The Effect of Explicit Vocabulary Instruction Through Read Alouds on Spanish-speaking Kindergartners' Word Acquisition

Valerie E. Klessig

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The Effect of Explicit Vocabulary Instruction Through Read Alouds on Spanish-speaking Kindergartners' Word Acquisition

By

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Abstract

The purpose of this research study is to examine the effect of explicit vocabulary instruction through read alouds on Spanish-speaking kindergartners’ word meaning acquisition. Research indicates robust vocabulary instruction is essential in early grades to narrow the gap between disadvantaged children and their privileged peers who typically start school with more extensive vocabularies and cumulative language experience (Hart & Risley, 1995). Numerous studies (Beck & McKeown, 2007; Coyne, McCoach & Kapp, 2007; Biemiller & Boote, 2006; Zipoli, Coyne, & McCoach, 2011) have reported on the success of various vocabulary-building strategies for early grades, including direct word meaning instruction paired with repeated readings and supplementary word reviews. The present four-week study was conducted in a low-income urban charter school in which approximately 50% of students are classified as English Language Learners (ELL). Eighteen Spanish-speaking kindergartners participated in the study. Four children’s books were read, and eight target words from each story were identified. Half of the target word meanings were explicitly taught to participants, whereas they were incidentally exposed to the remaining half of the target words. Information was gathered at pretest and posttest on the students’ knowledge of the 32 target words: 16 taught words and 16 untaught words. Pretest and posttest results were compared to determine each participant’s vocabulary growth. Results indicate that explicit vocabulary instruction involving repeated readings of children’s books and meaningful extension activities and word reviews can produce vocabulary growth among kindergartners.
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CHAPTER ONE

INTRODUCTION

This research study explores the effect of explicit vocabulary instruction through read-alouds on Spanish-speaking kindergartners’ word meaning acquisition. The following sections comprise an explanation of the problem this study addresses as well as its connection to relevant research and the state academic standards, a general description of the context for the project including basic information about the participating student population, and a brief overview of the study.

Connection to Research and Standards

Research indicates comprehensive vocabulary instruction is necessary in early grades, especially in schools educating low-income students, to diminish the gap between these children and more economically fortunate classmates who generally commence their academic careers with more extensive lexicons and cumulative language experience and therefore on a higher track (Hart & Risley, 1995). Various studies (Beck & McKeown, 2007; Coyne, McCoach & Kapp, 2007; Biemiller & Boote, 2006; Zipoli, Coyne, & McCoach, 2011) have examined the effectiveness of specific instructional strategies on vocabulary development in young children, including direct vocabulary instruction with word meaning explanations through read-alouds as well as extended vocabulary instruction with supplementary reviews offering additional experiences with target words. Research by Beck and McKeown (2007) reported that teaching sophisticated vocabulary in early childhood classrooms is a practicable feat and that increased vocabulary instruction positively affects young children’s word acquisition. Furthermore, Hemphill and Tivnan (2008) found that early vocabulary knowledge was the principal contributor to reading comprehension performance in later grades. On the basis of the existing
research, it is evident that vocabulary instruction must be incorporated into instructional routines in primary classrooms to ensure all students have access to equal educational opportunity. Thus, the existing literature provides validation for the design and implementation of this action research study.

When the vocabulary intervention was designed for this study, the Kindergarten English Language Arts Common Core State Standards for Language (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010) were taken into account. The Common Core State Standards are research-based academic learning goals outlining the skills and knowledge children should acquire during their K-12 education. In particular, the intervention aligned to the following Vocabulary Acquisition and Use standards: L.K.4, “Determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content”; L.K.5, “With guidance and support from adults, explore word relationships and nuances in word meanings”; and L.K.6, “Use words and phrases acquired through conversations, reading and being read to, and responding to texts.”

**Description of Context and Population**

The population that participated in this study consisted of one class of 18 five- and six-year-old kindergarten students of Latino/Hispanic heritage at a low-income urban charter school in a large Midwestern city. Ninety-five percent of the school student population was considered economically disadvantaged, and 94 percent was of Latino/Hispanic heritage (Wisconsin Department of Public Instruction, 2013). Eleven boys and seven girls partook in the study, and Spanish was their native language. The students were selected by their kindergarten teacher because the educator was interested in helping the students develop their lexicons through research-validated vocabulary instruction strategies. All but two student participants were
receiving English as a Second Language (ESL) services at the time of this study, and therefore
16 of the participants were classified as English Language Learners (ELLs). No student had been
diagnosed with a learning disability or was receiving Special Education services, and therefore
no participant had an Individualized Education Program (IEP), which is a document outlining
customized learning goals for a student with a disability.

Study Overview

The four-week intervention commenced six weeks from the end of the 2013-14 academic
year and occurred during the regular school day during both whole- and small-group instruction.
The interventionist was the classroom teacher and was the sole researcher implementing the
study. The researcher-created pretest was administered to all students the week before the
intervention began. The teacher selected four children’s stories and from each story identified
four target words to explicitly teach. One story was read per week. Daily the teacher conducted a
read aloud of the children’s story selected for the week and reviewed the definitions of the four
target words during whole-group instruction. Small-group vocabulary instruction in three
separate rotations of six students followed the daily read aloud. The researcher employed the
same format each week to teach the target words in small groups. In total, 16 target words were
explicitly taught to the student participants over the course of the intervention. The posttest was
identical to the pretest and was administered to students in the same way at the end of the study
to measure the effectiveness of the intervention. A more detailed description of study procedures
is provided in a subsequent chapter.

Conclusion

Eighteen Spanish-speaking five- and six-year-old kindergarten students participated in
this action research study. The four-week intervention was implemented during regular school
hours during both whole- and small-group instruction. Data from all 18 students were collected and analyzed. The interventionist and sole researcher was the students’ classroom teacher, who designed the intervention to develop students’ lexicons, as a more extensive vocabulary will assist student participants in enhancing their reading comprehension skills and overall academic performance. The subsequent chapter, Chapter Two: Review of Literature, provides a review of the existing literature reporting on the importance of vocabulary instruction for primary students, effective strategies for vocabulary development in primary grades, and benefits of vocabulary instruction.
The purpose of this research study was to investigate the effect of explicit vocabulary instruction through read alouds on Spanish-speaking kindergartners’ word meaning acquisition. Research evidences the need for sound vocabulary instruction in primary grades, particularly in schools serving low-income students, to narrow the gap between these children and their more economically advantaged peers who typically begin school with larger vocabularies and consequently on a higher academic trajectory. Certain research-validated strategies have been found effective in promoting vocabulary development in young children. These strategies include explicit instruction with direct explanations of word meanings provided during storybook readings as well as extended vocabulary instruction with systematic reviews offering children additional meaningful interactions with target words. Furthermore, it is important to note that research indicates vocabulary knowledge is a key contributor to literacy success and overall academic performance. The first section of this chapter focuses on the importance of vocabulary instruction for primary students, especially those at risk of reading disabilities and from economically disadvantaged families. The second section presents effective strategies for vocabulary development in primary grades. The third section focuses on the benefits of vocabulary instruction, including its impact on receptive (hearing) vocabulary knowledge and general language and literacy skills.

**Importance of Vocabulary Instruction for Primary Students**

Research suggests that children begin school with significant differences in language experience and vocabulary knowledge, resulting in a gap that has the potential to persist as students follow their academic trajectory. This gap is more pronounced between children
considered at risk of reading problems and from economically disadvantaged backgrounds and their more academically advanced and economically privileged peers. The studies in this section demonstrate the critical role early vocabulary instruction plays in strengthening the literacy and language foundations with which young children enter school to make more level the academic playing field, especially for children from impoverished families and at risk of literacy setbacks.

In their book, *Meaningful Differences in the Everyday Experience of Young American Children*, researchers Hart and Risley (1995) presented and discussed findings from a longitudinal study they conducted to examine the effect of home experiences on young children’s language development. They wanted to better understand why children from low-income families continued to fall further behind their peers from more economically advantaged families in school. Hart and Risley felt there was a void of longitudinal data reporting on the interactions that occurred in children’s households and how these home experiences impacted language growth, and they desired to investigate “whether or not parents actually do anything during their everyday interactions with their children that makes a lasting difference in how fast their children’s vocabularies grow” (p. 17).

Their sample consisted of 42 American families classified based on parents’ occupation as professional, working-class or welfare families. More specifically, 13 families were categorized as upper socioeconomic status (SES) and six were on welfare. The 10 families belonging to the middle SES group and the 13 lower SES families were categorized as working class, resulting in a total of 23 working-class families. Each SES category contained at least one African American family. Seventeen of the 42 child participants were African American and 19 were boys. All children were between the ages of 1 and 3 years old during the 2.5-year period during which the researchers conducted observations. In some households the mother worked
full or part time, and in some families the mother worked inside the home. On the other hand, in some families the mother was never regularly employed during the duration of the study.

The researchers observed each family monthly for one hour for a period of approximately 2.5 years, and the parents chose the day and time of each observation. When the researchers attended scheduled observations, they simply recorded the families as they found them rather than request to return at a time when there were less people in the house, for example. The researchers focused their attention entirely on the child and recorded only those family interactions involving the child participant. During the observation, the researcher used a tape recorder to capture the dialogue between the child and parents and wrote down anecdotal notes regarding the child’s actions and who was interacting with the child. After collecting the data, they devised a method to transcribe and code the 1,318 hours of interactions between language-learning children and their parents they had recorded.

After processing the data, Hart and Risley concluded that the richness of quality features of language—various words, clauses, questions, affirmatives, prohibitions and past-tense verbs—in parent dialogue varied insignificantly among the three SES groups. However, the amount of quality features in parent talk recorded during the observations differed significantly. When parents increased the amount of talking they did, they asked more questions, prompting their child to interact and participate. It follows that when parents talked more, their children were exposed to a greater amount of quality features of language and interaction, leading to a more enriching language experience in the home. The parents in professional families talked the most to their children, as the average number of words used per hour was 2,150. Children from working-class families were exposed to 1,250 words per hour, whereas welfare families used 620 words per hour. Hart and Risley reflected on these findings:
The most striking difference between families was in how much interaction and talking typically went on in the home … When we examined family factors, we saw that the time and amount of talking that went on in the family did not vary systematically with the gender of the child, the ethnic background of the family, the birth of a new baby, or if both parents were working. But time and talk were associated with the socioeconomic status of the family: Parents in professional families characteristically devoted over half again more time and said three times as much to their children as did parents in welfare families. (p. 236)

The greater amount of words heard per hour had a positive impact on children’s vocabulary growth, as Hart and Risley found that at 30 months, children from professional families had acquired an average cumulative vocabulary of 766 words, more than twice as many words as children from welfare families had gained, for the average vocabulary for welfare children consisted of 357 words. Using their data, Hart and Risley estimated that children in professional families by age three would have been exposed to more than three times as many words as children in welfare families. Specifically, children from professional households would have heard more than 30 million words and children from working-class backgrounds 20 million, whereas their peers in welfare families would have heard just 10 million words. These disparities Hart and Risley found to exist among children from differing SES groups in their beginning years of life demonstrate how vital rich vocabulary instruction is in the primary grades.

Hart and Risley conducted in-depth analyses to determine which factors in the home experience contributed to the differences in the language development they observed among the children in the three SES categories. Hart and Risley defined parenting as a combination of five variables representing the categories of meaningful family experience: Language Diversity,
Feedback Tone, Symbolic Emphasis, Guidance Style and Responsiveness. Language Diversity dealt with vocabulary, or all the words the child heard during the hour-long observation. Feedback Tone concerned approvals, repetitions, and prohibitions parents used with the child during the hour-long session. Symbolic Emphasis included the variety of sentences and verb tenses the child was exposed to within the hour, and Guidance Style dealt with the interrogatives, imperatives and declaratives given to the child. Lastly, the variable Responsiveness involved how a parent responded and listened to the child. According to Hart and Risley, “These variables are not simply marker variables denoting social class or subculture but are powerful characteristics of everyday parenting that cause important outcomes in children” (p. 167). The authors found that in impoverished families parents talked less to their children and their dialogue directed at their child was slightly less rich in clauses, verbs, past-tense verbs, modifiers and nouns. They also found that professional-class parents gave their children twice as much positive feedback as working-class parents and 5 times as much affirmative feedback as welfare parents. Moreover, children in impoverished families were exposed to negative imperatives more frequently and heard a discouragement twice as often as they received an encouragement from their parents.

Hart and Risley drew two key conclusions from their findings: Quantity is the most essential feature of children’s language experience, and the most critical factor to analyze in childcare environments of young children is the amount of talk happening between the children and the people caring for them.

The investigators used their data to project the children’s aggregate differences in language experience (words the children hear) by the age of 4. Their estimates made it only more apparent that rigorous vocabulary interventions were critical in early grades:
Even if our estimates of children’s experience are too high by half, the differences between children by age 4 in amounts of cumulative experience are so great that even the best of intervention programs could hope only to keep the welfare children from falling still further behind the children in the working-class families. (p. 200)

It is important to note that the differences between welfare children and children from professional families were projected to be even greater than the gap between welfare children and children from average working-class households.

As the results of this study demonstrate, children from impoverished families appear to begin their academic trajectories with less extensive vocabularies and cumulative language experience than their peers from higher SES families. The findings of this longitudinal study highlight the importance of rich vocabulary instruction in the primary grades to help narrow the vocabulary gap that exists between students from low-income households and children from families belonging to higher SES groups.

The previous study examined the diverse early language experiences and vocabulary foundations with which children from varying SES groups begin their academic careers. The next study compared root word vocabulary acquisition rates in normative and privileged students throughout elementary school, and the investigators aimed to explore the extent to which advantaged children and their less fortunate peers differed in their vocabulary development throughout the primary and elementary grades.

Biemiller and Slonim (2001) examined root word (a word without a prefix or suffix) vocabulary growth in normative and advantaged children from kindergarten to sixth grade. The researchers aimed to explore individual differences in vocabulary development rates in addition to group differences between the advantaged and normative populations participating in the
study. Furthermore, the authors sought to determine the extent to which vocabulary words were acquired in a similar order by children with different vocabulary growth rates.

The sample comprised two normative groups, meaning the children were from families with a broad socioeconomic status (SES) range, making this group a representative sample. All children were English-first-language (EFL) students and were attending one of three selected schools in an Ontario city. Additionally, the sample included one advantaged group, which mainly consisted of EFL students from families of upper-middle SES. These children attended a university laboratory school. The sample included two normative groups of children because the researchers were confronted by several unexpected findings after data from the first normative sample and advantaged sample were analyzed.

Biemiller and Slonim organized their research according to study sample. Study 1 involved the first normative group of children, which contained 108 students from kindergarten through Grade 5, and explored their root word vocabulary development. Written testing was done in Grades 4 and 5, and oral testing was used with students in kindergarten through Grade 3. The researchers created two Root Word Inventory testing tools: Form A and Form B. Each form contained 60 words, which were grouped into 10 levels. The investigators employed Form A during Study 1. Participants in kindergarten through the second grade were evaluated on an individual basis. The investigator began by presenting to each child the instructions and format of the evaluation. The students were told they would be asked to explain the meaning of various words. They were informed they could use pointing, acting or words to explain the meaning to the evaluator, who wrote down the student explanation for coding and scoring purposes later on. The test was stopped if the child made eight consecutive errors. After analyzing the data, the researchers found that greater percentages of words were known in higher grades. They also
observed an unusually high rise in percentage of words acquired between Grades 1 and 2 in addition to a slow rate of vocabulary development after Grade 2. These unanticipated findings pushed the investigators to realize a replication, which they did in the fall of the same year and termed Study 3. This replication study will be addressed in a subsequent paragraph.

For Study 2, the researchers investigated the root word vocabulary growth of the advantaged sample, which primarily consisted of children from affluent families. The 168 participants in the advantaged group attended a private university laboratory school. Biemiller and Slonim (2001) cited Hart and Risley’s (1995) longitudinal study as rationale for their current study: “Given the evidence of large differences in vocabulary and vocabulary acquisition opportunities associated with social class before school (e.g., Hart & Risely, 1995), we thought it useful to look at vocabulary growth in a highly advantaged sample” (p. 502). The investigators used both Root Word Inventory forms in Study 2 and followed the testing procedures used in Study 1. The results again indicated a higher percentage of words known in older grades. Furthermore, once again a large increase in word knowledge was noted between Grades 1 and 2. In earlier grades, the vocabulary knowledge of participants from the advantaged sample was found to be markedly higher than that of their peers from the normative sample. However, the sequence of word acquisition was similar.

Study 3 involved a second normative sample because the researchers desired to discover whether the unexpected vocabulary gains in Grade 2 observed in the previously assessed normative and advantaged groups could be replicated. The Root Word Inventory Form B was used for Study 3. The testing procedures were nearly identical to those employed in the previous two studies. The only change was that the evaluation was stopped after the child made 10 nonresponses in a row. After analyzing the data, the researchers found results similar to those
from Study 1 and 2. The largest increase in word knowledge was again observed between Grades 1 and 2, results that had surprised the investigators in the previous two studies. Grade-to-grade gains were similar, as well, and the overall pattern of word acquisition seen was similar to the pattern observed in Studies 1 and 2.

The researchers compared the vocabulary development across all three studies. Firstly, the findings indicated that children from kindergarten to Grade 5 learn words in generally the same order. Biemiller and Slonim argued that this finding shows it is possible to predict approximately which words a young student is likely to acquire next if the teacher knows the total quantity of words known by that student. Secondly, in all three studies, they saw unusually high growth in vocabulary knowledge between Grades 1 and 2 and observed a slower root word vocabulary growth rate between Grades 2 and 6. Thirdly, they found that the children in the advantaged sample possessed higher vocabularies initially, but the normative students seemed to have reached similar vocabulary levels by the end of Grade 5, thus having caught up to their more economically fortunate peers. Specifically, at the end of Grade 2, the advantaged group had a 20% greater root word vocabulary. Yet, by the end of Grade 5, the difference in root word vocabulary knowledge between the normative sample and the advantaged sample was just 3%. The authors concluded that the children from affluent families appeared to have acquired root words at a quicker rate from infancy to Grade 2 as compared to the children from less economically fortunate families. According to Biemiller and Slonim, “The early large difference presumably reflects the effects of an advantaged environment and possibly greater experience with defining or explaining words” (p. 509). They went on to reference Hart and Risley’s (1995) research, claiming that the differences in the language experiences of economically advantaged children and their less economically fortunate peers appear to result in evident differences in
their vocabulary development during primary grades. However, Biemiller and Slonim (2001) also found that average or disadvantaged students experienced a “catch up” period in vocabulary knowledge that occurred during mid-to-late elementary school years.

In closing, the investigators called for “a more teacher-centered approach to vocabulary development” (p. 511). Above all, Biemiller and Slonim’s (2001) study highlights the importance of fostering vocabulary growth in school, especially in the early grades, to ensure students from all SES groups have a strong vocabulary base upon which to build successful academic careers.

The former study examined differences in vocabulary progress rates of average and disadvantaged children as compared to privileged children throughout their elementary careers. Both Biemiller and Slonim’s (2001) findings and Hart and Risley’s (1995) findings lend support to the view that vocabulary instruction should be an integral part of early childhood curriculum to promote literacy achievement of students who initially possess fewer tools fundamental to reading success in comparison to their peers with higher vocabularies. The following study examined the impact of an intensive literacy-based vocabulary intervention on kindergarten students considered at risk of developing reading problems in effort to gain a better understanding of the optimal literacy instruction for meeting the severe needs of at-risk students to foster academic achievement.

Coyne, Simmons, Kame’enui, & Stoolmiller (2004) summarized the findings of a previous study exploring the effects of an intervention comprising shared storybook readings coupled with explicit word meaning instruction on the vocabulary development of kindergartners at risk of developing reading difficulties. Additionally, the authors summarized secondary analyses they conducted to investigate whether the intervention from the previous study
produced differential effects for kindergartners with lower receptive vocabulary skills. The researchers participated in a longitudinal research program examining strategies to optimize literacy intervention for at risk students. They identified two of the program’s guiding research questions: “What are the critical components of early literacy instruction and how should we allocate instructional time among these literacy components?” and “To what extent does instruction that is sufficiently explicit, systematic, and strategic meet the intensive literacy needs of children at risk of reading difficulty?” (Coyne et al., 2004, p. 149–150). The authors then reviewed the research principles garnered from previous studies on storybook reading instruction that guided their development of the literature part of the intervention employed in their study: interesting and engaging storybooks, rich dialogic discussion about storybooks, performance-oriented readings, multiple readings of storybooks, and small groups of students. Coyne et al. (2004) described rich dialogic discussion as “engaging children in scaffolded discussion of the story by activating prior knowledge, eliciting responses about story elements, linking story themes to children’s own experiences, and facilitating story recalls” (p. 150). Performance-oriented readings consisted of teachers reading with enthusiasm and expression and facilitating discussion of the story mainly before and after having read the book (Coyne et al., 2004).

Additionally, they highlighted several research principles gathered from previous vocabulary instruction studies that helped them devise the vocabulary portion of their intervention: carefully selected target words, simple definitions within the context of the story, conspicuous instruction, rich instruction, and multiple exposures to target words and carefully scheduled review and practice.

The intervention the researchers developed as part of their program of research comprised 108 30-minute lessons designed for 40 children’s books, all of which were considered classics or
had won recent awards. Three target words to be explicitly instructed were selected from each book. The researchers determined which words to select as target vocabulary by choosing words that tended to be unfamiliar to young students and were essential for comprehending the story. Lessons were organized into 20 six-day cycles, and each cycle complemented two books. Students heard one book on the first and third day of the cycle, while teachers read the second book during the second and fourth day of the cycle. During the fifth and sixth days of the cycle, the emphasis was placed on applying the target words to generalized contexts, and students were encouraged to retell the stories using the target vocabulary.

A large-scale experimental study was conducted to examine the effects of the storybook intervention. The sample for the study included kindergartners considered at risk because of their performance on letter identification and phonological awareness assessments given at the start of the year. In November 96 kindergartners from seven schools were randomly placed into three different intervention groups, with just one group receiving the storybook intervention designed by the researchers. The second group, the code-based group, participated in an intervention whose aim was to increase alphabetic and phonologic skills. The third group, which was the control group, was given a sounds and letters intervention from a commercial literacy program. All three groups received a half hour of small-group intervention daily from November to May, which totaled to 108 sessions.

The study found that the cohort receiving the phonologic and alphabetic skills intervention performed better than the storybook intervention and control groups on phonologic and alphabetic tasks. Yet, the cohort receiving the storybook intervention significantly outperformed the other two groups on the researcher-developed posttest evaluating students’ acquisition of the explicitly instructed vocabulary. Coyne et al. (2004) stated this study
demonstrated the importance of vocabulary development to early literacy instruction and intervention and argued that “explicitly teaching word meanings within the context of shared storybook reading is an effective method for increasing vocabulary of young children at risk of experiencing reading difficulties” (p. 152).

Because the researchers desired to further investigate how students with lower receptive vocabulary skills responded to the storybook intervention they designed for the initial study, they conducted secondary analyses of data collected from the kindergarten participants. The purpose of their study was to examine whether the more rigorous storybook intervention resulted in differential effects on measures of words explicitly instructed during the intervention and the words in the books not targeted for direct instruction. To investigate differential effects among and within the different groups participating in the initial study, they compared the student data from the storybook intervention group to that of the control group. Thus, the sample for their study consisted of the same kindergarten students that participated in the initial study.

Their secondary analyses results did not produce evidence of a differential effect favoring children with more extensive vocabularies. Actually, results showed evidence of the opposite effect in regard to vocabulary words explicitly taught through the storybook intervention. Their results indicated that the kindergarten participants in the storybook intervention possessing lower initial vocabularies experienced greater growth in explicitly instructed words than the kindergartners possessing more extensive initial vocabularies compared to kindergartners in the control group. In their discussion, Coyne et al. (2004) maintained their results show that “storybook reading activities that rely on incidental exposure to unknown words do nothing to decrease the vocabulary gap” (p. 159). Rather, their findings supported their claim that explicitly teaching word meanings through read alouds produced the same amount of vocabulary
development for children with less extensive vocabularies as for children with larger vocabularies. In conclusion, Coyne et al. argued that direct instruction of word meanings helped narrow the gap rather than widen it.

In their presentation of implications for instruction, the authors suggested that explicit vocabulary instruction that deliberately and directly focuses student attention on target words in literature may also assist young children in enhancing their overall awareness of words and their meanings. In other words, through direct vocabulary instruction, students may develop an increased word consciousness that helps them recognize when they do not know the meaning of a word and helps them learn more meanings of unknown words on their own. Equipping young children with these skills early in their academic careers may help facilitate their development into independent word learners more capable of inferring word meanings without teacher guidance.

The findings of the study outlined above demonstrated the positive impact of explicit vocabulary instruction incorporating children’s literature on the lexicon development of kindergartners at risk of reading and language difficulties. The subsequent study had a similar purpose, as the investigators explored the influence of direct word meaning instruction coupled with repeated readings on the vocabulary growth of at-risk kindergartners from high-poverty urban schools.

Justice, Meier and Walpole (2005) investigated the effect of small-group repeated storybook readings and teacher-provided word meaning explanations on the vocabulary development of kindergartners at risk of experiencing future academic difficulties. The researchers also examined the difference in the progress of children with low versus high initial vocabulary knowledge.
The sample included 57 kindergarten students from two high-poverty urban elementary schools. Forty-eight students were of African American descent, while five children were Caucasian and four were of Asian heritage. The student participants were identified as at-risk on the basis of their relatively poor performance on a school-wide literacy screening, their attendance at low-income schools, and their low achievement on two standardized tests measuring receptive and expressive vocabulary. The Peabody Picture Vocabulary Test–Third Edition (PPVT-III; Dunn & Dunn, 1997) was used to measure participants’ receptive (hearing) vocabulary, whereas the Expressive One Word Picture Vocabulary Test–Revised (EOWPVT-R; Gardner, 1990) was employed to determine students’ expressive vocabulary.

To facilitate their study the authors employed a pretest–posttest comparison group design. The researchers randomly assigned 29 kindergartners to the treatment group and 28 kindergartners to the comparison group. At pretest, all 57 kindergartners were evaluated on their knowledge of 60 target words elected from 10 children’s books. Following the pretest, a 10-week intervention was administered to the students in the treatment group. The intervention consisted of 20 small-group sessions during which an adult read 10 children’s books. Each book was read four times during the intervention, and six target words were selected from each book. Throughout the intervention, the adult reader provided direct instruction in 30 of the 60 target words. Specifically, the adult reader explicitly defined each word and subsequently used it in a sentence. The remaining 30 target words were not taught. Instead, the students were incidentally exposed to them upon hearing the words, which were embedded in the texts, during the storybook readings. At the end of the 10-week intervention, the students in the treatment group were reevaluated on their knowledge of the 60 target words at posttest. Note that the children in
the comparison group received the standard kindergarten literacy curriculum while the students in the treatment group received the 10-week vocabulary intervention.

After careful analyses of pretest and posttest data, the authors reported several major findings. Firstly, the researchers found that incidental exposure to new words through four readings of the same text resulted in insignificant vocabulary growth for at-risk kindergarten students. Secondly, the authors found that the recipients of the vocabulary intervention made decidedly greater pretest-to-posttest gains in their knowledge of the 30 explicitly taught target words compared to the students in the comparison group. These findings indicate that direct instruction of vocabulary words has a positive impact on kindergartners’ word acquisition. Additionally, the findings suggest that mere exposure to words has a negligible effect on kindergartners’ vocabulary development. Lastly, the researchers found that the students from the treatment group who possessed low initial vocabulary knowledge made markedly higher pretest-to-posttest gains on the directly instructed words than their peers in the comparison group, which demonstrated the importance of direct vocabulary instruction for children with low vocabulary skills. In conclusion, the researchers claimed their study indicated that explicit vocabulary instruction through storybook readings promoted vocabulary growth in kindergartners who were considered at-risk for reasons including their low literacy achievement, low vocabulary knowledge, and attendance at high-poverty schools.

In review, these studies underscore the important role of early vocabulary instruction in ensuring all students, regardless of SES and the initial vocabulary knowledge or foundational skills with which they enter their primary classroom, have access to equal educational opportunity. Hart and Risley’s (1995) research suggests children living in poverty begin their academic trajectory with a less extensive initial vocabulary and language experience base than
their classmates from more economically advantaged families. Without intervention, Hart and Risley (1995) argued, this pronounced gap in vocabulary knowledge and language experience between children from lower SES families and students from higher SES families would persist, and catching up academically would be even more arduous for children facing the constraints of poverty. In line with this landmark study, Biemiller and Slonim (2001) reported that children from affluent backgrounds seemed to have acquired root words at a faster rate from infancy to Grade 2 as compared to their peers from disadvantaged or average families. They referred to Hart and Risley’s (1995) research and suggested that the variances in language experiences of advantaged children and their less privileged peers seem to result in distinct differences in their vocabulary growth during primary grades. However, Biemiller and Slonim (2001) reported a noteworthy finding: Average or disadvantaged students went through a vocabulary knowledge “catch up” phase during mid-to-late elementary school years. Nevertheless, these studies by Hart and Risley (1995) and Biemiller and Slonim (2001) highlight the vital role of sound vocabulary instruction in primary and elementary classrooms. Moving forward from these two investigations, research by Coyne et al. (2004) examined an intensive vocabulary intervention to determine the components most essential to progress in kindergarten literacy. Their findings indicated that explicitly teaching word meanings through read alouds resulted in the same vocabulary growth for kindergartners with weaker vocabularies as kindergartners with more sophisticated vocabularies. Reflecting on these results, Coyne et al. (2004) asserted that literature-based vocabulary instruction that did not move past incidental exposure to unfamiliar words would have little impact on lessening the vocabulary gap charted by Hart and Risley (1995), whereas direct instruction of words and their meanings may help to decrease it. Finally, Justice et al. (2005) explored the role explicit vocabulary instruction paired with repeated
readings played in at-risk kindergartners’ word acquisition, and their findings revealed the importance of direct teaching of word meanings to the lexicon development of children with weaker initial language and vocabulary skills. Overall, the studies summarized in this section provide strong support for the notion that early vocabulary instruction and intervention must be a critical area of focus in primary classrooms.

**Effective Strategies for Vocabulary Development in Primary Grades**

Various research-validated approaches have been found to foster vocabulary growth in early education classrooms. These strategies include explicit instruction offering direct explanations of word meanings through the context of storybooks as well as extended vocabulary instruction that incorporates systematic reviews giving children more opportunities to purposefully interact with target words. The studies in this section delineate certain strategies and pedagogical practices researchers have found to be effective in facilitating vocabulary development in primary students.

Two studies by Beck and McKeown (2007) investigated the effects of rich vocabulary instruction on kindergarten and first-grade low-income students’ acquisition of advanced vocabulary words. The purpose of Study 1 was to explore and compare the acquisition of advanced vocabulary words of students who received direct instruction of the words and the students who did not receive any instruction. The purpose of Study 2 was to examine the effect of differing amounts of vocabulary instruction on the acquisition of advanced vocabulary words. The authors’ hypothesis for Study 1 was that children who received the direct rich instruction of the advanced vocabulary words would learn a greater amount of words than the children who did not receive instruction. The researchers’ hypothesis for Study 2 was that children would learn a greater quantity of the words taught through more frequent vocabulary instruction for a longer
duration of time—termed More Rich Instruction—than they would learn through Rich Instruction, which was less frequent and for a shorter duration of time.

The sample for Study 1 included 98 low-income kindergarten and first-grade students comprising eight classes of children from the same school: four kindergarten classes and four first-grade classes. From each grade level, two classrooms were chosen to be the experimental classrooms, whereas the remaining two classrooms were the comparison classrooms. All student participants were African American, and 82 percent of them received free lunch or reduced-price lunch. Their school, considered low-achieving, belonged to an urban district serving lower-SES families. The four participating teachers were female. Two were African American, whereas two were European American. Their teaching experience ranged from 2 to 25 years (2, 4, 20, 25).

The sample for Study 2, which the researchers termed “a within-subject design,” consisted of 76 children from another school located in the same urban district as the school of Study 1. Of those 76 children, 36 were kindergarten students and 40 were first graders. One hundred percent of the student participants were African American, and 81% qualified for free lunch or reduced-price lunch. The six participating teachers were all females. One was African American, and the remaining five were of European ancestry. Their teaching experience ranged from 7 to 32 years (7, 9, 12, 18, 20, 32).

In Study 1, the teachers in the experimental classrooms were trained in the beginning of the school year during a three-hour session on “Text Talk,” a research-based program authored by the researchers. The Rich Instruction of vocabulary used in the experimental classrooms was part of Text Talk. Following the pretest administration (vocabulary pretest designed by the researchers), participating teachers implemented the Text Talk approach and materials, which consisted of 36 books per grade level with accompanying vocabulary resources and activities,
over a ten-week period in the experimental classrooms. The Text Talk books were used during daily read-alouds. Teachers were observed one time each week by a research staff member, and every two weeks a meeting among research staff members and the teachers took place to ensure fidelity of implementation of vocabulary lessons and the intervention. While the comparison group was not given the vocabulary instruction or taught with the Text Talk books, the students did receive daily read-alouds from the school literacy curriculum. The posttests were administered one week after the ten-week instruction had concluded. The posttests required students to determine which image represented a situation illustrated by a target vocabulary word such as, “Which shows something being revealed?”

The researchers found that the instructed kindergarten and first-grade groups demonstrated considerably higher vocabulary acquisition than the groups that did not receive instruction. The authors maintained that the results of Study 1 show it is practicable to teach sophisticated vocabulary words to young children.

The authors termed Study 2 a “within-subject design”. After pretest administration, the Rich Instruction of advanced vocabulary used in Study 1 was given to student participants in Study 2 using the Text Talk read-alouds. Six words were selected from each of the seven read-aloud texts and taught through Rich Instruction for a period of nine weeks. The participating teachers also implemented More Rich Instruction, which is Rich Instruction presented across a longer duration of time and more frequently. Therefore, students received additional instruction on three of the six words each week. Participating teachers in Study 2 received a two-hour training in the Text Talk approach and program.

Research staff members observed the teachers implementing the Text Talk lessons to ensure fidelity of implementation and give feedback. Teachers spent five days on instruction for
EFFECT OF EXPLICIT VOCABULARY INSTRUCTION

Each of the seven trade books. They read and talked about the story on the first day, and on the second day they had Rich Instruction for three of the six vocabulary words. On the third day, teachers gave Rich Instruction on the three remaining vocabulary words, and on the fourth and fifth days, students had More Rich Instruction on the three remaining words. Additionally, the three words chosen for More Rich Instruction resurfaced during two review cycles, after the fourth week and seventh week of the study, respectively. The pretests and posttests consisted of the same format used in Study 1 with an added verbal element asking children to respond either “Yes” or “No” to four questions associated with each word. The pretest test set was used as the posttest set one week after the instructional period of Study 2 concluded.

The authors found that in both kindergarten and first grade, the student participants learned a greater quantity of More Rich Instruction words than Rich Instruction words. The findings of Study 2 show that increased vocabulary instruction has positive effects on sophisticated vocabulary acquisition of young low-income students.

Beck and McKeown’s (2007) findings established that teaching advanced vocabulary words in early childhood classrooms is a realistic feat and that increasing the intensity of vocabulary instruction positively impacts young children’s word learning. The following study, conducted the same year as the previously summarized study, examined the effect of incidental exposure and two different types of vocabulary instruction on kindergartners’ word acquisition to determine which route was most effective in fostering vocabulary growth.

Coyne, McCoach and Kapp (2007) conducted two studies to evaluate the impact of small-group extended vocabulary instruction through children’s book readings on word learning among kindergartners. In Study 1, they compared extended vocabulary instruction to incidental exposure. In Study 2, they examined the effect of extended vocabulary instruction in comparison
to the impact of embedded instruction. The authors defined extended vocabulary instruction as “explicit teaching that includes both contextual and definitional information, multiple exposures to target words in varied contexts, and experiences that promote deep processing of word meanings” (p. 74). Coyne et al. characterized embedded instruction as an adult reader offering simple definitions of the target words embedded in the storybook context and subsequently rereading the sentence and replacing the target word with its definition. Incidental exposure occurred when the students merely heard the words as they listened to the story.

The sample for Study 1 included 31 kindergartners from an elementary school in a small Northeastern town. The school had a total student enrollment of 300, and more than half the student body qualified for free or reduced-priced lunch. Moreover, a significant percentage of children enrolled would be classified as at risk of reading difficulties on the basis of demographic information and state literacy test scores. Twenty of the study participants were Caucasian, whereas 11 were Hispanic.

The vocabulary intervention was administered in three 20- to 30-minute sessions during a one-week period. During each session the interventionist read the children’s book entitled, *The Three Little Pigs*. The students were directly taught the meanings of three target words through extended instruction and received no instruction in three additional target words. Rather, they were incidentally exposed to the words during the readings. The interventionist spent 10 to 20 minutes reading the story and subsequently engaged the students in activities that gave them opportunities to deeply process and meaningfully interact with the explicitly taught target words in a variety of contexts. These activities included discussing examples and open-ended questions involving the directly taught target words.
Overall receptive (hearing) vocabulary knowledge was determined using the Peabody Picture Vocabulary Test-III (PPVT-III, Dunn & Dunn, 1997), which assessed the children’s capacity to understand word meanings. Furthermore, the students’ expressive vocabulary was measured through an experimenter-designed individual evaluation that assessed students’ knowledge of target word meanings. The evaluator asked each child to explain the meaning of each target word and used follow-up questions to evoke more complete responses if needed. Receptive vocabulary knowledge was measured through a researcher-created individual test that evaluated students’ comprehension of target words through questions requiring a yes or no answer. One pair of questions measured students’ understanding of each target word definition. Specifically, one question corresponded to the correct definition and was phrased in the following manner: “Does (target word) mean (correct target word definition)?” The remaining question contained the incorrect definition and was asked in the following way: “Does (target word) mean (incorrect definition)?” The other pair of questions measured participants’ ability to use the target words in new contexts, as the context of one question correctly employed the target word, while the other question contained an incorrect usage of the target word. In sum, the measure of expressive vocabulary focused on how the children explained the definition of the word, while the measure of receptive vocabulary evaluated the participants’ responses to the questions. Data were collected at pretest, posttest and delayed posttest. However, the PPVT-III was given solely at pretest.

In Study 1, Coyne et al. compared extended vocabulary instruction to incidental exposure. Study 1 findings revealed that the instructional condition of incidental exposure to target words did not result in appreciable target word acquisition, as students on average could not produce even one partial definition of a target word. In contrast, students scored considerably
higher on the tests involving the target words that received extended explicit instruction, which demonstrated that this instructional condition led to marked word learning among the kindergartners.

In Study 2, the investigators explored the impact of extended vocabulary instruction in comparison to the impact of embedded instruction through storybook readings. They sought to determine whether extended vocabulary instruction, which is more time intensive, produced greater vocabulary development than embedded instruction, which is more time efficient, and whether after the study the children retained their knowledge of newly acquired word meanings without continuous review or instruction.

The sample for Study 2 involved 32 kindergartners from a K-8 school in an urban district in the Northeast. Similar to the Study 1 sample, a substantial percentage of children enrolled in the school selected for Study 2 would be classified as at risk of reading difficulties on the basis of demographic information and state literacy test scores. The school’s total student enrollment was 575, and more than half of these students were eligible for free or reduced-priced lunch. Of the 32 study participants, 23 were Hispanic, five were African American, two were Caucasian, and two were Asian.

The procedures used in Study 1 were employed in the same manner in Study 2. Furthermore, the extended instruction provided in Study 1 was identical to the extended instruction administered in Study 2. Study 2 differed from Study 1 because the instructional conditions compared were extended instruction and embedded instruction, and Study 2 did not examine the condition of incidental exposure. For the embedded instruction administered in Study 2, the adult reader offered concise definitions of three target words embedded in the storybook and subsequently reread the sentence, interchanging the target word with its definition.
The book read in Study 2 was the same book used in Study 1, *The Three Little Pigs*. The same was done for the remaining three target words that were taught through extended vocabulary instruction. However, only these three target words were included in the activities that followed the storybook readings during each small-group session. These activities were developed to encourage deep processing and provide participants with further opportunities to meaningfully interact with and experience the three target words that received extended instruction.

The students were evaluated in the same manner and with the same assessments employed in Study 1. Therefore, in both studies the same experimenter-designed measures were used to determine expressive vocabulary knowledge and receptive vocabulary knowledge. Overall receptive vocabulary was again measured through the PPVT-III. Data was gathered at posttest and delayed posttest. No data was collected at pretest because the researchers felt they could rely on the pretest data from Study 1, which indicated that the target words were unknown to the kindergartners at pretest.

Study 2 results revealed that embedded instruction led to some word acquisition. However, this word learning was limited to a child’s capacity to identify definitions provided. In general, the participants were unable to generate any complete target word definitions or employ the target words in novel contexts. Across both Study 1 and Study 2, extended instruction resulted in the largest gains in target word knowledge, and participants were able to generate at least partial definitions of all three target words, correctly respond to at least 5 of 6 questions involving the definitions of the target words, and apply their knowledge to new contexts. In conclusion, the researchers determined that extended instruction through storybooks and post-reading activities produced greater vocabulary growth than either embedded instruction or incidental exposure. Moreover, delayed posttest findings indicated that explicit vocabulary
instruction has an enduring and great effect on children’s word knowledge even in the absence of sustained review or instruction.

Finally, the authors discussed implications their research may have for primary educators. Coyne et al. pointed out that if the instructional aim is to present novel word meanings to children in the most time efficient manner, embedded instruction might be sufficient. However, if the instructional objective is to foster comprehensive and robust vocabulary development in children, embedded instruction is not adequate. Rather, extended vocabulary instruction is necessary in this case, although it also requires a greater investment in instructional time. However, the researchers argued that, given the evident vocabulary growth and enduring word knowledge the children displayed in the current study, extended instruction is a worthwhile and meaningful use of instructional time.

Coyne et al. (2007) then presented a tri-level approach to kindergarten vocabulary instruction, which they believed to be especially essential to students at risk of future reading difficulties. Firstly, they suggested that educators read children’s books rich in sophisticated vocabulary, claiming that, “storybooks provide an excellent medium for vocabulary development” (p. 86). They also recommended that teachers use embedded instruction on some of the complex words found in the read-aloud book contexts. Additionally, they asserted that educators should provide students with extended vocabulary instruction on the advanced words that were critical to the students’ comprehension of the story. This strategy, according to Coyne et al., would assist educators in meeting the complex vocabulary needs of their young pupils, especially children at risk of future language and reading difficulties.

In the previous study, the investigators presented findings that revealed extended instruction produced the greatest gains in target vocabulary knowledge among kindergartners.
Additionally, Coyne et al. described a tri-level approach to kindergarten vocabulary instruction whose central pillars included reading children’s storybooks containing advanced vocabulary, offering embedded instruction for some words, and delivering extended instruction for additional words crucial to a child’s comprehension of the story. In the following two studies, the researchers examined early vocabulary acquisition and the effects of intensive vocabulary instruction in primary grades in further detail to draw additional conclusions about sound methods for facilitating vocabulary development in young students.

Two studies by Biemiller and Boote (2006) investigated the effects of vocabulary instruction rooted in children’s books on kindergarten, first-, and second-grade students’ word acquisition. The purpose of Study 1 was to explore the effects of three factors on vocabulary building: pretesting, number of story readings, and direct explanations of vocabulary. More specifically, the researchers examined the effects of pretesting or no pretesting, two story readings versus four story readings, and repeated story readings with and without word explanations on vocabulary acquisition. Study 2 had a threefold purpose: to examine the effect of more intensive vocabulary instruction on word acquisition, to investigate word meaning retention over time, and to explore the transfer and application of knowledge of newly learned vocabulary to new contexts.

For Study 1 the authors hypothesized that pretesting could be a productive approach to increasing story-based vocabulary acquisition, regardless of whether direct vocabulary explanations were incorporated. They maintained that increasing the number of rereadings of a story could either have a positive effect on vocabulary acquisition because of increased exposure to new words or could reduce word learning because of student disinterest after too many readings of the same story. Finally, they stated that because previous research had established
that incorporating direct explanation of vocabulary while reading is more effective in increasing word acquisition than no incorporation of direct explanation, they desired to examine the interaction of the other two factors—pretesting and number of book readings—with direct vocabulary explanation. They proposed that pretesting and increasing the number of story readings could be more effective when reading without incorporating direct word meaning explanations.

The sample for Study 1 included 43 kindergartners, 37 first graders, and 32 second graders from a Toronto Catholic District School in a working-class neighborhood. This school served many Portuguese families, and about half the students were English Language Learners. Two classrooms from each grade participated, and the researchers used a 40-word general vocabulary test to divide each classroom into two matched groups of students in terms of general vocabulary knowledge. Note that Biemiller found in a different study that this general vocabulary assessment correlated .80 with Dunn and Dunn’s (1981) Peabody Picture Vocabulary Test–Revised (as cited in Biemiller & Boote, 2006, p. 48). All classroom teachers used the three selected narrative fiction books for their grade level. Two books were read twice during a one-week span, and the third book was read four times during a one-week span. In each grade, 48 word meanings in total were selected from the three books. The authors were careful not to select word meanings that previous studies had found to be commonly known among children in primary grades. Moreover, they used prior research to ensure the levels of difficulty were comparable for the word meanings taught in both conditions (two readings per week verses four readings per week).

During the pretest, 24 of the 48 word meanings were given to one group, and the other group received the remaining 24 word meanings. During the study, each group received direct
vocabulary instruction for only 12 of the 24 word meanings given during the pretest. For the two books read twice, 12 of the selected word meanings were taught (six per book), and 12 were not taught. A total of 24 word meanings were pulled from the one book read four times, and students received direct instruction in 12 of those word meanings over the course of four readings of the book. The vocabulary instruction procedure involved the following steps: The teacher explained 1–2 word meanings prior to the first reading but did not explain any word meanings during the first reading. During the second reading, the teacher explained 4–6 different word meanings. For the book read four times, the teacher used the same procedure during the two subsequent readings. During the posttest, each child received all 48 word meanings.

In all three grades, student participants received higher posttest scores. Further analyses examined the results in terms of the factors the researchers set out to investigate: pretesting, number of story readings, and direct explanations of vocabulary. The researchers found pretesting to have no measurable impact on word acquisition in any grade. However, they found that instruction of word meanings and repeated reading had a positive effect on word acquisition. Finally, they found that the effect of the number of readings on vocabulary acquisition varied across the three grades studied. Kindergartners benefitted the most from four story readings, but by the second grade, no apparent advantage of four versus two story readings could be found. The kindergarten students gained only 16% of taught word meanings when books were read twice compared to almost a quarter of the taught word meanings when books were read four times. The first graders learned a higher number of untaught vocabulary words when they heard the story four times rather than just twice, showing that increasing the number of story readings had a positive effect on their acquisition of noninstructed vocabulary words. The authors maintained that, although more of the instructed word meanings were acquired by the
kindergartners and first graders, showing that incorporating direct explanations of word meanings is most effective, listening to a story several times even without incorporating direct instruction of word meanings was clearly beneficial to kindergarten and first-grade students’ vocabulary acquisition.

A second study by Biemiller and Boote (2006) was carried out the subsequent school year at the same school with the same teachers. In this study the researchers hypothesized that delivering more intensive vocabulary instruction would increase word learning, and they modified the vocabulary instruction delivered in Study 1 in four ways for Study 2 by: (a) increasing the amount of words taught by teaching 7 to 9 words rather than 4 to 6 during each reading and increased exposure by reading the story four times, (b) employing reviews of meanings of words taught each time the story was read, (c) incorporating a final review day using the recently learned words in new sentence contexts, and (d) solely using teacher definitions of vocabulary terms rather than student explanations during the readings.

Twenty-eight kindergartners, 37 first-graders, and 42 second-graders partook in Study 2. As in Study 1, the authors were careful to select words that were not commonly known among children in primary grades. The researchers administered the same general vocabulary test they used in Study 1 to divide students into two matched cohorts.

The classroom vocabulary instruction delivered in Study 2 was modified to be more intensive than the instruction delivered in Study 1. In Study 2 the books were read four times, compared to two or four times in Study 1. Similar to the instruction given in Study 1, in Study 2 for the first reading the teacher talked about one or two word meanings prior to reading. Then, the teacher read the book without stopping to explain any word meanings and after the reading asked questions only about comprehension. For the next three days, the teacher read the story
each day and explained 7–10 different word meanings during the reading, compared to 4–6 instructed word meanings per reading in Study 1. In Study 1, the teacher asked the students to share what they thought the target vocabulary word meant, and if a student gave an acceptable answer, the teacher confirmed the definition and continued reading the story. However, in Study 2, teachers did not invite students to offer explanations of word meanings during the story readings. Rather, on the additional review day students could offer explanations of word meanings. The instruction was also modified in that each day the teacher and students reviewed the instructed word meanings from the day’s lesson. On the fifth day, rather than reread the story, the teacher conducted an additional review of all the word meanings that had been taught that week. The words were incorporated into new contexts rather than the original sentences from the story. Children were invited to explain word meanings, and teachers would confirm or correct student responses.

The authors termed Study 2 a pretest-posttest-delayed posttest study. In each grade, the posttest was the same as the pretest. The first posttest was given two weeks after a two-week period of vocabulary instruction. To explore word retention, the researchers also administered a delayed posttest six weeks after the pretest (four weeks after the initial posttest). The delayed posttest tested students on all word meanings through a combination of original sentences taken from the stories used for instruction and new sentence contexts not from the books. This format helped the researchers examine students’ transferring of understanding of newly learned vocabulary to new contexts. Unlike Study 1, Study 2 contained a no-intervention cohort comprising 11 second-grade students. They received the same tests following the same timeline as the second-grade children in the intervention cohort. This helped the researchers explore
vocabulary acquisition in the absence of the story-based vocabulary instruction with the target words and direct teaching of word meanings.

Through administration of the delayed posttest, Study 2 found evidence of retention of word meanings and even additional vocabulary gains made during the four weeks following the initial posttest. Moreover, Study 2 results indicated that primary students were able to comprehend word meanings when evaluated using sentence contexts different from the original story contexts in which they learned the words. Furthermore, Study 2 found that a significant amount of vocabulary could be acquired through repeated story readings combined with an increased amount of direct word explanations in addition to regular reviews of instructed word meanings. Finally, Study 2 showed that a greater percentage of instructed word meanings were learned as compared to previous studies, gains the researchers attribute to the modified vocabulary instruction, which included additional reviews and a greater quantity of words taught per week. Biemiller and Boote (2006) argued that, using the type of modified vocabulary instruction used in Study 2, which incorporated two additional reviews of all word meanings taught and teacher-supplied word explanations, primary teachers could teach 1,800 words per year and their students would learn 400 new word meanings. Thus, teaching 25 word meanings per week is a feasible and realistic goal that primary-grade teachers should seek to achieve.

In the previous study the researchers investigated word meaning acquisition and the impact of intensified vocabulary instruction in early childhood classrooms to establish research-validated approaches for promoting young students’ vocabulary growth and practical vocabulary instruction goals for early childhood teachers. The next study explores types of word review incorporated into an extended vocabulary intervention to determine which review approach has the strongest effect on young children’s vocabulary development and acquisition.
The study by Zipoli, Coyne, and McCoach (2011) examined whether extended vocabulary instruction with systematic and distributed word review had a greater impact on target word acquisition than extended instruction that did not include this type of review. Secondly, they directly compared the effect on target word learning of two systematic word review approaches—embedded review and semantically related review—integrated in an 18-week extended vocabulary instruction program for kindergartners in high-need urban schools.

The sample included 80 kindergarten students from three high-need urban elementary schools in the northeastern part of the United States. These students were participating in a vocabulary intervention program that was a component of a larger efficacy study (Coyne, McCoach, Zipoli, & Loftus, 2007). The students served by the three participating schools were classified collectively as at risk for reading problems based on weak school-wide reading scores on state tests.

The authors addressed their research questions employing a within-subjects experimental design. Target word review was the within-subjects factor and included three conditions: semantically related review, embedded review, and no review. A total of 54 target words were distributed at random to the aforementioned three conditions. Thus, each condition contained 18 target words.

In the first school, two graduate student interns delivered the extended vocabulary instruction intervention, which consisted of read alouds and extension activities, to participants in small groups of three to five children. In the second and third schools, three kindergarten classroom teachers gave the intervention in a whole-group setting. The intervention included a total of 18 children’s books, which were each read to students two times. The interventionists conducted two read alouds weekly during an 18-week period and introduced three new target
words through each book, resulting in the presentation of three novel words per week. To ensure they selected target words that were likely to be unfamiliar to kindergarten students, the researchers consulted the *Living Word Vocabulary* (LWV; Dale & O’Rourke, 1981).

During the read alouds interventionists presented three new terms and three additional target words as a component of embedded review. Then, the instructors invited the students to pronounce the words as well as to raise their hands upon hearing any of the six magic words during the reading. Upon encountering a target word, the interventionist gave a clear, succinct definition of the term and reread the sentence containing the word from the story, replacing the word with the simple definition previously given by the instructor. After the read aloud, interventionists provided extended instruction for the three newly introduced target words. Additionally, two or three more words assigned to the semantically related review group were given additional extended instruction. The instructor reintroduced and pronounced the target words, restated their meaning, and reread the story context containing the words. Then students were granted various opportunities to talk about word meanings while participating in exercises developed to promote a deeper understanding of word meanings through increased discussion, new contexts employing the word, and discrimination activities. Interventionists gave students feedback, encouragement and scaffolding when appropriate.

The definitions of target words belonging to the no review condition were given during two read alouds of the book and reviewed in the extension activities following the reading. However, these words were not inserted into or explained during successive books or review exercises. Similar to the words in the no review condition, target words part of the embedded review condition were presented and defined during two read alouds of the same story and discussed during the post-reading extension routine. In contrast to target words in the no review
condition, the embedded review target words were revisited during subsequent read alouds of new books, when interventionists gave their definitions again during the reading. Yet, the target words were not taught or talked about during extension exercises following the read alouds. Embedded review target words were typically reviewed in five succeeding story readings. Like the words in the no review and embedded review conditions, the semantically related review target words were presented, defined and talked about during two read alouds and the follow-up extension routine.

Unlike the embedded review words, words belonging to the semantically related review condition were not integrated into or explained during later read alouds of subsequent books. Yet, they were reviewed in the extension activities that followed the read alouds of subsequent stories. On average, words in this condition were reviewed during three to five subsequent extension activity routines. The researchers employed various activities to help students make connections between target words and previously familiar concepts and terms. A second goal of these activities was to make semantic features of the target words more conspicuous to students. The features talked about in initial review sessions “were based on sound-hearing, appearance-seeing, sensation-touch, affect (“feel”), action-use, association (“makes you think of”), and location (“found in”)” (Zipoli et al., 2011, p. 135).

At pretest and posttest the researcher-designed Target Word Knowledge Measure (TWK measure) was administered to participants to measure target word acquisition. The TWK measure assessed children’s knowledge of 37 target words: 12 semantically related review terms, 13 embedded review terms, and 12 no review terms. Additionally, two norm-referenced vocabulary assessments were given at pretest and posttest to evaluate overall vocabulary
knowledge: the Expressive One-Word Picture Vocabulary Test (EOWPVT; Academic Therapy Publications, 2000) and the Peabody Picture Vocabulary Test-III (Dunn & Dunn, 1997).

Through the TWK measure, the authors compared participants’ average word learning of systematically reviewed words, which belonged to the embedded and semantically related review categories, to their knowledge of words assigned to the no review condition. They found a notable difference in performance: Findings showed children had learned nearly twice as many systematically reviewed words. The researchers noted that words assigned to the no review condition were imparted employing a research-based extended vocabulary instruction approach that Coyne, Zipoli, and Ruby (2006) found to produce large effect sizes in comparison to incidental word exposure and learning (as cited in Zipoli et al., 2011, p. 139). According to Zipoli et al. (2011):

The finding that systematic word review resulted in a large effect size in comparison to an already robust method of vocabulary instruction highlights the importance of strategically integrating systematic, distributed word review as an instructional feature when designing vocabulary interventions for early primary students from populations at risk for reading difficulties. (p. 139)

Furthermore, an analysis of PPVT-III pretest and posttest scores of participants suggested that extended vocabulary instruction with systematic word review resulted in higher general receptive vocabulary growth.

Regarding the effectiveness of the two methods of systematic word review—semantically related versus embedded review—findings indicated a higher level of words were learned through the semantically related review approach, though a modest effect size was found. The authors suggested three factors may have contributed to higher gains of semantically related
review words: greater depth of instruction which promoted deeper word understanding, increased instructional time which allowed for more meaningful interactions with word meanings, and semantic relatedness which made more obvious certain associative relationships and semantic features of words. They recommended that future research on semantically related review include analyses of these three instructional design features.

Concerning the efficiency of the two systematic review approaches, the embedded review method was found to be more efficient, adding 2.5 minutes to the 10.5 minutes of extended instruction given to each word in the no review condition, whereas the semantically related review added nearly 10 minutes of instructional time.

In conclusion, the authors asserted that the semantically related review was time-intensive yet more effective than the embedded review, which was time-efficient and still successful. These findings have practical implications for vocabulary instruction design and may be used to inform the development of vocabulary interventions for primary students at risk of language and literacy difficulties. Embedded review would allow primary educators to optimize instructional efficiency, especially when instructional time is limited by competing curricular priorities or shorter kindergarten school days. On the other hand, the increased time commitment required to conduct semantically related reviews appears to be justifiable because of the positive association of this approach with meaningful vocabulary gains, which make it ideal for children at risk of experiencing language and literacy setbacks. Also, incorporating a balance of the two approaches might be advantageous to children, as this would result in a combination of efficient yet intensive in-depth extended instruction. Ultimately, findings suggest extended vocabulary instruction with systematic word review promotes academically meaningful gains in target word
knowledge of kindergarten children from low-income urban schools in addition to generalized advancements in receptive vocabulary.

The studies in this section focused on designing and implementing sound vocabulary interventions for early childhood students and then analyzing the effects on children’s word learning. Beck and McKeown’s (2007) research supports the belief that teaching sophisticated vocabulary words in primary grades in low-income schools is a practical goal and that increasing the amount of vocabulary instruction produces positive effects for young students’ word acquisition. Coyne et al. (2007) reported comparable findings. Specifically, they found that extended vocabulary instruction was more effective than both embedded instruction and incidental exposure in facilitating vocabulary progress among kindergartners. Similarly, Biemiller and Boote (2006) claimed that a substantial amount of words could be acquired through intensified vocabulary instruction comprising repeated story readings in which primary-grade teachers offered additional direct explanations of word meanings in tandem with consistent target word reviews. Moreover, findings demonstrated that participants in Biemiller and Boote’s study had learned more target word meanings than students in previous studies, a statistic the researchers attribute to the intensified vocabulary instruction with its added reviews and increased amount of words taught per week. Finally, Zipoli et al. (2011) asserted that extended vocabulary instruction including systematic word review promotes academically significant growth in target word knowledge of kindergartners from low-income urban schools as well as advancements in overall receptive vocabulary. The above research illustrates the effective approaches and strategies for promoting vocabulary development in early grades and may be of use to educators as they attempt to enhance vocabulary instruction for the academic benefit of their students.
Benefits of Vocabulary Instruction

A growing body of research evidences a strong relationship between vocabulary development in early grades and reading achievement in subsequent grades. While there is an ongoing discussion on the benefits of vocabulary instruction in primary grades, certain findings suggest that instruction promoting vocabulary growth benefits students by way of enhancing their overall receptive vocabulary knowledge and language and literacy skills, thus contributing to long-term academic success. The findings from the studies in this section converge and establish a relationship between vocabulary development and literacy and language skills such as reading comprehension and metalinguistic awareness.

The study conducted by Coyne, McCoach, Loftus, Zipoli, Ruby, Crevecoeur and Kapp (2010) examined the effect of an 18-week direct vocabulary instruction program on kindergartners’ listening comprehension and general vocabulary knowledge as well as target vocabulary knowledge. The researchers’ second purpose was to evaluate whether participants’ initial receptive vocabulary knowledge, as determined at pretest, influenced the strength of the correlation between the vocabulary intervention and its effects. In other words, they desired to investigate whether students with lower initial vocabularies responded to the vocabulary intervention in the same way as children with more developed lexicons.

At pretest and posttest Coyne et al. (2010) measured overall vocabulary knowledge with different forms of the Peabody Picture Vocabulary Test-III [PPVT-III] (Dunn & Dunn, 1997), and at posttest listening comprehension was measured with a modified version of the Strong Narrative Assessment Procedure [SNAP] (Strong, 1998), which included target words. Additionally, at posttest they employed a researcher-developed assessment of word consciousness, or metalinguistic awareness, which measured students’ capacity to infer meanings
of new words within supportive sentence contexts. As Coyne et al. (2010) desired to investigate whether at-risk students responded differentially to extensive vocabulary instruction regarding transfer measures and target vocabulary measures, they used students’ PPVT pretest scores to determine which students were most at risk.

The sample for this study consisted of 124 kindergarten students from three elementary schools in three separate districts in the Northeast. Two schools were part of small urban districts, whereas one school belonged to a larger urban district. All three schools had significant percentages of children considered at risk of developing language and literacy difficulties according to state reading test measures and demographic data. Of the 124 participants, 80 belonged to the treatment cohort, which was divided evenly by gender. The treatment group consisted of 44 Hispanic children, 17 Caucasian children, 15 African American children, and four children of other ethnicities. Thirty-one students in the treatment cohort were English learners. The control group comprised 44 students (23 boys, 21 girls): 25 Hispanics, seven Caucasians, 11 African Americans, and one student of other ethnicity. Seventeen of these students were English learners. All children received instruction solely in the English language. At the first two schools the classroom teachers served as the interventionists, administering the intervention to the entire class during whole-group instruction, whereas at the third school two graduate student interns delivered the intervention to small groups of three or five children.

Coyne et al. (2010) designed their extended vocabulary instruction intervention to give students “interactive, robust, and varied” (p. 100) direct instruction of selected vocabulary words. According to Coyne et al. (2010):

An extended approach is characterized by instruction that introduces students to target vocabulary within the supportive context of a storybook but also provides extended
opportunities to discuss and interact with target words in multiple and novel contexts outside of the story. Extended instruction encourages deep processing of word meanings that challenges students to move beyond memorizing simple dictionary definitions to understanding words at a richer, more complex level. (p. 100)

The standardized intervention comprised 36 30-minute lessons, which were delivered twice weekly over 18 weeks. All three schools received the same intervention. Coyne et al. (2010) selected 18 children’s books to be read aloud to the participants and designed interactive postreading exercises to follow the read alouds. Each book was read two times in a week, and the read aloud lasted 10 to 20 minutes and the activities 10 to 15 minutes. Coyne et al. chose children’s books that were engaging and had rich language and illustrations and made an effort to select books that included multicultural themes. The researchers selected 54 target vocabulary words in total, or three words from each book, with the goal of choosing words with which students were not familiar but whose meanings would be comprehensible to kindergartners. Beck, McKeown, and Kucan (2002) characterized words possessing these qualities as Tier II words, which they recommended for direct vocabulary instruction in primary grades. Coyne et al. (2010) referenced Dale and O’Rourke’s (1981) *Living Word Vocabulary* to ensure they selected words the average kindergarten student would most likely not know.

Regarding the intervention routine, the instructor presented the three target words and asked students to pronounce them at the start of each read aloud. Furthermore, the interventionists invited the students to listen for the words and raise their hand upon hearing the words. The interventionists recognized students when they acknowledged the target words and then reread the sentence that included the word, offering students a simple definition afterward. Then, the instructors reread the sentence again and substituted its definition for the target word.
Next, they referenced the illustration to reinforce the story context and target word meaning. Ultimately, students said the target word out loud to fortify phonological representations. Following each read aloud, students engaged in structured activities. First, they reviewed how each target word was employed in the story. Then, the interventionists offered participants examples of the terms used in new contexts. After this routine, the students participated in various interactive exercises in which they were exposed to examples and nonexamples of target words employed in new contexts. Students pointed their thumbs up or down to show whether they thought the picture represented an example or nonexample of the target word. The interventionists acknowledged correct responses and asked open-ended questions to help students expand upon their initial thoughts and responses. These questions were developed to evoke an elaborate response that showed a student fully comprehended the meaning of the target word. Finally, students who may have been experiencing difficulty received additional turns. The treatment also contained distributed and systematic target word review similar to the vocabulary intervention. Review exercises aimed to reinforce word meanings and give students additional opportunities to engage with the instructed words in new contexts and examine the associations between target words and formerly known concepts and terms.

Note that Coyne et al. (2010) found no evidence of different intervention effects across method of delivery, or teacher-led whole-class instruction in comparison to graduate student led small-group instruction. Findings suggested that at posttest kindergarten students who participated in the vocabulary instruction intervention showed greater knowledge of the directly taught words than children who were not given the vocabulary instruction. In fact, results indicated there were considerable differences in target word acquisition between control and treatment participants. The researchers found modest mean effect sizes that favored the
intervention participants on the experimenter-designed listening comprehension assessment. This indicates that children who participated in the vocabulary instruction intervention were more capable of responding to questions about a story that included directly taught words. Moreover, they found moderate effects on a standardized assessment of general receptive vocabulary knowledge (PPVT-III) and on a researcher-designed assessment of metalinguistic awareness.

These results indicate that extended and direct vocabulary instruction that is successful in helping young students acquire new word meanings may also help develop more comprehensive language and literacy skills. Coyne et al. asserted that their results suggested that direct vocabulary instruction in early grades might yield comparable effects on certain measures of general vocabulary knowledge and comprehension as in older grades. Furthermore, the results suggest that vocabulary instruction may assist students in reinforcing their existing vocabulary knowledge and help them enhance their metalinguistic awareness, consequently facilitating their development into more effective independent and active word learners.

Finally, Coyne et al. found that students who demonstrated higher levels of vocabulary knowledge more greatly benefitted from the treatment than children with less developed vocabularies in comparison to students who did not participate in the intervention. The researchers suggested it is probable that students with more extensive vocabularies are better able to access and use existing word meaning knowledge and perhaps greater levels of background knowledge to facilitate new word learning. According to the authors, this finding has noteworthy implications for educators. While schools must ensure they provide sound vocabulary instruction to all students, a special focus must be placed on designing effective differentiated instruction for children with lower vocabularies. Coyne et al. also suggested that educators identify students who may not respond as strongly to classroom vocabulary
instruction, such as students with less developed lexicons, and give them additional support, perhaps in the form of intensive vocabulary interventions, to accelerate learning and help them expand their vocabularies.

The above study established a strong relationship between direct vocabulary instruction and higher vocabulary advancements in kindergarten students. Furthermore, it found a moderate relationship between extended direct vocabulary instruction and listening comprehension and metalinguistic awareness. These results contribute to the growing body of evidence showing that vocabulary instruction that succeeds in assisting young children in learning new word meanings may also help them improve in more generalized areas of language and literacy, such as comprehension. The subsequent study further investigates the association between vocabulary development and comprehension gains.

In the study by Shany and Biemiller (2010), the authors reexamined data from their 1995 study investigating the impact of assisted reading practice. They analyzed the original data to better understand the factors affecting reading comprehension and vocabulary gains resulting from 16 weeks of assisted reading practice. To do so, they contrasted the children who made the least progress in reading comprehension with those who showed the greatest gains, examining the pretest and posttest data to determine which measures were associated with advancements in reading comprehension.

The sample for the Shany & Biemiller (1995) study consisted of 29 third- and fourth-grade students from an elementary school in an economically disadvantaged area in a main Canadian city. The children were preliminarily selected based on teacher referrals of students with reading comprehension achievement below grade level and slow reading rate. Teachers excluded students who were not able to read, had severe speech and pronunciation problems,
were receiving English as a Second Language (ESL) services, or had resided in Canada for less than four years. To make the final selections, the researchers employed a screening battery. They ultimately selected 19 third-grade and 10 fourth-grade students who were able to read barely above a mid-first-grade level. The researchers randomly assigned the participants to three cohorts, starting with the lowest three students in terms of initial reading comprehension and assigning them to the three conditions, then assigning the following three students, and they continued in this manner until all students were placed. The control group comprised 10 students, and the remaining 19 students were divided into two experimental groups.

For the current study, Shany and Biemiller (2010) sorted the students based on two levels of reading comprehension progress: below the median in gains and above the median. Therefore, they had students classified as practice versus control, as well as below median improvements versus median and above improvements in reading comprehension. The latter grouping allowed the researchers to examine specific student gains in reading comprehension. Additionally, they grouped the participants according to vocabulary achievement. To measure receptive vocabulary knowledge the researchers employed the Peabody Picture Vocabulary Test (PPVT; Dunn, 1985). Furthermore, they utilized a battery of other assessments to measure other variables including reading comprehension, oral comprehension, reading speed, decoding, and amount of reading.

The treatment consisted of 16 weeks of ongoing assisted reading practice, either with teacher assistance or tape assistance. The sessions had a duration of 30 minutes and took place four times each week, resulting in 32 practice hours for each participant. The posttests were given to all subjects after the intervention period.

As Shany and Biemiller (1995) previously reported, the students given the assisted reading treatment made significantly greater progress in reading comprehension. Moreover, the
children who showed greater vocabulary growth during the treatment period also made substantially greater improvements in reading comprehension. Shany and Biemiller’s 2010 study concluded that the assisted reading intervention did not produce general vocabulary growth, but participants who made significant vocabulary gains showed the greatest comprehension gains. Thus, the researchers found a link between comprehension gains and vocabulary gains.

In their discussion, Shany and Biemiller stated, “While practice significantly improves reading comprehension by improving reading fluency, further gains in comprehension probably require adding vocabulary. We conclude that just as with word identification skills, direct instruction is needed to promote vocabulary growth—and consequently comprehension growth” (p. 1080). An equally interesting finding was that the highest achieving participants showed greater persistence and motivation compared to the low achieving subjects, who had more trouble concentrating and required more breaks during the treatment. The researchers noted that there were no substantial differences in vocabulary and comprehension skills between the participants who benefited more versus less, and furthermore there were no major differences in word reading and decoding skills prior to and after the intervention. Thus, they indicated that additional investigations would be needed to better understand why certain children made greater progress in vocabulary acquisition and reading comprehension under similar intervention conditions.

While the previous study explored the connection between vocabulary and comprehension in elementary students, the following study has examining this complex relationship overtime at the early elementary level as its central focus.

Through a longitudinal analysis Hemphill and Tivnan (2008) explored the impact of early print-related and phonemic-awareness skills as well as meaning-related skills on low-income
students’ literacy development across first through third grade. The researchers sought to
determine the strongest predictors of reading comprehension, as they felt comprehension was a
critical contributor to general academic success. It follows that Hemphill and Tivnan (2008)
investigated how children’s vocabulary knowledge undergirded success in reading
comprehension in subsequent grades.

The sample included nearly 300 children in more than 30 classrooms from 15 high-need
Boston elementary schools who participated in the study from the commencement of first grade
through the spring of third grade. The school student populations consisted of mainly African
American and Latino children and were considered high poverty. Specifically, at least 80% of
students in all 15 schools qualified for free- or reduced-price lunch. District leaders
acknowledged all participating schools for making good progress while employing one of four
nationally distributed enriched early literacy instruction methodologies.

During the fall of first grade, the researchers employed a series of tests to assess
participants’ print-related and phonemic-awareness skills as well as meaning-related skills. The
authors used the Peabody Picture Vocabulary Test-III (PPVT-III; Dunn & Dunn, 1997) to
measure each participant’s receptive vocabulary. Additionally, students’ phonemic awareness
skills were assessed through the Yopp-Singer test (Yopp, 1995). Children were also individually
tested in the areas of early letter and word reading using two subtests from the Woodcock-
Johnson Diagnostic Reading Battery (WDRB; Woodcock, 1997). Lastly, students were invited to
look at a series of pictures and then narrate from memory a story that corresponded to the
pictures they had previously viewed. This task was a part of the School-Home Early Language
and Literacy (SHELL) battery (Snow, Tabors, Nicholson, & Kurland, 1995) and sought to
measure students’ oral discourse skills. The PPVT-III, Yopp-Singer, and WDRB subtests were
re-administered to study participants at the end of first grade to reassess the students. To measure participants’ reading comprehension at this time, the Gates-MacGinitie, Primary 1 comprehension subtest (GMRT-4; MacGinitie, MacGinitie, Maria, & Dreyer, 2000) was administered in a group setting. Students repeated the PPVT-III, the WDRB subtests, and the GMRT-4, Primary 2 reading comprehension test at the end of second grade. To conclude the study, the GMRT-4, Primary 3 reading comprehension test was the sole assessment administered to the students at the end of third grade.

To identify changes in literacy performance over the course of the three-year longitudinal study, the researchers analyzed participant scores for the various assessments and compared them across the three grades. They found that at the end of first grade general phonemic awareness and decoding skills were the strongest contributors to reading comprehension success. Yet, the impact of these skills on reading comprehension diminished over time. By the end of the second and third grades, early vocabulary knowledge was the most significant predictor of students’ reading comprehension development and continued to play a critical role in successful reading comprehension in subsequent grades.

To investigate how vocabulary affected children’s comprehension growth rate, the authors compared the development rates of children who started first grade with less developed, average and stronger vocabularies. Results indicated that while first graders who began the school year with higher vocabulary knowledge showed greater overall levels of comprehension in the first through third grades, the gap between reading comprehension progress of children with less developed and more developed lexicons did not change throughout the three-year analysis. Therefore, the reading comprehension development rates were similar for the majority of study participants regardless of initial receptive vocabulary skills. However, the troubling
finding was that students who started school with less developed lexicons generally continued on a lower course in reading comprehension performance during the primary grades, although the children had received continuous enriched literacy instruction.

The authors suggested that more focus be placed on developing language skills in the early grades and asserted that vocabulary instruction approaches for primary students have received limited attention compared to approaches for older children. Hemphill and Tivnan’s (2008) findings indicate that the vocabulary base with which primary-grade children begin school is a strong contributor to overall academic performance, especially reading comprehension in later years. Moreover, this research evidences the need for sound early vocabulary interventions in primary grades in schools serving low-income students, many of whom already start school with less developed lexicons, to narrow the gap between these children and their peers who enter school with more extensive vocabularies and consequently on a higher academic trajectory.

The above study revealed that the vocabulary foundation with which children commence their academic careers is a determinant of later academic achievement, especially reading comprehension and success in future grades. The subsequent summary is of a longitudinal study that evaluated the influence of different emergent literacy skills—oral language and code-related skills—on current and future reading performance.

The longitudinal study by Storch and Whitehurst (2002) explored the role of oral language and code-related skills in literacy development. To examine the impact of various emergent literacy skills on future literacy success, the researchers crafted a structural model that diagramed the relationship between oral language and code-related skills and later reading proficiency of students from low-income backgrounds who participated in the study from the
start of preschool through Grade 4. The authors classified code-related skills as conventions of print, letter knowledge, letter-sound correspondence, phonological awareness, and initial forms of writing. Oral language ability consisted of conceptual knowledge, word knowledge, expressive and receptive vocabulary, and rules pertaining to grammar and word order.

The sample comprised 626 four-year-old children from one of eight chosen Head Start programs in a suburban county in New York. The student participants were part of one of three groups enrolled in Head Start during the 1991–1992, 1992–1993, or 1993–1994 academic year. They continued on to kindergarten in 22 different school districts. Thirty-nine percent of the participants were African American, 34% were Caucasian, 16% were Latin American, and 11% were classified as other or unidentified.

Each participant’s literacy and language abilities were evaluated six times over the course of the longitudinal study. Children were assessed one time per year during the spring of Head Start, kindergarten, and Grades 1 through 4. Each year, their oral language ability was assessed with the Peabody Picture Vocabulary Test–Revised (PPVT–R; Dunn and Dunn, 1981). In Head Start and kindergarten, students’ code-related skills were measured using the Developmental Skills Checklist (DSC; CTB, 1990). As formal reading instruction gradually replaced code-related skill instruction, in Grades 1 through 4 standardized assessments were utilized to measure students’ reading ability. The researchers identified two domains of reading ability: reading comprehension and reading accuracy. Reading accuracy consisted of a child’s capacity to correctly sound out words (decoding), while reading comprehension dealt with how well a child could determine word and text meaning.

On the basis of their findings, Storch and Whitehurst formulated a structural model of the development of language and literacy skills, which allowed them to further understand the
relationship between code-related and oral language skills and their impact on future literacy success. Results of this study indicated that while there was a strong association between oral language and code-related skills in preschool, this relationship weakened in kindergarten and became nonsignificant in the early elementary grades. Meanwhile, code-related skills continued to have a direct effect on literacy success. For example, the knowledge of print concepts and phonological awareness acquired in kindergarten helped determine a child’s initial reading ability. In fact, the skills that constitute the code-related domain, skills that are typically acquired by the end of kindergarten, maintained a strong impact on reading achievement through Grade 2.

According to Storch and Whitehurst, their findings demonstrated that during the initial stages of reading, reading accuracy and reading comprehension were primarily determined by a child’s proficiency in the code-related domain, including decoding abilities. The authors found that in later stages of reading, such as in Grades 3 and 4, reading accuracy and reading comprehension become functions of different abilities: Code-related skills profoundly impacted reading accuracy, whereas reading comprehension was largely influenced by oral language abilities.

Moreover, Storch and Whitehurst’s structural model indicated that code-related skills—conventions of print, letter knowledge, letter-sound correspondence, phonological awareness, and initial forms of writing—mediated the relationship between reading proficiency and oral language ability in the initial stages of reading acquisition. The researchers concluded that while their findings demonstrated oral language skills do not have a direct effect on reading success during the early elementary period, oral language ability—conceptual knowledge, word knowledge, expressive and receptive vocabulary, and rules pertaining to grammar and word
order—does make an important contribution to literacy achievement during this time.

Considering the educational implications of their study, Storch and Whitehurst stated:

The results of our model suggest that there may be a danger in emphasizing phonological processing skills to the extent that the role of other language skills is underestimated. Although phonological processing skills play a more visible, direct role in early reading achievement, these skills are determined, in part, by a child’s oral language ability (p. 943).

In addition to code-related skills, Storch and Whitehurst urged primary educators to heavily focus on imparting to their students strong oral language abilities, such as syntactic and vocabulary knowledge, claiming that these skills are “linked to the code-related skills that promote word-reading abilities” and “provide the foundation for development of the advanced oral language skills necessary for successful comprehension in more skilled readers” (p. 944).

To review, these studies explored the association among vocabulary instruction, overall vocabulary knowledge, and comprehensive language and code-related literacy skills. More specifically, the relationship between language development and reading comprehension was examined in detail in effort to determine the precursors to reading success. Coyne et al. (2010) found evidence of a strong relationship between direct vocabulary instruction and superior vocabulary gains in kindergartners, as well as a modest association between extended direct vocabulary instruction and comprehension and metalinguistic awareness. These results show that vocabulary instruction successful in teaching new words may produce benefits for young students in other areas of language and literacy, such as enhanced comprehension. For example, while Shany and Biemiller’s (2010) assisted reading intervention did not produce overall vocabulary gains, participants who made noteworthy vocabulary growth showed the highest
comprehension gains, evidencing a relationship between vocabulary and comprehension. Perhaps the study providing the strongest evidence of benefits of vocabulary instruction is the study by Hemphill and Tivnan (2008), whose results indicated that early vocabulary knowledge was the most important predictor of reading comprehension achievement in later grades. Lastly, Storch and Whitehurst (2002) found that during the beginning stages of reading, reading accuracy and reading comprehension were predominantly influenced by a child’s competence in the code-related domain, whereas during the mid-to-late elementary period, reading accuracy and reading comprehension become functions of distinctive abilities, for code-related skills were found to have a robust effect on reading accuracy while reading comprehension was generally determined by oral language abilities. The aforementioned studies reported on the benefits of teaching young children vocabulary, such as increased overall vocabulary knowledge, enhanced language and literacy skills and improved reading performance. Consequently, the studies summarized in this section showcased the significance of sound vocabulary instruction in early grades and its role in promoting academic achievement.

**Conclusion**

The research synthesized throughout this chapter underscores the central role of early vocabulary instruction in guaranteeing all students—regardless of SES and the vocabulary knowledge, language experiences and foundational skillset they bring to their first classroom—access to equal academic opportunity. As was highlighted in the first section, the study by Hart and Risley (1995) found that children from impoverished families commence their education with less developed lexicons and less extensive language experiences than their classmates from more economically fortunate backgrounds. Without intervention, this evident gap in vocabulary knowledge may continue to broaden between students from lower SES groups and their peers.
from higher SES families (Hart & Risley, 1995). This landmark study confronted our nation with solid evidence that illustrated the academic disadvantage young impoverished children face before they even begin school, forcing educators, policymakers and researchers to put more effort into investigating the innovative instructional strategies needed to close the vocabulary gap between low-income students and their more economically advantaged schoolmates. Such research includes the study by Biemiller and Slonim (2001), which reported that children from average or impoverished families appeared to have learned root words at a slower rate from infancy to Grade 2 than their peers from affluent backgrounds. They cited Hart and Risley’s (1995) study and conceded that the language experience disparities between children from disadvantaged families and their more privileged classmates seem to produce significant differences in their lexicon development early in their academic careers. Yet, Biemiller and Slonim (2001) published a notable result: the participants from the normative group representing a range of SES backgrounds appeared to undergo a “catch up” phase in vocabulary knowledge during the later elementary grades and narrow the gap between themselves and their advantaged peers. Still, it follows that this research by Hart and Risley (1995) and Biemiller and Slonim (2001) provides evidence for the importance of robust vocabulary instruction in early childhood and elementary settings. In continuation, Coyne et al. (2004) explored a rigorous vocabulary intervention to investigate which components were most critical to kindergarten literacy achievement. Coyne et al. found that explicitly teaching vocabulary words through read alouds promoted the same vocabulary growth for kindergartners with less developed lexicons as their classmates with more advanced vocabularies. Lastly, Justice et al. (2005) reported on the vital contribution explicit vocabulary instruction through repeated readings makes to at-risk kindergartners’ word acquisition, and their study demonstrated how indispensible direct
explanations of word meanings are to the vocabulary growth of children with lower early language and vocabulary abilities. From this research, it seems clear that vocabulary instruction that depends solely on incidental exposure to new words would have a weaker influence on shrinking the early vocabulary gap evidenced by Hart and Risley’s (1995) and Biemiller and Slonim’s (2001) research, whereas it is plausible that directly explaining words and their meanings helps diminish this gap along with its negative effects on the academic success of children with low initial vocabularies (Coyne et al., 2004).

While the aforementioned studies offered unwavering evidence to support the argument that intensive vocabulary instruction and intervention must be a focal point in early childhood curriculum, it is less clear what this instruction should look like at the early childhood level. The focus of the current research is on determining the key elements and design of comprehensive vocabulary instruction for primary-grade students. Recent research has revealed important components of vocabulary instruction through studies in which the investigators created, implemented and evaluated the impact of a vocabulary intervention on children’s word acquisition and vocabulary development. Through their study Beck and McKeown (2007) demonstrated that employing an increased amount of purposeful vocabulary instruction yielded positive effects on children’s word acquisition and reassured primary teachers that imparting sophisticated vocabulary to early education students in low-income schools is a realistic objective. The study by Coyne et al. (2007) supports the findings of this study. For example, they found that extended vocabulary instruction was more successful than both incidental exposure and embedded instruction in producing vocabulary growth in kindergartners. On a similar note, Biemiller and Boote (2006) found that young students could acquire a considerable amount of words through increased vocabulary instruction in which teachers executed repeated read alouds
of a story and gave direct explanations of word meanings alongside regular target word reviews. Furthermore, Biemiller and Boote reported that the young students in their study had gained more word meanings than children in earlier similar studies, a finding for which the researchers credit the strengthened vocabulary instruction during which interventionists taught a greater number of words per week and conducted supplementary word reviews. The study by Zipoli et al. (2011), previously described in the section related to approaches for vocabulary development, reported similar findings concerning word reviews: Extended vocabulary instruction offering systematic word review fostered academically meaningful growth in target word knowledge of kindergartners from low-income urban schools as well as an increased overall receptive vocabulary. Biemiller and Boote (2006) argued that with more intensive vocabulary instruction such as the intervention they employed, which included additional reviews of all word meanings taught and teacher-supplied word explanations, primary educators could teach 1,800 words per year and their students would learn 400 new word meanings. Accordingly, directly teaching 25 word meanings per week is a realistic strategy that early childhood teachers should consider embracing.

While a growing body of research has focused on exploring effective methods for vocabulary expansion in early grades to improve instruction, additional studies have investigated the association among vocabulary instruction, general vocabulary knowledge and language and code-related literacy skills. Specifically, the relationship between vocabulary and language skills and reading comprehension was studied to pinpoint the determinants of reading success. Coyne et al. (2010) found a modest correlation between extended direct vocabulary instruction and comprehension as well as metalinguistic awareness and reported a strong link between direct vocabulary instruction and greater vocabulary acquisition in kindergartners. These results
support the claim that vocabulary instruction focused on teaching children new words may facilitate growth in other language and literacy areas, such as improved reading and listening comprehension (Coyne et al.). For instance, Shany and Biemiller’s (2010) study suggested that although an assisted reading treatment did not yield overall vocabulary gains, recipients of the intervention who made substantial vocabulary growth showed the best comprehension gains, supporting a link between vocabulary and comprehension. Hemphill and Tivnan (2008) reported even stronger evidence of the positive effects of rich vocabulary instruction, as they found that early vocabulary knowledge was the most significant predictor of reading comprehension performance in future grades. Finally, Storch and Whitehurst’s (2002) study revealed that during early reading stages, a child’s aptitude in the code-related realm had a profound impact on reading accuracy and reading comprehension, whereas during subsequent stages of literacy development in later elementary grades, reading accuracy and reading comprehension become products of different competencies—oral language ability was the principal determinant of reading comprehension, yet code-related skills were the main contributors to reading accuracy. Storch and Whitehurst maintained that while they did not find evidence that oral language ability played a direct role in literacy achievement during one’s early elementary career, oral language skills—receptive and expressive vocabulary, word knowledge, conceptual knowledge, and rules relating to grammar and word order—do make a noteworthy contribution to reading success during a child’s early stages of reading development.

On the basis of the existing literature, it seems clear that early vocabulary instruction is critical in primary classrooms to secure access to equal educational opportunity for all students, regardless of their economic background and the language experiences, vocabulary basis and foundational skills with which they begin their academic career. Current research has focused on
exploring effective approaches for vocabulary growth in early grades to make vocabulary instruction more meaningful for primary students, and additional studies have examined the benefits of vocabulary instruction, such as enhanced language and literacy skills, providing justification for the time and effort required to design and implement intensive, research-validated vocabulary instruction in early childhood classrooms.

The following chapter, Chapter Three: Methodology, presents the method and materials employed to conduct the study and administer the intervention. In addition, a description of the process followed to collect data to examine the impact of the explicit vocabulary instruction is provided.
CHAPTER THREE

METHODOLOGY

The primary purpose of this chapter is to outline the method employed to conduct the intervention and gather data to investigate the effect of the explicit vocabulary instruction given during the intervention. The first section provides pertinent details about the sample population that participated in this intervention and the setting in which the study was realized. The second section describes the materials used to facilitate the intervention. The third section summarizes the procedures followed to execute the intervention, whereas the final section explains the data collection process implemented to measure the impact of the intervention.

Participants

The sample population in this study comprised one class of 18 kindergarten students of Latino/Hispanic heritage ranging from 5 to 6 years old. The class consisted of 11 boys and seven girls, and their native language was Spanish. When the study commenced six weeks from the end of the 2013-14 academic year, twelve students were 6 years old, five were 5 years old, and one student turned 6 during the course of the study. The mean age of participants was 5.7 years. All students were promoted to first grade at the end of the 2013-14 school year and therefore were on track to begin first grade in the fall of 2014. No individual was receiving Special Education services or had been diagnosed with a learning disability at the time of the study. Consequently, no participant had an Individualized Education Program (IEP), which is a document defining customized learning goals for a student with a disability. Sixteen of the student participants were English Language Learners (ELLs) and receiving English as a Second Language (ESL) services at the time of the study. The remaining two student participants were not classified as ELLs and therefore did not receive ESL services.
On the literacy portion of the spring 2014 Children’s Progress Academic Assessment (CPAA) for kindergarten, 10 students performed above expectation in listening comprehension, whereas one student was considered at expectation, and six students were approaching the expectation for kindergarten. Ten students performed above expectation in reading, while seven students performed at expectation for their grade level. One student was absent when the assessment was administered and therefore did not take the spring 2014 CPAA. The CPAA is an adaptive assessment that measures and monitors early elementary students’ progress in literacy and mathematics. The CPAA was administered in Spanish to the student participants three times during the 2013-14 school year in fall, winter, and spring, respectively.

The students attended a low-income urban bilingual charter school in a large Midwestern city. Ninety-four percent of the student body was of Latino/Hispanic heritage, and 95% was classified as economically disadvantaged (Wisconsin Department of Public Instruction, 2013). The school followed the maintenance/heritage language model, a type of developmental bilingual education program (Baker, 2011). All student participants in this study were enrolled in the bilingual program. Daily, 80% of instruction in their kindergarten classroom was conducted in Spanish, their first, or native, language, and 20% was delivered in English, their second language. In particular, the entire science block and one quarter of the mathematics block were facilitated in English. All reading, language arts and social studies instruction was facilitated in Spanish, as well as three-quarters of the mathematics block in effort to help students develop foundational skills in their first language and put them on track to proficiency in both their first and second language. Because the students received literacy instruction exclusively in Spanish and the intervention was implemented during the literacy block, this study was conducted entirely in Spanish.
The students were elected to participate in this study by their classroom teacher because she desired to assist the pupils in enhancing their lexicons through research-based vocabulary instruction approaches. The classroom teacher was the sole interventionist and researcher conducting the study. Therefore, throughout this chapter the terms interventionist, researcher, investigator, experimenter, evaluator, instructor, educator and teacher will be used interchangeably.

Informed consent forms in both English and Spanish were generated and sent home with students one week before the study commenced. The parents of all 18 students signed and returned the informed consent forms, thus granting the researcher permission to involve her entire class of 18 kindergartners in the intervention.

**Materials**

**Texts**

While designing the vocabulary intervention, the researcher selected four children’s stories that belonged to the Kindergarten System from *Tesoros de lectura*, the Spanish Reading Treasures Program (Macmillan & McGraw-Hill, 2009). Specifically, the texts were part of the Oral Vocabulary Cards story collection, and the titles included: *La rama consentida*, ¡*Vamos al parque nacional!*; *Anansi y el melón*; and *Los ciegos y el elefante* (Macmillan & McGraw-Hill, 2009). Three texts were narrative fiction, whereas one was nonfiction. One story was read per week, and one read aloud was conducted each day for all five days. The stories were selected because the researcher considered them to be interesting to kindergartners and because they contained a sufficient amount of sophisticated vocabulary words likely to be unfamiliar to kindergartners. Coyne, McCoach, Loftus, Zipoli, Ruby, Crevecoeur and Kapp (2010) identified target vocabulary words for their study by electing words whose meanings would be unknown to
kindergartners yet comprehensible to young children. Beck, McKeown, and Kucan (2002) categorized words with these features as Tier II words, which they proposed primary teachers use for direct vocabulary instruction.

**Target Words**

The previously cited recommendation regarding use of Tier II vocabulary words guided the development of the intervention. Before the implementation of the intervention, eight Tier II vocabulary words from each story were identified. The meanings of four of the eight target words were explicitly taught to the students throughout the week during which the selected story was read. In an effort to attract the interest of the 5- and 6-year-old participants, the explicitly instructed target words were referred to as “magic words” throughout the intervention. The interventionist did not teach or mention the remaining four target words. Rather, the students were exposed to the remaining four words by hearing them during the repeated readings of the story. In sum, students received direct instruction in 16 word meanings and did not receive any instruction in the remaining 16 word meanings over the course of the four-week study. Research reviewed in the previous chapter (Beck and McKeown, 2007; Biemiller & Boote, 2006; Coyne, McCoach, & Kapp, 2007; Coyne, Simmons, Kame’enui, & Stoolmiller, 2004) supports a growing body of evidence linking explicit vocabulary instruction to increased vocabulary knowledge in young children. Coyne et al. (2004) identified conspicuous instruction as one of the research principles garnered from previous vocabulary instruction studies that guided the development of their vocabulary intervention, which consisted of shared storybook readings coupled with explicit word meaning instruction. Conspicuous instruction, as defined by Coyne et al. (2004), “is explicit and unambiguous and consists of carefully designed and delivered teacher actions. During vocabulary instruction, this would include direct presentations of word meanings
using clear and consistent wording and extensive teacher modeling of new vocabulary in multiple contexts” (p. 149). Through their research, Coyne et al. (2004) found that providing explicit explanations of word definitions through read alouds was a successful approach for enhancing the vocabulary of primary students who may potentially develop reading difficulties. On the basis of the existing research, the investigator designed the intervention to have an experimental group of 16 explicitly taught word meanings and a control group of 16 uninstructed word meanings to determine whether the students’ word acquisition was equivalent between both groups. Each group of target words, the taught words and the untaught words, contained six verbs, four nouns and six adjectives. Appendix A contains a listing of target words as presented on the Teacher Assessment Sheet.

Supplementary Materials

Word wall flashcards. The interventionist employed supplementary researcher-created materials for the 16 taught target words in effort to enhance student word learning. For all four sets of explicitly instructed target words, a Microsoft Word document containing flashcards of each word was generated. Each flashcard contained the word, a concise definition and clear photograph representing the respective word meaning. The document was viewed by students in its electronic form on a laptop computer in the classroom and was also printed, laminated, and cut into flashcards for the classroom word wall. The researcher decided to publish to the word wall the flashcards containing each word, its definition and an accompanying photograph to promote continuous reflection and discussion among student participants. Appendix B includes the Word Wall Flashcards document containing the 16 directly taught words.

Microsoft PowerPoint presentations with examples and non-examples. In addition, a Microsoft PowerPoint presentation including photographs embodying examples of each word
and a PowerPoint presentation exhibiting photographs depicting non-examples of each word were compiled for each set of directly taught target words. For instance, for the word *variedad*, which means variety, the examples PowerPoint slide contained four photographs showing different types of vegetables, toys, dogs, and shoes. The non-examples PowerPoint slide for *variedad* included a photograph of several identical red cars parked in a row, an image of three oranges of the same shape and size, a picture of regular pencils of the same type, as well as an image of four matching forks. For the word *atender*, which means to attend or care for, the slide from the examples PowerPoint presentation included four photographs of children taking care of a garden, feeding a fish, feeding a furry pet, and watering plants. The three non-examples PowerPoint slides for *atender* contained photographs of animals or plants that appeared to need additional care, such as a group of rabbits that appeared to be living in a bathroom, a wet cat in need of grooming, and a planter of wilted flowers. Refer to Appendix C for an Examples PowerPoint presentation and Appendix D for a Non-examples PowerPoint presentation.

**Talk About partner activity topics sheets.** The researcher also used a 10-page Microsoft Word document in which each sheet contained six kindergarten-appropriate topics to discuss during an engaging partner activity entitled *Talk About*. Each topic was labeled and accompanied by a representative image. For example, one such topic was pets and included the wording “Talk about…A pet” along with a photograph of a toddler petting a white rabbit in the grass. These sheets provided children with ideas for their discussion with their partner, as their objective was to use a newly learned vocabulary word to talk about the topics on the sheet. The target word *atender* could be employed during the “Talk About” activity in the following way: Student 1 is assigned the topic of pets, so Student 1 tells her partner, “Yo *atiendo* mi perrito dándole comida.”
todos los días,” which means, “I take care of my doggie by giving him food every day.” See Appendix E for a Talk About Topics Sheet.

**Vocabulary station worksheet.** Furthermore, a worksheet was generated to complete weekly in the Vocabulary literacy workstation. The worksheet contained four separate boxes in which students could draw a picture of and label the four vocabulary words for the given week. Appendix F contains the Vocabulary Station Worksheet.

**Word reviews.** Lastly, the interventionist designed a comprehensive review of the target words that included questions high in rigor and quality that prompted student participants to apply their recently acquired knowledge of word definitions to new contexts. For the target word *atender*, questions incorporated into the weekly review included, “¿Qué atendemos en el salón? (What do we take care of in our classroom?)” and “¿Cómo lo atendemos? (How do we care for it?)”. In an effort to engage the students in critical thinking, the review questions also required the student participants to use the newly learned vocabulary to make text-to-text connections. For example, for the target word *atender*, the students were asked to think about how the new word applied to two narratives read during a previous reading class: *Harry el perrito sucio (Harry the Dirty Dog)* and *En el jardín (In the Garden)*. In the first story, Harry the dog escapes from his house and ventures out into the neighborhood, where he finds a construction site and gets very dirty. He returns to his owners covered in soot, and they believe he is someone else’s dog. They care for him and give him a bath, and he becomes clean. In the end, they realize he is their dog Harry. The second book deals with a family taking care of their garden throughout the year and demonstrates how their responsibilities change with each season. The student participants compared and contrasted the events and characters’ adventures in the two books to determine how the word *atender* was applicable to the two stories. In short, the text-to-text connection
involving the target word *atender* was that both families took care of or looked after something. A student would have to understand the meaning of the target word to be able to successfully make that connection. The word reviews were conducted on Fridays. Refer to Appendix G for a Word Review PowerPoint.

**Assessment Tool**

The experimenter-designed assessment tool used as both the pretest and posttest was similar to the Peabody Picture Vocabulary Test, Fourth Edition (PPVT-4) (Dunn & Dunn, 2007). The PPVT is administered for the purpose of measuring an individual’s receptive (hearing) vocabulary. During the PPVT, the evaluator presents four pictures to the test taker, says a word that describes one of the images, and asks the test taker to identify the image that the word describes. For this study the investigator created and employed an assessment tool of a comparable format. However, three rather than four images were paired with each word because the researcher believed three was an adequate quantity to offer to kindergarten students. Only one of the three images provided on the Student Assessment Sheet represented the given word. It is important to note that the photographs presented on the Student Assessment Sheet were unique and were not used in any other material employed during the study. This was done to ensure the children could not simply memorize the photograph accompanying the word and rely on their memory of the associated image to correctly identify the word meaning on the posttest. For each target word, the tester clearly stated the word, showed the student the three images, and asked the student participant to point to the image that portrayed the target word. For instance, the three images accompanying the word *confundido*, which means confused, were: a picture of a young girl shrugging her shoulders and showing a bewildered look on her face, a picture of a cheetah running swiftly across the savannah, and a picture of a young man smiling and confidently
pointing to the correct answer to a math equation on the chalkboard. To demonstrate his or her understanding of the word meaning, the participant would have had to identify the first image as the correct representation of the target word *confundido*. Appendix H includes the Student Assessment Sheet: Pretest/Posttest.

In total, the test contained 32 words: the 16 explicitly taught target words and the 16 untaught target words to which student participants were merely exposed during the read alouds. This assessment was administered to every participant at both pretest and posttest to measure the effect of the vocabulary intervention on student word learning. As previously mentioned, Appendix A has a listing of the 32 target words in the Teacher Assessment Sheet.

**Procedures**

**Overview of Weekly Routine**

The intervention was implemented during the students’ literacy block. Four children’s texts were selected for the intervention, and a different text was assigned to each week. Therefore, four texts were read over the course of the four-week intervention: one text per week. Biemiller and Boote (2006) found that instruction of word meanings and repeated reading had a positive effect on kindergartners’ word acquisition, and that compared to first- and second-grade students, kindergartners benefitted the most from four story readings. On the basis of this research, the investigator designed the intervention to include one reading per day of the text of the week for all five days. Therefore, five readings of each text were conducted during this study. Each day the students received explicit instruction in four target words embedded in the text.

The interventionist followed the same weekly routine to teach each group of four target words. Daily the teacher delivered a read aloud of the text of the week and reviewed the definitions of the four target words during whole-group instruction. At the opening of each
whole-group lesson, the teacher wrote the daily learning objectives and success criteria on the whiteboard and invited the students to read them with her. The learning objective used was: Today we are learning to listen for the magic words in the book. The success criterion used was: I know I am successful if I can raise my hand when I hear a magic word. Because being presented with and reading the daily learning objectives and success criteria was a part of the pupils’ daily instructional routine, the investigator decided to incorporate them into the intervention routine. Next, the teacher and class read the four explicitly taught target words and reviewed their definitions. The read aloud followed this step of the routine.

The experimenter conducted the daily read aloud during whole-group instruction in the interest of time. Delivering three separate read alouds in the same day during small-group instruction would have taken too much time from the daily schedule. The average duration of the daily whole-group instruction was 20 minutes, which included the presentation of the daily learning objectives and success criteria, the read aloud and the vocabulary instruction. Note that during whole-group instruction, the class would also practice skills and strategies outlined in the Common Core State Standards (CCSS) for Kindergarten to continue addressing the kindergarten curriculum and learning targets.

Literacy workstation rotations followed the daily whole-group instruction, which enabled the researcher to implement the majority of the vocabulary intervention during small-group instruction. Consequently, more attention could be given to each student, and the researcher could more closely observe each participant over the course of the intervention. For literacy workstations, the 18 student participants were divided evenly into three leveled reading groups, and each group met with the teacher one time per day for approximately 20 minutes. Therefore, small-group vocabulary instruction was facilitated in three separate groups, and each group
consisted of six students. While the designated small group met with the teacher, the remaining students worked independently in their assigned literacy workstation. As was the case for whole-group instruction, the researcher employed the same format each week to explicitly teach the target words in small groups. The groups would also practice skills and strategies illustrated in the CCSS for Kindergarten to continue covering the kindergarten curriculum and learning targets.

**Day 1 whole-group instruction.** One the first day of the week, the interventionist conducted a whole-group read aloud of the selected children’s story and presented the definitions of the four embedded target words. The students also viewed the Microsoft Word document in which each word was recorded on a flashcard and accompanied by a concise definition and photograph representative of the word meaning. The document was viewed in its electronic form on a laptop computer. Refer to Appendix B to view the Word Wall Flashcards document containing the 16 directly instructed words.

**Day 1 small-group instruction.** During small-group instruction, the new word meanings as well as the word meanings learned during the previous week were briefly discussed. The instructor also engaged the students in reading comprehension activities of the texts read in class in addition to practice activities for skills and strategies highlighted in the Kindergarten CCSS and curriculum.

**Day 2 whole-group instruction.** During the second day, the researcher conducted a read aloud of the text during the whole-group reading lesson and reviewed the taught target word definitions with the students.

**Day 2 small-group instruction.** During their designated small-group instruction with the teacher during literacy workstation rotations, the students participated in a discussion of
examples of each taught target word using the Microsoft PowerPoint presentation that contained photographs representing various examples of each word. To review a more detailed description of the activity, refer to the Materials section that precedes this section. For a sample of an Examples PowerPoint, refer to Appendix C.

**Day 3 whole-group instruction.** On the third day, the teacher conducted a read aloud of the week’s designated text and reviewed the definitions of the four explicitly taught target words.

**Day 3 small-group instruction.** During their designated rotation during literacy workstations, the students met with the teacher in their small group and studied the Microsoft PowerPoint presentation that exhibited photographs illustrating non-examples of each taught target word. For a more detailed description of the activity, refer to the Materials section. See Appendix D for a Non-examples PowerPoint presentation.

**Day 4 whole-group instruction.** One the fourth day, the interventionist delivered a read aloud of the selected text and reviewed the definitions of the four taught target words during whole-group instruction.

**Day 4 small-group instruction.** In their small leveled reading groups during literacy workstations the students engaged in the partner activity, *Talk About*, during which each child informally conversed about the four instructed target words with a classmate and employed each word while talking about a given topic. For a more detailed explanation of the activity, return to the Materials section. Refer to Appendix E to view a *Talk About* Topics Sheet.

**Day 5 whole-group instruction.**

One the fifth and final day, the educator performed a read aloud of the selected text during whole-group instruction and reviewed the definitions of the four taught target words.
Day 5 small-group instruction. The fifth and final day of the weekly small-group routine consisted of a teacher-led review of the four taught target words. The target words were reviewed through the Microsoft PowerPoint presentation containing questions of high quality and rigor that encouraged students to think critically and apply their knowledge of the word meanings. To review a more detailed description of the activity, refer to the Materials section. For an example of a Word Review PowerPoint, view Appendix G.

Additionally, the children began the Vocabulary workstation sheet, a task that required them to draw and label the four target words. The students typically completed the Vocabulary workstation sheet by the Tuesday or Wednesday of the following week. Appendix F includes the Vocabulary Station Worksheet.

Measures

To determine the degree to which student participants learned the taught and untaught word meanings, the experimenter-designed assessment tool described in a previous section was administered. This tool served as both the pretest and posttest, which were identical. Data from all 18 participants were collected during the week prior to the first week of the intervention and during the week succeeding the final week of the intervention. In this way, participants’ receptive vocabulary knowledge was measured before and after the intervention.

The test contained a total of 32 words: the 16 directly taught target words and the 16 uninstructed target words to which participants were simply exposed during the shared readings. Although the target words were not presented in written form on the Student Assessment Sheet, for each word there were three images, one of which exemplified the given word. For each target word, the investigator stated the word, showed the individual the three pictures, and asked the participant to point to the image that represented the target word.
The Teacher Assessment Sheet, which served as each individual’s score sheet, contained a table for pretest data and a table for posttest data. In the first column all 32 words were recorded. Columns 2, 3 and 4 represented Images 1, 2, and 3, respectively. The evaluator marked an “X” in the column that corresponded to the image to which the student pointed when asked to identify the picture that showed the given word. In the fifth and final column of the assessment sheet the investigator recorded the letter “C” for a word that was correctly identified and the letters “IN” for a word that was incorrectly identified. The test was administered in this manner to every participant at both pretest and posttest to determine the impact of the vocabulary intervention on student word acquisition. Refer to Appendix A to view the Teacher Assessment Sheet and Appendix H to see the Student Assessment Sheet: Pretest/Posttest.

The students were evaluated on all 32 words at pretest and posttest. The teacher began to administer the pretest as soon as she received the signed informed consent forms for the students. The pretest was given to all students individually in the classroom during the teacher’s daily planning time. The classroom was quiet while the participant was taking the test, and no other students were present in the room. The same procedures were followed for the posttest, which was given to all student participants during the week after the four-week intervention concluded. The average duration of time required to administer the pretest was 15 minutes, while the average duration of time to administer the posttest was 10 minutes.

Throughout the course of the four-week study, the teacher also recorded anecdotal observations during small-group instruction. Additional data collected included the students’ Vocabulary workstation sheets, which the researcher reviewed weekly to monitor each individual’s progress with the designated group of target words. Appendix F contains the Vocabulary Station Worksheet.
Conclusion

This chapter explained the method employed to facilitate the intervention and collect data to examine the effectiveness of the explicit vocabulary instruction provided during the intervention. The first section described the sample population that participated in this study and the setting in which the intervention was implemented. The second section outlined the materials utilized to conduct the intervention. The third section detailed the procedures used to administer the intervention in the classroom. Finally, the last section presented the data collection measures realized to determine the impact of the intervention.

The subsequent chapter, Chapter Four: Results, will introduce assessment data gathered throughout the intervention. The assessment data comprises the scores from the experimenter-designed pretest and posttest for the 18 student participants. Specifically, the results that will be discussed include data for the 16 taught target words, data for the 16 untaught target words, a comparative analysis of the two data sets from all 18 participants, and the pretest-to-posttest gain in number of taught words and untaught words to measure participant word learning throughout the intervention.
CHAPTER FOUR

RESULTS

The purpose of this study was to investigate the impact of explicit vocabulary instruction through read alouds on Spanish-speaking kindergartners’ word acquisition. The data presented in this chapter were collected before and after a four-week vocabulary intervention was administered to 18 kindergarten students in the same classroom. A researcher-designed pretest and posttest was employed to measure the effectiveness of the explicit vocabulary instruction given through the intervention. The following section provides an overview of the critical data gathered during the study. Within the section are several subsections. The first subsection presents the data for the 16 words that were explicitly taught to the student participants throughout the intervention, while the second subsection offers the data for the 16 untaught words to which the students were simply exposed during the intervention. The third subsection contains a comparative analysis of the two data sets: the data for the 16 taught words and the data for the 16 untaught words. Additionally, pretest-to-posttest gain in number of taught words and untaught words is discussed. Specifically, vocabulary growth experienced throughout the intervention was measured in terms of quantity of taught words acquired from pretest to posttest and quantity of untaught target words acquired from pretest to posttest.

Overview of Data

This section presents an overview of the data gathered during the study. The pretest and posttest were administered to all 18 student participants, and therefore data were collected from all 18 participants before and after the intervention. Table 4 contains the following critical data from each of the 18 participants: taught words known at pretest and posttest, pretest-posttest gain in taught words, percentage of change from taught words known at pretest to taught words
known at posttest, untaught words known at pretest and posttest, pretest-posttest gain in untaught words, and percentage of change from untaught words known at pretest to untaught words known at posttest.

Table 4 also presents averages in the aforementioned categories. At pretest the average number of taught words known was seven words, which is 44% of the total taught target words. At pretest the average number of untaught words known was seven words, as well, or 44% of the total untaught words. At posttest the average amount of taught words known was 15 words, which is 97% of the total taught target words. In comparison, the average amount of untaught words known at posttest was 10 words, which is 62% of the total untaught target words. The mean quantity of taught words gained from pretest to posttest was eight words, whereas the mean quantity of untaught words gained was three words. Furthermore, the mean percentage of change from taught words known at pretest to taught words known at posttest was 140%, whereas the mean percentage of change from untaught words known at pretest to untaught words known at posttest was 61%. These data indicate that the pretest-to-posttest gain in number of taught words known by the student participants was noticeably higher than the number of untaught words known.
Table 4

Taught Words Known Versus Untaught Words Known at Pretest and Posttest

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<td>38</td>
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<td>Mean</td>
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<td>44</td>
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</table>

Note. # = number of words. In the intervention there were 16 taught words and 16 untaught words in total.

Taught Words

Table 4 presents the significant data collected on the 16 words that were explicitly taught to the student participants throughout the intervention. A more vivid demonstration of their vocabulary development in terms of instructed words exists in Figure 4.1, which displays the quantity of taught words known at pretest as compared to the quantity of taught words known at posttest for each student. Students 7 and 13 made the greatest gains in word learning, as they knew 11 additional taught words at posttest. According to pretest data, student 13 knew five of
the 16 explicitly instructed target words, and student 7 knew three explicitly instructed target words. At posttest, student 13 had learned all 16 taught target words, while student 7 had acquired 14 taught target words. Student 11 made the lowest gain in number of taught words known from pretest to posttest. It is important to note that this student knew 14 of the 16 taught target words at pretest and had learned the two remaining words by posttest, resulting in a gain of two words. As Figure 4.1 indicates, throughout the intervention all 18 student participants made appreciable progress in terms of directly taught target words. In fact, posttest data indicate that by the end of the intervention 10 students had successfully learned 100% of the 16 target words for which they received direct instruction.
Untaught Words

Table 4 also includes the important data gathered on the 16 words that were not taught to the participants during the intervention. Rather, they were merely exposed to the terms by hearing them during story readings. A more illustrative representation of their vocabulary growth in terms of non-instructed words is found in Figure 4.2, which shows the quantity of untaught words known pretest as compared to the quantity of untaught words known at posttest for each student. Students 14 and 15 made the greatest advancements in knowledge of untaught terms, for they had learned six additional untaught words at posttest. According to pretest data, student 14 knew two of the 16 untaught target words, and student 15 knew three words. At posttest, student 14 had acquired eight untaught target words in total, while student 15 had acquired 10 untaught target words in total. Note that three students gained no additional untaught word meanings by posttest. As Figure 4.2 indicates, during the intervention the majority of the 18 participants made modest or no progress in terms of untaught target words. Furthermore, according to posttest data, no student had acquired 100% of the untaught word meanings at the end of the intervention.
Comparative Analysis of Taught Word and Untaught Word Acquisition

As indicated by the critical data represented in Figures 4.1 and 4.2 as well as Table 4, throughout the study the student participants made higher gains in the number of taught words known in comparison to the number of untaught words known. Figure 4.3 provides a graphical presentation of students’ taught vocabulary knowledge alongside their untaught vocabulary knowledge in terms of quantity of words known at pretest and posttest. The data represented by Figure 4.3 clearly show students experienced greater growth in taught word meaning knowledge than untaught word meaning knowledge.

Moreover, the data displayed by the subsequent representation, Figure 4.4, demonstrate the pretest-to-posttest gain in number of taught words and untaught words known. Figure 4.4 is the clearest indicator of the student vocabulary development made throughout the intervention. The mean quantity of instructed words acquired from pretest to posttest was eight words,
whereas the mean quantity of non-instructed words gained was three words, indicating that on average participants gained nearly three times the amount of taught target words as untaught target words. These data illustrate that the pretest-to-posttest gain in number of directly instructed word meanings known by the students was markedly higher than the pretest-to-posttest gain in the number of untaught word meanings known.

Conclusion

This chapter presented the results of the vocabulary intervention administered to the 18 student participants. The data displayed by Table 4 and Figures 4.1–4.4 demonstrate that the pretest-to-posttest gain in quantity of explicitly taught word meanings known by the students was decidedly higher than the pretest-to-posttest gain in the quantity of untaught word meanings known. As a result of the intervention, students experienced noticeable vocabulary growth in taught word meanings yet experienced only modest growth in terms of untaught word meanings.
The purpose of this study was to investigate the impact of explicit vocabulary instruction on Spanish-speaking kindergartners’ word acquisition. These data show it is evident that instruction makes a difference in primary student lexicon development, especially when that instruction is paired with repeated story readings, activities to extend instruction and comprehensive word reviews.

The following chapter, Chapter Five: Conclusions, offers an explanation of the study outcomes and outlines potential factors that may have affected the results. Connections to the existing literature will also be incorporated. Finally, strengths and limitations of the study will be addressed, in addition to recommendations for classroom teachers and future research.
CHAPTER FIVE

CONCLUSIONS

This study explored the effect of explicit vocabulary instruction through read alouds on Spanish-speaking kindergartners’ word acquisition. The data presented in Chapter Four: Results were collected through an experimenter-designed pretest and posttest before and after a four-week vocabulary intervention was administered to 18 kindergarten students. The graphical representations of these data found in the previous chapter demonstrated the positive effect of the explicit vocabulary instruction on the students’ vocabulary development.

The central focus of this final chapter is to further explain the study findings and consider factors that may help explain why these results were produced. Firstly, connections between this study and the Common Core State Standards as well as the existing research presented in Chapter Two: Review of Literature will be reiterated. Secondly, an explanation of findings will be offered in addition to a discussion of factors that may have impacted the study outcomes. Thirdly, strengths and limitations of the study will be outlined. Finally, recommendations for classroom teachers and future research will be established.

Connection to Research

The vocabulary intervention implemented during this study was devised on the basis of the existing literature summarized in Chapter Two: Review of Literature as well as the Kindergarten English Language Arts Common Core State Standards for Language (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010), which are academic learning targets delineating the knowledge and skills students should develop during their K-12 scholastic career. Specifically, the intervention aligned to the following Vocabulary Acquisition and Use standards: L.K.4, “Determine or clarify the meaning
of unknown and multiple-meaning words and phrases based on kindergarten reading and content”; L.K.5, “With guidance and support from adults, explore word relationships and nuances in word meanings”; and L.K.6, “Use words and phrases acquired through conversations, reading and being read to, and responding to texts.” The intervention pushed the participants toward mastery of standard L.K.4 because the instructor taught them how to recognize when they did not understand the meaning of a word and equipped them with the skills needed to identify or clarify its meaning. Additionally, the intervention addressed standard L.K.5 because students practiced examining subtle differences in word meanings and studying relationships among a multitude of words with guidance from their teacher. Mastery of standard L.K.6 was perhaps the most evident throughout the intervention because the researcher frequently observed the participants employing newly acquired vocabulary in daily conversations with peers and teachers, which demonstrated the positive impact of the explicit vocabulary instruction on student word acquisition.

In addition to the Common Core State Standards, the intervention was designed on the basis of the pertinent research reviewed in an earlier chapter. According to Hart and Risley (1995), economically disadvantaged children enter school with less extensive vocabularies and cumulative language experience than their classmates from professional or working-class families. Hart and Risley argued that without intervention, the early vocabulary and language experience disparities between children from lower SES families and students from higher SES families would endure, and children of poverty would be at risk of falling further behind their more privileged peers academically. Hart and Risley’s findings established that vocabulary instruction is essential in early grades, especially in schools serving impoverished students, to reduce the gap between them and their economically privileged peers who commonly begin their
scholastic careers with more sophisticated vocabularies and thus on a higher trajectory. Biemiller and Slonim (2001) reported findings that provided direct and strong support for Hart and Risley’s research. Biemiller and Slonim found that children from advantaged households acquired root words at a faster rate from infancy to Grade 2 in comparison to their peers from underprivileged or ordinary families. They referenced Hart and Risley’s (1995) study and acknowledged that the differences in cumulative language experience between the advantaged group and their less fortunate peers seem to produce marked variances in their vocabulary development during early childhood. Yet, Biemiller and Slonim (2001) observed that the normative and underprivileged children seemingly experienced a “catch up” period during the middle and later elementary grades. It follows that Hart and Risley’s (1995) and Biemiller and Slonim’s (2001) investigations underscore the importance of rigorous vocabulary instruction to early childhood curriculum. Furthermore, Coyne, Simmons, Kame’enui, and Stoolmiller’s (2004) results compelled them to insist that classrooms in which young children were solely exposed incidentally to unknown words through story readings would play a minimal role in narrowing the vocabulary gap projected by Hart and Risley (1995), whereas explicit instruction of word meanings may contribute to its reduction. Taking into account the findings summarized above, the researcher facilitating the current study decided to realize an intervention centered on explicit vocabulary instruction for the primary students from impoverished families in her classroom in effort to help them boost their lexicons, which may have initially been underdeveloped compared to those of other kindergartners from higher SES backgrounds.

Multiple studies (Beck & McKeown, 2007; Biemiller & Boote, 2006; Coyne, McCoach, & Kapp, 2007; Zipoli, Coyne, & McCoach, 2011) have explored the success of various approaches to increased vocabulary development in children, including explicit vocabulary
instruction offering word meaning explanations through story readings in addition to supplemental reviews to allow for extra interactions with target words. Research by Beck and McKeown (2007) found that directly teaching advanced vocabulary words to primary students was a reasonable objective and that increased vocabulary instruction had a positive effect on young students’ word learning. Similarly, Coyne et al. (2007) found extended vocabulary instruction to be more successful than both embedded instruction and incidental exposure in accelerating vocabulary growth among kindergartners. Furthermore, Biemiller and Boote (2006) argued that through extensive vocabulary instruction primary teachers could teach 1,800 words per year and their students would acquire 400 new word meanings. Thus, Biemiller and Boote determined that teaching 25 word meanings per week was an attainable goal for early childhood teachers. Moreover, the researchers suggested that primary vocabulary instruction include teacher-supplied definitions of directly taught target words embedded in storybook contexts, repeated exposure through multiple story readings, and additional teacher-led reviews of word meanings (Biemiller & Boote, 2006). Zipoli et al. (2011) reported similar findings regarding the importance of target word reviews in primary vocabulary instruction. According to Zipoli et al., extended vocabulary instruction with systematic word review fostered scholastically meaningful advances in target word development of kindergartners from low-income urban schools as well as receptive vocabulary gains.

The above research reported by Beck and McKeown (2007), Coyne et al. (2007), Biemiller and Boote (2006), and Zipoli et al. (2011) guided the design of the current study, which aimed to examine the impact of explicit vocabulary instruction on Spanish-speaking kindergartners’ word acquisition. The intervention was devised to deliver explicit extended instruction of target words embedded in storybook contexts through repeated read-alouds.
Specifically, each story was read five times, and the meanings of the embedded target words from the experimental group were explicitly explained before, during and after each reading. Because the researcher, who was the sole classroom teacher and interventionist, desired to involve all 18 kindergartners in the intervention and needed a control and experimental group of target words to investigate her research question, and because of the limited timeline for executing her action research project, she elected 16 target words to explicitly teach during the four-week intervention and 16 target words to which students would be merely exposed. Therefore, the participants received direct instruction in four target words each week and no instruction in four target words each week. These quantities ensured that collecting data on the taught and untaught target word knowledge of all 18 participants at pretest and posttest was manageable for the interventionist.

The intervention design was also influenced by research reporting on the sustained benefits of early vocabulary instruction and knowledge with regard to literacy success. Coyne McCoach, Loftus, Zipoli, Ruby, Crevecoeur, and Kapp (2010) found that explicit vocabulary instruction significantly correlated to greater vocabulary growth in kindergartners and reported that direct and extended vocabulary instruction had a modest impact on their listening comprehension and metalinguistic awareness. Their research revealed that extended and direct vocabulary instruction that assists young students in learning new word meanings could also assist them in developing general language and literacy skills. On a similar note, Shany and Biemiller’s 2010 study concluded that although their research-based assisted reading intervention did not produce general vocabulary development, participants who made noteworthy vocabulary gains experienced the highest advancements in reading comprehension. Most importantly, Hemphill and Tivnan (2008) reported that initial vocabulary knowledge was the chief predictor
of reading comprehension in subsequent grades. Because the teacher desired to assist her kindergarten students in increasing their vocabulary knowledge in effort to guarantee continued academic success, the intervention was deliberately designed to employ research-validated strategies for vocabulary instruction in primary grades.

The existing research supports the claim that explicit vocabulary instruction is an integral part of early elementary curricula and is necessary in primary classrooms to make equal educational opportunity accessible to all students. It follows that the literature summarized in Chapter Two: Review of Literature provided rationale for the design and methodology of this action research study.

This study aimed to investigate the effect of explicit vocabulary instruction on Spanish-speaking kindergartners’ word meaning acquisition. The data findings of this study provide support for the findings reported in Chapter Two: Review of Literature. Specifically, the results of this present study show that the pretest-to-posttest gain in quantity of explicitly taught word meanings known by the student participants was markedly higher than the pretest-to-posttest gain in the quantity of untaught word meanings known. As a result of the intervention, the kindergarten participants made evident vocabulary gains in taught word meanings yet made only modest gains in terms of untaught word meanings. Per the studies outlined in Chapter Two: Review of Literature, research supports a link between explicit vocabulary instruction in early grades and increased vocabulary knowledge in primary students (Beck & McKeown, 2007; Biemiller & Boote, 2006; Coyne et al., 2007; and Zipoli et al., 2011). The findings reported by this current study provide support for the claim that instruction matters to early vocabulary development, particularly when that instruction is paired with additional target word reviews,
supplementary materials and activities to extend instruction, and repeated story readings as it was throughout the intervention implemented during this study.

**Explanation of Results**

This study has demonstrated that young children can acquire a substantial number of word meanings through explicit vocabulary instruction offering direct explanations of target words embedded in children’s stories, sustained exposure to target words through repeated story readings, and supplemental activities and reviews to facilitate additional meaningful experiences with the target words. This section offers explanations for the findings and proposes potential contributing factors that may have played a role in producing the results.

**Taught Words**

The two students who made the greatest gains in word learning knew 11 additional taught words at posttest. Student 13, who had learned all 16 taught target words at posttest, had known just five words at pretest. The other student, student 7, knew three explicitly instructed target words at pretest and by posttest had acquired 14 taught target words. In the view of the researcher, the students had lower initial vocabularies before the intervention was administered because one student was the only child in the class who had not attended a four-year-old kindergarten program, and the other student lived in a household in which one parent, while fluent in Spanish, spoke mainly in English. These two factors probably resulted in these two students possessing a less extensive Spanish vocabulary, which is the language in which this intervention was facilitated. Yet, their 11-word gain has demonstrated that when given explicit vocabulary instruction that incorporates research-validated instructional approaches, primary students with lower initial vocabularies can experience great growth.
In contrast to the two students described above, one student, student 11, made a two-word gain from pretest to posttest, which marked the least amount of growth in number of taught words known from pretest to posttest. Note that this student knew 14 of the 16 taught target words at pretest and had acquired the two remaining words by posttest. This student came from a household in which the other family members were two adult siblings, a mother and a father, and all four family members were native Spanish speakers. Therefore, it is probable that this student had developed a more extensive lexicon because the people with whom this child mainly interacted outside of school were adults who had a strong command of the Spanish language.

Throughout the intervention all 18 participants made considerable progress in terms of directly taught target words. Ten of the 18 kindergartners had acquired 100% of the 16 taught target words by the end of the four-week study, whereas six students knew 15 of the 16 taught target words, and the remaining two participants knew 14 taught target word meanings. It is likely that these students, who represent a broad range of academic ability levels and reading levels, made appreciable gains in their knowledge of these advanced vocabulary words because they received direct instruction delivered through research-based approaches found to help primary students build vocabulary knowledge. Thus, these findings demonstrate that explicit teaching of sophisticated vocabulary in early grades has a positive impact on a child’s vocabulary development.

Untaught Words

In addition to the data gathered on the experimental group of directly taught target words, the researcher drew conclusions from the data collected for the 16 words that were not taught to the student participants during the intervention. Rather, the children were only exposed to the words by hearing them during the read alouds.
Note that the highest score at posttest for untaught words was 15 and was achieved by just two students, signifying that two participants had learned 15 of the 16 untaught target words throughout the intervention. However, it is important to mention that these two children, students 5 and 11, had correctly identified 12 and 11 untaught word meanings at pretest, respectively, marking the two highest pretest scores for the untaught terms, and representing three- and four-word gains. It is important to mention that one of these students is the aforementioned child whose family consisted of two adult siblings and a mother and father. It was noted earlier that these four adults, who had a strong command of the Spanish language, probably played a significant role in helping this child develop a strong vocabulary base. The remaining child, student 5, who made a three-word gain in untaught word knowledge from pretest to posttest, was the most advanced student in the class in terms of oral language skills, general vocabulary, and listening comprehension. These factors, in addition to the word learning strategies taught to them by their teacher during the intervention, probably contributed to these students’ increased metalinguistic awareness and word consciousness, which would help explain how they could have successfully determined the meanings of the majority of untaught target words through incidental exposure during the repeated story readings.

The two students who made the greatest advancements in knowledge of untaught terms had gained six additional untaught words at posttest. At pretest, student 14 had correctly identified two of the 16 untaught target words, and student 15 had correctly identified three words. At posttest, student 14 had acquired eight untaught target words in total, while student 15 had acquired 10 untaught target words in total. The researcher did not have an explanation for these gains but suspected that the word learning strategies taught to the students throughout the intervention had contributed to an increased metalinguistic awareness and word consciousness.
among the student participants, resulting in modest gains in untaught word meaning knowledge among some participants. However, note that three students had not gained any additional untaught word meanings by posttest. During the intervention the majority of the 18 participants made modest or no progress in terms of untaught target words, and no student had acquired 100% of the untaught word meanings at the end of the intervention. These findings show that the students made less growth in knowledge of untaught vocabulary, which lends support to the claim that young children would learn a greater number of words that were directly taught to them as compared to words to which they are simply exposed during story readings.

**Comparative Analysis of Taught Word and Untaught Word Acquisition**

The mean number of instructed words acquired from pretest to posttest was eight words, whereas the mean number of non-instructed words gained was three words, indicating that on average students gained nearly three times the amount of instructed target words as non-instructed target words. These data illustrate that the pretest-to-posttest growth in quantity of directly taught word meanings known by the students was decidedly higher than the pretest-to-posttest growth in the quantity of untaught word meanings known.

The purpose of this study was to investigate the effect of explicit vocabulary instruction on Spanish-speaking kindergartners’ word meaning acquisition. As indicated by the critical data outlined and displayed in Chapter Four: Results, throughout the study the participants experienced greater growth in taught word meaning knowledge than untaught word meaning knowledge, which can likely be attributed to the thoughtfully designed, research-based intervention that delivered explicit vocabulary instruction and employed research-validated approaches found to promote vocabulary development in early grades.
Strengths and Limitations

A strength of this particular action research study came in the form of its research-based design and sound procedures employed to facilitate the intervention. Rationale linked to existing relevant research was provided for all essential components of the four-week intervention and evidence-based support for the procedures followed were provided in Chapter Three: Methodology. An additional strongpoint of this study was the appropriate balance of whole- and small-group instruction delivered to implement the intervention. The fact that part of the intervention—the repeated story readings—was administered during whole-group instruction allowed the study to be executed in a more time-efficient way. The small-group instruction, which delivered the word reviews and ensured all students had sufficient meaningful interactions with target words, took place while the remaining students were working independently in literacy workstations, which allowed the interventionist to exclusively focus on the three groups of six students with whom she was meeting during the three designated timeslots. In this way, the researcher was able to maximize the instructional time utilized to implement the intervention to benefit all students while still successfully adhering to the classroom schedule to provide instruction in the five content areas.

In addition to strengths, this particular study also possessed limitations. One such limitation was that the researcher designed and delivered the entire intervention in Spanish, which was not her native language. Slight differences in meaning can exist between a word in one’s native language and its translated counterpart in a second language, and the fact that the interventionist may not have picked up on these subtle nuances is a minor limitation of this study. Furthermore, another limitation can be found in the design of the pretest and posttest assessment tool. The researcher relied on her interpretation of each word meaning to select one
image that represented the word meaning and two images that did not. The experimenter also assumed that all students would interpret the elected images on the pretest and posttest in a manner similar to the way in which she interpreted them. However, it is possible that students understood the word meanings but were unable to correctly identify the word meaning based on the photographs chosen by the interventionist. Therefore, this marks another limitation of this specific study. Moreover, a third limitation emerges after reflecting on the schedule of the intervention. Because of unforeseen circumstances, such as fire drills, school events, student absences, behavior management issues, and student-student interactions, each small group did not always receive the same exact amount of small-group vocabulary instruction on a given day. The researcher determined that a similar quantity of instructional time was allocated for each small group throughout the course of the four-week intervention, but the fact that it was not exact constitutes a limitation of this study and may have positively affected one group’s word acquisition more so than another group’s word acquisition. An additional limitation manifests in the presentation of the materials employed to facilitate the intervention. Because the researcher did not have daily access to a SmartBoard or projector on her side of the classroom, the materials, including the photograph-rich Microsoft PowerPoint presentations, had to be projected on the 13.3-inch screen of the researcher’s laptop computer. Thus, students did not have as clear of a picture of the photographs as they would have had if the investigator had been able to project the presentations onto a larger screen. A following limitation comes in the form of the setup of the classroom. The school in which the researcher facilitated the study received funding under the Student Achievement Guarantee in Education (SAGE) Program label, an initiative that intends to boost student academic growth in math and reading by making it financially possible for schools to have smaller class sizes. The ratio followed in the school site was 18 students to
one teacher and 30 students to two teachers for grades K5–3. Therefore, the researcher, who was also the classroom teacher of the 18 student participants, had to share a classroom with another kindergarten class. While the room was divided by physical barriers, such as a large white board and several bookshelves, it was still not an ideal classroom arrangement because at times the noise level made it difficult for the five- and six-year-old participants to fully concentrate and focus on the instruction being delivered. A final limitation the researcher was able to identify was the way in which the word meanings were selected for the experimental (taught words) and control (untaught words) groups. Because of the limited timeline of this action research study, the researcher was unable to conduct research-based analyses or administer tests to determine which word meanings the students already knew at the start of the study. Therefore, the pretest was the first indicator of student word knowledge with regard to both taught and untaught words.

As is evident by the above commentary, this action research study possessed both strengths and limitations, which should be taken into account when reviewing this research manuscript. Note that despite these possible limitations, the participants still made notable gains during the study.

Recommendations

This section offers two different types of recommendations. The first paragraph provides suggestions for teachers striving to enhance vocabulary instruction in early elementary classrooms. The second paragraph outlines recommendations for future research in vocabulary instruction and development in primary grades.

Recommendations for Teachers

This paragraph dedicates itself to suggestions for educators desiring to enhance vocabulary instruction in primary classrooms. By perusing relevant studies, such as those
outlined in Chapter Two: Review of Literature, the researcher was able to develop an effective intervention that had a strong design and contained research-validated strategies for building vocabulary knowledge in early elementary classrooms. Therefore, it is advisable to examine existing research in vocabulary instruction and development to gain the ideas and knowledge needed to design meaningful vocabulary instruction for the targeted student population.

Moreover, teachers aiming to promote vocabulary building in early elementary classrooms should deliver vocabulary instruction through a balance of whole- and small-group teaching. The success of the intervention implemented during this current study can be attributed in part to the manner in which the instruction was delivered. The whole-group portion of the intervention included the daily read-aloud, which is an appropriate activity to conduct in a whole-group setting. Doing so enabled the instructor to make efficient use of time and deliver important instruction to all the participants simultaneously. The small-group instruction, which provided the supplementary word reviews and extension activities to ensure all students had significant experiences with target words, occurred while the remaining participants were working in independent literacy workstations. This allowed the interventionist to give adequate attention to each participant and more frequently address the individual needs of each student. By conducting vocabulary instruction through an appropriate balance of whole- and small-group teaching, primary educators will maximize the instructional time used to conduct vocabulary instruction to ensure all pupils benefit and will also be able to devote adequate time to the other critical academic material that needs to be taught on a daily basis.

**Recommendations for Future Research**

This paragraph explores the implications this study has for future research conducted in early vocabulary development and instruction for primary students. The purpose of this study
was to explore the effect of explicit vocabulary instruction on Spanish-speaking kindergartners’ word acquisition. As the data findings presented in Chapter Four: Results indicated, throughout the study the participants made higher growth in taught word meaning knowledge than untaught word meaning knowledge, which can likely be attributed to the sound design of the research-based intervention that provided explicit vocabulary instruction through research-validated approaches found to foster vocabulary development in primary grades. However, research in the near future should seek to establish sound methods for determining word meanings that are most appropriate for early elementary instruction and most useful and essential to primary students’ vocabularies. In other words, future studies should aim to identify the advanced vocabulary words primary educators should teach their students that will aid them in experiencing sustained success throughout their academic careers. While there are multiple studies validating effective strategies promoting vocabulary development in primary grades, because best educational practices are continuously evolving and there continue to be constant demands placed on teachers, an additional recommendation is that researchers focus on determining sound, feasible, and time-efficient approaches to increasing vocabulary knowledge in early elementary classrooms. Finally, further longitudinal research must be conducted to explore the short-term and long-term effects of early vocabulary knowledge on reading comprehension and general language and literacy skills throughout students’ academic trajectories, for there currently exists only a modest amount of research in this important area.

Conclusion

This particular action research study aimed to examine the impact of explicit vocabulary instruction on Spanish-speaking kindergartners’ word acquisition. As indicated by the data findings, throughout the study the student participants made markedly greater gains in taught
word meaning knowledge than untaught word meaning knowledge. Therefore, this study demonstrates that explicit vocabulary instruction designed on the basis of sound research can promote increased vocabulary development in early grades. The results obtained through this study share many commonalities with the findings and substantiated arguments reported in Chapter Two: Review of Literature. From these findings it can be concluded that students in primary grades would benefit from direct vocabulary instruction devised on the basis of existing literature describing research-validated strategies that have been found to lead to increased vocabulary growth in young children. Classroom teachers aiming to enhance vocabulary instruction should examine pertinent research to learn how to design effective instruction and should deliver this instruction through a balance of whole- and small-group teaching. It is important to note that future research should aim to highlight effective methods for determining word meanings that are most suitable for primary instruction and most valuable and fundamental to young children’s lexicons. This research would help primary educators identify the vocabulary to teach their students that will ensure continued academic success. Furthermore, future investigations should place an emphasis on determining practicable, time-efficient strategies for developing vocabulary knowledge in primary classrooms. Lastly, additional longitudinal research is needed that investigates the short-term and long-term impact of initial vocabulary knowledge on general language and literacy skills, including reading comprehension.
References


EFFECT OF EXPLICIT VOCABULARY INSTRUCTION


### Appendix A

**Teacher Assessment Sheet**

<table>
<thead>
<tr>
<th>Pretest</th>
<th>Date:</th>
<th>Posttest</th>
<th>Date:</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Image #1</strong></td>
<td><strong>Image #2</strong></td>
<td><strong>Image #3</strong></td>
<td><strong>C=Correct</strong></td>
</tr>
<tr>
<td>1. consentido/a</td>
<td>1. consentido/a</td>
<td></td>
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</tr>
<tr>
<td>2. detener</td>
<td>2. detener</td>
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<tr>
<td>3. variedad</td>
<td>3. variedad</td>
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<tr>
<td>4. adolescente</td>
<td>4. adolescente</td>
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<tr>
<td>5. útil</td>
<td>5. útil</td>
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<tr>
<td>6. encantador(a)</td>
<td>6. encantador(a)</td>
<td></td>
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<tr>
<td>7. anciano/a</td>
<td>7. anciano/a</td>
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<tr>
<td>8. ligero/a</td>
<td>8. ligero/a</td>
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<tr>
<td>9. observar</td>
<td>9. observar</td>
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<td>10. interior</td>
<td>10. interior</td>
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<tr>
<td>11. húmedo/a</td>
<td>11. húmedo/a</td>
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<td>12. alimentar</td>
<td>12. alimentar</td>
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<td>13. fascinante</td>
<td>13. fascinante</td>
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<td>16. madurar</td>
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<td>17. ordenar</td>
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<td>18. atender</td>
<td>18. atender</td>
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<td>19. resistir</td>
<td>19. resistir</td>
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<tr>
<td>20. nítido/a</td>
<td>20. nítido/a</td>
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<td>21. básico/a</td>
<td>21. básico/a</td>
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<td>22. sentidos</td>
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<td>23. aterrizar</td>
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<td>24. perforar</td>
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<td>27. confundido/a</td>
<td>27. confundido/a</td>
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<td>28. rugoso/a</td>
<td>28. rugoso/a</td>
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<td>29. textura</td>
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<tr>
<td>30. describir</td>
<td>30. describir</td>
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<td>31. insistir</td>
<td>31. insistir</td>
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</tr>
<tr>
<td>32. descubrir</td>
<td>32. descubrir</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix B
Word Wall Flashcards

- consentido/a
- muy orgulloso de sí mismo
- detener
- parar una cosa
variedad

un conjunto de cosas diferentes

adolescente

una persona de 13 a 18 años
observar

mirar con atención

interior

la parte de adentro de algo
<table>
<thead>
<tr>
<th>Spanish Word</th>
<th>Translation</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>húmedo/a</td>
<td>humid</td>
<td>8.2</td>
</tr>
<tr>
<td>un poco mojado</td>
<td>damp</td>
<td>8.2</td>
</tr>
<tr>
<td>alimentar</td>
<td>feed</td>
<td>8.2</td>
</tr>
<tr>
<td>dar comida buena y saludable</td>
<td>feed good and healthy</td>
<td>8.2</td>
</tr>
</tbody>
</table>
ordenar
organizar o poner en orden
atender
cuidar de algo
Efecto del enfoque explícito de vocabulario

**Resistir**

*aguantar, esperar o no hacer lo que tienes ganas de hacer*

8.3

**Nítido/a**

*muy exacto, claro y bien hecho*

8.3
criatura

cada animal vivo en la Tierra

flexible

que se dobla con facilidad
confundido/a

que no estás seguro de cómo hacer algo

rugoso/a

que está lleno de arrugas
Appendix C
Examples PowerPoint

**ordenar**

organizar o poner en orden

Ejemplo: Podemos ordenar los crayones por su color.

¿Qué pueden ordenar en el salón o en su casa?

---

**atender**

cuidar de algo

Ejemplo: El jardinero atiende su jardín, quitando las malas hierbas.

¿Cuáles son algunas cosas que pueden atender?
**resistir**

aguantar, esperar o no hacer lo que tienes ganas de hacer

Ejemplo: Olí las galletas y no pude resistir más entonces me comí dos de ellas.

¿Pueden pensar en una vez en que tuviste que resistir algo?

---

**nítido/a**

muy exacto, claro y bien hecho

Ejemplo: El granjero siembra las semillas en nítidas hileras.

¿Qué puedes hacer que demuestra la palabra nítido?
Appendix D
Non-examples PowerPoint

ordena

organizar o poner en orden

Ejemplo: Podemos ordenar los crayones por su color.
¿Qué pueden ordenar en el salón o en su casa?

ordena

organizar o poner en orden

Ejemplo: Podemos ordenar los crayones por su color.
¿Qué pueden ordenar en el salón o en su casa?
ordenar

organizar o poner en orden

Ejemplo: Podemos ordenar los crayones por su color.

¿Qué pueden ordenar en el salón o en su casa?

atender

cuidar de algo

Ejemplo: El jardinero atiende su jardín, quitando las malas hierbas.

¿Cuáles son algunas cosas que pueden atender?
atender

cuidar de algo
Ejemplo: *El jardinero atiende su jardín, quitando las malas hierbas.*

¿Cuáles son algunas cosas que pueden atender?
resistir

aguantar, esperar o no hacer lo que tienes ganas de hacer

Ejemplo: Olí las galletas y no pude resistir más entonces me comí dos de ellas.

¿Pueden pensar en una vez en que tuviste que resistir algo?
nítido/a

muy exacto, claro y bien hecho

Ejemplo: El granjero siembra las semillas en nítidas hileras.

¿Qué puedes hacer que demuestra la palabra nítido?
nítido/a

muy exacto, claro y bien hecho

Ejemplo: El granjero siembra las semillas en nítidas hileras.

¿Qué puedes hacer que demuestra la palabra nítido?
<table>
<thead>
<tr>
<th>Topic</th>
<th>Image</th>
</tr>
</thead>
</table>
| un amigo                    | Platicar sobre ...
| una mascota                 | Platicar sobre ...
| una casa                    | Platicar sobre ...
| una calle                   | Platicar sobre ...
| una habitación              | Platicar sobre ...
| una tienda                  | Platicar sobre ... |
### Appendix F
**Vocabulary Station Worksheet**

<p>| | |</p>
<table>
<thead>
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</tbody>
</table>


Appendix G
Word Review PowerPoint

ordenar
organizar o poner en orden

Ejemplo: Podemos ordenar los crayones por su color.
¿Qué pueden ordenar en el salón o en su casa?

• Cuando ordenas algo, lo pones en orden para que sea bien arreglado.
• Puedes ordenar eventos de un cuento dibujando lo que pasó primero, después y al final.
• Puedes ordenar crayolas o bloques geométricos agrupándolos por color o tamaño.
ordenar

- ¿Puedes encontrar algo en el salón que puedes ordenar?
- ¿Cuando alguien está ordenado, qué haría esta persona si hubiera un reguero en su cuarto?

ordenar

- ¿Conoces a alguien que está ordenado?
- ¿Qué hace esta persona?
ordenar

- ¿Recuerdas el cuento Ada la desordenada? ¿Cómo sabemos que Ada estaba desordenada al principio del cuento?
- ¿Siguio estando muy desordenada al final del cuento? ¿Cómo sabes?
- También podemos ordenar por tipo de cosa. ¿Cuando tu casa está ordenada, tu ropa está con tus juguetes? ¿Dónde está tu tarea? ¿En la alfombra?
- ¿Tu casa está ordenada?

cuidar de algo

Ejemplo: El jardinero atiende su jardín, quitando las malas hierbas.

- ¿Cuáles son algunas cosas que pueden atender?
atender

- Cuando atiendes a alguien o algo, lo cuidas bien.
- Puedes atender tu perro dándole comida y agua para que se alimento.
- También puedes atender las plantas echándoles agua para que crezcan.

atender

- ¿Qué podemos atender en el salón? (el pez, las plantas)
- ¿Cómo atendemos a ello?
atender

- ¿Quién atiende a ti? ¿Cómo te atiende?

atender

- ¿Recuerdas el cuento En el jardín? ¿Cómo la familia atendía su jardín?
- Vamos a comparar esta familia con la familia de Harry el perrito sucio. ¿Qué hacían las dos familias que las hacen igual? (Las dos atendían algo: Una atendía el jardín y la otra atendía a Harry)
resistir

aguantar, esperar o no hacer lo que tienes ganas de hacer

Ejemplo: Olí las galletas y no pude resistir más entonces me comí dos de ellas.

¿Pueden pensar en una vez en que tuviste que resistir algo?

resistir

- Resistir es aguantar aunque no quieres aguantar.
resistir

- ¿Pueden pensar en una situación en que sería necesario resistir algo?
- ¿Pueden pensar en una vez en que tuviste que resistir algo?
- Hay muchas personas en esta clase que quieren hablar y compartir con la clase, pero les pido que resistan hasta que les diga ...les pido que levanten la mano. A veces levantan la mano y son tranquilos y esperan, pero otras veces levantan la mano como si estuvieran diciendo HOLA HOLA HOLA o quitándose una mosca.
- ¿Quién cree que está resistiendo más? ¿Los niños tranquilos o los con la mano loca? Es difícil no hablar cuando quieren compartir algo, ¿verdad?

resistir

- ¿Cuándo alguien resiste algo, que tiene que hacer esta persona?
- ¿Por qué a veces es necesario resistir?
nítido/a

muy exacto, claro y bien hecho

Ejemplo: El granjero siembra las semillas en nítidas hileras.

¿Qué puedes hacer que demuestra la palabra nítido?

- Cuando te esfuerzas por escribir bien vas a tener una letra nítida y hermosa.
- Cuando te haces un buen peinado los flecos se ven nítidos.
nítido/a

- ¿Qué hace tu mamá en la casa que demuestra la palabra nítido?
- ¿Pueden pensar en otro objeto que es nítido?
- ¿Tienen que ser nítidos cuando hacen un patron? ¿Por qué sí o no?
- ¿Cuál es más nítido? ¿Por qué?

nítido/a

- ¿Qué puedes hacer que demuestra la palabra nítido?
nítido/a

- ¿Pueden pensar en otro cuento que hemos leído este año que contiene un ejemplo de la palabra nítido?
Appendix H
Student Assessment Sheet: Pretest/Posttest

1.

2.
Student Assessment Sheet: Pretest/Posttest

3.

4.
Student Assessment Sheet: Pretest/Posttest

5.

6.
Student Assessment Sheet: Pretest/Posttest

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Student Assessment Sheet: Pretest/Posttest
Student Assessment Sheet: Pretest/Posttest
EFFECT OF EXPLICIT VOCABULARY INSTRUCTION

11.

12.

Student Assessment Sheet: Pretest/Posttest
Student Assessment Sheet: Pretest/Posttest
15. **Student Assessment Sheet: Pretest/Posttest**

16. **Student Assessment Sheet: Pretest/Posttest**
17. Student Assessment Sheet: Pretest/Posttest

18.
Student Assessment Sheet: Pretest/Posttest
21.

22.

Student Assessment Sheet: Pretest/Posttest
EFFECT OF EXPLICIT VOCABULARY INSTRUCTION

23.

24.
EFFECT OF EXPLICIT VOCABULARY INSTRUCTION

Student Assessment Sheet: Pretest/Posttest

25.

26.
27.

28.
29. Student Assessment Sheet: Pretest/Posttest

30. Student Assessment Sheet: Pretest/Posttest