensive work with primary grades teachers in both public and parochial schools yielded the suggestion that most teachers objected to spending more than 30 minutes a day on vocabulary instruction.

The Primacy of Word Skills
All of the basis in theory that has been described focuses attention on the focus of this study: the acquisition of a vocabulary among non native English speaking first
graders to the degree that they find academic success early in their time in public schools. "The importance of vocabulary in reading achievement has been recognized for more than half a century" (National Reading Panel Report, 2000). Vocabulary occupies an important position in learning to read. It is tied to words while comprehension is wed to thoughts about larger units of information.

Every person has a vocabulary. The words that we know and understand comprise what is known as our receptive vocabulary. This is our vocabulary in our largest sense. Our productive vocabulary is much smaller, in that it is made of the words that we use most frequently in our writing or in our conversation with others. There is a shift in the words we know, remember, or acquire, so it is impossible to know, with accuracy, how many words a person really knows. One thing, however, is quite clear. Smith (1997) astutely reminds teachers that word knowledge contributes to achievement in all subjects that are taught in school curriculums. This is because vocabulary knowledge is, and appears to have always been, among the best predictors of reading achievement (Richek, 2005), and as such it holds a crucial key that unlocks insight into all subject matter.

Ways in Which Words are Learned
Several routes to word understanding are brought out in the literature.
Scaffolding, a prevalent teaching strategy for vocabulary, facilitates a student's ability to build on prior knowledge and internalized information (Van Der Stuyf, 2002). The use of graphic organizers appear to help some students assimilate new words into their vocabularies (Pardo, 2004).

## Research Purpose

The purpose of the literature review is to find strategies that help learners of English as a second language experience academic success through building their vocabulary repertoire. On a broader scale, recent, relevant research on the topic of vocabulary acquisition has been studied through three primary lenses: 1 . Through review and rationalization of curriculum policy (National Reading Council, 2000);(Wixson and Dutro, 1999); 2. Through critical survey of reading series and reading products designed to address standards (Ryder and Graves, 1997); and 3. Through technical inquiry into reading processes that evoke fluency and comprehension (McCandliss, Beck, Sandak, et al., 2003); (Beck and McKeown, 2007; Stahl, 2003).

## Review and Rationalization of Curriculum Policy

Recommendations from the National Reading Panel (2000) include the following perceptions on the topic of vocabulary acquisition:

1. Vocabulary should be taught directly and indirectly.
2. Repetition and multiple exposure to vocabulary items are important.
3. Learning in rich contexts is valuable for vocabulary learning.
4. Vocabulary tasks should be restructured when necessary.
5. Vocabulary learning should entail active engagement in learning tasks.
6. Computer technology can be used to help teach vocabulary.
7. Vocabulary can be acquired through incidental learning.
8. How vocabulary is assessed and evaluated can have differential effects on instruction.

Beck and McKeown (2007) found that vocabularies play important roles in student's lives and future possibilities and that a large, rich, strong vocabulary is related to reading proficiency. They find that almost no emphasis is placed on vocabulary acquisition in the current curriculum and therefore schools are not doing much. All students' vocabularies, however, grow during their school years. Low socioeconomic students (SES) come to school with fewer words known and they never catch up to their higher SES peers.

Wixson and Dutro (1999) investigated what is known about standards and what is known about early reading. State standards that overlook specific standards for each early grade miss important content. Benchmarks run the gambit from very general to very specific. Documents vary in the way they conceptualize and organize reading. At times, viable curricular paths across grade levels are not present. Some good things are omitted, and some not so good things are included.

Three main elements of education include curriculum, instruction and assessment. For the diligent teacher, understanding the learner and understanding how students learn is of utmost importance. Teachers must seek to know their students as people. To be an effective teacher leader, one must be familiar with different theories of learning, understand these theories and know how to put theoretical models into practice so that every student's best academic performance might be achieved. Learning theories direct instruction in the educational setting. For superior teaching, it is imperative to be conscious of a learning model. "Teachers look at many learning models and choose one or put together the components of many models that make sense to them. There is no right or wrong" (Dantonio, 2006).

## Critical Inspection of Reading Series and Reading Products

Pearson and Kamil (2007) find that vocabulary is returning to a prominent place in the study of reading. Vocabulary knowledge predicts reading performance. The instrumentalist hypothesis predicts that learning words causes comprehension. The verbal aptitude hypothesis predicts that general verbal ability predicts both vocabulary and reading performance. The knowledge hypothesis argues that vocabulary and reading increase as knowledge increases. There is a weak empirical link between vocabulary instruction and reading comprehension. Some say that learning words does not improve our reading comprehension. Some say that vocabulary instruction does not build for transfer. Some say that existing instruments that measure links between vocabulary and reading are weak at best.

Ryder and Graves (1994) were critical of vocabulary series' explanations of how to teach vocabulary words. Further, they discovered, through empirical means, that teachers were not very accurate at predicting words that $4^{\text {th }}$ graders would and would not know. In short, even the most trusted, traditional sources for vocabulary instruction (textbooks), born of research, have failed, in and of themselves, to get students to where they need to be with words

## Technical Inquiry Into Reading Processes

There is the view that new information needs to be included with pre existing information in order for learning to occur (Christen and Murphy, 1991). The prevalent feeling is that vocabulary instruction is a good thing for those who need a pre reading step as an instructional intervention. The mood extends to reason that vocabulary cannot be overstressed or over addressed.

Chard and Kameenui (2000) claim that classroom practices on teaching reading to struggling readers have not kept pace with the knowledge on the subject since the 1980's. They argue that much more needs to be done to encourage fluid reading from among these struggling readers. Messages, it appears, are composed of ideas and ideas are expressed in words. Students do better when they construct meaning rather than memorize definitions.

Finding the right strategy to address the needful acquisition of words is not an easy task. Stahl (2003) states that the relationship that vocabulary has with readability is a complex one. The key seems to lie in the words the reader already knows. Closely related to this would be Gambrell and Mazzoi's (1999) impression that the overarching goal of reading is comprehension and the tried and true method to be scaffolding.

## Research on Emergent Language

Biemiller (2003) assumes children will fill in vocabulary gaps in primary grades from word recognition skills. This is inadequate by grade three because the gap becomes too hard to catch up by those who are economically disadvantaged. In agreement, Cecil and Papierno (2005) found that disadvantaged students who receive interventions usually make gains, but that as interventions are usually applied universally, students with higher achievement records gain even more, thus widening rather than closing gaps from among social and economic strata. Swanson and Howerton (2007) conducted research that pointed to skills of vocabulary and reading comprehension as keys to academic success, especially for English second language learners. By the end of second grade, in their study, there was a 4,000 word difference between the top quartile and the bottom quartile.

Brett, Rotheline and Hurley (1996) talk about gains and vocabulary acquisition
during elementary years. It is widely acknowledge that students make tremendous gains in vocabulary during their elementary school years. About 45,000 words can be expected to be learned between first grade and high school graduation. It is not clear how children make gains of 3,000 words per years during these formative years and no one method for vocabulary acquisition has been singled out as being the most effective. Maybe students learn new vocabulary if there is a brief explanation given as to the new word meanings as the story goes along.

## English Language Learners and Vocabulary Acquisition

Mohr's (2004) research challenged those who work with these students to maintain high expectations for their ascendancy into English language:

Educators need to perceive ELL's as capable students who want to meet and exceed the high expectations teachers hold for them. They are already competent in one language and can use this language base to acquire English. The challenge is to find ways to accelerate their various acquisition levels of English, especially in academic literacy. (p. 20)

Surveyed research hints that an educational atmosphere, enriched with high sensory stimulation and achievement expectation, will elicit positive growth in ELL learners. The research of Ulanoff (1999) compared the gains in ELL's as a result of implementing literacy lessons in two different methods: concurrent translation and preview-review. Scaffolding and non-scaffolding strategies were used. Students from three third grade classes at Maple Street School in the greater Los Angeles area were selected for research purposes. All of the students in the class participated in the project,
but only the students who qualified as English Language Learners participated in the study.

## Effects on ELLs

McLaughlin, August, Snow, Carlo, Dressler, White, Lively, Lippman/OBEMLA (2000) talk about strong relationships between knowledge of word meaning and the ability to comprehend passages containing those words. Little systemic research has been conducted on reading comprehension in English Language Learners. Even less is known about the best predictor of reading comprehension vocabulary knowledge. Research with ELL's suggest that vocabulary knowledge is a crucial factor for school success.

Hudson and Smith (2001) identified necessary skills for developing reading competence: phonemic awareness, concepts about print, understanding the alphabetic principal, decoding strategies, reading fluency, and comprehension strategies. Possible solutions for helping Spanish speaking children learn to read without experiencing failure is for teachers to provide them with high quality reading instruction.

Mohr (2004) studied students whose first language is not English and who make up an increasing population of the school population in the United Sates and determined that the need to provide better instruction for ELL's requires an updated, invigorated approach to their schooling. Lehr, Osborne and Hiebert (2004) acknowledged that many students have difficulty comprehending and that a major cause of difficulty is lack of understanding English words. Hickman, Pollard-Duradola, and Vaughn (2004) reiterated that ELL's are one of the largest groups of students who struggle with literacy in general and vocabulary and comprehension in particular. A level of vocabulary knowledge has
been shown to be an important predictor of reading ability and reading comprehension for ELL's.

## Research Based Teaching Strategies

The research of Brabham and Lynch-Brown (2002) was conducted with 117 first graders and 129 third graders. It focused on reading-aloud styles for vocabulary acquisition and reading comprehension results. Preservice teachers, trained for the purpose of this research, read two information storybooks to each of the groups using different styles. The participants in first and third grade units were selected at random. They represented five different schools and 24 classrooms from one large school district.

A vocabulary pretest was given with 40 multiple chose items based on 20 vocabulary words from each of the two stories. Students were also given a post comprehension test with 17 multiple choice questions from the stories. Results were congruent with the precepts of both sociolinquistic and transactional theories.

Sociolinguistic theory, as professed by Vygotsky and as cited in Brabham and Lynch-Brown (2002), "supports hypothesis favoring the two mediated styles, interact ional and performance reading, because both include scaffolding that encourages applications of cognitive operations and internalization of the symbolic functions of written language through social interactions" (p.5). The conclusion from the analysis of the data gathered by Brabham and Lynch-Brown (2002) was that reading aloud styles accompanied by discussion were more effective than reading aloud with no discussion. Collins (2005) explored the vocabulary acquisition from storybook reading of 70 preschool age participants who were native speakers of Portuguese to explore vocabulary
acquisition from storybook reading. Her results showed gains in the preschoolers' vocabulary acquisition from storybook reading. "Differentiated learning is a way of thinking about teaching and learning. It is also a collection of strategies that help you better address and manage the variety of learning needs in your classroom" (Heacox, 202, p. 1).

Harris and Graham (2006) state that "teachers are seen as assisting the performance and the construction of powerful knowledge, rather than as explicitly providing knowledge and information" and "Teachers who are passionate about learning and caring about children excite their students and create meaningful learning environments, regardless of the philosophy driving their passion" (p. 7). The study of McCandliss, Beck, Sandak, et al. (2003) assessed the effectiveness of a decoding skills instructional program. Gains were realized in decoding, phonemic awareness, and passage comprehension. Work building exercises were developed from the work of Beck and Hamilton (1996/2000).

The work of Beck and McKeown (2007) documented tremendous gains, in two studies, of vocabulary acquisition. Assessments were given by showing students pictures and by asking them to write simple sentences after hearing brief scenario. Similarly, Graves (2005) uncovered four fertile means by which vocabulary is acquired: listening, reading, discussing, and writing. In explicit instruction, students are given definitions to learn. In indirect instruction, students are given the opportunity to engage in a great deal of reading. Teaching of vocabulary is often not separate from other instruction in the early grades.

## Research Basis for Text Talk

Since this study used Text Talk as its instrument for comparing the gap in ELL and non ELL first grade vocabulary, it was wise to consult what the literature had to say about the suppositions of Text Talk and find the areas in which Text Talk's authors find agreement and disagreement from among the academy. Researchers such as Blachowicz and Fisher (2000), Dickinson, McCabe and Anastasopoulos (2003), and Hart and Risley (2003) shared Text Talk's authors alarm with the ever widening gap in the vocabulary command of early non native English speaking learners.

## Other Claims That Rival "Text Talk"

By no means is it suggested here that is the only instructional product of its kind. There are other similar, research based formats on the market that make claims to causes and cures for vocabulary ills as does Text Talk. A few of the more prominent ones are Vocabulary Flooding (Labbo, 2007), and Wordly Wise 3000 (Hodkinson, Adams, and Dressler, 2007).

## Study Overview From Literature

This study determined if a particular method of vocabulary instruction, administered to first grade ELL students for twenty minutes a day for nine weeks, resulted in any measurable change in their vocabulary gap as compared with their non ELL peers. Chapter two has been concerned with literature. Chapter three provides a detailed outline of the methodology that will be associated with this research.

Chapter three, a chapter devoted to the methodology of the study, will explicate its design. It will include information about the methodology and the rationale for its
development. It will review the research questions as explained in Chapter one. Chapter three will discuss the procedures used for data accumulation and analysis.

Specific Methods
The specific methods explained in section 3 are vital to the success of the study in that they gather appropriate data and analyze it quantitatively in order to answer the primary questions of research. No other methodological plan would answer the research question as completely as would those selected for use in this study.

## Section 3:

## METHODOLOGY

## Introduction

The purpose of this quasi-experimental study was to determine if the introduction of a program of vocabulary influenced word acquisition of first grade ELLS. Section 1 one introduced the purpose of the study, the statement of the research problem, the hypotheses, the definition of terms, the scope and limitations, the assumptions, and the significance of the study. Section 2 presented a review of literature related to the acquisition of vocabulary in primary age ELLs. Wittgenstein (2009) mused that "The limits of my language are the limits of my mind. All I know is what I have words for" (p. 6). Following that thought, this section on methodology explains the methods and procedures that were used in this study, the experimental design, and a description of the measures that were used to analyze and collect the data.

## Restatement of Research Questions

1. Is there a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre-test to post-test among the ELL groups data? Null Hypothesis: There was no statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre-test to post-test among the ELL groups data.

Alternative Hypothesis: There was a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre-test to post-test among the ELL groups data.
2. Is there a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre-test to post-test among the ELL groups data?

Null Hypothesis: There was no statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre-test to post-test among the ELL groups data.

Alternative Hypothesis: There was a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre-test to post-test among the ELL groups data.
3. Is there a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre-test to post-test among the non ELL groups data?

Null Hypothesis: There was no statistically significant change in vocabulary acquisition from pre-test to post-test among the non ELL groups data.

Alternative Hypothesis: There was a statistically change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre-test to post-test among the non ELL groups data.
4. Is there a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre-test to post-test among the non ELL groups data?

Null Hypothesis: There was no statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre-test to post-test among the non ELL groups data.

Alternative Hypothesis: There was a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre-test to post-test among the non ELL groups data.

## Research Design and Approach

A quasi-experimental pretest-posttest data group design with quantitative survey data was utilized in this study to examine how the implementation of a vocabulary program will affect the reading comprehension of ELL students. Creswell (2003) described a quasi-experimental design as "the investigator uses control and experimental groups but does not randomly assign participants to groups. This design may use an intact group available to the researcher" (Creswell, p. 167). In the nonequivalent control group design, "both groups take a pretest and posttest. Only the experimental group receives the treatment" (Creswell, p. 168).

The design was a $2 \times 2$ mixed factorial quasi-experimental design with 1 betweensubjects independent variable (ELL and non ELL student data) and 1 within-subjects independent variable (pre-test to post-test). The dependent measures was assessed with two pre-established validated surveys. This research strategy is considered quasiexperimental because the ELL and non ELL students were not randomly assigned to the levels of the between-subjects variable (ELL and non ELL student data). Students were assigned to classes prior to the beginning of the study. This research design allowed me
to investigate the effect of the vocabulary acquisition program on the study's dependent variable (vocabulary acquisition).

There are several strengths and weaknesses of the quasi-experimental research design. Like many designs, it is particularly useful when building theory and testing theoretical assumptions. However, the longitudinal quasi-experimental design can give a researcher an opportunity to assess the impact and limitations associated with an intervention program. Thus, the design can go beyond theory and lead to practical applications of the program. The quasi-experimental design also provides researchers the opportunity to investigate processes that would be impossible or unethical to investigate with more sophisticated true experimental designs. The main limitation associated with the use of the non-experimental design is that the researcher cannot imply causality. That is, statistical significance within this design does not imply cause and effect relationships. This limitation is a result of the researcher's inability to control extraneous confounding variables that can impact data analysis and interpretation. These extraneous variables are considered mathematical constants rather than cofounds in more sophisticated true experimental designs.

Setting
The participating school was located in a high poverty, inner city setting in northeast Georgia. The research site is an elementary school, grades P-5, with an enrollment of approximately 615 students. The student population is approximately $60 \%$ African American, 30\% Hispanic, and 10\% European American and multi racial. The school is a Title I school, meaning that a large percentage of its students qualify for free and reduced school meals. This setting was chosen because the school participating in the
study is a school that is conducive to addressing the reading needs of ELL students who are below grade level. The population of the school lends itself well toward meeting the criteria of the study that is predicated on the presence of ELLs.

Sample
The selection process for this study was identified as nonrandom, or conveniently selected, sampling. The sample of actual ELL students whose data was used for this study consisted of 34 first graders from a population of 109 first grade students. One set of data for this study was that of the ELL students receiving the additional vocabulary program. The other set of data included all other first grade data of students who did not receive the supplemental vocabulary program. The student data groups were chosen from four first grade classrooms, which were formed at the beginning of the year by the principal. The four first grade classrooms chosen are those who have ELL students within. The implementation of the vocabulary program occurred during the regular English/Language Arts block. The teacher of the ELL students was selected because she was the ELL collaborative teacher who routinely worked with these students. Consent forms were not required for this study. All student data was de-identified for purposes of the research report, so it was not be necessary to obtain parental-guardian consent for the nonidentifiable scores to be reported.

## Participants

A total of $34(n=34)$ data study participants were enrolled in four first-grade classes at the elementary school in this study. There were 14 boys and 20 girls. The students were selected after enrollment data was examined, identifying those labeled as ELLs in first grade at my school.

Sample Size Justification
One way of choosing an appropriate sample size for a study is to assess the sample size needed to achieve a particular level of statistical power. The a priori power analysis was utilized to this end. The power analysis was conducted on the most conservative (i.e., analysis yielding the largest sample size) statistical approach to be used in Chapter 4. An a-priori power analysis was conducted to determine the number of participants required to detect a medium effect size $(d=.50)$ with power $=.80$ for a paired-samples $t$ test tested at $\alpha=.05$. The power analysis suggested that 34 individuals were needed to achieve a power of .80 given these parameters. The power analysis was conducted with the statistical software $\mathrm{G}^{*}$ Power 3.1.0.

Instrumentation and Materials
Because this study used Text Talk as its instrument for comparing the gap in ELL and non ELL first grade vocabulary, it was wise to consult what the literature said about the suppositions of Text Talk and to find the areas in which Text Talk's authors found agreement and disagreement from among the academy. Researchers such as Blachowicz and Fisher (2000), Dickinson, McCabe and Anastasopoulos (2003), and Hart and Risley (2003) share Text Talk's authors alarm with the ever widening gap in the vocabulary command of early non native English speaking learners. By no means is it suggested here that is the only instructional product of its kind. There are other similar, research based formats on the market that make claims to causes and cures for vocabulary ills as does Text Talk. A few of the more prominent ones are Vocabulary Flooding (Labbo, 2007), and Wordly Wise 3000 (Hodkinson, Adams, and Dressler, 2007).

## Instructional Practices

The school's typical practices for first grade English/Language Arts instruction consisted of the following: Guided Reading (This was ability groups based on system approved Rigby scores. A comprehensive description of Rigby is found in Chapter 2); Writing (This was writing activities that adhered to state performance standards for first grade students); Phonics (This was non ability groups based on system approved Fountas and Pinnel resources. A comprehensive description of Fountas and Pinnel is found in Chapter 2); Independent/Student Selected Reading (This was independent, self selected reading from level appropriate books pre selected by the classroom teachers).

The ELL student group completed the same Guided Reading, Writing, and Phonics exercises of the non ELL group, but received the additional enrichment of the vocabulary program, Text Talk. There was no disparity in the use of technology. Any software program, Smart Board, overhead projection used by the non ELL group was used by the ELL group as well.

## Data Collection Tools

The Expressive One-Word Picture Vocabulary Test is a norm-referenced instrument that is designed to check English vocabulary and is designed to be used with children and adolescents. In it, the teacher presents illustrations that depict actions, concepts, and objects. The student is asked to name what is shown. This process continues until the student is unable to describe several consecutive illustrations. Typically, this process takes 15-20 minutes to complete. The test allows for raw student scores to be converted into standard, age, and percentile equivalents.

Text Talk (Beck \& McKeown, 2001), is a program that seeks to capture benefits that emerge from successful read-aloud experiences with young children. Building on research that reveals significant vocabulary gaps in our nation's schools, Text Talk addresses disparities in language by offering teacher prompts to encourage rich conversation by assisting students to think actively to improve word and passage comprehension. This program has been cited as exemplary by the National Reading Panel as being an effective means for defining vocabulary instruction.

## Data Collection and Analysis

I obtained written permission from the school system of the research site prior to any collection of data. I met with the school's ELL coordinator, the person who administered the Text Talk lessons, to ensure complete understanding of the goals of the research and all Text Talk procedures. Nothing was done out of the ordinary in terms of the students' normal study progression throughout a normal school day.

Each file of student data was assigned a number for descriptive purposes, thereby protecting their identities from being reported in the findings of the study. The non ELL group received no intervention and observed the school's regular method of reading instruction, which was 95 minutes of English/Language $\operatorname{Arts}(8: 15-9: 50)$ daily. The non ELL group came from six first grade classrooms and was approximately 82 in number. The 34 students were separated into four classrooms. The non ELL group of students came out of six classrooms (Two of the classrooms did not have any students who met the research criteria to be included in the ELL group). The non ELL and ELL groups were uneven in number because there were far more native English speakers than there were ELL students. The ELL group came from four first grade classrooms and was
approximately 34 in number. The ELL group was taught Text Talk lessons in addition to their regular English/Language Arts regimen and received this instruction as they were pulled out of their regular classrooms to be taught by the ELL coordinator in an instructional location of its own. These students were not separated into classrooms but pulled out of classrooms. This occurred simultaneously with the English/Language Arts instructional time of the non ELL first graders.

Pretest and posttest scores from Rigby Reading Assessment and the Expressive One Word Vocabulary Test Assessment were used to measure achievement. The Rigby Reading Assessment is an instrument that measures the reading and comprehension level of children and is approved for use in the district of the research site. The Expressive One-Word Picture Vocabulary Test is a norm-referenced instrument that is designed to check English vocabulary and is designed to be used with children and adolescents. Pre Test

The school ELL coordinator administered Expressive One Word Picture Vocabulary pre test as soon as all students were identified. Consent forms were not needed since the instruction was during the school day and during the normal time allotted for reading. This test was administered to all first grade students at the school. It was not be necessary to obtain research consent forms from non ELL students who comprised the non ELL group. The results of the pre test established the gap in vocabulary from among English first language and English second language students. At no time were the results of Expressive One Word Picture Vocabulary Test discussed or available for inspection by anyone other than myself and the school's ELL coordinator.

## Post Test

At the conclusion of the nine week exposure to Text Talk materials and strategies, the ELL group was given a post test as did the non ELL group which did not receive the Text Talk enrichment. The post test was the identical Expressive One-Word Picture Vocabulary Text which served as the pre test. In this test, students demonstrated vocabulary competency by accurately describing objects that were shown to them. When a student inaccurately described five consecutive pictures, the examination ended. Not only did pre and post tests compare ELL and non Ell categories, individuals within the ELL and non ELL groups were tracked by comparing pre and post test vocabulary gains or lack thereof. I found answers to the central research questions that guided this study.

## Data Collection and Analysis

For twenty minutes a day, five days a week, for a period of nine school weeks, or 45 instructional days, first grade students were taught using a method of vocabulary acquisition known as Text Talk. This determined a causal relationship between vocabulary acquisition and a certain test that is the equivalent of the Peabody Picture Vocabulary Test, known as the Expressive One-Word Picture Vocabulary Test. Pre and posttests checked for vocabulary change.

This study was concerned only with first grade ELL students because most children learn to read during this formative year of early childhood. Since ELLs begin formal schooling already behind their English speaking peers, it was important to determine early interventions that will help them to catch up and catch up quickly. The remaining number of first graders, meaning, those who were not considered to be ELLs, comprised the non ELL group. This group received the same amount of reading
instruction for the same period as the ELL group, however, it did not have any exposure to the Text Talk materials.

The ELL students came from four first grade classrooms and received treatment as separate classes. The teacher who conducted the instruction by class was the ELL teacher, not the teachers of the represented classes or myself. This negated research bias. These classes were pre-set in that they represented the standing first grade classes at the school research site. I did not manipulate these groupings in any manner, except for pulling all ELL students from their normal classes so that they might receive vocabulary enrichment. All other first graders, non ELL students continued with their normal school day schedules while the ELL students received vocabulary enrichment during the time when their non ELL peers were receiving regular instruction in English Language Arts.

SPSS, a program that calculates quantitative statistics, was used. The data were entered into SPSS. The data analyses proceeded in two stages. First, descriptive statistics calculated all research variables. Means and standard deviations were calculated for variables on a ratio or interval scale. Frequencies and percents will be provided for nominal and ordinal scaled variables.

The second stage of the analysis presented the inferential statistics used to test the research hypotheses. All statistical tests were conducted at $\alpha=.05$. The following is a review of the statistical analysis that was utilized to test each research hypothesis.

Several (one for each research question) paired-samples t-tests were used to address whether or not there were significant changes in vocabulary acquisition over the course of the study between the two groups. The data was be screened for outliers prior
to analysis. The students' difference scores (post-test minus pre-test) were standardized, and the resulting z-scores were utilized to identify outliers in the data. Students were considered outliers when the |standardized z-score| was greater than 3. A histogram of the students' difference scores were displayed to assess the normality assumption. A table of descriptive statistics and a t-test table were also displayed.

## Reliability and Validity of Instruments

The Expressive One Word Picture Vocabulary Instrument is reliable because it is the product of extensive research (Dunn, 1965; Dunn \& Dunn, 1981; Gardner, 1985; Dunn, et al., 1982; Wallace \& Hammill, 1994; Beery \& Taheri, 1992). Its construct validity finds basis in research in cognitive ability, language, academic achievement, and group differences (Burgemeister, 1972; Raven, 1985; Terman \& Merrill, 1973; Vance, et al., 1989).

The Ribgy Literacy program verifies through the evaluation and validation of prior research (Rigby, Steck, \& Vaughn, 2003). Reviewers have supplied data to confirm that the Rigby program provides and supports early literacy instruction that aligns with scientifically based research, proven to be effective.

Guided Reading takes place in small groups and the teacher serves as facilitator and observer, supporting the students, as they become independent readers. Leveled books work with highly predictable texts and illustrations to reflect story meaning. Based on assessment, reading groups form according to students' developmental levels. Teaching objectives for each book correlate with a main comprehension strategy and four literacy skills. Detailed lesson plans for each book clearly outline the teacher's role, indicating questions, prompts, and strategies for reading. The program focuses on the

National Reading Panel's guidelines, addressing phonemic awareness, phonics, vocabulary, comprehension and fluency.

Text Talk Vocabulary program has been validated as a reliable, research-based method of directing young children's language and comprehension abilities (Beck \& McKeown, 2001, 2007; Beck, McKeown, \& Blake, 2009). A 2002 paper (Boyd \& McKeown) confirms that Text Talk is effective at enhancing students' vocabulary development. The study compared students receiving Text Talk instruction with a matched control group of students continued with their standard instruction. Results show that both kindergarten and first grade students in Text Talk group made significantly greater gains in vocabulary scores.

A quantitative methodology is the only way to show the aims of these research questions. A qualitative construct would not render the empirical data that is required to measure the growth of the early readers.

## Students' Rights

Since the quasi experimental design was employed during the regular school day and presented itself as a reading supplement at times when reading instruction routinely took place with a certified teacher in the area of English language acquisition, there was no need for parental consent for student data to be gathered.

No present or impending harm came to any of the students either in the form of physical or emotional trauma, as they were interacting with materials that resembled normal and expected modes of educational delivery. At no time were the students told that they are a part of a study. Their rights were protected in that no child's identity, nor
the identity of the school where they attend, were revealed in the printed reports of the study.

## Transition

Chapter 4 will present the actual research and the findings of the study that was conducted. Chapter 5 will report on the conclusions of the study that was conducted.

## Section 4:

## Results

The first chapter of this doctoral study presented an overview of research relative to vocabulary acquisition and offered an explanation of the purpose and significance of this kind of study. The second chapter revealed a comprehensive look at the literature surrounding vocabulary acquisition and reading comprehension. The third chapter described the research design and methodology. This chapter gives a report and an analysis of the resulting data.

Descriptive Statistics
Thirty-four students participated in the study. Thirty-one (33.0\%) of the participants were included in the ELL group; three students were deemed ineligible to complete the study. An additional 63 (67.0\%) non ELL first grade students served as the control group. The average participant age was $6.95(\mathrm{SD}=0.81)$ years. Hypothesis Testing

The following research questions and data analysis procedures were developed to assess the effectiveness of the supplementary instruction among the study participants: Research Question 1. Is there a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre-test to post-test among the ELL group?
$H_{0}$ : There will be no statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre-test to post-test among the ELL group.
$H_{A}$ : There will be a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre-test to post-test among the ELL group.

A paired-samples t-test was conducted to determine if there was a significant change in Rigby Reading Assessment scores from pre-test to post-test among the ELL group. The data was screened for outliers prior to analysis. The participants' difference scores were standardized, and the resulting $z$-scores were utilized to detect outliers in the data. A participant is considered an outlier when the $\mid$ standardized $z$-score $\mid$ is greater than 3. This process revealed one outlier in the data. A histogram of the difference (i.e., change) scores is displayed in Figure 1. The histogram indicates that the distribution of difference scores was slightly skewed for the ELL group. The skewness statistic (skewness $=1.10, S E=0.43)$ confirmed that the difference scores were positively skewed. The means and standard deviations of Rigby Reading Assessment scores at pretest and post-test are listed in Table 1. The $t$-test (Table 2) revealed a significant increase in reading scores from pre-test $(M=6.48, S D=1.86)$ to post-test $(M=10.86, S D=3.22)$, $t(28)=-12.95, p<.01$.


Figure 1. Distribution of ELL participants' difference scores
Table 1
Rigby Reading Assessment Scores for ELL Group

| Variable | $\boldsymbol{n}$ | $\boldsymbol{M}$ | SD | SE |
| :--- | :---: | :---: | :---: | :---: |
| Rigby reading pre-test | 29 | 6.48 | 1.86 | 0.35 |
| Rigby reading post-test | 29 | 10.86 | 3.22 | 0.60 |

Table 2
Paired Samples $t$-test on Rigby Reading Assessment for ELL Group

## Paired Differences

|  | Mean | SD | SE | Lower | Upper CI of the | $\boldsymbol{t}$ | df | Sig |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Variable | -4.38 | 1.82 | 0.34 | -5.07 | -3.69 | -12.95 | 28 | .000 |
| Reading <br> Score |  |  |  |  |  |  |  |  |

Research Question 2. Is there a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre-test to posttest among the ELL group?
$H_{0}$ : There will be no statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre-test to post-test among the ELL group.
$H_{A}$ : There will be a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre-test to post-test among the ELL group.

A paired-samples $t$-test was conducted to determine if there was a significant change in Expressive One-Word Picture Vocabulary Test scores from pre-test to post-test among the ELL group. The data was screened for outliers prior to analysis in the same manner described in research question 1. The participants' difference scores were standardized, and the resulting z-scores were utilized to detect outliers in the data. This process did not reveal any outliers in the data. A histogram of the difference (i.e., change) scores is displayed in Figure 2. The histogram indicates that the distribution of difference scores was approximately normal. The skewness statistic (skewness $=0.66$, $S E=0.43$ ) confirmed that the distribution of difference scores was not markedly discrepant from a normal curve. The means and standard deviations of Expressive OneWord Picture Vocabulary Test scores at pre-test and post-test are listed in Table 3. The $t$ test (Table 4) revealed a significant increase in reading scores from pre-test ( $M=24.57$, $S D=6.35)$ to post-test $(M=29.50, S D=6.37), t(29)=-6.92, p<.01$.


Figure 2. Distribution of ELL participants' difference scores
Table 3
Expressive One-Word Picture Vocabulary Test Scores for ELLs

| Variable | $\boldsymbol{n}$ | $\boldsymbol{M}$ | SD | SE |
| :--- | :---: | :---: | :---: | :---: |
| Reading Pre-test | 30 | 24.57 | 6.35 | 1.16 |
| Reading Post-test | 30 | 29.50 | 6.37 | 1.16 |

Table 4
Paired Samples t-test on Expressive One-Word Picture Vocabulary Test for ELL Group Paired Differences

|  | $95 \%$ CI of the |  |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | SD | SE | Lower | Upper | t | df | Sig |  |
| Variable | -4.93 | 3.90 | 0.71 | -6.39 | -3.48 | -6.92 | 29 | .000 |  |
| Reading |  |  |  |  |  |  |  |  |  |

Research Question 3. Is there a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre-test to post-test among the control group?
$H_{0}$ : There will be no statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre-test to post-test among the control group.
$H_{A}$ : There will be a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre test to posttest among the control group.

A paired-samples $t$ test was conducted to determine if there was a significant change in Rigby Reading Assessment scores from pre-test to post-test among the control group. The data was screened for outliers prior to analysis. The standardized $z$ scores did not reveal any outliers in the data. A histogram of the difference (i.e., change) scores is displayed in Figure 3. The histogram indicates that the distribution of difference scores was skewed for the control group. The skewness statistic (skewness $=1.29, S E=0.33$ ) confirmed that the difference scores were positively skewed. The means and standard deviations of Rigby Reading Assessment scores at pre test and posttest are listed in Table 5. The $t$ test (Table 6) revealed a significant increase in reading scores from pre-test ( $M=$ $8.65, S D=4.04)$ to post-test $(\mathrm{M}=13.87, S D=7.68)$ among the control group participants, $t(53)=-9.52, p<.01$.


Figure 3. Distribution of control participants' difference scores
Table 5
Rigby Reading Assessment Scores for Control Group

| Variable | n | M | SD | SE |
| :--- | :---: | :---: | :---: | :---: |
| Rigby Reading Pre-test | 54 | 8.65 | 4.04 | 0.55 |
| Rigby Reading Post-test | 54 | 13.87 | 7.68 | 1.04 |

Table 6
Paired Samples $t$ test on Rigby Reading Assessment for Control Group Paired Differences

| 95\% CL of the |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Difference |  |  |  |  |  |  |  |
| Variable | Mean | SD | SE | Lower | Upper | t | df | Sig |
| Reading Score | -5.22 | 4.03 | 0.55 | -6.32 | -4.12 | -9.52 | 53 | . 000 |

Research Question 4. Is there a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre test to posttest among the control group?
$H_{0}$ : There will be no statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre test to posttest among the control group.
$H_{A}$ : There will be a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre test to posttest among the control group.

A paired-samples $t$ test was conducted to determine if there was a significant change in Expressive One-Word Picture Vocabulary Test scores from pre test to posttest among the control group. The standardized residuals revealed one outlier in the data. A histogram of the difference (i.e., change) scores is displayed in Figure 4. The histogram indicates that the distribution of difference scores was slightly skewed. The skewness statistic (skewness $=1.03, S E=0.33)$ confirmed that the distribution of difference scores was positively skewed. The means and standard deviations of Expressive One-Word Picture Vocabulary Test scores at pre test and posttest are listed in Table 7. The $t$ test (Table 8 ) revealed a significant increase in reading scores from pre-test $(M=33.21, S D=$ 9.37) to post-test ( $M=37.19, S D=10.07$ ) among the control participants, $t(52)=-8.79$, $p<.01$.


Figure 4. Distribution of control participants' difference scores
Table 7
Expressive One-Word Picture Vocabulary Test Scores for Control Group

| Variable | $\boldsymbol{n}$ | $\boldsymbol{M}$ | SD |
| :--- | :--- | :--- | :--- | :--- | :--- |


| Reading Pre-test | 53 | 33.21 | 9.37 | 1.29 |
| :--- | :--- | :--- | :--- | :--- |


| Reading Post-test | 53 | 37.19 | 10.07 | 1.38 |
| :--- | :--- | :--- | :--- | :--- |

Table 8
Paired Samples t test on Expressive One-Word Picture Vocabulary Test for Control Group

## Paired Differences

$95 \%$ CI of the
Difference

| Variable | Mean | SD | SE | Lower | Upper | $\boldsymbol{t}$ | df | Sig |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reading | -3.98 | 3.30 | 0.45 | -4.89 | -3.07 | -8.79 | 52 | .000 |
| Score |  |  |  |  |  |  |  |  |

## Results

Descriptive Statistics
Eighty-four students, including the ELL participants and the non ELL first graders, participated in the study. Thirty-one (33.0\%) of the participants were included in the ELL group, and 63 (67.0\%) of the participants served as the control group. The average participant age was $6.95(S D=0.81)$ years.

Hypothesis Testing
The following research questions and data analysis procedures were developed to assess the effectiveness of the supplementary instruction among the study participants: Research Question 1. Is there a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre test to posttest among the ELL group?
$H_{0}$ : There will be no statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre-test to post-test among the ELL group.
$H_{A}$ : There will be a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre-test to post-test among the ELL group.

A paired-samples $t$ test was conducted to determine if there was a significant change in Rigby Reading Assessment scores from pre test to posttest among the ELL group. The data was screened for outliers prior to analysis. The participants' difference scores were standardized, and the resulting $z$ scores were utilized to detect outliers in the data. A participant is considered an outlier when the $\mid$ standardized $z$ score $\mid$ is greater than
3. This process revealed one outlier in the data. A histogram of the difference (i.e., change) scores was displayed in Figure 1. The histogram indicates that the distribution of difference scores was slightly skewed for the ELL group. The skewness statistic (skewness $=1.10, S E=0.43)$ confirmed that the difference scores were positively skewed. The means and standard deviations of Rigby Reading Assessment scores at pre test and posttest are listed in Table 1. The $t$ test (Table 2) revealed a significant increase in reading scores from pre-test $(M=6.48, S D=1.86)$ to post-test $(M=10.86, S D=3.22)$, $t(28)=-12.95, p<.01$.

Table 2
Paired Samples t-test on Rigby Reading Assessment for ELL Group
Paired Differences

|  | $95 \%$ CI of the |  |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Difference |  |  |  |  |  |  |  |  |
| Variable | Mean | SD | SE | Lower | Upper | t | df | Sig |
| Reading <br> Score | -4.38 | 1.82 | 0.34 | -5.07 | -3.69 | -12.95 | 28 | .000 |

Research Question 2. Is there a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre test to posttest among the ELL group?
$H_{0}$ : There will be no statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre test to posttest among the ELL group.
$H_{A}$ : There will be a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre test to posttest among the ELL group.

A paired-samples $t$ test was conducted to determine if there was a significant change in Expressive One-Word Picture Vocabulary Test scores from pre test to posttest among the ELL group. The data was screened for outliers prior to analysis in the same manner described in research question 1. The participants' difference scores were standardized, and the resulting $z$ scores were utilized to detect outliers in the data. This process did not reveal any outliers in the data. A histogram of the difference (i.e., change) scores is displayed in Figure 2. The histogram indicates that the distribution of difference scores was approximately normal. The skewness statistic (skewness $=0.66$, $S E=0.43$ ) confirmed that the distribution of difference scores was not markedly discrepant from a normal curve. The means and standard deviations of Expressive OneWord Picture Vocabulary Test scores at pre-test and post-test are listed in Table 3. The $t$ test (Table 4) revealed a significant increase in reading scores from pre-test ( $M=24.57$, $S D=6.35)$ to post-test $(M=29.50, S D=6.37), t(29)=-6.92, p<.01$.


Figure 2. Distribution of ELL Participants' Difference Scores

Table 3
Expressive One-Word Picture Vocabulary Test Scores for ELL Group

| Variable | n | M | SD | SE |
| :--- | :---: | :---: | :---: | :---: |
| Reading Pre-test | 30 | 24.57 | 6.35 | 1.16 |
| Reading Post-test | 30 | 29.50 | 6.37 | 1.16 |

Table 4
Paired Samples t-test on Expressive One-Word Picture Vocabulary Test for ELL Group Paired Differences

| Variable | 95\% CI of the |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Diff | ence |  |  |  |
|  | Mean | SD | SE | Lower | Upper | t | df | Sig |
| Reading <br> Score | -4.93 | 3.90 | 0.71 | -6.39 | -3.48 | -6.92 | 29 | . 000 |

Research Question 3. Is there a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre test to posttest among the control group?
$H_{0}$ : There will be no statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pre test to posttest among the control group.
$H_{A}$ : There will be a statistically significant change in vocabulary acquisition as measured by the Rigby Reading Assessment from pretest to posttest among the control group.

A paired-samples $t$ test was conducted to determine if there was a significant change in Rigby Reading Assessment scores from pre test to posttest among the control group. The data was screened for outliers prior to analysis. The standardized $z$ scores did not reveal any outliers in the data. A histogram of the difference (i.e., change) scores is displayed in Figure 3. The histogram indicates that the distribution of difference scores was skewed for the control group. The skewness statistic (skewness $=1.29, S E=0.33$ ) confirmed that the difference scores were positively skewed. The means and standard deviations of Rigby Reading Assessment scores at pre test and posttest are listed in Table 5. The $t$ test (Table 6) revealed a significant increase in reading scores from pre-test ( $M=$ $8.65, S D=4.04$ ) to post-test ( $M=13.87, S D=7.68$ ) among the control group participants, $t(53)=-9.52, p<.01$.


Figure 3. Distribution of Control Participants' Difference Scores
Table 5
Rigby Reading Assessment Scores for Control Group

| Variable | $\boldsymbol{n}$ | $\boldsymbol{M}$ | SD | SE |
| :--- | :---: | :---: | :---: | :---: |
| Rigby Reading Pre-test | 54 | 8.65 | 4.04 | 0.55 |
| Rigby Reading Post-test | 54 | 13.87 | 7.68 | 1.04 |

Table 6
Paired Samples $t$-test on Rigby Reading Assessment for Control Group Paired Differences

| Variable | 95\% CL of the |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Difference |  |  |  |  |  |  |  |
|  | Mean | SD | SE | Lower | Upper | $t$ | df | Sig |
| Reading <br> Score | -5.22 | 4.03 | 0.55 | -6.32 | -4.12 | -9.52 | 53 | . 000 |

Research Question 4. Is there a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre-test to posttest among the control group?
$H_{0}$ : There will be no statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre test to posttest among the control group.
$H_{A}$ : There will be a statistically significant change in vocabulary acquisition as measured by the Expressive One-Word Picture Vocabulary Test from pre test to posttest among the control group.

A paired-samples $t$ test was conducted to determine if there was a significant change in Expressive One-Word Picture Vocabulary Test scores from pre test to posttest among the control group. The standardized residuals revealed one outlier in the data. A histogram of the difference (i.e., change) scores is displayed in Figure 4. The histogram indicates that the distribution of difference scores was slightly skewed. The skewness statistic (skewness $=1.03, S E=0.33)$ confirmed that the distribution of difference scores was positively skewed. The means and standard deviations of Expressive One-Word Picture Vocabulary Test scores at pre test and posttest are listed in Table 7. The $t$ test (Table 8) revealed a significant increase in reading scores from pre-test $(M=33.21, S D=$ 9.37) to post-test $(M=37.19, S D=10.07)$ among the control participants, $t(52)=-8.79$, $p<.01$.


Figure 4. Distribution of Control Participants' Difference Scores
Table 7
Expressive One-Word Picture Vocabulary Test Scores for Control Group

| Variable | n | M | SD | SE |
| :--- | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
| Reading Pre-test | 53 | 33.21 | 9.37 | 1.29 |
| Reading Post-test | 53 | 37.19 | 10.07 | 1.38 |

Table 8
Paired Samples t-test on Expressive One-Word Picture Vocabulary Test for Control Group

Paired Differences

| Variable | 95\% CI of the Difference |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mean | SD | SE | Lower | Upper | t | df | Sig |
| Reading Score | -3.98 | 3.30 | 0.45 | -4.89 | -3.07 | -8.79 | 52 | . 000 |

Summary

The purpose of the study was to examine the effect that a research based vocabulary acquisition program has on the performance of first grade ELL students. The behavioralist perspective of learning was the theoretical framework used for this doctoral research. This study compared pre and post test scores of all first grade learners, including ELL's. The null hypothesis stated that there is no significant difference in vocabulary acquisition after the implementation of Text Talk, a vocabulary program that introduces vocabulary to first grade English Language Learners. The alternative hypothesis stated that there was a significant difference between the vocabulary acquisition scores after the implementation of Text Talk. The data obtained from this study rejects the null hypothesis and accepts the alternative hypothesis. There is significant difference in the performance of first grade ELL students when Text Talk is introduced to English Language Learners during regular times of English Languages Arts instruction. There was significant difference in the vocabulary acquisition of first grade ELL students when pre and post tests were compared. Although it is highly unlikely for it to happen, each of the participants in the study showed gains in their lexical development. The results of this study may be construed to be an extension of extant literature that describes the need for ELL learners, who enter public schools at a disadvantage, to narrow their gap in reading performance when compared to their English speaking peers. Additionally, this study supports literature that suggests the inclusion of vocabulary instruction as part of ongoing curricular practices, to be productive and recommended. Chapter 5 will provide an overview of the complete study. Also, it will review the research questions and
summarize findings. It will offer interpretations of analyzed data and assert implications for social change, action, and further study.

## Section 5:

## Discussion, Recommendations, and Conclusions

The plight of the English-language learner continues to be one of the more pressing challenges that public elementary schools face as they seek to equip such learners to meet state expectations that monitor student academic achievement. The purpose of this quantitative study was to compare pre and posttest scores of first grade ELL and non ELL students after a vocabulary acquisition program was implemented as enrichment during a nine week instructional period for the ELL learners. Thirty four ELL students from six first grade homerooms served as participants.

Chapters one through four presented the problem, purpose, and significance of this study, and it reviewed relevant literature on this topic. This chapter summarizes the results, described in Chapter four, and offers explanations as to why the study turned out as it did. This chapter extends the conversation of vocabulary acquisition and reading comprehension in English Language Learners.

All first grade students at the research site were administered the Expressive One Word Picture Vocabulary Test in January 2010 as part of their daily language arts instruction. Rigby Reading Assessments were administered to all students at this time as well. ELL students were then given a nine week supplemental vocabulary program, Text Talk, by their ELL teacher. This instruction consisted of 15 lessons that included oral and visual presentations of vocabulary words, followed by planned oral reading of children's literature. At the end of their nine week study, all
first grade students were given post-tests on Expressive One Word Picture Vocabulary Test as well as Rigby Reading assessments.

## Discussion and Interpretations of Findings

The results of this study support the existence of causal relationships between supplemental vocabulary instruction and learning gains in vocabulary acquisition and reading comprehension, as both groups' scores, those with and without supplemental instruction, significantly increased. These results provide evidence that including extra vocabulary instruction exposed ELL students to more vocabulary words than those who did not have the supplemental instruction. Possibly the ELL gains would not have been significant without the added vocabulary lessons. The ELL students had exposure to a much larger quantity of words which may have accelerated their reading comprehension scores. Regardless, the results were enheartening and suggest that teachers should consider incorporating extra vocabulary instruction into the instructional day.

In the areas of reading comprehension and vocabulary acquisition, the paired $t$ tests analyzed in this study indicated significant increases in both reading comprehension and vocabulary acquisition in students who had exposure to the vocabulary acquisition as well as those students who did not. Results showed that the Text Talk instruction made a difference in the first grade

ELL students acquisition of vocabulary. Also, statistical
significance was noted from pre to post test on the Expressive One Word Picture Vocabulary Test and the Rigby Reading Assessment from the group of non ELL students
who did not receive Text Talk instruction. Because of this, the null hypothesis was rejected in all cases.

My assumption for the acceleration of both groups in vocabulary acquisition is that early grade students are vocabulary receptive to begin with and are naturally prone to increase the size of their vocabulary, to some degree, even without vocabulary intervention.

Further statistical analysis reported significant gains in reading comprehension as measured by the Rigby Reading Assessment. Again, a possible explanation for this is that primary age learners with daily reading instruction are prone to increase in reading comprehension.

Participants in the study were limited to first graders at one elementary school. The time line for the study was limited. It is possible that a study including different students in other grade levels and lengthening the time of the study may have resulted in different outcomes on vocabulary acquisition and reading comprehension in English Language Learners. Also beneficial to understanding ELL vocabulary growth would be a study that compares non ELLs with ELLs using the same vocabulary acquisition program over a comparable period of time.

## Findings Supported By Literature

According to Webb (2007), gains in vocabulary knowledge are related to frequency of words encountered in text, so any future study in this area would be advised to isolate word repetitions as a means by which student progress is evaluated. Besides direct and indirect vocabulary instruction, Penno, Wilkinson and Moore (2002) described
a third way of introducing vocabulary, a combination of direct instruction and learning the meaning as text is read.

While it could be argued that the ELL vocabulary growth would occur naturally as the students matured and spent their days in English speaking classrooms, the findings from this study suggest that such progress is accelerated by the use of research based vocabulary conditioning. The results from this study are in keeping with Vaughn, LinanThompson, Mathes, Cirino, Carlson, Pollard-Durodola, Cardenas, and Francis (2006) whose recent work has suggested that ELL students benefit from systematic and explicit instruction.

## Implications for Social Change

The results of this study, all being significant increases in both reading comprehension and vocabulary acquisition among English Language Learners, supports the implementation of extra vocabulary instruction into the daily Language Arts curricular activities of first grade ELLs. Positive social change results when supplemental instruction is added to early grades curricula, thereby raising reading comprehension and vocabulary acquisition scores for those students who are at risk for low school performance based on language barriers between home and school.

The results of this study reveal significant increases in first grade ELL students. Data obtained from this and similar studies informs best practices of classroom teachers, school administrators and district decision makers as ELL students are targeted for increased reading performance. The data from this study informs educators of the importance of supplemental vocabulary materials when
working with ELL students. These data are vital if ELL students are to keep pace with their native speaking peers. Improved scores on standardized tests will encourage nonEnglish speaking immigrant children to apply themselves in school and to set worthy academic goals for the balance of their time in public schooling. In another generation or so, such students should expect to become community leaders and policy makers in American society as a whole. The results inform positive social change as they assist teachers and school districts in selecting effective vocabulary strategies for those at risk for low school performance based on language barriers between homes and schools.

## Recommendation for Action

The data collected in this study rejected the null hypothesis, resulting in a significant difference in vocabulary acquisition after the application of a supplemental vocabulary acquisition program. The data indicated that each of the participants' command of English vocabulary increased after their exposure to the nine week Text Talk supplemental program administered by their ELL resource teacher.

Regular elementary education teachers should be encouraged by their literacy coordinators, family engagement specialists and school administrators to adopt any research based supplemental program that would enhance ELL competency in language arts, given the fact that
such learners require more than in offered to native English speakers if they are to achieve at non ELL levels. A thorough review of the literature has revealed few studies measuring comprehension in populations of ELLs whose first language is Spanish, and little is
know about the conditions under which this population acquires English (Saunders \& O'Brien, 2006).

It is recommended that vocabulary instruction for ELL students should be held to a higher standard than is currently the norm. Teachers should not depend exclusively on ELL resource teachers as the sole means of supplemental instruction. I endorse the idea of consistently applied vocabulary enrichment for early grades ELL students. This study alone does not provide all of the answers for effective instructional strategies and techniques that teachers of such children could or should use in their classrooms. I suggest that school systems with an abundance of English-language learners should encourage training opportunities, methods, and resources that teachers can apply in order to improve student performance on standardized tests in reading. I am confident that in order to make a difference in the vocabulary acquisition of ELL students, they must make their instructional techniques different. This study contributes to ongoing reflections of practicing educators who wish to unlock the mysteries that envelope young ELL students in their struggle to experience early academic success.

Recommendations for Further Study
Even though ELL students and students whose first language is English both resulted in significant gains, there were still some limitations in the study.

- Students were of similar economic and social background so therefore the outcome should not be generalized to other schools and students with different socioeconomic status and backgrounds.
- This study was not a true experimental design because students were not randomly assigned. The results may not be generalized to other schools and students with different socioeconomic status and backgrounds.
- Because of the transient nature in the population of the research site, a high poverty (Title I) school, some participants were lost due to student relocation.

In similar, in future studies, it is possible that the inclusion of parent ELL students through evening or weekend classes that mirror the instruction of their children could provide support from home in cooperation with the goals of the school.

## Researcher Reflections

At the fruition of this study, I revisited the literature that surrounds this topic to see how the conclusions from this study compare to existing scholarship. Surprisingly, literacy in monolingual English-speaking children has been intensively studied, but little has been done to address the academic needs of Hispanic ELL students (Caleron et al., 2005). This, and similar studies, keep the importance of understanding the problem of vocabulary acquisition in ELLs in sharp focus. As ongoing efforts to assist early grades learners continue, educators would do well to seek out supplemental materials that allow ELLs to have more exposure to English words and to utilize plans aimed at arming them with fluency.

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## CURRICULUM VITAE

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## EDUCATION

WALDEN UNIVERSITY Minneapolis, MN
EdD, Teacher Leadership
Doctoral Research Study: The Efficacy of a Vocabulary
Acquisition Program in Young English Language Learners
PIEDMONT COLLEGE Demorest, GA
EdS, Curriculum and Instruction, December 2004
PIEDMONT COLLEGE Demorest, GA
MAT, Early Childhood Education, December 2002
CARSON NEWMAN COLLEGE Jefferson City, TN
BS, Business Management, May 1986

## CERTIFICATION

GA State Certified, Early Childhood Education P-5

## PROFESSIONAL EXPERIENCE

2005 - present CLARKE COUNTY SCHOOL DISTRICT, ATHENS, GA
Kindergarten Teacher, $I^{\text {st }}$ Grade Teacher

- Grade level chair
- Leadership Team
- Assisting in developing school wide improvement plan
- Mentoring of student teachers


## 2001 - 2005 HALL COUNTY BOARD OF EDUCATION, GAINESVILLE, GA

$2^{\text {nd }}$ Grade Teacher, $1^{\text {st }}$ Grade Teacher

- Grade level chair
- SACS Committee Member
- Mentoring of student teachers


## PROFESSIONAL ORGANIZATIONS

2001 - present Professional Association of Georgia
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## RESEARCH INTERESTS

English language learners
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