

DEVELOPING SOCIAL-EMOTIONAL VOCABULARY
THROUGH STORYBOOK READING

By

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Abstract of Dissertation Presented to the Graduate School
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By

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To help all students succeed, researchers have suggested that the social and emotional development of students should be viewed as an essential aspect of learning, rather than an additional duty for which schools are responsible. Language skills support social-emotional adjustment and promote children's abilities to comprehend and comply with the behavioral demands of school. Prior research provides evidence of the synergistic relationship between social and emotional development and academic standards. Thus, it is the integration of developing social competence with academic learning that leads to the education of the whole child.

The conversations that occur during repeated storybook readings support vocabulary development in children. Books with social-emotional content present models of characters solving problems and interacting with others, and have the potential of helping students emotionally connect with the experiences of the characters. This study was designed to determine whether emotion vocabulary could be effectively developed through interactive storybook readings.

More specifically, the purpose of this pretest-posttest control group design study was to examine the social-emotional vocabulary growth of students who received the

SELF: Social-Emotional Learning Foundations intervention, which is intended to promote social-emotional development for children who may be at risk for social and behavioral disorders. Twenty-four kindergarten and first-grade teachers from two elementary schools participated in the study (15 teachers implemented the intervention during the 2012-2013 school year). A total of 91 students who participated in the study were assessed at the completion of the study.

Statistically significant differences were found between students in the treatment and control conditions on social-emotional vocabulary outcomes of the SELF Vocabulary Measure. Further analyses indicated that the students who received the SELF intervention were better able to provide both definitions of the target vocabulary and to use the word in context by providing examples of when they might experience certain feelings. There was no statistically significant difference between treatment and control groups in students' receptive vocabulary scores. A discussion of these findings is presented, along with implications for practice and directions for future research.

CHAPTER 1 INTRODUCTION

Active and full participation in American society requires that its citizens have the fundamental ability to read and write. The United States has shifted from a nation of farmers and mechanics to that of a much more technologically advanced country where economic, civic, and social success depend in large part on the educational achievement of its citizens, and most importantly, their literacy attainment (National Early Literacy Panel [NELP], 2008). In the United States today, having a high school diploma and the literacy skills needed to succeed in college and the workplace are critical because nearly 90% of the fastest-growing and highest-paying jobs in the country require some postsecondary education (Alliance for Excellent Education, 2009). However, it is important to keep in mind that literacy goes beyond educational activities in formal school settings. The ability to read is an integral part of almost every aspect of our daily lives, from following a prescription to filling a job application, from writing an email to making an online purchase, from reading a traffic sign to reading a book. Americans who cannot read adequately are (a) more often out of work, (b) paid less, (c) less able to meet the health-care needs of their families, (d) less knowledgeable about civic affairs, (e) less likely to vote, and (f) more likely to face trouble with the law (NELP, 2008).

Unfortunately, while the current workforce in this country is expected to have greater literacy skills, the National Assessment of Educational Progress (NAEP) reports that more than one-third of the nation's fourth graders read at levels so low they are unable to successfully complete their schoolwork or to reach basic levels of reading achievement (Lee, Grigg & Donahue, 2007; NELP, 2008). The problem is particularly

pressing for children from racial and ethnic minority groups. According to the most recent NAEP (National Center for Education Statistics [NCES], 2011), 44% of White students performed at or above the proficient level; in contrast, only 16% of Black students, 19% of Hispanic students, and 18% of American Indian/Alaskan Native students reached the proficient level or above. Considering that beginning literacy is highly predictive of later literacy attainment, it is not surprising to find results of the NAEP assessments show levels of literacy achievement are not much better for eighth graders – 43% White students performed at or above the proficient level; in contrast only 15% Black, 19% Hispanic, and 22% American Indian/Alaska Native students reached the proficient level or above. Such weak performance on measures of proficiency with reading comprehension indicates a need to focus on the factors that influence comprehension growth.

Children’s comprehension of what they read, understanding of the world around them, and communication with others depends largely on the words they know and are able to use. Children enter school with significant differences in the depth and breadth of their vocabulary knowledge (Pollard-Durodola et al., 2011). Previous research has found that children most at risk for early oral language and vocabulary delay come from lower-income homes. Hart and Risley (1995) conducted a seminal study in the area of language development that demonstrated the impact of social interaction. Hart and Risley studied families from three socioeconomic backgrounds: professional families, working-class families, and families on welfare. They found stark differences among these groups. From their extensive observations, they projected that by age 3, an average child in a professional family would have accumulated experience with almost

45 million words, an average child in a working-class family would have accumulated experience with 26 million words, and an average child from a family on welfare would have accumulated experience with only 13 million words. This 30-million word gap is what Hart and Risley (2003) describe as the “early catastrophe.”

For many children, these disparities have a long-lasting effect on their academic achievement. Research conducted by Scarborough (1998) found a close association between patterns of preschool learning and reading achievement in the primary grades. Scarborough also linked the oral language proficiency of young children and their early abilities to process print as predictors in learning to read in first through third grades (2001). In a study by Cunningham and Stanovich (1997), over 30% of reading comprehension variance in eleventh grade could be predicted by the vocabulary assessed in first grade. Thus, there is a presumed, and important, relationship between vocabulary and comprehension. Stanovich refers to this relationship as the Matthew effect (i.e., the rich get richer, the poor get poorer). In other words, students with larger vocabularies understand text better and so they read more, learning even more words; students with smaller vocabularies do not understand text as well and, as a consequence are likely to read less, so their vocabulary growth is limited.

Numerous research studies have evaluated over time the connection between early vocabulary/oral language and reading comprehension. These studies have provided converging evidence that vocabulary discrepancies emerge early, relate to future problems in reading comprehension, and remain stable without intervention (e.g., Catts, Adlof, & Weismer, 2006). For younger children and for students who are less able readers, experiences with oral language are critical for vocabulary development

(Beck & McKeown, 1991; Beck, McKeown, & Kucan, 2002). Therefore, primary educators must make effective use of reading aloud, storytelling, and even routine classroom conversation to promote vocabulary growth (Lane & Arriaza-Allen, 2010; Nagy, 2005). Vocabulary instruction needs to be infused throughout the day through instruction and discussion and should not be constrained to a particular subject area or instructional time of day (Pollard-Durodola et al., 2011).

As there is research that provides evidence of the connection between vocabulary and reading comprehension, there is also a significant amount of research that has documented the relationship between social and emotional development and academic performance (Greenberg, Domitrovich, & Bumbarger, 2001) and how social-emotional learning can help students achieve greater academic success (Zins, Bloodworth, Weissberg, & Walberg, 2004). To help all students succeed, Zins and his colleagues suggest that the social and emotional development of students should be viewed as an essential aspect of learning, rather than an additional responsibility of schools. Because social-emotional competence and academic achievement are highly interwoven, concerted efforts should be made in schools to integrate development in both aspects (Walberg, Zins, & Weissberg, 2004). Such an effort could maximize student potential to succeed socially and academically throughout their lives. As Kress and his colleagues describe, social-emotional learning should not be viewed as “taking away from academics” but as “contributing to academic success” (Kress, Norris, Schoenholz, Elias, & Seigle, 2004, p. 85).

When children enter school, they are faced with increased demands for well-regulated and goal-directed activities, including sustained behavioral inhibition,

compliance with rules, and positive interpersonal relationships with teachers and peers (Campbell & von Stauffenberg, 2008). Language skills support social-emotional adjustment and promote children's abilities to comprehend and comply with the behavioral demands of school (Catts, Fey, Zhang, & Tomblin, 1999). Language and social-emotional skills provide essential foundational support for effective school engagement. These skills are intertwined developmentally, and facilitate a child's ability to follow classroom rules, cope actively with learning challenges, and relate to teachers and peers (McClelland, Acock, & Morrison, 2006). Language skills improve a child's ability to regulate emotions and promote effective social interaction (Greenberg, Kusche, & Speltz, 1991), while social-emotional competencies foster positive relationships with adults and peers, motivating and providing greater opportunities for language learning and cognitive development (Bierman, Greenberg, & the Conduct Problems Prevention Research Group, 1996).

For typically developing children in literacy-rich environments, cognition, language, metacognition, and self-regulation develop together (Westby, 2004). Self-regulation refers to several processes related to emotion, focus, and behavioral regulation (Blair & Diamond, 2008). Children must be able to use language effectively and in a variety of functions in order to self-regulate (Westby, 2004). Children with disabilities and children living in poverty who have had reduced language experiences are likely to have smaller vocabularies (Hart & Risley, 1995) and to use language less frequently to direct their behavior and talk about what others may be thinking and feeling (Westby, 2004). Children growing up in poverty are likely to enter school with significant delays in social-emotional readiness, with over 40% being delayed in social

competencies and communication abilities at entry to school and 20% demonstrating high rates of disruptive behavior that affect school adjustment (Kaiser, Hancock, Cai, Foster, & Hester, 2000). Having a vocabulary of words to express their feelings supports children's development of emotional literacy, which enables them to be socially competent (Joseph & Strain, 2003).

Knowledge of the meaning of words in conjunction with world knowledge leads to improved comprehension. Therefore, for instruction to affect comprehension, vocabulary instruction needs to be taught in conjunction with concepts and content (Nagy, 2005). Teaching words as related concepts seems to be beneficial in vocabulary instruction. Conceptually, core words in content areas are likely to be thematically related, providing an opportunity for rich contextualized word-learning experience (Bravo & Cervetti, 2009). Approaches that make explicit the relationships among sets of words (e.g., semantic mapping) have been shown to have positive effects beyond definitional and conceptual vocabulary alone (Bravo & Cervetti, 2009). Presenting academic vocabulary by using sets of words that are lexically related may be an essential instructional scaffold in helping children from low socioeconomic backgrounds with limited vocabulary and previous knowledge learn and use words across multiple contexts in both contextualized and decontextualized applications (Pollard-Durodola et al., 2011). Thus, when teaching social-emotional vocabulary to children, it should be taught as related concepts, as would vocabulary in any content area.

Effective vocabulary instruction is a long-term process that has to start early and must continue throughout the school years (Nagy, 2005). It has been well established

that students who are actively engaged during vocabulary development by hearing, using, semantically manipulating, and playing with words are more likely to acquire and retain new vocabulary (Beck et al., 2002). Reviews of best practices of vocabulary instruction suggests that effective teaching should (a) be systematic and explicit (Pressley, 2001); (b) involve extensive and guided practice (Beck et al., 2002); (c) incorporate periodic review (Brophy & Good, 1986); and (d) include observation and progress-monitoring assessments to inform further instruction (National Institute of Child and Human Development [NICHD], 2000).

With so many words to teach, determining which words to teach directly is a decision that requires much consideration. Beck and her colleagues (2002) suggest that there are three tiers of word utility. Tier 1 words are common words that most children probably already know (e.g., happy, sad). Tier 2 words are high-frequency words for mature language users and are words that can be found across a variety of domains (e.g., elated, depressed). Tier 3 words are typically associated with a specific content area and are not frequently used outside content-specific contexts (e.g., schizophrenic). Because Tier 2 words are both useful across multiple domains and are not typically known by most children, Beck and her colleagues suggest Tier 2 words be targeted for instruction. However, Biemiller (2006) has suggested that vocabulary instruction should focus on providing students with greater breadth of word knowledge. When working with children in the primary grades (K-2), he suggests instruction on words typically known by children with average to advanced vocabularies by the end of second grade. As Biemiller describes, these are words that are known by 40 to 75% of second grade students at the end of the year. He believes that teaching such words

would facilitate children learning more readily because the greatest learning gains can be made on these words.

While identification of Tier 2 words is useful in the selection of social-emotional vocabulary, another important consideration when selecting content area vocabulary is students' background knowledge of such vocabulary. Beck and McKeown (1991) describe the various levels of "knowing" a word, from no knowledge, to partial word knowledge, to complete knowledge where students know a word deeply and are able to take ownership of that word in their reading, writing, listening, and speaking.

Depth of word knowledge is necessary for students to be able to understand various shades of meanings, among semantically similar words (Stahl & Bravo, 2010). Being able to distinguish among words such as bothered, upset, mad, angry, furious, exacerbated, enraged, and livid can provide children with the knowledge to select the appropriate use of words and the ability to precisely apply a term. Relating back to Biemiller's (2006) suggestion, selection for vocabulary instruction should be chosen from the portion of word stock that was partially familiar. Relating unfamiliar terms to previously known vocabulary can facilitate students' understanding of shades of meaning. For example, most children know the meaning of the word "happy." To demonstrate the gradient in word meaning, "delighted" could be explained as "someone who is delighted is extremely happy."

In all content areas, students will face new words for concepts they may or may not be familiar with. It is important to remember, though, that teaching students new labels for familiar concepts is quite different than teaching new labels for new concepts (Graves, 1987). To illustrate, teaching students a new label for a concept or feeling

they are familiar with, such as being “scared” (e.g., frightened) does not require the same kind of explicit instruction that would be necessary when teaching a label for a concept/feeling which may be unfamiliar such as “embarrassed” or “jealous.” Generally in vocabulary instruction, some words may be easily explained; however, when vocabulary instruction is related to unfamiliar concepts, it then requires more time and effort to explain. As mentioned before, effective practices for promoting vocabulary learning focuses on the importance of influencing comprehension and not on word knowledge in isolation (Harmon, Hedrick, & Wood, 2005).

According to Kress and his colleagues (2004), there is a synergistic relationship between social and emotional development and academic standards. It is the integration of developing social competence with academic learning that leads to the education of the whole child. This integration fosters the skills students need to become better learners and for life-long success (Kress et al., 2004). The opportunities for mutual growth of social-emotional skills and early literacy skills, specifically vocabulary, can be found when teachers read aloud and discuss books with social-emotional content (Doyle & Bramwell, 2006). Books with social-emotional content present models of characters solving problems and interacting with others, and they have the potential to help students connect emotionally with the experiences of the characters. These connections promote social-emotional learning in that students’ capabilities to focus, learn, memorize, and make decisions are connected with their emotions. Interactive storybook reading provides a venue in which emotion vocabulary can be developed. The conversations that occur during repeated storybook readings support vocabulary development in children. Vocabulary development occurs both through direct

instruction of word meanings (Stahl, 1997) and through incidental learning from verbal contexts (Elley, 1989). Discussion of characters' emotions not only has the potential to build emotion vocabulary but it is also critical for comprehension of narrative texts and supports metacognitive thinking (Westby, 2004). In addition, discussion of text can assist in the development of emotional literacy or the ability to recognize, label, and understand one's feelings and those of others (Joseph & Strain, 2003).

As mentioned previously, to have emotional literacy, students must first have words to understand feelings (Joseph & Strain, 2003). A larger and more complex vocabulary of emotion vocabulary allows children to (a) better discriminate between feelings, (b) more effectively communicate with others about their feelings, and (c) engage in discussion about their personal experiences in and out of school (Joseph & Strain, 2003). Having labels for their feelings (i.e., emotion vocabulary) is an important step in learning how to self-regulate emotions. First, children need to identify their feeling (e.g., angry) before they can take proactive steps to regulate their feelings or calm down. Educators can teach emotion vocabulary by providing direct explanations of definitions and examples, incidentally through conversation, play or discussion of text, and through special activities.

Ridgeway, Waters, and Kuczaj (1985) conducted a study to determine children's ability to understand emotion-descriptive adjectives when used by adults and when they were able to produce such words on their own in their speech. Parents were asked to indicate which words their child (a) would understand when used by someone to describe a feeling or mood, and (b) used to refer to his/her own feeling or to other people's feelings/mood. Based on the data collected, norms for receptive and

productive vocabulary were reported. Ridgeway and her colleagues compiled a list of these emotion-descriptive adjectives that can be an extremely useful resource to researchers in the field of early emotional development as well as to educators who recognize the importance of teaching emotion vocabulary and need guidance in selecting vocabulary.

Research Problem and Professional Significance

The development of social competence and the establishment of successful interpersonal relationships are essential to a child's development (Fenning, Baker, & Juvonen, 2011). Literature related to emotion vocabulary provides corroborating evidence of the academic and social benefits that such vocabulary can provide. However, there have not been any published studies that have examined the systematic instruction of social-emotional vocabulary via storybook reading. To address this problem, researchers at the University of Florida designed SELF: Social-Emotional Learning Foundations (Daunic, Corbett, & Smith, 2010).

The current study was part of Project SELF, a larger externally-funded development study that employed a pretest-posttest control-group design. The SELF study was primarily focused on the development and evaluation of social-emotional curriculum to promote emotional and behavioral self-regulation for children in the primary grades. However, the purpose of the current study was to examine the social-emotional vocabulary growth of students who received the SELF intervention.

Specifically, the following three research questions were addressed:

1. What are the effects of the SELF intervention on student learning of social-emotional vocabulary?
2. What student factors are related to social-emotional vocabulary outcomes?

3. What teacher instructional factors are related to students' vocabulary outcomes?

To investigate the first research question, a researcher-created measure of the social-emotional vocabulary targeted for instruction in the intervention was created and administered to students in the treatment and control conditions. The second research question was addressed by using students' pretest scores on the subtest of expressive vocabulary and understanding spoken paragraphs from the Clinical Evaluation of Language Fundamentals-4 (CELF-4; Semel, Wiig, & Secord, 2003) and the passage comprehension subtest of the Woodcock Reading Mastery Test-Revised (WRMT-R; Woodcock, 1987). These scores were analyzed to determine whether they were predictors of students' performance on the SELF Vocabulary Measure. The third research question was addressed with the evaluation of videotaped SELF lessons in treatment classrooms. An observation tool, consisting of a viewing record and a scoring rubric, was developed to investigate what teacher instructional factors are related to children's' social-emotional vocabulary outcomes.

Theoretical Framework

The SELF curriculum is grounded in the work of cognitive-behavioral interventions. This approach, based on cognitive-behavioral therapy, intends to prevent behavioral difficulties by providing students with the language needed for self-talk. Cognitive-behavioral interventions rest on the assumption that the development of self-control is fundamentally developed through self-talk (Smith, Graber, & Daunic, 2009). For example, children with aggression often are unable to understand the intentions of others and tend to generate and select socially inappropriate responses in anger-provoking situations (see Dodge, Laird, Lochman, Zelli, & the Conduct Problems

Prevention Research Group, 2002), but through self-talk, they can learn to control these responses (Smith et al., 2009).

Emerging evidence suggests that social/cognitive deficits in the areas of limited problem-solving ability, impulsivity, and poor social reasoning may be linked to executive function (EF). Executive function comprises a set of interrelated cognitive processes, including inhibition of impulses, cognitive flexibility, and working memory. Other processes related to EF include emotion control, planning, initiating, and monitoring (Blair, Zelazo, & Greenberg, 2005). Thus, EF significantly contributes to social-cognitive and behavioral functioning (Riggs, Greenberg, Kusche, & Pentz, 2006).

Executive Function, Cognition, and Comprehension

The skills associated with EF and the self-regulation of emotions and behavior are required for the understanding of oral and written language (McClelland, Cameron, Connor, Farris, Jewkes, & Morrison, 2007). Four critical cognitive processes of EF that influence reading comprehension are emotional control, working memory, problem solving, and internalization of self-directed speech (Westby, 2004). Self-directed speech, or self-talk, can be facilitated through activities designed to develop receptive and expressive vocabulary. As children learn to use self-talk, they are both strengthening and using language to regulate their emotional and behavioral responses (Greenberg, 2006).

Instructional Strategies that Promote Executive Function

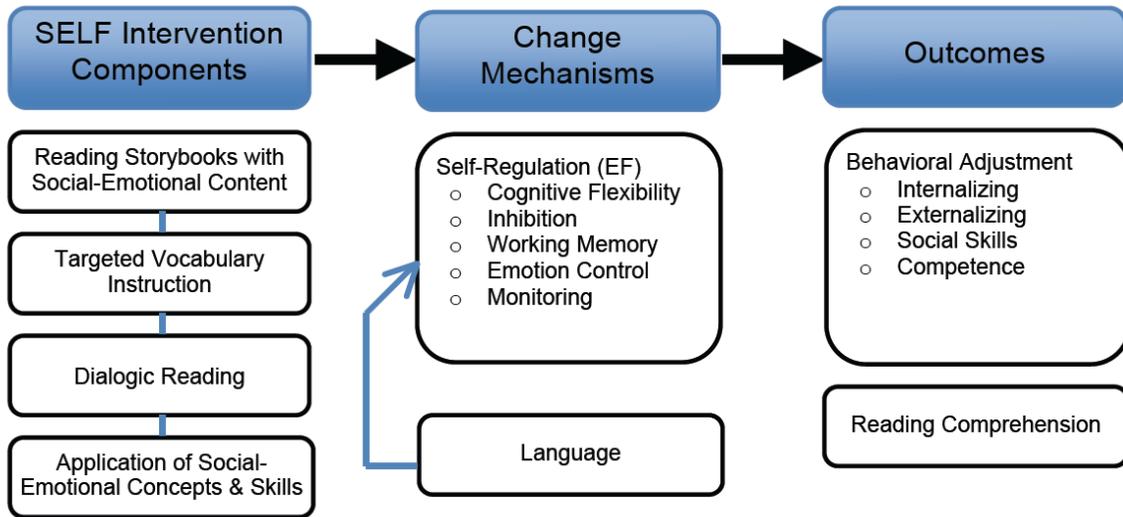
Each lesson in the SELF curriculum incorporates instructional strategies (Lochman, Nelson, & Sims 1981; Meichenbaum & Goodman 1971) that are closely aligned with best practices in teaching reading comprehension: (a) teacher modeling (b) guided practice (c) independent practice, (d) feedback, and (e) application (Duffy et al.,

1986; Duffy, 2002). Because successful social-emotional and behavioral development is promoted specifically through the modification and internalization of self-talk (see Singer & Bashir, 1999; Smith & Daunic, 2004), SELF lessons also focus on maximizing teacher-student dialog and developing concepts and vocabulary associated with emotions and behavior. Teachers promote emotional and behavioral self-regulation while simultaneously promoting language development. It is the combination of language and executive function development that links SELF lessons to positive social-emotional outcomes in support of learning. In the larger study of the SELF intervention (Daunic et al., 2010) it was hypothesized that the designed curriculum would effect positive changes in EF skills associated with emotional and behavioral self-regulation, literacy, and outcomes related to social-emotional learning, as illustrated in Figure 1-1.

Deep Processing for Vocabulary Development

Having vocabulary knowledge provides the means by which to understand and convey messages, including social-emotional concepts. The SELF curriculum targets language development as a means by which to improve students' self-regulation and executive function. The current study examined (a) whether the SELF curriculum was effective in helping students learn social-emotional vocabulary; (b) whether student characteristics influenced the development of social-emotional vocabulary; and (c) the extent to which the instructional methods implemented by teachers during the SELF lessons (Figure 1-2) were related to how successful they were in developing students' social-emotional vocabulary. In other words, the focus of the current study was to examine more closely the development of social-emotional vocabulary that is fundamental to self-talk and social-emotional concepts. In order for students to develop

a firm understanding of vocabulary, they need to be provided with opportunities for deeper processing (McKeown, Beck, & Sandora, 2012).



(Daunic et al., 2010)

Figure 1-1. SELF Conceptual Framework

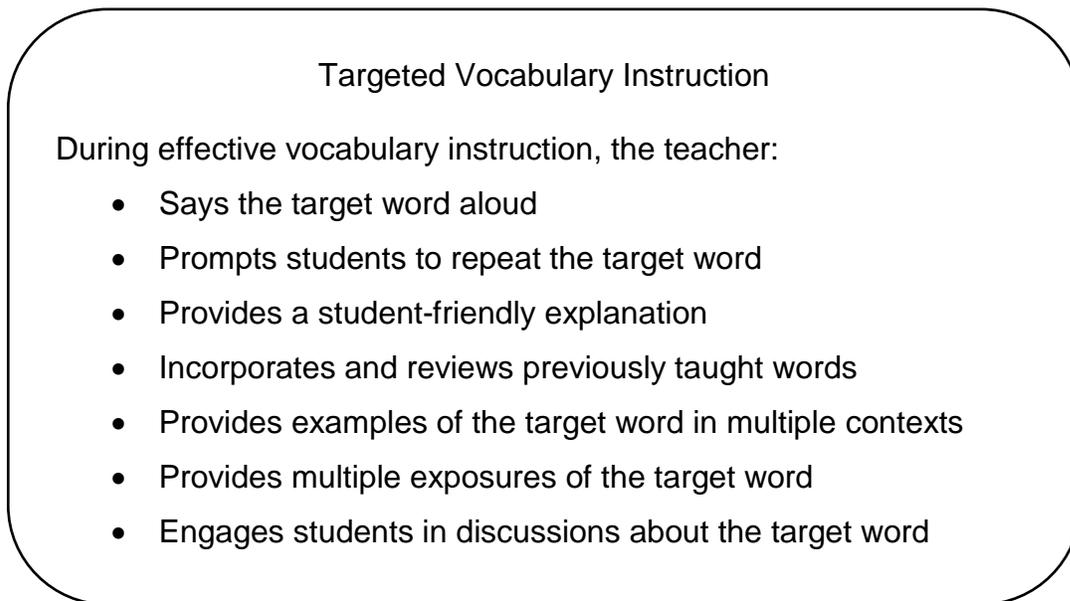


Figure 1-2. Instructional Methods Implemented by SELF Teachers

This would include providing students with many opportunities to think about and discuss words in a challenging manner where they are given opportunities to examine and articulate their thinking. Teachers can scaffold students' deeper processing by helping them form connections to new words and providing generalizations across contexts (Beck & McKeown, 2007). This kind of instruction can be done when teachers use comments and questions to help students build a wider representation of a word. In other words, through skillful discussion, teachers can help students form generalizable and flexible representations of a word that supports their understanding of novel contexts in which they encounter the word.

Conclusion

This chapter provided an overview of the importance of social-emotional vocabulary in helping students gain greater academic and interpersonal success. Further, it highlighted the lack of investigational studies to examine the effects of a storybook reading intervention on social-emotional vocabulary growth. The subsequent chapters will provide details that support the current study. Chapter 2 presents a review of the literature on the use of children's literature as a vehicle to develop vocabulary. Chapter 3 presents the methods that were used to conduct this study. Results of the statistical analyses of data from the current study are presented in Chapter 4. The final chapter will present an interpretation of the findings from the current study, limitations of this study, and implications for practice and for future research.

CHAPTER 2 REVIEW OF RELATED LITERATURE

Many children enter school with significant weaknesses in the depth and breadth of their vocabulary knowledge (Pollard-Durodola et al., 2011); these weaknesses contribute to poor academic achievement. The National Reading Panel (2000) cites support for the importance of vocabulary instruction that dates as far back as 1942, when Davis presented evidence that reading comprehension is affected by vocabulary and reasoning. Years of accumulated data provide evidence for the need to exert greater efforts to foster vocabulary acquisition in the primary years.

It is well established that older students who are more proficient readers acquire much of their new vocabulary through wide, independent reading (Anderson & Nagy, 1992). The primary way in which younger students who are nonreaders are exposed to new vocabulary is through oral language experiences such as shared storybook readings (Coyne, Capozzoli-Oldham, & Simmons, 2012; Powell & Diamond, 2012). Although reading aloud is a common practice in early childhood classrooms, much of the research that has found support for the use of storybook reading as an effective method for improving a child's oral language skills has been informed by an influential series of studies by Whitehurst and his colleagues (Arnold, Lonigan, Whitehurst, & Epstein, 1994; Whitehurst et al., 1988; Whitehurst et al., 1994).

Whitehurst et al. (1988) investigated a one-month, home-based intervention, designed to optimize parental reading of picture books to young children. Twenty-nine children, between 21 and 35 months of age, participated with their families in this investigation. The children were randomly assigned to an experimental or control group. The control group families were instructed to continue to read to their children in

their customary fashion. The experimental group was involved in a 4-week intervention called dialogic reading. Dialogic reading involves an adult reading aloud to one or more children while encouraging dialogic interactions. This is accomplished by asking open-ended questions, explaining and discussing targeted vocabulary, providing feedback, and eliciting thoughtful responses to the story that gradually lead the child to become adept at retelling the story. Results of posttest measures of expressive vocabulary found the children in the experimental group outperformed children in the control group. Furthermore, the follow-up conducted nine months after the completion of the treatment found there was still a six-month advantage on the two expressive tests for the experimental group.

Because the costs of one-on-one training limited the widespread use of dialogic reading techniques, Arnold et al. (1994) replicated and extended the results of their original study (Whitehurst et al., 1988) by developing and evaluating an inexpensive videotape training package for teaching dialogic reading techniques. Sixty-four children, ranging in age from 24 to 34 months, and their mothers participated in this study. A modified random assignment was used to divide the mother-child pairs into one of the following conditions: (a) no training, (b) traditional direct training, or (c) videotape training. All mother-child pairs were seen four times over the course of five weeks in a university laboratory setting. An analysis of covariance was conducted to compare the three groups. Children in the videotape training group outperformed those in the direct training and control groups. Further analysis demonstrated that advantages over the direct training could be largely attributed to trainer differences. The results from this study supported the conclusions from the previous study (Whitehurst et al., 1988) that

found dialogic reading to have a powerful effect on children's language skills. Thus, videotape training was found to provide a cost-effective, standardized means of implementing the dialogic reading program.

Other research focused on parents' shared book reading with preschoolers found mixed results. An early meta-analysis conducted by Scarborough and Dobrich (1994) reviewed more than 30 years of empirical research on the effects of parental reading on the development of language and literacy skills of preschoolers. Although the findings in the 31 studies reviewed were not consistent or as strong as had been presumed, overall they did provide evidence that there is a relation between parent-child book reading and growth in language and literacy abilities.

As a result of the early studies demonstrating the benefits of storybook reading in the home on the vocabulary development of children, additional research and meta-analysis have been conducted in classroom settings in which classroom teachers or researchers have implemented various instructional strategies to increase children's vocabulary knowledge. A meta-analysis conducted by Karweit and Wasik (1996) focused on the effects of storybook reading on 4- and 5-year olds in school settings. Results from this meta-analysis found there were few empirical studies that documented the relationship between different story reading practices and the development of language and early literacy. Based on the eight studies included in their meta-analysis, Karweit and Wasik highlighted certain practices for reading stories to students in classrooms. First, reading in small groups (3:1) provides students with greater accessibility to comprehension and understanding of a story. Second, repeated readings were beneficial in classroom serving students with limited experience with

stories prior to entering school. Third, storybook reading provides a venue to build vocabulary of young children; even when explanations are not provided, incidental word learning occurs. Lastly, teacher's questioning strategies before, during, and after storybook reading impact both students' vocabulary and comprehension.

Mol, Bus, and de Jong (2009) conducted a meta-analysis to determine the effects of storybook reading on vocabulary and print knowledge. It included 31 studies in which teachers and/or research assistants implemented an interactive reading intervention in preschool or kindergarten classrooms. Results from this meta-analysis provided evidence that children's language improved as a result of interactive reading interventions. Mol and her colleagues determined that children's oral language and print knowledge benefited from interactions before, during, and after storybook readings. Approximately 6% of the gains in oral language skills could be explained by an interactive reading intervention. A moderate effect size of 8% was found for expressive vocabulary. These results showed that the quality and frequency of book reading are important. Overall, the oral language of students who participated in interactive reading programs was 28% greater than their peers in control groups. Based on these findings, Mol et al. state, "it can be argued that interactive reading in early education warrants implementation" (p. 998).

In a more recent meta-analysis, Marulis and Neuman (2010) examined 67 studies to determine the effects of vocabulary interventions on the receptive and expressive language of pre-kindergarten and kindergarten students. Marulis and Neuman found that children's oral language development strongly benefited from vocabulary interventions, with an overall effect size of .88. This demonstrates a gain of

approximately one standard deviation on vocabulary measures. Based on the moderator analyses of interventions that appeared to work best, the authors suggest the following practices to support children's vocabulary growth: (a) intervention provided by a well-trained person (larger effect sizes were produced when the experimenter conducted the treatment), (b) whole group vocabulary instruction, (c) explicit instruction that includes explanation of words or key examples, and (d) a combination of explicit and implicit instruction with meaningful practice and review. Marulis and Neuman confirm there is a need for the integration of both explicit and implicit vocabulary instruction, and caution that implicit instruction alone has been found to be less effective. They also concluded that longer, more intensive, and more frequent interventions did not appear to promote larger effect sizes. Also, in contrast to Karweit and Wasik (1996), this meta-analysis did not find support for small-group instruction, but rather found children's oral language skills improved in whole-group instruction. The findings of Marulis and Neuman indicate that vocabulary interventions are potentially effective for all children; however, significant differences were found in the effect sizes between groups, with children at risk for language delays from middle and upper-income homes benefitting more from the vocabulary interventions than the students who are also at risk but from lower-income homes. Therefore, it appears that while vocabulary interventions have the potential to improve oral language skills, they unfortunately do not have the power to close the vocabulary gap between students from different socio-economic backgrounds.

Undoubtedly, vocabulary knowledge is essential for academic success (Wasik & Iannone-Campbell, 2012). However, vocabulary development has not received the

attention or amount of research that has been conducted on identifying printed words or spelling (Biemiller & Slonim, 2001). If reading is defined as more than word recognition, but as skillful comprehension, then code-related skills alone will be sufficient for an effective reader (Neuman, 2010; Nielsen & Friesen, 2012). Skillful readers must have oral language competencies, especially with decontextualized language.

Decontextualized language expands conversations beyond the text. Researchers suggest that the most valuable aspect of read-aloud experiences is that it gives children opportunities to engage with decontextualized language, requiring them to make sense of ideas that are about something beyond the here and now (Beck & McKeown, 2001). Given this, storybook reading activities are a promising venue for language and vocabulary development.

Findings from a number of meta-analyses have established evidence of the various benefits of reading aloud to children and warrant further review in a more detailed manner. The purpose of this literature review is to describe what research and extant literature, published within the past 25 years, recommends as effective instructional strategies to develop vocabulary in young children (i.e., preschool and primary-aged elementary school children) through the use of children's literature, specifically, effective read-aloud strategies. According to Biemiller (2012), "Our chances of successfully addressing the vocabulary differences in school are greatest in the preschool and early primary years" (p. 36). This review is organized first by the type of read aloud used (i.e., repeated readings, interactive questioning techniques, and vocabulary interventions) and by the age of participants (i.e., preschool, kindergarten, grade 1). Studies included in the repeated readings section investigated how the

number of times a book was read impacted the vocabulary growth in children. The interactive questioning techniques section includes studies that were interested in determining how student's vocabulary learning is affected by their active participation (i.e., responding to questions and/or prompts). Studies that implemented whole- and/or small-group interventions designed specifically to support student's vocabulary growth are included in the last section. This literature review is limited to studies with children in preschool through first grade because this is the age range in which it is common practice for classroom teachers to read-aloud to children as part of daily instruction, rather than having the expectation for children to read independently in the learning process. Finally, major conclusions are drawn from the studies presented and implications for future research are discussed.

Literature Review Methods

A literature search of Google Scholar and of three databases in EBSCOhost (Academic Search Premier, Professional Development Collection, and PsycINFO) (1988-2013) was conducted for studies with all combinations of the following descriptors: oral language development, oral vocabulary, vocabulary acquisition, vocabulary development, vocabulary intervention, vocabulary development through read alouds, storybook readings, preschool children, and elementary-aged children. Studies in refereed journals were identified and citations from ancestral searches were also obtained. Every effort was made to find all relevant studies cited in extant literature. The selected studies met the following criteria: (a) studies were conducted in North America; (b) subjects were preschool and/or elementary-aged students in the primary grades (i.e., kindergarten and first grade); (c) studies targeted subjects who were proficient English speakers; (d) studies included reading aloud as an intervention

for vocabulary development; (e) studies included vocabulary measures; (f) instruction and interventions occurred in a preschool or school setting; and (g) read alouds were conducted by either a classroom teacher or researcher. Although many of the studies focused on children considered at risk for language and literacy difficulties, studies that targeted English-language learners or students with a diagnosed language impairment were excluded from this literature review. Using these inclusion and exclusion criteria, 25 relevant studies were selected.

Read-Aloud Approaches for Developing Vocabulary in Young Children

Fostering vocabulary knowledge in young children is a critical part of their literacy development. This is most likely to be fostered in environments that support word learning. Supportive word learning environments encourage conversations with children and adults, and provide children opportunities to use the words they are in the process of learning (DeTemple & Snow, 2003). One of the reasons why reading aloud to young children promotes vocabulary learning is because it exposes children to relatively rare and sophisticated language they may not otherwise have the opportunity to interact with (DeTemple & Snow, 2003). Hayes and Ahrens (1988) determined that the complexity of vocabulary found in children's literature is greater than in all adult conversation, with the exception of courtroom testimony. When a teacher reads a storybook aloud, she provides an opportunity for students to participate in increasingly sophisticated conceptual conversations (Dickinson & Tabors, 2001). Engaging children in conversations about stories and vocabulary that has been targeted for instruction, the teacher facilitates early literacy skill acquisition, such as vocabulary knowledge and comprehension of spoken and written language (Snow, Burns, & Griffin, 1998; Teale, 2003).

Storybook reading activities can be an excellent means for language and vocabulary development because they provide opportunities for using decontextualized language during interactive discussions (Coyne, Simmons, Kame'enui, & Stoolmiller, 2004). The following sections provide details about three read-aloud approaches that have been researched to determine how their implementation affects children's vocabulary acquisition. Most of the studies reviewed incorporate various conditions into their design and integrate components of repeated readings, interactive questioning strategies, and vocabulary interventions. However, the studies are categorized according to the conditions primarily being investigated by the researchers.

Repeated Readings

This section includes the few studies that have examined the effects of repeated readings on the vocabulary development of preschool and kindergarten children. The body of work in this section includes studies that have specifically investigated the number of storybook readings as a condition of the research. As mentioned previously, the number of storybook readings may not have been the only condition being investigated in the studies included here; however, repeated readings was one of the primary conditions being examined. Only four studies have directly investigated how the number of storybook readings impact students' vocabulary learning. One study was conducted with 3- and 4-year old preschool children and compared the following experimental conditions: (a) single reading, (b) repeated reading, and (c) questioning. Two studies were conducted with kindergartners. One of which compared the effects between two or four readings, and the other study investigated the difference in having students participate in four or six readings. The last study in this section analyzed how

pretesting, number of readings, and word explanations affected the word acquisition of students in kindergarten, first-, and second-grade.

Preschool studies. Sénéchal (1997) conducted a study with 60 preschool children (30 in each group of 3- and 4-year-olds) who attended daycare centers in middle-class neighborhoods. In this study, Sénéchal targeted ten words from a single storybook that was read aloud to the children, and each targeted vocabulary word appeared only once in the story. Three experimental conditions were investigated in this study: (a) single-reading, (b) repeated-reading, and (c) questioning. The children in all three of the conditions were pretested for receptive knowledge of the target words, were read the book, and lastly were posttested immediately for expressive and receptive language. In each condition the experimenter pointed to the illustrations that exemplified each target word during all readings. In the single-reading condition, during one session the experimenter individually pretested the children, read the book, and posttested for expressive and receptive knowledge of the target vocabulary. The repeated-reading and questioning conditions were conducted over two sessions. In the first session, the experimenter individually pretested the children and read the book twice. In the second session, the experimenter read the book one more time and administered the receptive and expressive vocabulary posttest. However, in the repeated-reading condition the book was read as appeared; while in the questioning condition the children were asked a what- or where- question after the reading of each target word as it appeared in the text. The results of a two-planned orthogonal comparison on the means of posttest showed that children in the repeated-reading condition performed better than the children in the single-reading condition. In addition,

both repeated readings and questioning conditions lead to greater performance of the children for both receptive and expressive vocabulary. Lastly, Sénéchal found the questioning condition was the most effective for expressive vocabulary acquisition.

Kindergarten studies. Robbins and Ehri (1994) conducted a study with 33 kindergartners, all of whom were nonreaders. They were interested in determining if the frequency with which the students heard a story had an effect on their vocabulary acquisition. Based on PPVT-R scores, students were placed into three separate ability groups (i.e., low, medium, high). Participants in each group were randomly assigned to hear different storybooks. Storybooks were read twice to students individually. Each reading was presented two to four days apart. Students were then tested on 22 unfamiliar words, 11 of which were target vocabulary words (similar words not appearing in the text were included as control words in the multiple-choice assessment). Some of the target vocabulary occurred twice within a storybook, while others only appeared once; therefore, the participants heard some words four times while others were heard twice. Results from this study showed that participants with higher PPVT-R standard scores recognized more correct definitions of words than did participants with lower PPVT-R standard scores. Overall, the results of within-subject analyses provided evidence that listening to stories was an effective means of increasing students' word knowledge. In addition, after calculating the probability of learning a word from context, the authors determined that hearing a word four times in a story may be necessary for students to have an increase in vocabulary knowledge; however, hearing a word four times may not be sufficient for establishing higher rates of acquisition. This study provides additional support to the hypothesis that children's vocabulary recognition can

be expanded by having them listen to stories at least twice and hearing unfamiliar words repeated in stories.

Justice, Meier, and Walpole (2005) conducted a pretest-posttest comparison group design study to examine the following research goals: (a) study students' learning of novel words from storybook texts read repeatedly, (b) characterize the varying effect of elaborated versus non-elaborated vocabulary instruction, and (c) examine the influence of prior vocabulary knowledge to the learning of new vocabulary. To study these research questions, 57 kindergarten children who attended predominantly low SES schools and were having difficulty in early literacy and vocabulary development were randomly assigned to either a treatment (n=29) or a comparison (n=28) group. During the 10-week study, those students who were randomly assigned to the treatment condition participated in 20 small-group storybook reading sessions. Children in both the treatment and control condition were read ten storybooks. Each of the ten books was read four times over the course of the study. Sixty words were selected from these books (i.e., six words from each book). For the students in the treatment condition, instruction of the novel vocabulary was randomly assigned to either an elaborated or non-elaborated condition (i.e., three words per category). In the elaborated condition, the adult reader provided the meaning of the word and included an example of its use in a sentence. In the non-elaborated condition, the children were incidentally exposed to the words as they occurred in the text. Results from this study found non-elaborated or incidental exposure to novel words over four repeated readings in a 10-week period lead to nonsignificant word-learning gains for at-risk kindergartners. However, children in the treatment condition made significantly better gains from pretest to posttest for

elaborated words versus the participants in the comparison group. The finding for the use of word elaboration for vocabulary instruction was further supported by posttest results of the students with initial low-vocabulary knowledge. Children in the treatment group with low vocabulary scores made significantly greater gains from pre- to posttests on words in the elaborated condition than their comparison group peers, who did not receive treatment. Thus, Justice and her colleagues interpret the findings to suggest that elaboration leads to greater vocabulary learning than does mere exposure to words through storybook readings.

Grade 1 studies. Biemiller and Boote (2006) conducted two studies in which they worked with regular classroom teachers who implemented their vocabulary instruction in whole-group sessions to students in kindergarten, first-, and second grade. In the first study, 43 kindergarteners, 37 first graders, and 32 second-grade students participated in a pretest-posttest design study intended to investigate three factors that might affect word acquisition: (a) pretesting, (b) number of readings (i.e., two or four times), and (c) word explanations. Word explanations were included to determine whether pretesting and number of readings interacted significantly with or without the use of direct word explanation. At each grade level three narrative books were used. Forty-eight word meanings were targeted in each grade (12 from each book read twice and 24 from the book read four times). An ANOVA was conducted with three between-group factors (grade, gender, and cohort) and one within-group factor (pre- vs. posttest). In this study, overall there was no significant difference in gains when reading text two versus four times; however, this was not consistent between all grade levels. Students in kindergarten and first grade profited from four readings versus two readings,

but students in grade 2 had no apparent benefit from the additional readings. Repeated readings accounted for average gains of 12% of word meanings. Across grade levels, there were greater gains for instructed words than for non-instructed words. An additional 10% was gained from adding word explanations, for a total gain of 22%. While instruction did impact gains, pretesting itself had no measurable effect on the acquisition of word meanings in any grade.

In the second study, Biemiller and Boote (2006) researched the effectiveness of modifications to instructional procedures to increase the amount of learning of word meanings as well as the retention of learned word meanings over time. Modifications to increase word learning acquisition included: (a) increasing the number of word meanings taught each day from four-six to seven-nine, (b) incorporating vocabulary reviews during each reading of a story, (c) adding a final review using new context sentences, and (d) solely using teacher explanations of word meanings. Biemiller and Boote implemented a pretest-posttest-delayed posttest design with 28 kindergarten, 37 first grade, and 42 second-grade students. Results from Study 2 demonstrated the benefits of both increasing the number of word meanings taught per week as well as of the added reviews during instruction. This study also showed students could understand word meanings when assessed using context sentences different from the story used for instruction and that gains in word meanings were maintained over the four-week period.

Generally these studies find that repeated readings or greater exposure to target vocabulary leads to an increase in vocabulary learning (Biemiller & Boote, 2006; Justice et al., 2005; Robbins & Ehri, 1994; Sénéchal, 1997). However, the research directly

investigating the use of repeated readings, as a read-aloud strategy, is very limited. Aside from the small number of studies included, there are limitations in the studies that should be considered. One, students were read to individually in half of the studies, a practice not often found in preschool and early primary classrooms (Robins & Ehri, 1994; Sénéchal, 1997). On the other hand, Justice et al. did find positive outcomes for vocabulary instructed in small groups through repeated readings and elaboration. Similarly, Biemiller and Boote reported vocabulary gains made by students who participated in whole-class read alouds where there were repeated readings and words were directly instructed. Another limitation of many of these studies is that delayed posttests were not administered, therefore it is unknown whether students maintained the vocabulary gained (Justice et al., 2005; Robins & Ehri, 1994; Sénéchal, 1997). Only one study provides promising evidence that students can maintain the gains in word meanings over a four-week period (Biemiller & Boote, 2006).

Based on the results of their study, Robbins and Ehri (1994) suggested the following procedures in order to support children in having greater vocabulary learning gains: increasing the number of times target words are included in stories, discussing targeted vocabulary, and integrating new vocabulary in interesting, meaningful stories. The instructional value of engaging students in conversations about targeted vocabulary as an effective strategy to improve their word learning was also found in the work of Sénéchal (1997), Justice et al. (2005), and Biemiller and Boote (2006). To conclude, thoughtfully planned repeated readings of storybooks that include elaborations or discussions of targeted vocabulary "... can provide a readily accessible, low-cost, and

authentic activity within which to target vocabulary development, including verbs, for at-risk children” (Justice et al., 2005, p. 28).

Interactive Questioning Techniques

Research conducted in the area of repeated readings was insightful, though limited. As mentioned above, much of the research investigating the effects of repeated readings also integrated elaboration or discussion of targeted vocabulary. Most of the studies involving varied questioning techniques considered the differential effects of passive and active student participation during read-aloud sessions. Active student engagement included discussion or questioning during the read-aloud sessions. These studies include varied interactive questioning techniques as one of the conditions directly investigated. Of the nine studies in this section, the vast majority of the research using different questioning strategies was conducted with preschool children. Only one study was conducted with kindergarten children. Further, no studies in this section were extended to include children in first grade.

Preschool studies. Dickinson and Smith (1994) gathered data from a longitudinal study. This study investigated the social and linguistic skills that are essential to the language and literacy development of children from English-speaking, low-income homes. Primary data were collected from transcriptions of videotaped book-reading sessions in 25 classrooms serving 4-year-olds; all classrooms were either part of a Head Start program or a similar subsidized program. Additional data were collected from general classroom observations, teacher interviews, individual target children’s spontaneous language use, and their scores on outcome measures at age five. After conducting a cluster analysis, the authors found three unique patterns of book reading: (a) co-constructive, (b) didactic-instructional, and (c) performance-

oriented. Co-constructive book reading is characterized by high amounts of talk by both teacher and children during the book reading, rather than before and/or after the reading. Also, the talk is of an analytic nature, prompted by the teacher, and responded to by the teacher and children. During didactic-instructional book readings, the teacher encourages children to contribute to the reading of books by chiming portions of the text. Also, the teacher asks simple recall and comprehension questions after reading a section of the text. In the performance-oriented book reading, most of the talk occurs before and after reading, with little talk during the book reading. Discussions were likely to include talk of the characters. Teachers also encouraged predictions and personal connections, or analyzed vocabulary. One year after the book readings a follow-up occurred, during which the children who were then 5-years-old were given tests of vocabulary (i.e., PPVT-R) and story understanding. Based on the results of a regression analysis using wholistic descriptions of book-readings, it was determined that children in the performance-oriented classrooms made larger gains than those in the didactic-interactive. Because of the greater gains made in performance-oriented classrooms, the authors state teachers should not feel it is necessary to constantly stop and discuss books at length. Regression analyses conducted at the utterance level revealed strong effects of child-involved analytic talk on vocabulary (adjusted $R^2 = .51$) and modest effects on story understanding (adjusted $R^2 = .25$). Thus, Dickinson and Smith suggest teachers working in standard classrooms can enhance the effectiveness of their book reading by: (a) including at least some child-involved analytic talk, and (b) engaging students in talk before and after reading; follow-up discussion being the most likely to be beneficial.

A study that found a positive effect on students' vocabulary knowledge in a single reading of a book was that of Sénéchal and Cornell (1993). They used a 2 (age) x 4 (reading condition) factorial design to investigate four joint book-reading conditions with 160 children (80 4-year-olds and 80 5-year-olds). The four conditions were: (a) verbatim reading (i.e., reading the book as presented), (b) word repetition (i.e., reading the book as presented and emphasizing the target words by repeating them), (c) recasting (i.e., reading the sentence introducing the target word, then repeating the sentence replacing the target word with a synonym), and (d) questioning (i.e., use of what- and where- questions). There were 10 target words that were embedded in the narrative storybook read to the participants. Students were pretested to determine their existing knowledge of the synonyms of target words and of the target words themselves. After pretesting, students were individually read the book and immediately posttested on the target words using an experimenter-designed test of receptive and expressive vocabulary. Students were given the delayed posttest one week later. Results of the posttest revealed that 5-year-olds made greater vocabulary gains than 4-year-olds, but no significant differences were reported between conditions. Also, 4- and 5-year old children made gains in receptive vocabulary in all four of the reading conditions being studied. As mentioned earlier, a single reading of a book did lead to an increase in young children's receptive vocabulary. What was quite interesting from this study is that all four reading conditions were found to be effective; surprisingly students' active participation did not lead to greater vocabulary learning.

Justice (2002) also investigated the effects of labeling on the vocabulary development of preschool children between the ages of 37 to 59 months. The two

experimental conditions in her study were: (a) labeling versus questioning of novel words, and (b) conceptual versus perceptual questions about novel words. In the labeling condition, target words were pointed to and labeled by the adult reader. When presented with conceptual questions, children were required to make judgments or predictions about the target items. In contrast, perceptual questions asked the children about concrete, salient features of the target items (i.e., size, shape, color). The ten target words were selected based on anticipated unfamiliarity by the participants. Also, all target words were shown only one time in the illustrations, the word itself did not appear in the text, and the word's meaning could not be inferred from contextual cues. Children participated in two individual shared book-reading sessions over a 1-week period. This resulted in two exposures to each novel word during the time of the study. During each reading, the participants were exposed to five of the target words through labeling and to the remaining five words through questioning. Results from a MANOVA indicated that exposure through labeling resulted in significantly greater gains in receptive word learning rather than through the questioning technique; however, neither labeling nor questioning had an advantage with expressive word learning. With regards to conceptual versus perceptual questions, results from a MANOVA revealed there was no difference in expressive or receptive word learning across the two groups. In other words, adults' labeling of target words resulted in greater gains in children's receptive word learning more so than questioning, and both conceptual and perceptual questioning lead to similar results on receptive and expressive word learning.

Sénéchal, Thomas, and Monker (1995) conducted two studies. In Study 1, Sénéchal and her colleagues examined whether 32 preschool children with different

levels of vocabulary knowledge also differed in their ability to learn new vocabulary from listening to stories. Participants were classified as having either high or low word knowledge based on a median split on their PPVT-R standard scores. A total of 13 target words were selected from two commercially available storybooks and only appeared once in the story. Children with differing word knowledge were randomly assigned to one of two reading conditions: (a) listening, or (b) labeling. While conducting the read-aloud, the experimenter pointed to the illustration representing each target word. However, in the listening condition, children listened passively to a story, while in the labeling condition, children were asked questions in which they were required to label the illustrations representing the target words. Children individually participated in three sessions. During the first session, children were administered a pretest and were read the book once. The following day, during the second session, children were read a book for the second time and were posttested. One week later, students were administered a delayed posttest during the third session. Results from a 2 (reading condition) X 2 (prior vocabulary) X 2 (book) X 2 (posttest testing time) mixed-factorial ANOVA provided evidence that students who participated in the labeling condition performed better on the comprehension vocabulary posttests, and produced more words during both the immediate and the delayed posttests. Additionally, results from the same mixed-factorial ANOVA showed that children with larger vocabularies produced more words in the immediate and delayed posttests.

In the second study, Sénéchal et al. (1995) investigated the following book reading procedures with 48 preschool children: (a) listening, (b) pointing, and (c) labeling. Study 2 used the same storybooks that were used in Study 1; however, only

10 words were targeted, not 13 as in first study. In the listening condition, the experimenter read the storybook and repeated the sentence that introduced each target word. In the pointing condition, the experimenter asked questions requiring the children to point to the target words. Lastly, children in the labeling condition were asked questions in which they were required to label the illustrations representing the target words, as was done in Study 1. Children in all three of the reading conditions were exposed to each target word twice during each reading. Results from a 3 (reading condition) X 2 (prior vocabulary) X 2 (book) X 2 (testing time) mixed-factorial ANOVA provided evidence for the following: (1) For comprehension vocabulary tests, children who actively responded during the reading performed better than did children in the listening condition; and, children with larger vocabularies scored higher than did children with smaller vocabularies, (2) For production of new words, children in the active responding conditions produced more words on the immediate and delayed posttests than the children in the listening condition; yet, during the immediate posttest, children in the labeling condition did produce more words than did children in the pointing condition. Findings from Study 1 and 2 reveal that all children, regardless of their prior vocabulary knowledge, benefit from opportunities to practice retrieval (i.e., pointing and labeling) of novel words. Furthermore, findings obtained from these studies provide support for parents and educators to actively engage children during read alouds by asking simple questions, such as labeling or pointing.

Ard and Beverly (2004) worked with 40 typically developing preschoolers between the ages of 36 to 59 months old and from monolingual English-speaking homes. The purpose of their study was to determine the effects of adult's questions

and comments during joint book reading on children's acquisition of nonsense words mapped to unnamed referents. The authors considered the use of nonsense words would ensure that the participants would not have had prior exposure to the target words and that word learning would not be confounded by the participant's vocabulary or strategy for synonym acquisition. To compare effects of adult questions and comments participants were placed in one of four conditions: joint book reading only (JBRO), repeated joint book reading with questions (JBRQ), repeated joint book reading with comments (JBRC), or repeated joint book reading with both questions and comments (JBRQC). Comments were considered those typical of adult interactions during joint book reading (i.e., simple restatements of the target word in context). Questions were asked using the interrogative -what to elicit participant's production of the target word. The first author saw each participant at his/her preschool for four sessions. Receptive posttest results from a univariate ANOVA found there were group differences; therefore, post hoc tests using Fisher's Least Significant Difference were conducted. Results of the post hoc tests found JBRQ, JBRC, and JBRQC groups each identified a significantly greater number of target words than the control group, but no significant differences were found among the groups with interactive strategies (i.e., JBRQ, JBRC, and JBRQC). Expressive posttest results from a univariate ANOVA and post hoc comparisons found participants produced significantly more words in the JBRC and JBRQC conditions (means of 3.7 and 4.4 words, respectively) than the participants in the JBRO or JBRQ conditions (means of 1.3 and 1.9 words, respectively). Also, comments appeared more effective than questions. Participants in the two conditions that included comments, JBRC and JBRQC, performed significantly better than the

participants in the other groups. According to the authors, comments may have advanced word learning by having contained terms that directed the child's attention to a referent from the speaker's perspective, and by presenting the target words in a more simplistic syntactic construction. Other studies have found adult questioning as a strategy that provided more of a benefit for expressive word learning. This study may have produced different results because the participants were asked to use nonsense words to label unnamed referents, which is more similar to initial word learning, versus other studies which present novel words with familiar referents, therefore, the task being more like synonym learning.

Walsh and Blewitt (2006) studied the effects of adult questioning on children's novel word acquisition during storybook reading with 35 3-year-olds enrolled in childcare centers or nursery schools. Participants were randomly assigned to one of three storybook reading conditions (a) vocabulary eliciting questions, (b) noneliciting questions, or (c) no questions (i.e., control). Vocabulary eliciting questions were asked of the children during reading sessions, requiring them to respond with novel target words from the text. Noneliciting questions containing the novel target words were asked during the story reading, but children's responses did not require them to contain the novel target word. No questions were asked during the story reading for the control group. Participants met with the experimenter in the preschool. Three original storybooks were used in this study; each contained six novel target words in the text, with a color illustration accompanying each target word. Nine target words that were unfamiliar to 3-year-olds were selected for the study, each appearing once in two of the books. Participants were repeatedly read three storybooks during four reading sessions

and were tested for production and comprehension of novel words in the final session. Findings from a 3 (vocabulary eliciting, noneliciting, and no question) X 2 (pre- vs. post-intervention) ANOVA with repeated measures on the last factor revealed that children's novel word comprehension increased in both question conditions as compared to the control group. Walsh and Blewitt concluded that the type of question is not as critical to word learning as children's active engagement in discussion about novel words in general. Furthermore, although novel word production was not strongly affected by any of the reading conditions, asking children noneliciting questions did appear to foster production of new words more than not asking questions at all.

Blewitt, Rump, Shealy, and Cook (2009) were interested in determining how scaffolding might affect word learning during shared book reading. Scaffolding was defined by low demand and high demand questions. Low demand questions focused on description of pictures or simple recall questions of story elements. High demand questions, on the other hand, required a child to infer and predict. Blewitt and her colleagues based the scaffolding hypothesis on the assumption that there would be a difference in the effectiveness of low or high demand reading styles depending on a child's knowledge of specific target words as opposed to his/her general word knowledge. They tested this hypothesis in a two-step process. Study 1 assessed which demand question was more effective for learning new words from stories (i.e., low or high demand questions). Study 2 focused on determining the value of a scaffolding approach to asking questions.

The first study was conducted with 58 preschool children ranging in age from 34 to 49 months. In this study there were four intervention conditions. Demand levels (low

vs. high) were crossed with placement of extratextual questions (interrupting vs. noninterrupting). In the interrupting condition, comments were made during the reading and questions were asked immediately following each target word. In the noninterrupting condition, comments were made before the readings and questions were asked following the reading. These four conditions were compared with a control group whose comments and questions did not relate in any way to the target vocabulary. The children met individually with the experimenter during all sessions of the 6-week study. In the pretest session children were administered the Expressive One Word Picture Vocabulary Test-III (EOWPVT-III) and PPVT-III. There were a total of four reading sessions. In the first three sessions, the experimenter read two of the three illustrated storybooks that were created specifically for the study. In the fourth session, the experimenter read all three books. After the reading in the fourth session, children were posttested on researcher-created vocabulary assessments, New Word Production Test (NWPT) and the New Word Comprehension Test (NWCT). Delayed posttest of the NWPT, NWCT, and an alternate form on the PPVT-III were administered approximately one week after session 4. Results of a hierarchical regression analysis found none of the interactions were significant. However, results of a weighted contrast in an ANOVA found children in the intervention conditions scored significantly better in both comprehension and production than the children in the control condition. Thus, the researchers determined that while children in the control condition were able to learn to relate target words with their referents from textual exposure to words, children in intervention conditions learned substantially more target words when the words were repeated in extratextual questions. Results of the immediate and delayed posttest

scores suggest that children's performance on the assessments either remained stable or improved.

The second study conducted by Blewitt et al. (2009) was conducted with 50 preschool children ranging in age from 36 to 47 months. The authors assessed the effects of questions' demand levels on target word learning. The three question conditions included: (a) low demand only, (b) high demand only, and (c) scaffolding. The scaffolding condition began with low demand questions and later included high demand questions. All questions were asked in an interrupting manner given that Study 1 showed there were no placement effects. Differences in the demand level or placement of questions did not affect children's learning of unfamiliar target words. Study 2 used all the same books and materials as in Study 1. However, there were some changes in the assessments. The NWCT was added to the pretest, the New Word Definition Test (NWDT) was added to the posttest, and EOWPVT was eliminated. During the pretest children were administered the PPTVT-III and the NWCT. There were four reading sessions. The low and high demand question conditions followed procedures similar to the interrupting conditions in Study 1. The scaffolding-like condition consisted of largely low demand questions in the early reading sessions and the final reading session included mostly high demand questions. Posttesting of the NWDT, NWCT, and PPVT-III was conducted a week after the final reading. Children in all three reading conditions learned about the target words. Results of a hierarchical regression analysis revealed that on comprehension scores, all three approaches were just as effective. However, scaffolding did benefit children's word definition scores as children in this condition had significantly higher definition scores than the children in

the low and high demand conditions combined. Based on the results of both studies, Blewitt and her colleagues concluded that regardless of the placement of questions, both low- and high-demand questions benefit the initial process of word learning. Moreover, scaffolding student learning beginning with low demand questions and adding high demand questions provides children with a deeper understanding of a word's meaning.

Most recently, Walsh and Rose (2013) conducted a 6-week blocked randomized design study to investigate the impact of two adult questioning styles on the receptive vocabulary of preschoolers. Participants were 45 preschool children, enrolled in Head Start classrooms, ranging in age from 31 to 64 months, with a mean age of 51 months. Children were administered the PPVT-III at pretest and were randomly assigned, via rank order, to one of the three intervention conditions (i.e., eliciting questions, noneliciting questions, and control) based on general vocabulary knowledge. Three storybooks were created for this study, from which nine novel words were selected. Each target word was included once in two of the books. The experimenters, in one-on-one settings, provided the intervention. In both the vocabulary eliciting and noneliciting conditions, children were asked six questions that focused on the target words for each storybook. The vocabulary eliciting questions condition required the students to respond with a novel word from the story. The vocabulary noneliciting questions condition included novel words in the prompt and did not require students' responses to include the target words. During the storybook reading sessions, only questions about the target words were asked. The interventionist did not provide corrective feedback if

the students answered incorrectly. The control condition included a noninteractive storybook reading of the text with no extratextual comments.

Walsh and Rose (2013) administered the PPVT-III at pretest to obtain a baseline of the children's standardized scores for general vocabulary knowledge. Student's novel word receptive knowledge was assessed with the Seasonal Word Comprehension Game (SWCG), an experimenter-created measure. The SWCG was given at pretest, immediate posttest (after the third storybook reading), and delayed posttest (approximately 1 week after the conclusion of the study). Nonparametric Mann-Whitney U tests were conducted to test for group differences on the SWCG scores at posttest and delayed posttest. Results revealed students in the vocabulary noneliciting group had significantly higher overall intervention scores than those in the vocabulary eliciting condition. However, at posttest there were no significant differences between the control group and the vocabulary noneliciting and eliciting groups. Finally, there were no significant differences between any of the three intervention conditions at delayed posttest on the SWCG. The finding that vocabulary noneliciting questions were more effective in producing students with higher posttest novel word receptive scores is in contrast with findings from previous studies that have found vocabulary learning has been facilitated through children's active participation in storybook reading rather than noninteractive readings (Ewers & Brownson, 1999; Walsh & Blewitt, 2006; Whitehurst et al., 1988). Walsh and Rose concluded that the use of vocabulary noneliciting questions with children who may have differing prior experiences might help children form initial associations with novel words. In other words, noneliciting vocabulary questions serve an important developmental role. Thus, the authors believe the finding of this study

may prompt Head Start teachers to implement storybook reading strategies that promote vocabulary development. Although this study shows the variability in adult questioning styles that can be effectively implemented to support students' receptive vocabulary growth, it is not without limitations. Besides the small sample size, the more significant limitations are that the intervention was conducted by the experimenters rather than by classroom teachers, and that the intervention was conducted during one-on-one reading sessions rather than in whole- or small-group settings that are more typical to the daily routine in preschool classrooms. In order to determine the effectiveness and feasibility of incorporating varied vocabulary questioning styles in preschool classrooms, future studies should have the classroom teacher provide the intervention.

Kindergarten studies. Ewers and Brownson (1999) used an experimental design to study the vocabulary acquisition of 66 kindergarteners during a single joint book reading. Similar to the findings of Sénéchal and Cornell (1993), this study also found an overall positive effect on students' vocabulary knowledge in a single book reading. Ewers and Brownson compared the effect of the following two conditions: (a) active participation and (b) passive participation. In the active participation condition, students were presented with "what" and "where" questions. In the passive participation condition, students were provided with recast comments (i.e., comments restating the target phrase that substituted the target phrase with a familiar synonym). Factorial analyses of Sénéchal Vocabulary Test-Adapted (SVT-A) posttest target-word acquisition revealed that children in the questioning condition acquired more words than those in the recasting condition, regardless of prior vocabulary knowledge and working

memory ability. Based on their findings, Ewers and Brownson concluded that active participation strategies (i.e., use of what and where questions) helped focus the listener's attention on novel items and provided an opportunity for children to practice retrieving target words, leading to greater vocabulary acquisition.

Studies in this section vary greatly in length from a single reading session (Ewers & Brownson, 1999; Sénéchal & Cornell, 1993) to a range of up to four sessions (Ard & Beverly, 2004; Blewitt et al., 2009; Justice, 2002; Sénéchal et al., 1995; Walsh & Blewitt, 2006); from six weeks of instruction (Walsh & Rose, 2013) to data collected from a longitudinal study with the follow-up occurring the following year (Dickinson & Smith, 1994). In spite of such differences in the length of implementation, these studies overall found that actively engaging children during the read-aloud process by asking them questions and prompts did lead to greater gains. As with some of the repeated readings studies, a limitation that was common across many studies of interactive questioning techniques was that they conducted individual storybook readings (Blewitt et al., 2009; Justice, 2002; Sénéchal & Cornell, 1993; Sénéchal et al., 1995; Walsh & Blewitt, 2006; Walsh & Rose, 2013). Again, this is not a common practice in preschool, kindergarten, or first grade. Additional research needs to be conducted to determine if the effectiveness of the questioning strategies is comparable in small-group or whole-group settings. Another limitation that puts into question how effectively classroom teachers can integrate this read-aloud strategy to improve their students' vocabulary knowledge is that many of the interventions in this section were provided by the experimenter and not the classroom teacher (Ard & Beverly, 2004; Blewitt et al., 2009; Sénéchal et al., 1995; Walsh & Blewitt, 2006; Walsh & Rose, 2013).

Something worth noting is that some of the studies used original storybooks that were created specifically for the investigation being conducted (Blewitt et al., 2009; Walsh & Blewitt, 2006; Walsh & Rose, 2013). It is also worth mentioning there were a few studies that elicited students' participation through the use of questions "what" and/or "where" (Ard & Beverly, 2004; Ewers & Bronson, 1999; Sénéchal & Cornell, 1993). While these types of questions provide the opportunity for student engagement, they do limit how students may respond. However, in spite of the variability in the studies investigating interactive questioning strategies and their limitations, the general consensus is that, "Teachers and parents should be encouraged to enhance children's vocabulary acquisition by asking questions that actively engage children's attention to novel vocabulary during storybook sharing sessions" (Walsh & Blewitt, 2006, p. 277).

Vocabulary Interventions

Educators need to incorporate shared book readings that provide students with opportunities to actively engage in word learning. Storybook readings can be an instructional practice intended to strategically build students' vocabulary knowledge. In addition to repeated readings and interactive questioning, there are strategies that have been incorporated into vocabulary interventions that can have a positive impact on students' vocabulary growth. Researchers interested in vocabulary interventions have created instructional routines to provide additional activities to scaffold explicit vocabulary instruction. Most vocabulary intervention research has been conducted with children in kindergarten. Only two of the 12 studies in this section were conducted with preschool children, and three included students in first grade. Some interventions conducted in kindergarten included as little as three readings, most interventions however included 36 sessions, and one intervention was the most extensive including

108 sessions. First-grade intervention studies varied in length from one to ten weeks. The interventions reviewed in this section have investigated the difference between what was considered basic, explicit vocabulary instruction and additional, active vocabulary instruction.

Preschool studies. Pollard-Durodola et al. (2011) investigated the effects of World of Oral Reading and Language Development (WORLD), a shared book-reading intervention. Preschool and Head Start teachers were randomly assigned to one of two conditions: WORLD shared book reading or typical shared book reading. One hundred twenty-five preschool students ranging in age from 4.0 to 5.3 years participated in the study. Of the 125 students, 69 were in the WORLD condition and 56 were in the comparison condition. Students were selected to participate in the study if they scored at or below the 30th percentile on the PPVT-III and were proficient in English, as reported by the classroom teacher. Trained graduate and undergraduate student assistants individually assessed students. Assessments included standardized, norm-referenced, and experimenter-developed measures of receptive (i.e., PPVT-III and RDRPVT – Researcher-Developed Receptive Picture Vocabulary Test) and expressive vocabulary (i.e., EOWPVT and RDEPVT – Researcher-Developed Expressive Picture Vocabulary Test).

The WORLD intervention consisted of 24 books (both storybooks and informational text) that focused on two themes – nature and living things (Pollard-Durodola et al., 2011). The teachers taught each theme for six weeks, during which 68 vocabulary words were instructed explicitly. All new words were taught in lexical sets before reading a story or informational book to build children’s background knowledge.

Critical WORLD intervention features included (a) a 5-day instructional cycle, (b) before, during, and after reading activities, and (c) varied instructional tasks ranging from low- to high-cognitive skills. Teachers in the WORLD condition implemented the shared book-reading intervention to groups of nine to ten children for 20 minutes a day, for 12 weeks. Researcher observations of teachers in the comparison group revealed that the comparison teachers typically (a) selected books from their own classroom or school libraries, (b) did not use both storybooks and informational texts, (c) conducted book-reading sessions for approximately 11.68 minutes, with most of the instructional time spent on reading the book, and (d) read books to the entire class. Students were posttested two weeks following the completion of the intervention. Because children were nested within classrooms, the researchers used multilevel modeling to analyze the data. Level 1 was the student level, and Level 2 was the classroom level. Results of posttest measures on the PPVT-III and EOWPVT using an analysis of covariance (ANCOVA) found no statistically significant main effects of condition. Students in both the WORLD condition and the comparison condition improved from pretest to posttest on these measures. However, statistically significant main effects were found on the researcher-developed proximal measures of WORLD targeted vocabulary (RDRPVT and RDEPVT). The researcher concluded that results from the PPVT-III and the EOWPVT are not surprising given the possibility of standardized measures being insensitive to vocabulary growth. With regards to the more sensitive researcher-developed proximal vocabulary measures, the authors conclude that the explicit, thematic nature of the WORLD intervention increased children's ability to associate illustrations with science vocabulary and to define targeted vocabulary.

Silverman, Crandell, and Carlis (2013) conducted a 12-week intervention that compared the effects of three experimental conditions on the vocabulary of 4-year old preschool children with differing levels of initial vocabulary. The study was conducted in 26 Head Start classrooms. Classes were randomly assigned to one of the following conditions: (a) read aloud (9 classes, n=91 children), (b) read aloud plus extension activities (8 classes, n=84), and (c) control (9 classes, n=88). Teachers in the control condition followed their typical classroom routine of instruction. Teachers in the intervention conditions (i.e., read aloud and read aloud plus) implemented the intervention during 30 minute read alouds, which were conducted four days a week over the course of the 12-week study. Both intervention conditions included 24 books (12 narrative and 12 informational text) and 48 target words. While participating in the study, teachers in the intervention conditions followed the lesson plans provided and read each book twice per week, targeting two words per book. The teachers supported students' vocabulary development by providing child-friendly definitions, repeating the target words, reviewing target words, and asking analytic questions to actively engage students in discussions of the target words. In addition, teachers in the read aloud plus condition incorporated extension activities during their regularly scheduled morning meeting, small-group, and centers time (e.g., 5 minutes during each of these activities). These extension activities included additional review of the target vocabulary, drawing/writing activities, and hands-on activities related to target words.

Silverman et al. (2013) assessed children both on their general vocabulary knowledge and on their understanding of target vocabulary. General vocabulary knowledge was assessed with the PPVT-4 and vocabulary knowledge of half of the

target words (i.e., 24 words) was measured with a receptive target vocabulary assessment (TVA). Students were individually assessed during two separate testing sessions to avoid testing fatigue. Results of data analyses conducted on the pretest scores of the students showed there was no difference across conditions. On posttest TVA, there was a significant effect of the read aloud and read aloud plus conditions over the control. More specifically, the read aloud plus extension condition produced greater effects than of the read aloud only condition over the control condition. These findings are in line with previous research that suggests more intensive, direct vocabulary instruction leads to greater word learning (Coyne et al., 2010). Additionally, data analyses revealed that the effect of the read aloud plus condition was most beneficial for students with higher rather than lower initial vocabulary knowledge. This too is consistent with research that has demonstrated differential effects for interventions on children with varied word knowledge levels (Marulis & Neuman, 2010). Silverman and her colleagues concluded that this study provides evidence for implementing vocabulary instruction beyond read alouds, through extension activities, to other parts of the Head Start day may lead to greater effects for vocabulary intervention.

Kindergarten studies. Coyne, McCoach, and Kapp (2007) conducted two experimental studies with kindergarten children experiencing reading difficulties, based on demographic data. The first study compared extended instruction of target vocabulary to incidental word learning through exposure during storybook reading. Thirty-one students listened to three readings of a storybook. The story was modified so that each of the six target vocabulary words appeared only once. Extended instruction included (a) explicit instruction of three target words, (b) interactive

opportunities to engage with word meanings, and (c) increased exposure of target vocabulary by providing opportunities to interact with and discuss target words in varied contexts. In contrast, the incidental exposure condition meant the three target words appeared once in the story but were not directly taught or discussed. The authors created two versions (A and B) of the intervention. Each version included three target words that were counterbalanced across conditions (extended instruction and incidental exposure) to control for word effects. Each participant was randomly assigned to either Version A or B of the intervention, which was delivered by trained interventionists to small groups of three to four children. The instruction occurred over the course of one week, in three 20- to 30-minute sessions. Data collection occurred at pretest (one week prior to intervention), posttest (one to five days after the third reading of invention), and delayed posttest (eight weeks after the posttest). Results of a repeated-measures ANOVA revealed that extended instruction led to significantly higher scores on assessments of expressive definitions, receptive definitions, and context, compared to incidental word exposure.

The second study conducted by Coyne et al. (2007) compared extended instruction to embedded instruction. Extended instruction included the same characteristics as in Study 1. Embedded instruction included (a) providing students with simple definitions within the context of a story and (b) rereading the sentence and replacing the target word with its definition. Results of a repeated-measures ANOVA revealed that extended instruction also lead to significantly higher scores on measures of expressive definitions, receptive definitions, and context measure when compared to embedded instruction. While a major limitation of these studies is that the intervention

was conducted in only one week, based on the findings from both studies, the authors concluded that extended instruction lead to greater word learning than either incidental exposure or embedded instruction on all measures. Coyne and his colleagues suggest that if “the goal of instruction is to simply introduce students to new words, then embedded instruction may be adequate” (p. 85). However, if the goal of instruction is to provide students with a more complete knowledge of word meaning that will support comprehension of text, then extended instruction may be necessary.

Loftus, Coyne, McCoach, Zipoli, and Pullen (2010) conducted an experimental, within-subject design study to determine if students at risk for language and learning difficulties, who enter school with the lowest levels of vocabulary knowledge, learn more target vocabulary when instructed through both classroom instruction and supplemental intervention. The two factors were condition (words receiving only classroom based instruction and words receiving classroom based instruction plus supplemental intervention) and time (posttest and delayed posttest). Two graduate students served as classroom-based as well as small-group interventionists. The classroom-based instruction in the study was implemented with 43 kindergarten students and was delivered in 30-minute whole-class lessons. A total of four whole-class lessons were conducted during the study. During whole-class instruction, students listened to two storybooks that were read twice over a two-week period. From each storybook four target words were selected for instruction. Of the group of 43 students, 20 students were identified as being at risk for language and literacy difficulties based on low levels of receptive vocabulary knowledge. These students received an additional supplemental intervention in small groups of three to four students. Students who

received the supplemental intervention were provided with an additional 30 minutes of instructional time, beyond the classroom based vocabulary lesson. During the supplemental intervention, students received more explicit instruction and were provided with numerous opportunities to respond individually and to receive corrective feedback. Overall, students at risk for language and literacy difficulties received four hours of instruction versus two hours of instruction that the not-at-risk students received during the two weeks of study implementation.

Loftus and her colleagues (2010) created four experimenter-developed measures to assess target word knowledge: Word Recognition Measure, Target Word Picture Vocabulary Measure, Context Questions Measure, and Expressive Definition Measure. Students were posttested on these four measures 1 week after the completion of the study. Additionally, all four measures were administered as delayed posttests seven weeks after posttesting. Repeated measures analyses of variance (ANOVAs) were conducted on the four measures with the two within-subject factors (condition and time). Students at risk for language and literacy difficulties scored significantly higher on words receiving classroom instruction plus additional supplemental intervention compared to words receiving only classroom instruction on three of the four measures: Word Recognition Measure, Context Questions Measures, and Expressive Definitions Measure. There was no significant effect on condition or time on the Target Word Picture Vocabulary Measure. Scores of posttest measures revealed that when at-risk and not-at-risk students received the same type and amount of instruction there were large effect size differences. However, when students at risk received the supplemental intervention, their scores were more similar to the not-at-risk students' scores. Similar

results were found from the delayed posttest. Intervention effects were maintained from posttest to delayed posttest on all measures of target word learning. However, while these results seem promising, the feasibility and effectiveness of the intervention delivered by typical classroom teachers is not known because in the study the classroom vocabulary instruction as well as the supplemental intervention lessons were delivered by trained graduate students.

Coyne et al. (2010) conducted a quasi-experimental study, with 124 kindergarten students, in which they investigated the efficacy of an 18-week program of direct and extended vocabulary instruction with kindergartners on both proximal measures of target word learning as well as transfer measures of generalized language and literacy. Students in the treatment and control groups were assessed individually at pretest and posttest. To assess children's ability to transfer word learning, the PPVT-III was included in posttest measures of receptive vocabulary knowledge as well as an adapted version of Strong Narrative Assessment Procedure (SNAP). Listening comprehension was assessed with an adapted version of SNAP. An experimenter-developed assessment was also used to measure students' ability to infer the meanings of novel words within the context of supportive sentences.

Coyne and his colleagues (2010) conducted the efficacy study in three schools. In two of the schools, the classroom teacher provided the intervention during whole-group instruction. In the third school, two graduate students provided the intervention outside of the classroom, in a small group of three to four students. The intervention consisted of 36 half-hour lessons that were delivered twice per week over the course of 18 weeks. Eighteen storybooks were read aloud to students, each from which three

target vocabulary words were selected for direct instruction. After the read-aloud sessions, students were engaged in interactive post-reading activities. Results of a regression analysis for the target word measure found large differences between the students who received vocabulary instruction and the students in the control group. Students in the treatment group also scored higher than the control group on measures of generalized receptive vocabulary and listening comprehension. While students in the treatment group overall scored higher than the students in the control group, Coyne and his colleagues (2010) did find that the initial receptive vocabulary of the students was strongly related to the posttest scores on all measures.

Zipoli, Coyne, and McCoach (2011) conducted an 18-week program of extended vocabulary instruction with 80 kindergarten students. The students in this study were receiving a vocabulary intervention as part of a larger efficacy study (Coyne et al., 2007). The purpose of the current study was to investigate how the use of systematic review might improve the effectiveness and efficiency of extended vocabulary instruction. A within-subject experimental design was implemented to study three review conditions: (a) no review, (b) embedded review, and (c) semantically related review. Eighteen target words were randomly assigned to each review condition. In one of the schools, a graduate student served as an interventionist and conducted the storybook readings and extended vocabulary instruction to students in a small-group setting (three to five students). In the other two schools, kindergarten classroom teachers provided the storybook readings and extension activities to students in whole-class settings. In each of the schools, 18 storybooks were read over the course of the 18 weeks, with books read twice per week. In each storybook reading, students were

introduced to three target words, and three previously taught vocabulary words were presented as part of the embedded review. Before reading the book, the adult identified the six target words and asked the students to pronounce each word. Students were also asked to raise their hands when they heard the words during the storybook reading. When a target word was encountered, the adult provided a clear, concise definition and reread the sentence from the storybook including the simple definition of the target word. Students were then provided with multiple opportunities to engage in discussions of the words. In the no review condition, words were not embedded or defined in subsequent readings. In the embedded condition, target words were typically reviewed in five storybook readings. However, the target words were not explained or discussed during the extension activities. In contrast, in the semantically related review condition, target words were reintroduced, explained, and discussed during two readings as well as during the extension activities. Semantically related target words were reviewed during extension activities for the first nine books an average of five times, and for the last set of nine books an average of three times.

Zipoli et al. (2011) administered posttest measures during a 2-week period after the completion of the final storybook reading and extension activities. Results of a repeated measures ANOVA conducted on the composite mean posttest scores of the researcher-created Target Word Knowledge (TWK) Measure found the greatest word learning occurred in the semantically related review condition, while the least word learning occurred in the no review condition. A paired-samples t-test found a statistically significant increase from pretest to posttest on PPVT scores for children receiving extended vocabulary instruction with a component of systematic review.

However, findings for the EWOPVT did not find statistical significance between pre- and posttest. Interestingly, an instructional efficiency index was calculated by dividing mean performance on the TWK by the estimates of total minutes of explicit instruction per word. Instruction was found to be most efficient in the embedded review. Thus, the authors suggest that the efficiency of embedded review might be appealing as a practical form of instruction when time for extended vocabulary instruction is limited by competing curricular demands.

Nielsen and Friesen (2012) implemented a 12-week, quasi-experimental, study to investigate the effect of a small-group storybook reading intervention on the vocabulary and narrative development of kindergarten students who were all significantly behind their peers on standardized measures of language development (i.e., one standard deviation below the mean). A total of 28 students participated in the study (n=14 treatment; n=14 control). The 14 students receiving the intervention were divided into three groups. A graduate student provided all the small-group 30-minute intervention lessons, three times a week. During the intervention, 12 different narrative books were read (one per week) and six or seven vocabulary words were targeted for instruction for each book. Each week of the intervention followed a three-day teaching cycle. On Day 1 of instruction, the book was first read without showing the pictures to the students. After this initial reading, the interventionist taught the students three vocabulary words. Then, the book was reread, this time showing the pictures, and prompting the students to listen for the new words. On Day 2, rather than rereading the book, the interventionist guided the students through a group retelling and then assigned roles and prompted students to act out the story. Also on day two, three new

words were taught and the words introduced during day one were reviewed. On Day 3, the students retold the story and at the end of the session all vocabulary was reviewed. As part of the review, the students shared a word they learned during the week and provided a sentence or definition for the word.

Pretest measures were administered prior to the intervention and included the following assessments: Test of Oral Language Development (TOLD), Test of Narrative Language (TNL), and a researcher-created vocabulary measure of target words (Nielsen & Friesen, 2012). Students were posttested on their knowledge of the vocabulary taught in books 1-6 during week 7 of the intervention. After the completion of the study, the students were posttested on the TOLD, the TNL and the vocabulary in books 7-12. Additionally, once the intervention ended students were also administered a delayed posttest of the vocabulary taught in books 1-6. Narrative directly related to books was assessed with student retellings on books 1, 4, 8, and 11. All retellings were collected the week following the book that was targeted for instruction. A repeated-measures analysis compared pre to post gain scores for the vocabulary related measures. This analysis revealed significant differences between groups with the intervention students making greater gains from pre to post as well as delayed posttest.

One limitation of the Nielsen and Friesen (2012) study is that there was not a delayed posttest for the words taught in books 7-12. Another, more concerning limitation, is that a graduate student provided the intervention. For this reason the feasibility of the intervention being implemented effectively by a classroom teacher needs to be investigated. However, the findings of Nielsen and Friesen are consistent with previous research that has demonstrated that students learn more words when

they are explicitly taught through explanations and elaborations (Biemiller & Boote, 2006; Justice et al., 2005). Additionally, students in the intervention group made greater gains on the TOLD semantic composite than students in the control group. The authors believe the gain made on this standardized language assessment might be attributed to the active discussions that occurred over the course of the 12-week intervention that may have heightened students' attention to words and may have made them more comfortable with word-related tasks. Along with the greater vocabulary knowledge gained by the students in the intervention group, these students also improved in their narrative development and were able to produce more complete retellings.

Recently, Loftus and Coyne (2013) conducted two studies that expanded the work of Coyne et al. (2007). A major limitation of the earlier intervention was that it was conducted in only one week. Specifically, the interventions in the current study differ from their previous work in the following ways: (a) longer in duration, (b) conducted during whole-group lessons versus small-group instruction, and (c) classroom teachers provided intervention instead of graduate students. The first was a quasi-experimental study to examine the effectiveness of an 18-week intervention. Teachers in the control classrooms provided typical classroom instruction. Teachers in the treatment classrooms provided the intervention to their students during whole-group lessons. The intervention included 36 half-hour lessons that included storybook reading and post-reading activities (implemented two lessons per week). Each storybook was read twice in a week and had three words targeted for direct instruction (i.e., 54 total words). The storybook reading sessions incorporated before-, during-, and after-reading activities. Before reading, the teacher introduced the target words and directed the students to

listen for the word and raise their hands when they heard it during the reading. During reading, the teacher provided a student-friendly explanation of the word when it was encountered in text and reread the sentence replacing the target word with the synonym provided in the explanation. Also during reading, the teacher referred to the illustration in the book depicting the target word and prompted the students to pronounce the target word. After reading, the target words were reintroduced with a review of the during-reading activities (i.e., student-friendly explanation, use of word in context, and picture to support word meaning). Additional after-reading activities included the use of the target word in other contexts (e.g., outside of the book) and interactive activities.

In Study 1, Loftus and Coyne (2013) assessed students' general vocabulary knowledge using the PPVT-III. Students were also assessed on target word knowledge, listening comprehension, and metalinguistic awareness. Target word knowledge and metalinguistic awareness were assessed with experimenter-developed measures. Listening comprehension was assessed with an adapted version of SNAP (Strong, Narrative Assessment Procedure). All assessments were individually administered, with pretesting occurring 1 week before the start of the intervention and posttesting being done within 1 week of the end of the intervention. Loftus and Coyne found a large effect size on the measure of target word knowledge and a moderate effect size for listening comprehension. A moderate effect, although not statistically significant, was also found for the PPVT-III. The student data provided evidence that, overall, students in the treatment classrooms who participated in the intervention, and received direct vocabulary instruction, performed better than their peers in the control groups who received typical classroom instruction. However, as in other studies (Coyne

et al., 2004; Robbins & Ehri, 1994; Sénéchal et al., 1995) Loftus and Coyne also found that the initial receptive vocabulary knowledge influenced how well they benefitted from the intervention. Students with higher levels of receptive vocabulary made greater gains than the students who started the intervention with low levels of receptive vocabulary knowledge. In sum, while effective, the intervention was not strong enough to lessen the vocabulary gap between these groups of students.

The second was a two-week study in which Loftus and Coyne (2013) compared the instructional impact of two levels of vocabulary instruction: Tier 1 – classroom-based instruction alone; Tier 2 – classroom-based instruction plus additional small-group intervention (e.g., groups of three to four students). Before the start of the intervention, students were administered the PPVT-III to determine their risk status. Students who scored above the 30th percentile were considered not to be at risk and received classroom-based vocabulary instruction through storybook readings. In contrast, students who scored below the 30th percentile were considered at risk and received the same classroom-based vocabulary instruction as the not-at-risk students for two of the target words and received additional small-group vocabulary intervention on the other two target words. Two graduate-students provided classroom-based and small-group intervention. During the classroom-based vocabulary instruction, students listened to two storybooks that were each read twice. Four target words were directly instructed during the storybook readings following the extended instructional approach developed in a previous study (see Coyne et al., 2010). The Tier 2, small-group vocabulary intervention, was provided the day following the implementation of a classroom-based instructional session, and lasted approximately 30 minutes. This Tier 2 vocabulary

intervention included a review of the two target words' meanings, a repeat of the classroom-based activity, and two new oral language activities. The oral language activities encouraged students to look at pictures and create sentences describing the picture using target words and to distinguish between positive picture examples of two different target words.

In Study 2, to distinguish between varying levels of word knowledge, students were assessed with four experimenter-developed measures: Word Recognition, Target Word Picture Vocabulary, Context Questions, and Expressive Definitions (Loftus & Coyne, 2013). All assessments were administered posttest at the end of the intervention, and 7 weeks later as a delayed posttest. On the Word Recognition and Context Questions measures, results of repeated measures analyses of variance revealed statistically significant differences favoring words receiving Tier 2 intervention. Moderate effect sizes were found for Expressive Definitions. Results between posttest and delayed posttest showed there were no significant differences between scores. In other words, students maintained their word knowledge. The findings in this study are especially significant because they provide evidence for Tier 2, small-group, vocabulary intervention to narrow the gap between at-risk and not-at-risk students. While this is quite promising, the feasibility of this practice in a typical classroom is yet to be determined, considering the Tier 2 intervention was provided by graduate students. The demands for time and resources in today's classrooms decreases the likelihood that additional instructional personnel would be available in a classroom to assist a teacher with providing students with the additional support they may need.

Coyne, Simmons, Kame'enui, and Stoolmiller (2004) conducted the most extensive intervention with kindergarten students. This was an experimental study with 96 kindergarten children who were randomly assigned to one of three intervention groups: (a) storybook intervention, (b) code-based intervention focused on phonological awareness and alphabetic skills, or (c) control group who received instruction from Open Court's sounds and letters module. All students, regardless of the intervention group to which they were assigned, received 30 minutes of small-group intervention daily for 108 instructional days. While the study was conducted, students in the storybook intervention condition were read a total of 40 storybooks and three target words were explicitly taught from each book, following a six-day teaching cycle. Primary analyses from the study found participants in the storybook intervention group scored significantly higher than the children in the code-based and control groups on an experimenter-developed, expressive measure of explicitly taught vocabulary. A secondary analysis on data was conducted to examine whether there were differential effects of the storybook intervention for students with low receptive vocabulary. Results of the secondary analysis provided evidence that students in the storybook intervention group learned and demonstrated greater knowledge of target vocabulary than students in the control condition, but there were no between-group differences on untaught words. When within-group results were compared, higher initial receptive vocabulary scores predicted gains for the control group, but not for the storybook reading group. Based on the results of the analyses conducted, the researchers concluded that explicitly teaching word meanings within the context of shared storybook reading is an effective teaching method for increasing the vocabulary of young children at risk for

experiencing reading difficulties, and they suggest that early literacy interventions should place an important focus on vocabulary development.

Grade 1 studies. A program of research evaluated the effectiveness of explicit vocabulary instruction. By providing kindergarten and first-grade children with opportunities to develop rich language through discussion of stories, Beck and McKeown (2007) conducted two quasi-experimental studies comparing the targeted vocabulary taught explicitly using Text Talk and those words that did not receive any instruction. The first study included 98 kindergarten and first grade students. Text Talk treatment provided children with opportunities to develop rich language through the discussion of stories that are more complex than those they would be able to read on their own. Text Talk vocabulary instruction was provided to the students by including the following steps:

- target vocabulary was contextualized for its role in the story
- the meaning of the word was provided
- children created phonological representations of the word by repeating it
- example of word use was provided in contexts other than the story
- children made judgments about examples provided
- children were asked to create original examples
- the meaning of target vocabulary and its phonological representation were reinforced by the teacher

Over a 10-week period, the classroom teacher provided the Text Talk intervention. While the control did not receive Text Talk materials or vocabulary instruction, they did participate in daily read-alouds. Data were collected using experimenter-developed pretests and posttests (22 words in kindergarten; 22 words in

grade 1). Mean gains from pretest to posttest were analyzed in separate ANOVAs for kindergarten and grade 1. Results of the ANOVAs revealed children in the treatment group learned more of the words at both grade levels.

The second study conducted by Beck and McKeown (2007) included 76 kindergarten and first grade students and investigated children's learning of targeted vocabulary between two different amounts of learning, either three or six days, during nine weeks of instruction. At each grade level, Text Talk read alouds were again used for treatment. There were two treatment conditions: (a) Rich Instruction (i.e., same treatment condition as in Study 1), and (b) More Rich Instruction (i.e., same as Rich Instruction but also included additional instruction to be presented to students over several days). For each of the storybooks read aloud in the study, six of the selected vocabulary was instructed using Rich Instruction, and three of those words were presented to the students also using More Rich Instruction. Teachers presented Text Talk lessons over a 5-day period. The intervention also included two review cycles that occurred after the fourth and seventh weeks of instruction. Following this instructional routine, students were exposed to five encounters per word for words in the Rich Instruction conditions, versus 20 encounters per word for those in the More Rich Instruction condition. Data collection was done using researcher-developed pre- and post-tests using a picture task format as well as an all-verbal format. Results from a repeated-measures ANOVA provided evidence of vocabulary gains twice as large in kindergarten and first grade students who received more instruction (i.e., six days as opposed to three). Beck and McKeown concluded that not all vocabulary requires the same amount of attention or instruction. Furthermore, not all vocabulary instruction has

to involve teaching sophisticated words. There are times when it is appropriate to teach less sophisticated words, keeping in mind that different kinds of words require different levels of instruction. However, in support for teaching more sophisticated language, Beck and McKeown state, “knowing some of the harder words they will begin to encounter in texts may allow children to learn more of the unfamiliar words in those texts and consequently may provide a foundation for faster vocabulary growth” (p. 262).

Maynard, Pullen, and Coyne (2010) conducted a 1-week study to compare the effect of rich and basic vocabulary instruction of target words to incidental exposure during storybook readings. Twelve first-grade classes were randomly assigned to one of three experimental conditions: (a) rich instruction (n=97 students; 5 teachers), (b) basic instruction (n=55 students; 3 teachers), and (c) incidental/no instruction (n=72 students; 4 teachers). Classroom teachers in the two treatment conditions (rich and basic) delivered the intervention in a whole-class setting during three 20-30 minute storybook reading sessions, following the plans provided. All students in the study listened to three readings of *Goldilocks and the Three Bears* by James Marshall. A total of 12 target words were selected from the story. Six of the target words were taught and the other half were not taught. In the rich and basic conditions, three different words were taught during the first two readings and all six words were reviewed on the third reading. In the rich instruction condition, students were prompted to pronounce the target words prior to the reading of the story. During the reading, students were to raise their hands when they heard the word. When the teacher encountered the target word while reading the story, students were asked to identify the word and the teacher reread the word in context. Students were then provided with a simple definition and were

prompted to say the word once again. After the reading, students were engaged in interactive activities designed to provide them with opportunities to discuss the target words in rich and varied contexts, during which the teacher provided corrective feedback when necessary. The basic condition followed the same instructional routine, with the exception that the students did not receive the post-reading vocabulary activities. The incidental instruction comparison group heard the words three times within the context of the story, but the teachers engaged students in story discussions using a dialogic reading format.

One week prior to the start of the intervention, students were assessed at baseline with the PPVT-III and Expressive Vocabulary Test-2 (EVT-2) to determine group differences on general vocabulary knowledge (Maynard et al., 2010). Results of these assessments revealed no significant differences existed between the groups. Students were administered a researcher-developed measure of target word knowledge (Coyne et al., 2007) at posttest and delayed posttest. This target word assessment included three components for each of the 12 target words: (a) expressive measure of story word definitions, (b) receptive measure of story word definitions, and (c) measure of story words in context. Posttesting occurred between one and five days after the last reading, and delayed posttesting was conducted three weeks after the intervention ended. Results of several nested ANOVAs of the taught words revealed instruction in the rich and basic groups was more effective than instruction in the incidental group. However, students in the rich instruction group attained a more complete level of word knowledge of the targeted words. Interestingly, delayed posttest results revealed students who received basic instruction maintained word knowledge at a rate similar to

those in the rich instruction condition. Results of the same measures administered to examine students' knowledge of untaught target vocabulary revealed there were no statistically significant group differences. In sum, the findings from this study provide additional support for the use of direct and explicit vocabulary instruction as a foundational strategy

Pullen, Tuckwiller, Konold, Maynard, and Coyne (2010) conducted a quasi-experimental posttest-only study that investigated the efficacy of a tiered vocabulary intervention based on storybook reading for first-grade students who were identified as at risk for reading difficulties based on low levels of vocabulary. The study investigated the response of the at risk students to a Tier 1 plus Tier 2 vocabulary intervention that included rich, explicit vocabulary instruction. Two hundred twenty-four first graders participated in the study. Prior to the intervention, the PPVT-4 was administered as a screening measure to identify students who might be at risk for later reading failure. Ninety-eight of these students were identified as at risk for reading difficulties based on low levels of vocabulary; the remaining 126 students were designated as not-at-risk. Participants were partially randomized into three groups: at-risk treatment, at-risk control, and not-at-risk. The 2-week intervention was provided to the children in the at-risk intervention group. Students in the at-risk-treatment group received Tier 1 vocabulary instruction from classroom teacher and additional Tier 2 instruction provided by a graduate student. Tier 1 instruction consisted of 30-minute vocabulary lessons in which the classroom teacher read a story aloud and conducted postreading vocabulary activities in a large-group setting. Tier 2 lessons were conducted in small groups (three to five students) and lasted approximately 20 minutes. The Tier 2 intervention lessons

provided students with additional opportunities for (a) exposure to target words, (b) engagement in activities that support deep processing of words, and (c) active interaction with target words. Students in the at-risk control group only received Tier 1 instruction from the classroom teacher. Tier 1 and Tier 2 lessons were written using two storybooks, each from which four target vocabulary words were selected.

Pullen and her colleagues (2010) created a measure to assess students' acquisition of target words taught in the intervention. This measure was administered as an immediate posttest following the completion of the intervention and as a delayed posttest, four weeks later to determine maintenance. The posttest assessed students' word knowledge at the receptive, contextual, and expressive levels. Results of a multivariate analysis of variance (MANOVA) indicated significant differences on students' receptive and context-level vocabulary knowledge of target words. Immediate posttest results revealed that the not-at-risk group of students performed better than the at-risk treatment group on both receptive and contextual level of word knowledge. However, the at-risk treatment group performed better than the at-risk control group on both receptive level and contextual level of word knowledge. Such results provide evidence that students at risk for reading difficulties can significantly benefit from a second tier of vocabulary instruction. However, results from the delayed posttest did not find significant differences from students in the at-risk treatment and the at-risk control groups. The authors of this study concluded this suggests that the effects of this brief intervention are not robust enough to benefit the students over time. While the initial vocabulary instruction provided at Tier 1 was provided from the general education teacher, a graduate student provided the Tier 2 supplemental intervention. As in the

Coyne et al. (2010) study, the effectiveness and feasibility of the classroom teacher providing the intervention is unknown and requires further investigation. Also, Pullen and her colleagues suggest, “Future studies must explore the frequency, intensity, and duration of vocabulary instruction necessary for at-risk students to maintain vocabulary learning at a rate similar to their not-at-risk peers” (p. 121).

The 12 studies in this section provide cumulative evidence that while further research is needed to provide guidance as to which words should be taught as part of critical vocabulary instruction (Coyne et al., 2004), there is great promise shown in the use of storybook reading to explicitly teach vocabulary to young children. A few studies have gone beyond the use of traditional narrative text often used for read alouds to include the use of informational text on varied topics (Pollard-Durodola et al., 2011; Silverman et al., 2013). Many studies specifically investigating vocabulary interventions have intentionally targeted students who the researchers considered to be at risk for early-reading difficulties based on low levels of vocabulary (Loftus et al., 2010; Nielsen & Friesen, 2012; Pollard- Durodola et al., 2011; Pullen et al., 2010; Silverman et al., 2013). Not surprisingly, results of these interventions have provided evidence that students significantly behind their peers in their initial vocabulary knowledge can improve their word learning and have demonstrated growth on vocabulary measures; however, students with higher initial vocabularies tend to benefit most from vocabulary instruction (Coyne et al., 2010; Loftus & Coyne, 2013; Pullen et al., 2010; Silverman et al., 2013). Evidence of narrowing of the vocabulary gap between students with higher and lower initial vocabularies was found in the work of Loftus et al. (2010). Students

who received the supplemental intervention in small group scored comparable to not-at-risk-students.

Providing additional, intensive vocabulary instruction in a small-group setting that provides extensions of basic explicit instruction presented in whole-group class lessons can greatly support students' vocabulary learning. One of the greatest areas of concern in terms of the limitations of studies investigating vocabulary interventions is that a number of them had trained interventionists or graduate students provide whole-group and/or small-group instruction (Coyne et al., 2007; Coyne et al., 2010; Loftus et al., 2010; Loftus & Coyne, 2013; Nielsen & Friesen, 2012; Pullen et al., 2010; Zipoli et al., 2011). The findings of the intervention studies provide strong evidence for the implementation of thoughtfully planned vocabulary lessons that explicitly teach word meanings, provide students with opportunities to actively participate in the learning and discussions of words, and include review so that students have multiple opportunities to engage with targeted vocabulary. Unfortunately, the limited resources in today's classrooms leads one to question how these practices can reasonably and effectively become part of common practice. Future research should investigate what support systems teachers may need in order to best implement such vocabulary instruction.

Coyne et al. (2007) and Pullen et al. (2010) suggest teachers implement a multi-tiered approach to vocabulary instruction. Teachers should begin by reading storybooks to students that contain varied and complex vocabulary, provide embedded instruction on a subset of targeted words, and extended instruction of a second set of words from the story which require students' deeper knowledge of the words (Coyne et al., 2007). Students who are identified as being at risk for language and literacy

difficulties can benefit from additional vocabulary instruction when it is provided as supplemental, small-group, intensive intervention.

Discussion

The ability to read and comprehend is critical for school-aged students and members of society at large. Becoming a proficient reader provides individuals with opportunities for improved access to higher education and greater economic success once they enter the workforce. The National Reading Panel (2000) cites early research, which dates as far back as 1924, that long recognized the importance of vocabulary knowledge in the development of reading skills. During the last 85 years, researchers have noted that “growth in reading power means growth in word knowledge” (National Institute of Child Health and Human Development, n.d., p. 5). Both oral and written vocabularies are critically important in reading instruction in as much as the extent of a reader’s vocabulary facilitates the reader’s comprehension of text. If reading is defined as more than word recognition, but as skillful comprehension, then “basics” alone will not make an effective reader (Nielsen & Friesen, 2012). Skillful readers must have oral language competencies, especially with decontextualized language. In the primary grades, there is evidence that a child’s early decoding abilities are in part dependent on his/her oral vocabulary (NICHD, 2000). “When the word is not in the learner’s oral vocabulary it will not be understood when it occurs in print” (NICHD, 2000, p. 4-3). In the intermediate grades, a student needs to know at least 90-95% of the words in text to have acceptable levels of comprehension (Hirsch, 2003). As such, Pullen et al. (2010) suggest “as the alphabetic and phonemic principles are taught in kindergarten through third grade to establish a solid foundation for fluency, so too should vocabulary

development be an area of focused instruction to ensure that all children have at least average vocabularies by the end of third grade” (p. 111).

This literature review includes the work of researchers within the past 25 years who have investigated young children’s ability to learn new vocabulary during shared book reading. Whether the studies focused on the use of repeated readings (Biemiller & Boote, 2006; Justice et al., 2005; Robbins & Ehri, 1994; Sénéchal, 1997; Walsh & Rose, 2013), interactive questioning strategies as the instructional strategy (Ard & Beverly, 2004; Blewitt et al., 2009; Dickinson & Smith, 1994; Ewers & Brownson, 1999; Justice, 2002; Sénéchal & Cornell, 1993; Sénéchal et al., 1995; Walsh & Blewitt, 2006), or researcher-developed interventions (Beck & McKeown, 2007; Coyne et al., 2004; Coyne et al., 2007; Coyne et al., 2010; Loftus & Coyne, 2013; Loftus et al., 2010; Maynard et al., 2010; Nielsen & Friesen, 2010; Pollard-Durodola et al., 2011; Pullen et al., 2010; Silverman et al., 2013; Zipoli et al., 2011), findings from these studies provide overwhelming evidence that storybook reading is an effective means through which to support student’s vocabulary development. Results from the studies included in this review can directly impact classroom vocabulary instruction. There are instructional strategies that teachers can implement to increase the benefits of read-aloud experiences for the students in their classrooms. Teachers’ thoughtfully planned and explicit vocabulary instruction can positively impact their students’ vocabulary knowledge.

Vocabulary development is a lifelong endeavor that can never be fully mastered (Kamil & Hiebert, 2005). Based on the research reviewed, there are implications for classroom practice to support vocabulary development in young children. Researchers

suggest classroom teachers implement the following instructional strategies in order to effectively use children's literature to develop vocabulary in young children: (a) incorporate a tri-level approach to vocabulary instruction that includes book readings with varied and complex vocabulary, embedded instruction of selected vocabulary, and extended instruction of targeted words (Coyne et al., 2007); (b) provide children with explicit vocabulary instruction that includes the discussion of word meanings and where they can become involved in the story being read (Marulis & Neuman, 2010; Robbins & Ehri, 1994); (c) provide student-friendly definitions or synonyms during storybook readings (Beck & McKeown, 2007; Biemiller & Boote, 2006; Justice et al., 2005); (d) conduct repeated readings of stories (two to four times) in order to increase student exposure and engagement to targeted vocabulary (Karweit & Wasik, 1996; Robbins & Ehri, 1994); (e) engage students in active participation during book readings by including the use of simple questions, such as labeling or pointing (Sénéchal et al., 1995) as well as "what" and "where" questions during book discussions (Ewers & Brownson, 1999); and (f) engage students in talk before and after reading (Dickinson & Smith, 1994). By incorporating the strategies recommended above, teachers can have the greatest impact on the students' vocabulary learning and growth.

The use of children's literature to develop vocabulary in young children has shown to be promising. However, it has not been without limitations. Many researchers have found that students with higher initial-vocabulary knowledge benefit greater than their peers with lower vocabulary knowledge (Coyne et al., 2010; Loftus & Coyne, 2013; Marulis & Neuman, 2010; Pullen et al., 2010; Silverman et al., 2013). Interventions that increase the effectiveness of storybook readings, explicit instruction of word meanings,

and extension activities hold promise for narrowing the vocabulary gap among students in the primary grades (Coyne et al., 2012). However, further research is needed in this field in order to further refine strategies that would guide educators of young children to be able to do this most effectively with their students. Research is needed to provide guidance as to which words to teach as part of critical vocabulary instruction. More research is also needed as to which types of questions lead to greater student gains in both expressive and receptive vocabulary.

The use of repeated storybook readings has been found to be effective; however, additional research is needed to determine if there is a minimum or maximum number of times teachers should engage in this activity. Whether repeated readings are more beneficial for certain story structures than others could also be investigated. Results from studies investigating vocabulary instruction have shown that the intent of vocabulary instruction, whether it is to provide students with initial or deeper understanding of a word, requires different levels of instruction. Therefore, additional research is needed to investigate which instructional strategies might have differential effects on students' vocabulary learning, depending on the intent of instruction (i.e., initial or deep understanding of a word). Teachers would then be better informed of as to which practices could be considered "critical" for different levels of vocabulary development.

Pollard-Durodola et al. (2011) and Silverman et al. (2013) have conducted research focused on teaching vocabulary by themes. Silverman and her colleagues targeted vocabulary related to food, animals, and transportation. While investigating the effectiveness of WORLD, Pollard-Durodola et al. created their lessons based on

vocabulary related to nature and living things. They hypothesized that by organizing vocabulary instruction by big themes that include smaller topics, children more easily understand new information by relating it to what they already know.

A theme that has not been studied when developing children's vocabulary through storybook reading is that of social-emotional learning. Although there is a large body of literature on bibliotherapy, or the use of books to promote social-emotional growth and well-being (see for example, Womack, Marchant, & Borders, 2011), no studies have specifically examined the development of social-emotional vocabulary through storybook reading. Hiebert and Cervetti (2012) reported that narrative texts often have themes associated with emotions and attitudes, character traits, and social relationships. As a result, narrative texts can be a promising venue by which to teach social-emotional vocabulary.

Social-Emotional Vocabulary

Selection of which social-emotional vocabulary to teach through storybook readings can be guided by the work of Ridgeway, Waters, and Kuczaj (1985). Ridgeway and her colleagues collected data to determine children's ability to understand emotion-descriptive adjectives when used by adults and when they were able to produce such words on their own in their speech. Parents of children from 18 to 71 months participated in the study. They were presented with a checklist of 125 adjectives (from a complete list of 518) that described emotions in the English language. The parents were asked to indicate which words their child (a) would understand when used by someone to describe a feeling or mood, and (b) used to refer to his/her own feeling or to other's people's feelings/mood. Based on the data collected, norms for receptive and productive vocabulary were reported. As the authors of this study state,

the catalog of these emotion-descriptive adjectives along with the age norms for each word can be of practical use. While the families that participated in the study were white, English speaking, middle-class, and high school or college educated, the authors believe the generalizability of the data is not limited to the particular social class sampled. Ridgeway and her colleagues report that the order of acquisition of these adjectives to be similar among all children, although the age of acquisition may vary by social class, ethnic background, socio-economic level, etc. Therefore, this compiled list of words can be an extremely useful resource to researchers in the field of early emotional development (Ridgeway et al.), as well as to educators who recognize the importance of teaching emotion vocabulary and need guidance in selecting vocabulary.

Conclusion

Research has provided much evidence that supports the use of storybook readings to teach vocabulary. Greater vocabulary knowledge has been achieved in children who have participated in purposeful storybook experiences that include explicit vocabulary instruction. It is important to keep in mind that planning is not only necessary but also critical to conducting read-aloud sessions that can effectively increase children's vocabulary. Considering this, we can conclude that planned storybook read alouds have a great potential to improve young children's vocabulary knowledge and academic achievement.

Project SELF: Social-Emotional Learning Foundations is a curriculum designed to investigate how storybook read alouds could be conducted to extend students' existing language and promote vocabulary related to the key concepts of social-emotional development. This can benefit students by enriching early literacy skills that include vocabulary development and comprehension of narrative text. Although the

SELF curriculum included instruction in social-emotional vocabulary as a part of the storybook reading activities, vocabulary instruction was not a focus of the curriculum.

Because storybook reading has already been shown to be an excellent venue for (a) teaching vocabulary, and (b) promoting social-emotional growth, additional research is needed to examine the effects of storybook reading on social-emotional vocabulary development. This study was designed to examine just that. Using data from Project SELF and examining vocabulary instruction more closely, this study examined the effects of the SELF curriculum on the social-emotional vocabulary development of kindergarten and first grade children, particularly those who are at risk for emotional and behavioral disorders (EBD). Chapter 3 presents the methods employed to accomplish this goal.

CHAPTER 3 METHODS

The current study was part of a larger, externally-funded grant. Social-Emotional Learning Foundations (SELF) was a development grant funded by the Institute of Education Sciences. Because early school success depends on successful social-emotional development (Graziano, Reavis, Keane, & Calkins, 2007) the purpose of Project SELF was to develop an intervention for kindergarten and first grade students with social-behavioral problems who may be at greater risk for developing long-term behavior and academic problems. While children's social-emotional development is vital, the increasing demands on educators to demonstrate accountability for academic achievement often leads them to maximize academic instruction at the expense of social-emotional learning. With this in mind, the SELF social-emotional learning curriculum was developed to be implemented during reading instruction, primarily during supplementary, small-group reading instruction.

The current study was designed to investigate the effects of the SELF storybook reading intervention curriculum on vocabulary growth. More specifically, because SELF was intended to promote students' overall social-emotional development, the focus of this study was on students' social-emotional vocabulary growth. A pretest-posttest control group design was used to compare treatment to control conditions at each grade level. This design permitted the comparison between the mean posttest scores, after controlling for initial differences between groups based on pretest scores (Gall, Gall, & Borg, 2007). The following section will supply more detail about SELF to provide a context for understanding the current study. The subsequent sections include a detailed description of the methods used in the current study, including the following: (a)

research questions, (b) setting, (c) participants, (d) measures, (e) intervention, (f) design, (g) data analysis, (h) inter-scorer agreement, and (i) inter-observer agreement.

Social-Emotional Learning Foundations

SELF was a three-year, federally funded project designed to fully develop a social-emotional curriculum that integrates social-emotional learning and early literacy instruction in the primary grades. This section will provide information regarding the curriculum development, professional development, and fidelity of implementation of Project SELF, along with the hypotheses that guided the project.

During year one, kindergarten lessons were developed. In year two, first grade lessons were created. The SELF curriculum was created and refined incorporating a continuous iterative process of observations and feedback from the teachers instructing SELF. Year three activities focused on the full implementation and pilot testing of the K-1 SELF Curriculum. Professional development was provided to the 15 kindergarten and first grade teachers in the treatment condition who implemented the SELF intervention in their classrooms. The professional development aimed to develop the teachers' knowledge of social-emotional learning and demonstrate how to integrate strategies that promote self-regulation of behavior and reading. Additionally, during the last year, the research team developed a professional training intended for future train-the-trainer materials that included examples of effective instruction and specific teaching strategies that support social-emotional development.

In order to address the issue that educators have limited instructional time within the school day, the research team conducted ongoing observations and teachers were videotaped teaching SELF lessons. Classroom observations and videos were analyzed using fidelity of implementation measures created specifically for SELF. These data

provided evidence for the feasibility of the intervention in K-1 classrooms. In sum, the intention of the SELF research team was to establish initial implementation protocols and use feedback from teachers to develop the curriculum more fully. This would provide the necessary background to later study the effects of SELF in a rigorous randomized controlled efficacy trial.

The purpose of the SELF curriculum was to foster the development of language and self-regulatory skills in students who were screened to be at risk for emotional and behavioral disorders. The researchers hypothesized that SELF would improve children’s executive function, language development, behavioral, and reading comprehension outcomes compared to a control condition. Table 3-1 and Table 3-2 provide a description of the behavior and academic measures used in the study.

Table 3-1. Behavior Measures

Category	Measure	Description
Executive Function	<i>Behavior Rating Inventory of Executive Function Teacher Form (BRIEF; Gioia, Isquith, Guy, & Kenworthy, 2000)</i>	Evaluates emotional and behavioral self-regulation and comprises 8 clinical scales that measure different aspects of executive function within the context of school.
Behavior	<i>Systematic Screening of Behavior Disorders-Second Edition (SSBD; Walker & Severson, 1992), Gates 1 and 2</i>	Identifies students at-risk for developing ongoing internalizing and externalizing behavior concerns. Gate 1 of the SSBD involves teacher nomination. In Gate 2, teachers complete a Critical Events Inventory and a short adaptive and maladaptive behavior checklist for each of the nominated students.
	<i>Clinical Assessment of Behavior Teacher Rating Form (CAB-T; Bracken & Keith, 2004)</i>	Comprises 3 clinical scales (internalizing, critical, and externalizing behavior), 3 adaptive scales (social skills, competence, and adaptive behavior), and 4 educationally related clinical clusters from 4 subscales: internalizing, externalizing, social skills, and competence.
	<i>Social Problem Solving Measure (SPSM; CPPRG, 1991)</i>	Students are presented with eight scenarios, which are visually represented, involving either peer entry or resolution to a social problem. For each scenario, the student is asked what he would “say or do” to resolve the situation.

Table 3-2. Academic Measures

Category	Measure	Description
Language Development	<i>Woodcock Reading Mastery Test-Revised</i> (WRMT-R; Woodcock, 1987), synonyms, antonyms, and analogies subtests	All three subtests require the student to independently read the stimulus. In the Synonyms subtest, students are asked to read a word and provide another word with a similar meaning to the stimulus word. In the Antonyms subtest, the student provides a word that means the opposite of the word read. In the Analogies subtest, the student reads a pair of words and determines the relationship between the two words. Then, he reads a third word and provides a word that has the same relationship to the third word as exists between the initial set of words read.
Vocabulary	<i>Clinical Evaluation of Language Fundamentals-4</i> (CELF-4; Semel, Wiig, & Secord, 2003), expressive vocabulary subscale	Evaluates a student's ability to name pictures of people, objects, and actions.
Listening Comprehension	<i>CELF-4</i> (Semel et al.), spoken paragraphs subscale	Evaluates a student's ability to understand oral narrative text.
Reading Comprehension	<i>WRMT-R</i> (Woodcock) passage comprehension subtest	Uses a modified cloze procedure and requires test-takers to fill in a series of blanks according to the meaning of the surrounding sentences or phrases.

During the professional development, teachers were presented with strategies that would encourage and support their students' engagement in discussions about social-emotional concepts. The SELF lessons were created with this active engagement in mind, as it was considered a critical component to the successful development of students' social-emotional learning. However, from the observations conducted and the videotaped lessons that were reviewed, the researchers found initial differences in teachers' fidelity of implementation. These differences in fidelity seemed to be related to variations in the quality of vocabulary instruction. Although the K-1 SELF curriculum provided teachers with scripted lessons, they were encouraged during the professional development sessions to personalize the lessons in order to better

engage their students in discussions on the topics. The teacher training sessions emphasized that the teachers were the key ingredient in scaffolding students' understanding and maintaining student engagement, as that was not something that could be scripted in the lessons. Observational data demonstrated a wide range of fidelity of implementation; some teachers implemented the lessons as designed and engaged their students in discussions, others followed the SELF lessons closely but did not provide their students with opportunity to engage in dialog, and yet others did not adhere to the components of SELF lessons.

The fidelity data demonstrated a wide range of lesson quality. It is these variations in the quality of instruction that could explain differences in student vocabulary growth. The current study expanded the work originally being researched in SELF by investigating the potential of the SELF curriculum as having a positive effect on specific social-emotional vocabulary. Increased student knowledge of this content-specific vocabulary could lead to greater overall student vocabulary development as well as improved behavioral outcomes. Ultimately, children need to have social-emotional vocabulary as part of their repertoire if they are to better understand their emotions and regulate and manage their behavior in a socially acceptable manner. The following sections will provide the details of the current study.

Current Study

The current study was conducted during Project SELF's Year 3 implementation and pilot study. The purpose of this study was to examine the effects of the SELF curriculum on the social-emotional vocabulary development of kindergarten and first grade children, particularly those who are at risk for emotional and behavioral disorders (EBD), and to determine whether specific student and teacher instructional factors had

any effect student vocabulary outcomes. Specifically, the following three research questions were investigated:

1. What are the effects of the Social-Emotional Learning Foundations (SELF) intervention on student learning of social-emotional vocabulary?
2. What student factors are related to social-emotional vocabulary outcomes?
3. What teacher instructional factors are related to students' vocabulary outcomes?

To examine the first research question, a proximal measure of the social-emotional vocabulary targeted for instruction in the intervention was created and administered. The SELF Vocabulary Measure assessed a select group of 20 target words in kindergarten and in first grade. Each word on the SELF Vocabulary Measure is assessed on the following: (a) expressive definition of target word, (b) expressive use of target word in context, and (c) receptive understanding of target word.

The second research question was addressed by using students' pretest scores on the Clinical Evaluation of Language Fundamentals-4 (CELF-4; Semel, Wiig & Secord, 2003) subtests of expressive vocabulary and understanding spoken paragraphs and the passage comprehension subtest of the Woodcock Reading Mastery Test-Revised (Forms G and H; WRMT-R; Woodcock, 1987). These scores were analyzed to determine whether they were predictors of students' performance on the SELF Vocabulary Measure. In addition, results from the treatment and control conditions were compared.

The third research question was addressed with the evaluation of the videotaped SELF lessons. A total of 25% of SELF lessons were observed, either in person or via videotape, to measure fidelity of implementation and to examine instructional practices to guide curriculum development. Therefore, between four and eight videotaped

lessons per teacher were available for this study. The SELF Vocabulary Observation Protocol consists of a viewing record and a scoring rubric. These were developed to review videotapes of intervention lessons to identify teacher instructional factors that are related to vocabulary growth (Appendix A).

Setting

This study was conducted in north-central Florida in two Title 1 elementary schools with a racially diverse student population. Approximately 80% of the students in these schools received free or reduced-price lunch. Table 3-3 provides the demographic information for the participating elementary schools (Florida Department of Education, 2012).

Table 3-3. Demographic Information for Schools

School	Total Enrollment K-5	% of Students on Free or Reduced-priced Lunch	% of White Students	% of Black Students	% of Hispanic Students	% of Asian Students	% of Multi-racial Students
A	885	78	42	24	23	2	8
B	737	81	56	4	34	N/A	5

Participants

Participants in this study were part of a larger study investigating the effects of the SELF intervention. Participants included 24 teachers and 108 students. Six kindergarten treatment teachers and nine first-grade teachers were in the treatment group. The control group consisted of four kindergarten and five first-grade teachers. Based on principal recommendation, teachers were invited to participate in the study as either treatment or control teachers. As mentioned previously, Project SELF was a

development grant, designed to create and pilot an intervention. Therefore, random assignment of teachers and students was not part of the original design.

Each teacher selected four students to participate in the study. This section will include information about the teachers and the students who participated in this study and the selection criteria. Table 3-4 provides teachers' self-reported background information. Because demographic information on the teachers was obtained at the end of the study, one kindergarten control teacher is not represented in the table showing teacher demographic information. She was unable to complete participation in the study due to a medical leave.

Table 3-4. Teacher Descriptive Information

	Treatment	Control
Grade-level Assignment		
Kindergarten	6	3
First Grade	9	5
Sex		
Male	0	1
Female	15	7
Race		
White	13	6
Black	2	2
Asian	0	0
Multi-racial	0	0
Ethnicity		
Hispanic or Latino	1	0
Not Hispanic or Latino	14	8
Highest Degree Earned		
Bachelors	10	6
Masters	4	2
Educational Specialist	1	0
Areas of Teacher Certification or Endorsement		
Early Childhood Education	4	1
Educational Leadership	0	1
Elementary Education	12	7
English for Speakers of Other Languages	9	5
Exceptional Student Education	2	1
Reading	1	0
Number of Year(s) Teaching Experience (mean)	19	15
Number of Year(s) Teaching Current Grade Level (mean)		
Kindergarten	9	12
First Grade	10	7

Student participants were selected based on the teacher’s identification of the student as being at risk for EBD as compared to other students in the class. Selection criteria for student participants also stipulated that students did not have developmental delays. Parental consent was requested for each student that met all of the selection criteria. Table 3-5 includes student participants’ demographic information reported by the classroom teachers for the 108 students who were selected at the beginning of the study. This information includes (a) grade level, (b) gender, (c) race and ethnicity, (d) status as an English Language Learner, (e) status as a student receiving special education services, and (f) lunch status.

Table 3-5. Student Demographic Information

	Treatment	Control
Grade-level		
Kindergarten	28	18
First Grade	39	23
Sex		
Male	35	22
Female	32	19
Race		
White	48	31
Black	13	10
Asian	1	0
Multi-racial	5	0
Ethnicity		
Hispanic or Latino	13	10
Not Hispanic or Latino	54	31
English Language Learner		
Yes	12	7
No	56	34
Receive Special Education Services		
Yes	4	2
No	64	39
Free or Reduced-priced Lunch		
Yes	54	35
No	14	6

Measures

This section provides detailed information about the various assessments used during this study. Two types of student assessment instruments were administered during this study. Initially, the classroom teachers completed a screening measure to determine which students were at risk for behavior difficulties. In addition, pretest-posttest measures were used to assess student gains in language, vocabulary, and reading comprehension. The last measure described in this section is the observation protocol created to identify the instructional strategies that teachers implemented to develop social-emotional vocabulary while teaching the SELF curriculum.

Screening Measure

The Systematic Screening of Behavior Disorders-Second Edition (SSBD; Walker & Severson, 1992) was used as a screening measure for teachers to identify students at risk for developing ongoing internalizing (e.g., introverted) and externalizing (e.g., acting out) behavior concerns. In Gate 1, teachers reviewed their class lists and ranked the top ten students within the externalizing or internalizing categories. The two highest-ranked students from each category were designated for additional screening in Gate 2. In the second gate of this screening, teachers completed a 33-item Critical Events Inventory and a short checklist of adaptive and maladaptive behavior for each of the nominated students. For the four students identified by the teacher as being at risk for behavioral problems, their parents received a letter requesting consent to participate in the study.

Pretest/Posttest Measures

Subtests from two standardized assessments, the Clinical Evaluation of Language Fundamentals-4 (expressive vocabulary and understanding spoken

paragraphs subtests) and the Woodcock Reading Mastery Tests – Revised (passage comprehension subtest), were administered to provide a measure of students' language and literacy skills as compared with national norms. The National Reading Panel (NRP, 2000) strongly recommended using assessments specifically created for a given intervention, as it would be more sensitive to gains in vocabulary growth than standardized vocabulary measures. Therefore, a researcher-created proximal measure of social-emotional vocabulary was developed and administered as well.

Clinical Evaluation of Language Fundamentals, 4th edition. Two subtests of the Clinical Evaluation of Language Fundamentals, 4th edition (CELF-4; Semel et al., 2003) were administered: Expressive Vocabulary and Understanding Spoken Paragraphs. The Expressive Vocabulary subtest evaluates a student's ability to name pictures of people, objects, and actions. Students are asked to identify 27 pictures from a stimulus book. The pictures include a variety of semantic categories, including: verbs, animals, occupations, shapes, part/whole, sports, instruments, science, math, social studies, health care, and communication. Student responses are scored based on a two-point rubric. If a student's response to the pictured item is the targeted response, a score of 2 is earned. If a student's response to the pictured item is somewhat related to the targeted response, but is not the same, a score of 1 is assigned. If a student's response is semantically incorrect, a score of 0 is given.

The Understanding Spoken Paragraphs subtest of the CELF-4 evaluates a student's ability to understand oral narrative text. Students are presented three test paragraphs that are read only once, and are appropriate for the student's age. Each paragraph is followed by five questions. Test questions may be repeated a second time

if necessary. These questions evaluate student's ability to: (a) understand the main idea of a paragraph, (b) recall details, (c) sequence events, (d) make inferences, and (e) make predictions. Student responses are either scored correct or incorrect. A score of 1 is awarded for each correct response and a score of 0 for incorrect or no responses.

As reported by the publisher (Semel et al., 2003), the test-retest reliability of CELF-4 established with stability coefficients ranging from .71 to .86 for subtests and from .88 to .92 for composite scores based on the standardization population. The internal consistency of the subtests was reported using Chronbach's alpha range with a range from .69 to .91 for subtests and from .87 to .95 for composite scores.

Woodcock Reading Mastery Tests – Revised Form G. The Passage Comprehension subtest of the Woodcock Reading Mastery Tests – Revised (WRMT-R; Woodcock, 1987) was administered. Forms G and H were used to assure test/retest reliability. This subtest uses a modified cloze procedure to evaluate a student's silent reading comprehension. Picture clues are initially included, but as the reading becomes progressively more difficult, the picture clues are not provided. The split-half of the WRMT-R was reported as having an internal reliability for subtests with a range from .68 to .98 and from .87 to .98 for subtest clusters.

SELF Vocabulary Measure. A proximal measure of the social-emotional vocabulary targeted for instruction in the SELF intervention was created. Standardized vocabulary measures do not specifically target social-emotional vocabulary and may not be sensitive enough to detect changes in students' vocabulary development (NRP, 2000). For these reasons, a researcher-developed measure of social-emotional

vocabulary was necessary. The SELF Vocabulary Measure assessed a select group of 20 target words from the kindergarten and first grade SELF curriculum (Table 3-6).

Each word on the SELF Vocabulary Measure was assessed on the following: (a) expressive definition, (b) expressive use of the target word in context, and (c) receptive understanding of the target word. Expressive definition was assessed to determine student’s depth of knowledge of the target vocabulary. Responses were scored on a scale that ranged from 0 to 2 (e.g., full knowledge = 2 points; partial knowledge = 1 point; no response/incorrect or unrelated response = 0 points). In this section, students were asked the meaning of the target word (e.g., “What does grumpy mean?”). Students with an understanding of the shades of meaning of words were able to say that “grumpy” means “a little mad” received 2 points, while students who said “grumpy means mad” received 1 point. See Appendix B for the SELF Vocabulary Rubric Guide for kindergarten and first grade.

Table 3-6. Vocabulary included in the SELF Vocabulary Measure

Kindergarten Vocabulary		First Grade Vocabulary	
angry	frustrated	ability	emotions
body language	grumpy	angry	excited
choice	jealous	body language	frustrated
consequences	kind	bullying	grumpy
cooperated	nervous	challenge	jealous
delighted	pleased	choice	nervous
difference	react	consequence	pleased
emotions	responsible	cooperate	react
excited	shy	delighted	responsible
expectations	similar	embarrassed	unhappy

Because providing the definition of a word is a difficult task that requires depth of knowledge, students were given the opportunity to share their experiences with the

social-emotional vocabulary in the expressive use of the target word in context. Here students were asked to provide examples of when they may have experienced the targeted social-emotional vocabulary (e.g., “Tell me about a choice you’ve made.”). Students’ responses in this section were also scored on a scale from 0 to 2 (e.g., correct response = 2; partially correct/related response = 1 point; no response/incorrect or unrelated response = 0). A student who is able to clearly state the options he had and the choice made would receive 2 points (e.g., I could go to the store with my mom or I could stay home with my sister. I went to the store.). A student who provides only the choice made but does not state what the choices were received a score of 1 point (e.g., I went to the store.).

To gain an understanding of students’ depth of knowledge for those who may not know a word well enough to provide a definition or an example, the SELF Vocabulary Measure also included students’ receptive knowledge of target words. In this section, students were read a prompt and were provided with a multiple-choice scenario. For the target words that could be explained with a synonym, the multiple-choice question provided the synonym as one of the distractors (e.g., Someone who is nervous is (a) jealous, (b) pleased, (c) worried.). For the target words for which there is not necessarily a synonym, examples of the target word were provided as distractors (e.g., An example of body language is (a) dropping your head, (b) putting together a puzzle, (c) scratching your back.). Students’ responses were scored as either correct (1) or incorrect (0).

The SELF Vocabulary Measure was based on other researcher-created vocabulary assessments (Biemiller & Boote, 2006; Coyne et al., 2010). Experts in the

field reviewed this proximal vocabulary measure. It was also field tested with a sample of six kindergarten and first grade students to determine which revisions, if any, were necessary. For example, the original first-grade vocabulary measure included 25 target vocabulary words. Based on student feedback and to avoid student fatigue during testing, the number of target words included in the first-grade assessment was reduced to 20. The 20 target words were approximately one-third of the target vocabulary as a representative sample of the words taught in the SELF intervention (e.g., 47 words in kindergarten, 52 words in first grade). Lists of all the words directly instructed in the SELF curriculum are provided in the Scope and Sequence (Appendix C).

Additional revisions included rewording of some prompts to provide a clearer meaning of what was being asked. For example, “What does pleased mean?” became, “What does it mean to be pleased?” so that students would be less likely to be confused by using the word “please” as a display of proper manners. Also, prompts were shortened so that students would not have to attend to extraneous information that could lengthen the amount of testing time, provide context that could be leading, and/or include additional information that would be difficult for children in the primary grades to retain. For example, the receptive understanding item for the target word “angry” was revised. Originally it was written as follows, “Andrew loves to play with his favorite toy racecar. Andrew might feel angry if his (a) little brother broke his favorite car, (b) mother bought him a new car, or (c) friend shared a toy with him.” This was revised to read as follows, “Andrew might feel angry if (a) his little brother broke his favorite car, (b) his mother bought him a new car, or (c) his friend shared a toy with him.” The SELF Vocabulary Measure – Kindergarten and the SELF Vocabulary Measure – First Grade

are included in Appendix D, including the directions for administration and the scripted oral directions.

All measures were administered to participants individually by the researcher or other members of the research team that included graduate faculty as well as graduate students who were properly trained in each assessment procedure. Because the SELF Vocabulary Measure was a lengthy test and testing fatigue might affect student responses, it was not administered at the same time as the other battery of assessments administered as part of the larger study. Therefore, multiple assessment sessions were necessary. The SELF Vocabulary Measure was administered during one assessment session and all other measures were administered in a subsequent assessment session, which were typically conducted on separate days to provide students a break from the battery of tests.

SELF Vocabulary Observation Protocol

An observation protocol was developed to review the videotapes of the intervention lessons to identify specific instructional factors that are related to students' vocabulary development and outcomes. The SELF Vocabulary Observation Protocol (Appendix A) consists of a viewing record and a scoring rubric. The viewing record includes instructional strategies that previous research has demonstrated to be effective in improving children's vocabulary. During effective vocabulary instruction, the teacher: (a) says the target word aloud, (b) prompts students to repeat the target word, (c) provides a student-friendly explanation, (d) incorporates and reviews previously taught words, (e) provides examples of the target word in multiple contexts, (f) provides multiple exposures of the target word, and (g) engages students in discussions about the target word.

The original viewing record specifically included these seven categories. However, after piloting the original version of the SELF Vocabulary Observation Protocol with three videotaped lessons from Year 2 of the SELF study, revisions were found to be necessary in order to capture the vocabulary instruction observed. For example, the category “incorporates and reviews previously taught vocabulary” had to be further defined. While piloting the instrument, the researcher found a number of instances where teachers were saying many previously taught social-emotional vocabulary. However, the teachers were neither reviewing the meaning of these words nor were they explicitly incorporating the previously taught vocabulary to connect to new vocabulary. Based on this observation, the viewing record was revised to distinguish when a teacher “connects to previously taught vocabulary.” Piloting of this measure also led to differentiating when a teacher “engages students in discussion” and when she “engages students in gestures/actions.” After all the revisions were made, the researcher viewed an additional three videos using the revised SELF Vocabulary Observation Protocol, and found that the instructional strategies being demonstrated by the teachers could be properly reflected in the revised form.

The scoring rubric of the SELF Vocabulary Observation Protocol was also revised based on this piloting. The bulleted notes that are included in the scoring rubric were all part of the original design; however, the researcher found it necessary to clarify the number of strategies that should be evidenced for each score. Teachers were not required to demonstrate all of the instructional strategies listed for each rubric score; however, as would be expected, the greater the number of instructional strategies demonstrated by a teacher, the higher their rubric score.

All videotaped lessons that were available for each teacher were reviewed for instructional purposes using the SELF Vocabulary Observation Protocol. Because there were not the same quantity or types of SELF lessons (i.e., whole-group, small-group dialogic reading, small-group application) videotaped, mean scores for each category were calculated. Appendix E provides a categorized list of the videotaped lessons available for each teacher.

Intervention

The SELF curriculum was created to provide interactive storybook readings that included targeted social-emotional vocabulary instruction and engaging reading strategies to promote both social-emotional learning and reading comprehension. SELF lessons focused on five essential social-emotional learning competencies: self-awareness, self-management, social awareness, relationship management, and responsible decision-making (Zins, Bloodworth, Weissberg, & Walberg, 2004). Each of these competencies was taught through related topics (Appendix C). Further, each topic was introduced using a storybook selected specifically for its social-emotional concepts and vocabulary and was usually developed over three lessons. The SELF curriculum included 17 topics in kindergarten and first grade, with a total of 51 lessons in kindergarten and 53 lessons in first grade. Typically, three to six social-emotional vocabulary words were targeted for instruction within each topic. SELF lessons were designed to be taught 2 to 3 times a week for approximately 20 minutes per lesson. In the typical sequence for each topic, the first lesson was presented in a whole-group setting and included an adapted version of dialogic reading in which the teacher read the designated storybook, introduced key concepts and vocabulary, and prompted discussion with specific questions. The second and third lessons were conducted in

small-group settings (3-4 students). In the second lesson of each topic, the teacher re-read the storybook using dialogic reading prompts to promote more in depth discussion and provided additional opportunities for the students to engage with the targeted vocabulary. The third lesson emphasized the application of social-emotional concepts. Students were engaged in a variety of application activities such as role-plays and scenarios that require social decision making and help them transfer what they have learned to other contexts.

The books chosen as part of the SELF intervention in this study were high-quality authentic children's literature. Criteria for book selection included narratives that (a) were developmentally appropriate and of high-interest, (b) were of appropriate length, (c) included a clear story structure with topics students can relate to; (d) represented culturally and ethnically diverse groups, (e) provided a rich context for vocabulary and comprehension instruction, (f) included colorful illustrations that support vocabulary and help narrate the story, and (g) facilitated discussions where students could compare and contrast topics across books. The Scope and Sequence in Appendix C lists each of the topics and the books chosen to address the topics.

The control condition was not provided with any of the books or materials used in the SELF intervention. Teachers in this condition conducted business as usual by implementing the typical curriculum instructed at the schools with children in kindergarten and first grade.

Data Collection

For this study, a portion of the student assessment data collected for Project SELF was used. In addition, lessons videotaped for SELF fidelity of implementation

purposes were reviewed to evaluate teacher instructional strategies that influenced students' social-emotional vocabulary outcomes.

Student Assessment Data

Before teachers began instruction of the SELF curriculum, all students in both the treatment and control conditions were individually assessed by members of the research team on the following measures: the Expressive Vocabulary and Understanding Spoken Paragraphs subtests of the CELF-4, the Passage Comprehension subtest of the WRMT-R, and the SELF Vocabulary Measure. After all teachers completed teaching the SELF intervention, members of the research team individually assessed students in both the treatment and control conditions during posttest.

To establish inter-scorer reliability, approximately 30% of all the SELF Vocabulary Measure data in kindergarten and first grade were randomly selected and separately scored by two members of the research team. Inter-scorer reliability was established at 96% for kindergarten and 94% for first grade. Differences in scores were discussed between the two scorers and scores were reconciled. This procedure helped clarify scoring criteria that was later used to train another scorer. In order to prevent scoring bias, a scorer who was blind to the study was trained in scoring procedures and scored the same randomly selected pretests. Inter-scorer reliability between the scorer blind to the study and this researcher was 95% at kindergarten and 94% at first grade. Inter-scorer reliability was evaluated at posttest on another 30% of the assessments that were randomly selected. Inter-scorer reliability at posttest was 96% for kindergarten and 95% at first grade.

Videotaped Lesson Data

After the completion of all pretesting and initial professional development, kindergarten and first-grade teachers in the treatment condition were advised as to when to begin the intervention. SELF lessons were implemented 2 to 3 times a week for approximately 20 minutes per lesson. Support personnel at the schools videotaped teachers during SELF instruction. Teachers were to be videotaped once a month.

Although the lessons included in the SELF curriculum were intended to be taught in approximately 20-minute sessions, teachers ranged in the delivery time of lessons. Of the videotaped lessons observed, the shortest lesson was conducted in approximately 8 minutes. This is in stark contrast to the longest lesson presented, which took a little over 34 minutes. The average lesson length was approximately 18 minutes with nearly 60% of the videotaped lessons being taught between 15 and 22 minutes. This marked variation in the time teachers dedicated to present the topics and social-emotional vocabulary targeted in the SELF curriculum may have influenced students' outcomes on the SELF Vocabulary Measure.

After Year 3 of the SELF study, videotaped intervention lessons were reviewed to identify instructional factors that may affect students' gains of social-emotional vocabulary. Observers reviewed and coded videotapes using the SELF Vocabulary Observation Protocol and scored instruction using the SELF Vocabulary Observation Protocol Instruction Rubric (Appendix A). Coders participated in a two-hour training session where they were instructed on the use of the SELF Vocabulary Observation Protocol. The training began with providing coders with background about the SELF curriculum, including the different types of lessons within each topic and the social-emotional vocabulary targeted in kindergarten and first grade. Coders were presented

with the viewing record and scoring rubric for the SELF Vocabulary Observation Protocol. The researcher defined and provided examples of each of the instructional strategies included in the viewing record. The training session also included the researcher modeling how to complete a viewing record. After the researcher modeled with a sample video, the researcher and coders then watched two additional videos and compared their observations – the strategies observed and how many instances of each strategy had been tallied on the viewing record. At the end of the training session, coders were found to be reliable with the researcher at 95%. During the 2012-2013 school year, a total of 95 SELF lessons were videotaped in kindergarten and first grade treatment classrooms (Appendix E).

Inter-observer agreement was calculated by determining the extent to which two trained observers agreed on the data collected from the videotaped observations of teachers' use of the eight instructional strategies. A primary observer was designated for each of the videotaped sessions. The researcher served as the primary coder on 45 sessions that included at least one videotaped lesson available for each type of lesson that each teacher implemented in the study. The remaining 50 lessons were randomly assigned to three additional coders who were trained in the scoring procedure as primary observers. A second observer scored a randomly selected 30% of videotaped lessons to establish inter-observer agreement.

Inter-observer agreement was calculated for each of the eight instructional categories. Overall inter-observer agreement between primary and secondary coders ranged from 88%-100% with a mean of 97%. Table 3-7 reports the inter-observer

agreement for the individual instructional strategies included in the SELF Vocabulary Observation Protocol.

Table 3-7. Inter-Observer Agreement for SELF Vocabulary Observation Protocol

Instructional Strategy	Range	Mean
Says the target word aloud	94%-100%	98%
Prompts students to repeat the word	94%-100%	99%
Provides a student-friendly explanation	88%-100%	95%
Connects to previously taught vocabulary	91%-100%	96%
Provides examples in multiple contexts	90%-100%	95%
Provides multiple exposures	100%	100%
Engages students in discussions	95%-100%	99%
Engages students in gestures/actions	88%-100%	95%

Analysis

To determine the effects of the SELF intervention on student learning of social-emotional vocabulary, an analysis of covariance (ANCOVA) was conducted on the posttest scores for the SELF Vocabulary Measure, with pretest scores as a covariate to control for initial differences between the treatment and the control conditions at each grade level (Gall et al., 2007). To investigate what student factors are related to students' social-emotional vocabulary outcomes, a multiple regression analysis was conducted to determine whether students' scores of the CELF-4 and WRMT-R are predictors to student gains on the SELF Vocabulary Measure. Lastly, a multiple regression analysis was conducted to determine the relationship between teachers'

mean rubric scores on the SELF Vocabulary Observation Protocol and their students' vocabulary outcomes.

The chapters that follow will present the results of the data analyses in the present study and a discussion of the findings. Chapter 4 includes the results of the statistical analyses of data from the present study. Chapter 5 provides a summary of the findings from the current study, limitations of this study, as well as implications for practice and future research.

CHAPTER 4 RESULTS

The purpose of this study was to examine the effects of the SELF: Social-Emotional Learning Foundations curriculum on the social-emotional vocabulary development of kindergarten and first grade children, particularly those who are at risk for emotional and behavioral disorders (EBD). Specifically, the following three research questions were investigated:

1. What are the effects of the Social-Emotional Learning Foundations (SELF) intervention on student learning of social-emotional vocabulary?
2. What student factors are related to social-emotional vocabulary outcomes?
3. What teacher instructional factors are related to students' vocabulary outcomes?

To examine the first research question, a proximal measure of the social-emotional vocabulary targeted for instruction in the intervention was created and administered. The SELF Vocabulary Measure assessed a select group of 20 target words in kindergarten and in first grade. This assessment was administered pre- and posttest to participating students in treatment and control conditions. Student pretest scores served as a covariate to eliminate initial differences between the two conditions.

The second research question was addressed by using students' pretest scores on the Clinical Evaluation of Language Fundamental-4 (CELF-4; Semel, Wiig, & Secord, 2003) subtests of expressive vocabulary and understanding spoken paragraphs and the passage comprehension subtest of the Woodcock Reading Master-Revised (Forms G and H) (WRMT-R; Woodcock, 1987). These scores were analyzed to determine whether they were predictors of students' performance on the SELF Vocabulary Measure. In addition, results from the treatment and control conditions were compared.

The third research question was addressed with the evaluation of the videotaped SELF lessons. The SELF Vocabulary Observation Protocol (Appendix A) consists of a viewing record and a scoring rubric. These were developed to review videotapes of intervention lessons to identify teacher instructional factors that are related to students' social-emotional vocabulary growth. Teachers' mean scores on the observation protocol were analyzed to determine if they were predictors of students' vocabulary outcomes on the SELF Vocabulary Measure.

Results of the statistical analyses of data from the present study are discussed in the subsequent four sections. The first section presents group descriptive data for the SELF Vocabulary Measure and the results of the analysis of covariance (ANCOVA) conducted to examine the first research question. The second section discusses the results of the multiple regression analysis conducted to study student factors, such as their initial literacy skills, as predictors of their performance on the SELF Vocabulary Measure. The third section addresses the results of the multiple regression analysis conducted to investigate the instructional strategies teachers implement that may be a factor in their students' social-emotional vocabulary development. In this section, teacher demographic information is also presented and analyzed as a potential factor in student outcome. The last section summarizes the overall results of the overall study.

Statistical Analyses of the Data

Initially, 108 kindergarten and first-grade students, from treatment and control classrooms, were selected for their participation in the study. Due to school withdrawal, one child was removed from the study before pretesting began. Additionally, 16

students moved during the school year and were withdrawn from the study. Therefore, 91 children completed the study and were administered posttests.

Effects of the SELF Intervention on Social-Emotional Vocabulary

The SELF Vocabulary Measure was administered prior to the start of the SELF intervention to document any prior knowledge of the target social-emotional vocabulary and to examine comparability across treatment and control conditions. Because students were not randomly assigned to the intervention or control condition as part the larger Project SELF study, independence of students' pretest scores on the SELF Vocabulary Measure to condition was examined using a Welch two-sample *t*-test. Results of the Welch two-sample *t*-test found a *p* value larger than .05 ($p = 0.42$), which indicated that the groups did not differ significantly on pretest scores. Because there was no significant difference on pretest scores of the SELF Vocabulary Measure, the use of pretest scores as a covariate was appropriate (Gall, Gall, & Borg, 2007). The SELF Vocabulary Measure was scored on a continuous scale, therefore, an ANCOVA was conducted to determine the effects of the SELF intervention on student learning of social-emotional vocabulary. Pretest scores on the SELF Vocabulary Measure served as the covariate and posttest scores on the same measure served as the dependent variable.

The assumption for homogeneity of variances was tested before the ANCOVA was conducted. Homogeneity of variances was assessed with Levene's test. Results of Levene's test of homogeneity of variances found a *p* value larger than .05 ($p = .16$) indicating equal variances among groups. Also, no violations were found for the assumption of homogeneity of regression slopes, indicating there were no significant interactions between pretest scores and condition.

As assumptions for ANCOVA were met, an analysis of covariance was used to analyze the mean posttest scores among students in treatment and control conditions on the SELF Vocabulary Measure, with pretest as the covariate. Table 4-1 reports pretest and posttest mean scores and standard deviations on the SELF Vocabulary Measure.

Table 4-1. Pretest and Posttest SELF Vocabulary Measure for Treatment and Control Groups

Condition	N	Pretest		Posttest	
		M	SD	M	SD
Treatment	55	30.95	14.04	56.33	14.73
Control	36	33.78	17.56	43.39	17.97

The ANCOVA computed adjusted mean scores for the SELF Vocabulary Measure posttest. Adjusted scores are considered more dependable for reporting because they reduce error variance and thus increase the precision of the estimates (Glass & Hopkins, 1996). Adjusted mean scores eliminate the individual differences among participants at the beginning of the study.

The intervention effects were evaluated using a one-way ANCOVA, in which pretest scores were used as the covariate (Table 4-2). Results of the ANCOVA revealed significant differences between groups, $F(1,88) = 58.97, p < .01$. The treatment group's adjusted mean score ($M = 57.28, SE = 1.25$) was significantly higher than the control group's adjusted mean ($M = 41.94, SE = 1.55$) at posttest. Also, further analysis found a large effect size (Cohen's $d = 1.14$, Hedges' $g = 1.13$).

Table 4-2. Summary of Analysis of Covariance for SELF Vocabulary Measure

	df	SS	MS	F	Pr (>F)
Pretest scores	1	14000.6	14000.6	162.524	< .01
Condition	1	5079.6	5079.6	58.966	< .01
Residuals	88	7580.8	86.1		

Each word on the SELF Vocabulary Measure (Appendix D) was assessed on the following: (a) expressive definition, (b) expressive use of the target word in context, and (c) receptive understanding of target word. Expressive definition was assessed to determine students' depth of knowledge of the target vocabulary (e.g., "What does delighted mean?"). Students were also given the opportunity to share their experiences with the social-emotional vocabulary in the expressive use of the target word in context (e.g., "Tell me when you might be delighted.") Lastly, to gain an understanding of students' word knowledge for those who may not know a word well enough to provide a definition or an example, the SELF Vocabulary Measure also included student's receptive knowledge of target words. In this section, students were read a prompt and were provided with a multiple-choice scenario.

To determine the effect of the SELF intervention on students' development of depth of knowledge of social-emotional vocabulary, multiple ANCOVAs were conducted to compare pre- to posttest scores on each of the subscales of the SELF Vocabulary Measure (i.e., expressive definition, expressive use of the target word, and receptive understanding of the target word). Pearson product-moment correlation coefficients were computed between each subscale of the dependent measure for all students at pretest and posttest. These correlations are displayed in Table 4-3.

Table 4-3. Correlations for Scores on Subscales of the SELF Vocabulary Measure

Measure Subscale	1	2	3	4	5	6
1. Expressive definition (pre)	--					
2. Expressive use (pre)	.636	--				
3. Receptive understanding (pre)	.653	.711	--			
4. Expressive definition (post)	.595	.566	.523	--		
5. Expressive use (post)	.502	.651	.530	.764	--	
6. Receptive understanding (post)	.584	.641	.666	.695	.699	--

Results of a Welch two-sample *t*-test found a *p* value larger than .05 ($p = 0.83$), indicating groups did not differ significantly on pretest scores of the expressive definition subscale. Since there was no significant difference on pretest scores of this subscale, it was appropriate to use the pretest score of the subscale as a covariate. Homogeneity of variances was assessed with Levene's test. Results of Levene's test of homogeneity of variances found a *p* value larger than .05 ($p = .76$) indicating equal variances among groups. The assumption of homogeneity of regression slopes was also tested and results indicated there were no significant interactions between pretest scores on the expressive definition subscale and condition.

Results of a one-way ANCOVA, in which pretest scores on the expressive definition subscale of the SELF Vocabulary Measure were used as the covariate (Table 4-4), revealed significant differences between groups $F(1,88) = 27.23$, $p < .01$. The treatment group's adjusted mean score ($M = 14.75$, $SE = .58$) was significantly higher than the control group's adjusted mean ($M = 9.94$, $SE = .72$) at posttest. The calculated effect size was large (Cohen's $d = .90$, Hedges' $g = .89$).

Table 4-4. Summary of Analysis of Covariance for Expressive Definition Subscale

	df	SS	MS	F	Pr (>F)
Pretest scores on expressive definition subscale	1	1171.42	1171.42	63.302	< .001
Condition	1	503.97	503.97	27.234	< .001
Residuals	88	628.46	18.51		

To evaluate the intervention effects on students' ability to provide expressive examples of the target word in context, a Welch two-sample *t*-test found a *p* value larger than .05 ($p = 0.29$), indicating groups did not differ significantly on pretest scores of this subscale. Since there was no significant difference on pretest scores of expressive use of the target word, it was appropriate to use the pretest score of the subscale as a covariate. Homogeneity of variances was assessed with Levene's test. Results of Levene's test of homogeneity of variances found a *p* value larger than .05 ($p = .14$) indicating equal variances among groups. The assumption of homogeneity of regression slopes was also tested and results indicated there were no significant interactions between pretest scores on the expressive use of the target word and condition.

Results of a one-way ANCOVA, in which pretest scores on the expressive use of the target word subscale of the SELF Vocabulary Measure were used as the covariate (Table 4-5), revealed significant differences between groups $F(1,88) = 47.79$, $p < .01$. The treatment group's adjusted mean score ($M = 28.16$, $SE = .73$) was significantly higher than the control group's adjusted mean ($M = 20.06$, $SE = .91$) at posttest. A

large effect size was also found for the expressive use subscale (Cohen's $d = 1.12$, Hedges' $g = 1.11$).

Table 4-5. Summary of Analysis of Covariance for Expressive Use Subscale

	df	SS	MS	F	Pr (>F)
Pretest scores on expressive use subscale	1	2944.20	2944.20	99.859	< .001
Condition	1	1409.10	1409.08	47.792	< .001
Residuals	88	2594.50	29.48		

To evaluate the intervention effects on students' receptive knowledge of the target word, a Welch two-sample t -test found a p value larger than .05 ($p = 0.30$), indicating groups did not differ significantly on pretest scores of this subscale. Also, the homogeneity of variances assumption was met. Levene's test of homogeneity of variances indicated equal variances with a p value greater than .05 ($p = .06$). However, for the receptive understanding of the target vocabulary, the homogeneity of regression slopes for this subscale was violated. An interaction was found between students' pretest scores on this subscale and the condition (Figure 4-1). Due to the violation of the homogeneity of regression slopes assumption for this subscale, it was not recommended to analyze the main effect of the treatment on receptive understanding of the target vocabulary via an ANCOVA (Field, 2005). However, visual interpretation of the interaction in Figure 4-6 seems to indicate that students with low pretest scores benefitted the most, while students with relatively high pretest scores performed well regardless of whether they were in the treatment or control condition.

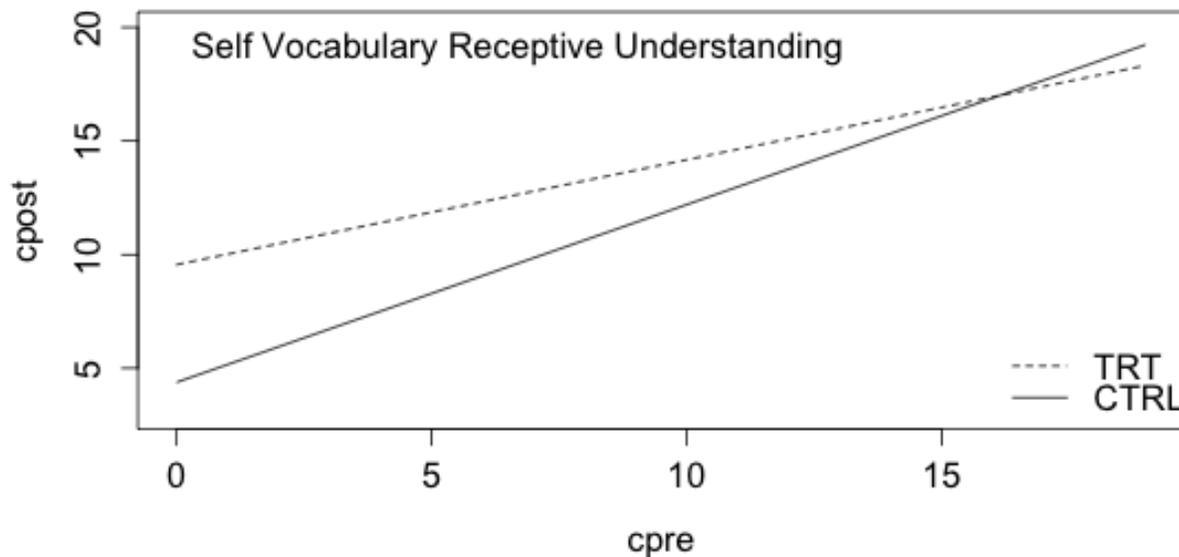


Figure 4-1. Homogeneity of Regression Slopes for Receptive Understanding Subscale

Based on the results of the multiple one-way ANCOVA conducted to determine the effect of the SELF intervention on students' social-emotional vocabulary development of each of the subscales of the SELF Vocabulary Measure, students in the treatment condition made the greatest gains in their ability to use the target word and also made significantly greater gains than the students in the control condition in their ability to provide a definition for the target word. The intervention seemed less effective for the receptive understanding of the target word. For this subscale, it appears as if students with relatively high pretest scores performed well regardless of whether they received the SELF intervention or not. Figure 4-2 shows the gains on each subscale from pre- to posttest scores for treatment and control condition. It is important to recall that subscales A and B (expressive definition and expressive use of the target word, respectively) were scored on a 2-point rubric, while subscale C (receptive

understanding of the target word) received a maximum score of 1 point for a correct response. The graphs shown are based on raw scores. Figure 4-3 shows the gains for each subscale on the SELF Vocabulary Measure from pre- to posttest for the control and treatment conditions separately.

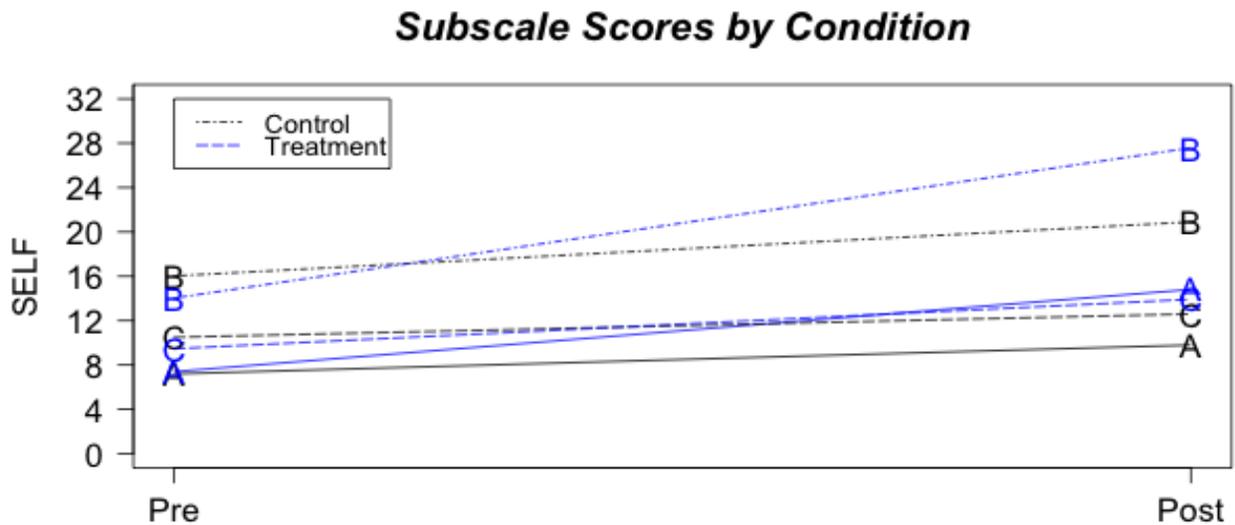


Figure 4-2. Subscale Scores by Condition

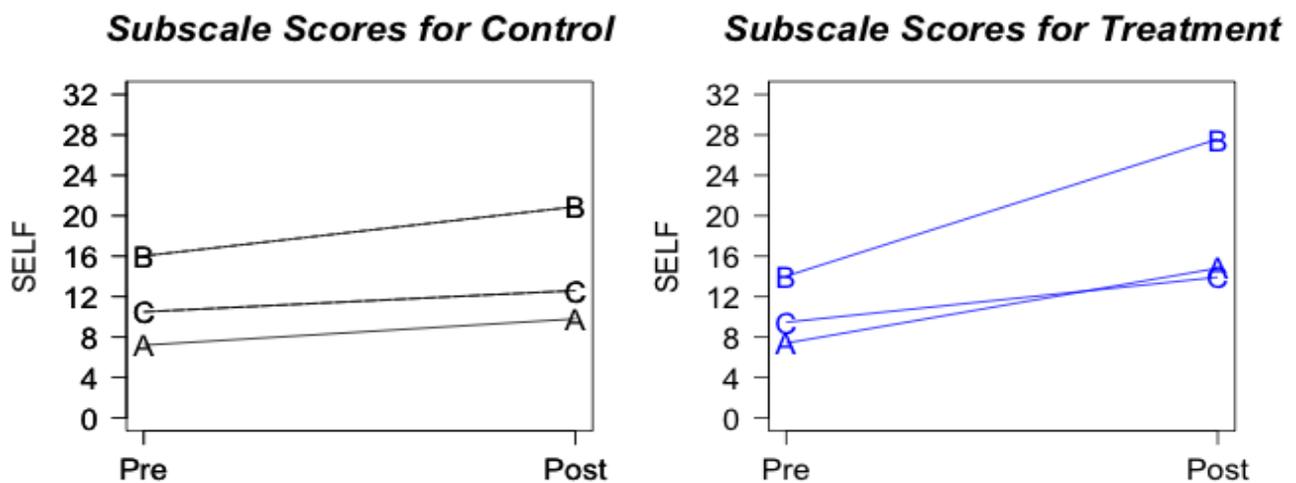


Figure 4-3. Subscale Scores for Control and Treatment Conditions

Student Factors Related to Social-Emotional Vocabulary Outcomes

To examine what student factors are related to social-emotional vocabulary outcomes, a multiple regression analysis was run to predict posttest scores of the SELF Vocabulary Measure from the pretest scores on CELF-4 expressive vocabulary and understanding spoken paragraphs subtests (CELFEV and CELFSP, respectively) and the WRMT-R passage comprehension subtest (WPC). The assumptions of linearity, multicollinearity, unusual points, and normality of residuals were met. The mean scores and standard deviation for students in the treatment and control conditions are listed for each of these assessments in Table 4-6.

Table 4-6. Means and Standard Deviations for Treatment and Control Conditions

Measure	Treatment		Control	
	M	SD	M	SD
Posttest SELF Vocabulary Measure	56.33	14.73	43.39	17.97
CELFEV	20.31	7.64	20.94	11.71
CELFSP	6.78	2.97	7.53	3.84
WPC	7.64	7.88	8.08	8.31

A multiple regression model with all four predictors produced $R^2 = .60$, $F(4,86) = 32.73$, $p < .001$. As can be seen in the results table (Table 4-7), CELF scales and group had significant positive regression coefficients, indicating students with higher scores on these scales were expected to have higher posttest scores on the SELF Vocabulary Measure, after controlling for the other variables in the model. WPC was not found to be a significant predictor. When controlling for CELFEV, CELFSP and WPC, participating in the treatment group was associated with 14.79 point increase in posttest

scores. When controlling for other variables, a 1 point increase in CELFEV pretest was associated with a .59 point increase in SELF Vocabulary Measure posttest scores, and a 1 point increase in CELFSP was associated with a 1.88 point increase in SELF Vocabulary Measure posttest scores. Lastly, in this multiple regression model, the regression on standardized scores found that when controlling for other variables, participation in the SELF intervention was associated with .88 standard deviation increase in posttest on the SELF Vocabulary Measure.

Table 4-7. Summary of Multiple Regression Analysis for Student Factors Related to Social-Emotional Vocabulary Outcomes

Variable	<i>B</i>	<i>SE_B</i>	β
Intercept	42.27	1.86	-0.52*
Condition	14.79	2.40	0.86*
CELFEV	0.59	0.19	0.32*
CELFSP	1.88	0.54	0.36*
WPC	0.17	0.17	0.08

Note. * $p < .05$; *B* = unstandardized regression coefficients; *SE_B* = Standard error of the coefficient; β = standardized coefficient

Teacher Instructional Factors Related to Students' Vocabulary Outcomes

To examine what teacher instructional factors are related to students' social-emotional vocabulary outcomes, a multiple regression analysis was run to predict posttest scores of the SELF Vocabulary Measure from the rubric scores the teachers earned on each of the SELF intervention lessons that were videotaped. A total of 95 videos viewed and coded. However, due to technical issues with two of the videos they were not included in the analysis. One video did not have the audio turned on for the first nine minutes of the lesson. A second video was stopped before the teacher

completed the lesson with the students. Because the entire lessons could not be coded for these two videos, they were excluded from the data set. The lessons that were excluded are noted in Appendix E. A total of 93 rubric scores for teachers' lessons were included in the final analysis.

The assumptions of linearity, multicollinearity, and normality of residuals were met. The data set was also checked for outliers and any influential data points. Due to the limited number of videos available (Appendix E), the frequency of the different types of lessons (i.e., whole group, small-group dialogic reading, small-group application) did not support having them run separately. When analyzing the lessons overall per teacher (in other words all the videos available per teacher regardless of type of lesson), the multiple regression model with all three predictors produced $R^2 = .56$, $F(3,51) = 24.05$, $p < .001$. As can be seen in the results table (Table 4-8), students' pretest scores on the SELF Vocabulary Measure had a significant positive regression coefficient, indicating students with higher pretest scores were expected to have higher posttest scores, after controlling for the other variables in the model. Therefore, the results of the multiple regression analysis found that the teachers' rubric score was not a significant predictor in their students' social-emotional vocabulary outcomes. However, the results presented show that students with teachers who had a mean rubric score of 2, could be expected to score 4.89 points higher than students with teachers who had a mean rubric score of 1. Similarly, students with teachers with a mean score of 3 could be expected to score 4.33 points higher than students whose teacher had a mean rubric score of 1. That is, a teacher with an average score of 2 or 3 on the SELF Vocabulary Observation Protocol was associated with an increase in

student outcome scores on the SELF Vocabulary Measure, but the difference was not significant.

Table 4-8. Summary of Multiple Regression Analysis for Teacher Instructional Factors and Student Outcomes of Social-Emotional Vocabulary

Variable	<i>B</i>	<i>SE_B</i>	<i>p</i>
Intercept	51.90	4.96	.001*
SELF Vocabulary Measure Pretest Scores	0.78	0.10	.001*
Teachers with rubric mean score of 2	4.89	5.25	0.36
Teachers with rubric mean score of 3	4.33	5.71	0.45

Note. * $p < .05$; *B* = unstandardized regression coefficients; *SE_B* = Standard error of the coefficient

Table 4-9. Summary of Multiple Regression Analysis for Teacher Demographic and Student Outcomes of Social-Emotional Vocabulary

Variable	<i>B</i>	<i>SE_B</i>	<i>p</i>
Intercept	63.92	5.81	.001*
Centered mean	0.76	0.11	.001*
Years of experience centered around mean	-0.19	0.25	0.45
Years of experience at current grade level centered at mean	0.06	0.41	0.89
Early Childhood certification	-2.50	5.50	0.65
Elementary Education certification	-6.35	6.41	0.33
English for Speakers of Other Languages certification	-1.26	3.39	0.75
Exceptional Student Education certification	-4.73	4.25	0.27
Reading certification	-1.32	5.51	0.81

Note. * $p < .05$; *B* = unstandardized regression coefficients; *SE_B* = Standard error of the coefficient

To examine what teacher demographic factors are related to students' social-emotional vocabulary outcomes, a multiple regression analysis was run to predict posttest scores of the SELF Vocabulary Measure from the total number of teachers' years of teaching experience, teachers' years of experience at their current grade level,

and teachers' areas of certification. The assumptions of linearity, multicollinearity, unusual points, and normality of residuals were met. When analyzing teacher demographic information, the multiple regression model with all eight predictors produced $R^2 = .57$, $F(8,46) = 9.82$, $p < .001$. As can be seen in the results table (Table 4-9), the results of the multiple regression analysis found that teacher demographic data were not a significant predictor of their students' social-emotional vocabulary outcomes.

Summary

The purpose of this study was to investigate the effects of the SELF intervention on students' social-emotional vocabulary growth. A pretest-posttest control group design was used to compare students who received the SELF intervention in the treatment condition to those who did not in the control condition. To determine the effectiveness of the SELF intervention in developing students' social-emotional vocabulary, students were assessed on a researcher-created measure of targeted social-emotional vocabulary (i.e., SELF Vocabulary Measure), the expressive vocabulary and spoken paragraphs subtests of the CELF-4 and the passage comprehension subtest of the WRMT-R. In addition, videotaped SELF lessons were observed, coded, and scored to determine if instructional strategies known to support vocabulary development were predictors of students' social-emotional vocabulary outcomes.

Findings of an ANCOVA indicate that kindergarten and first grade children who were in the treatment condition and received the SELF intervention demonstrated significantly greater knowledge of targeted social-emotional vocabulary words compared with students in the control condition who did not participate in the SELF

intervention. Differences in target social-emotional vocabulary between treatment and control group produced large effect sizes (Cohen's $d = 1.14$). Pursuing this further to study the effects of the SELF intervention on the depth of knowledge gained by the students in both conditions, multiple ANCOVAs were conducted to compare pre- to posttest scores on the subscales of the SELF Vocabulary Measure (i.e., expressive definition, expressive use of the target word, and receptive understanding of the target word). The treatment group's adjusted mean score was significantly higher than the control group's adjusted mean at posttest for both students' ability to define the targeted social-emotional vocabulary word (Cohen's $d = .90$) and their ability to use the target word (Cohen's $d = 1.12$). For these two subscales, large effect sizes were found. Due to an interaction effect, gains in students' receptive understanding of the targeted social-emotional vocabulary could not be interpreted statistically. Nevertheless, interpretation of the interaction seems to indicate that students with low pretest scores benefitted the most, while students with relatively high scores performed well regardless of whether they received the SELF intervention or not.

A multiple regression analysis was run to examine what student factors related to their initial literacy skills (pretest scores on subtests of the CELF-4 and the WRMT-R) could be predictors to their social-emotional vocabulary outcomes. Students' initial passage comprehension WRMT-R scores were not found to be a significant predictor of the students posttest score on the SELF Vocabulary Measure. However, students' pretest scores on the CELF-4 subtests (expressive vocabulary and spoken paragraphs) were found to be significant predictors for the students who received the SELF intervention. Students with higher scores on the CELF-4 subtests and who received the

SELF intervention were expected to have higher posttest scores on the SELF Vocabulary Measure. Overall, students who participated in the treatment condition had greater gains on their posttest scores of the SELF Vocabulary Measure, with a 14.79 point increase in posttest scores.

Multiple regressions analyses were conducted to examine what teacher instructional factors and demographic factors could be predictors to their students' social-emotional vocabulary outcomes on the SELF Vocabulary Measure. No statistically significant relationships were found in the variables for teachers' instructional strategies while implementing the SELF curriculum or in teachers' demographic variables for their years of teaching experience or areas of certification. It is interesting to note, however, that teachers who received a mean score of 2 or 3 on the SELF Vocabulary Observation Protocol did have students with higher mean gains on the SELF Vocabulary Measure compared to teachers with a mean score of 1 on the protocol rubric.

CHAPTER 5 DISCUSSION

When children enter school, they are faced with increased demands for well-regulated and goal-directed activities, including sustained behavioral inhibition, compliance with rules, and positive interpersonal relationships with teachers and peers (Campbell & von Stauffenberg, 2008). Language skills support social-emotional adjustment and promote children's abilities to comprehend and comply with the behavioral demands of school (Catts, Fey, Zhang, & Tomblin, 1999). Language and social-emotional skills provide essential foundational support for effective school engagement. Literature related to emotion vocabulary provides corroborating evidence of the academic and social benefits that social-emotional vocabulary can provide.

While there is a large body of literature on bibliotherapy, or the use of books to promote social-emotional growth and well-being (see for example, Womack, Marchant, & Borders, 2011), no studies have specifically examined the development of social-emotional vocabulary through storybook reading. The practice of storybook reading, commonly used by teachers in the primary grades, is a potential vehicle for increasing children's vocabulary (National Early Literacy Panel [NELP], 2008). Project SELF: Social Emotional Learning Foundations was designed to investigate how storybook read alouds could be conducted to extend students' existing language and promote vocabulary related to the key concepts of social-emotional development.

Because storybook reading has already been shown to be an excellent venue for teaching vocabulary and promoting social-emotional growth, additional research is needed to examine the effects of storybook reading on social-emotional vocabulary development. This study was designed to begin to address this gap in the research.

Using data from Project SELF and examining vocabulary instruction more closely, this study examined the effects of the SELF curriculum on the social-emotional vocabulary development of children in kindergarten and first grade, particularly those who are at risk for emotional and behavioral disorders (EBD).

In this chapter, a discussion of the research findings is presented. This chapter includes a discussion of (a) the effectiveness of the SELF curriculum in developing children's social-emotional vocabulary, (b) student factors of initial literacy skills that may contribute to their social-emotional vocabulary learning outcomes, and (c) teacher factors of instructional strategies and demographic data related to number of years of teaching experience as well as areas of certification that can serve as predictors of student outcomes of social-emotional vocabulary development. These findings are presented and discussed for each research question. After the findings, the limitations of the current study, implications for practice, implications for future research, and conclusions are also provided.

Discussion of Findings

The current study was designed to investigate the effects of the SELF intervention on kindergarten and first grade students' social-emotional vocabulary growth. A pretest-posttest control group design was used to compare treatment to control conditions at each grade level. The following section will provide the findings for the research questions being examined in this study.

Effects of the SELF Intervention on Social-Emotional Vocabulary

Previous research has provided evidence of the effectiveness of direct vocabulary instruction within the context of storybook read alouds. The current study examined the effects of the SELF curriculum on the social-emotional vocabulary

development of kindergarten and first grade children, particularly those who are at risk for emotional and behavioral disorders. The first research question was as follows: What are the effects of the Social-Emotional Learning Foundations (SELF) intervention on student learning of social-emotional vocabulary? This question was addressed by examining the social-emotional vocabulary word learning in each condition (treatment and control) as measured by the researcher-created SELF Vocabulary Measure.

Findings of a one-way ANCOVA indicate that kindergarten and first-grade children who were in the treatment condition and received the SELF intervention demonstrated significantly greater knowledge of targeted social-emotional vocabulary words compared with students in the control condition who did not participate in the SELF intervention, $F(1,88) = 58.97, p < .01$, Cohen's $d = 1.14$. To determine what aspect of students' vocabulary knowledge was influenced most by the intervention, multiple ANCOVAs were conducted to compare posttest scores on the subscales of the SELF Vocabulary Measure (i.e., expressive definition, expressive use of the target word, and receptive understanding of the target word), with pretests as the covariates. The students who participated in the treatment group and received instruction in the SELF curriculum had significantly higher adjusted mean scores than the students in the control group for their ability to define the targeted social-emotional vocabulary word (Cohen's $d = .90$) and their ability to use the target word (Cohen's $d = 1.12$). As is noted, large effect sizes were found for these subscales. Although it is considered that less depth of knowledge is needed when identifying receptive knowledge of a vocabulary word than when expressive knowledge must be produced, an interaction effect did not permit statistical interpretation of the main effects of gains in student's

receptive understanding of the targeted social-emotional vocabulary. However, interpretation of the interaction appears to indicate that students with low pretest scores benefitted the most, while students with relatively high scores performed well regardless of whether they received the SELF intervention or not.

There are a number of studies that have found the effects of students' vocabulary gains to be mediated based on their initial vocabulary knowledge. Many researchers have found that students with higher initial-vocabulary knowledge benefit more than their peers with lower vocabulary knowledge (Coyne et al., 2010; Loftus & Coyne, 2013; Marulis & Neuman, 2010; Pullen, Tuckwiller, Konold, Maynard, & Coyne, 2010; Silverman, Crandell, & Carlis, 2013). This is in contrast to the findings in the current study. Results of the SELF intervention show that it had a positive effect on all students in the treatment condition, regardless of their initial knowledge of social-emotional vocabulary. In other words, the designed SELF curriculum is effective for students with both lower and higher levels of initial vocabulary.

Theoretically, receptive measures of word knowledge require fewer cognitive demands of students and are able to detect a lower level of word knowledge; thus, receptive measures are often considered easier than expressive measures of word knowledge (Beck, McKeown, & Kucan, 2002; Coyne, McCoach, & Kapp, 2007). Therefore, it is surprising that the results of this study found that the SELF intervention seems more effective in developing children's expressive use of targeted social-emotional vocabulary. A reason for this finding may be that the SELF curriculum is designed to engage students in discussions where they are to make personal connections with the target vocabulary. For example, "When might you be delighted?"

The SELF intervention was also effective in developing children's ability to provide a definition for the targeted vocabulary. This gain in student knowledge demonstrates students' depth of knowledge of the social-emotional vocabulary targeted for instruction in the intervention. SELF lessons provided student-friendly explanations of each target vocabulary word, and the target words were used repeatedly, providing students with multiple opportunities to hear and engage with the social-emotional vocabulary. Teachers provided multiple exposures of the words in varying contexts. Student-friendly explanations, multiple exposures to targeted vocabulary, and students' engagement in discussion about social-emotional vocabulary may all be contributing factors to students' deeper understanding of the words and thus being able to provide a definition. Researchers have recommended (Beck et al., 2002) drawing on students' experiences to help them create connections to new word meanings. Social-emotional vocabulary lends itself well to providing a springboard for conversations that students can connect to their experiences in their lives that have produced different feelings.

The mean gains demonstrated by students in the treatment group on the SELF Vocabulary Measure suggests that students should have had a deeper level of word knowledge. This deeper understanding of a word should have facilitated their ability to receptively identify the meaning of the target vocabulary. However, results of the current study found that students in the treatment and the control conditions did not have a statistically significant difference on their performance of the receptive understanding of social-emotional vocabulary. One explanation for this finding may be that the multiple-choice format of the exam gave students in both the treatment and control conditions equal opportunities to randomly select a response and therefore was

less likely to be sensitive enough to find a significant difference between the conditions. This unexpected finding may be a problem with the multiple-choice format of the researcher-created vocabulary measure. A second explanation may be that the multiple-choice format may have been too difficult or novel for young children. Also, some of the distractors on the exam may have been rather lengthy for young children and it may have been difficult for them to retain all the information in order to carefully consider each choice before making a decision on which one would best complete the question stem provided. In the future, the multiple-choice questions on the SELF Vocabulary Measure could be revised so that only synonyms are presented as distractors in order to make it easier for students to retain the information provided before they make a choice. Another revision that may be considered is to ensure that the distractors contain synonyms that would be considered Tier 1 vocabulary words, as described by Beck and her colleagues (2002), and not other SELF targeted vocabulary words that represent more mature language use. A third explanation for this finding may be the unintended result of a pretest effect. That is, students in control condition were exposed to the target words during pretesting, which may have made them more sensitive to learning the word meanings if they encountered the words between pre and posttest.

The positive effects on of the SELF intervention on the word learning of social-emotional vocabulary in this study are consistent with previous research that has found that explicit vocabulary instruction through storybook readings (Marulis & Neuman, 2010; Robbins & Ehri, 1994) and student engagement in discussions on targeted vocabulary (Ewers & Brownson, 1999; Dickinson & Smith, 1994) can lead to greater

gains in vocabulary knowledge. Participation in the SELF intervention provided students with student-friendly explanations of the targeted social-emotional vocabulary and opportunities to engage in discussions. Results of the SELF intervention found that although the treatment and control conditions had no appreciable difference on their pretest scores, at posttest the students in the intervention condition demonstrated a statistically significant difference in their ability to define and provide examples of the targeted social-emotional vocabulary.

In sum, these findings can be a significant and unique contribution to the field of social-emotional vocabulary learning in that it combines a social-emotional intervention with vocabulary research. There has not been any previous research of vocabulary development through storybook readings of authentic children's literature that has specifically focused on social-emotional vocabulary. The results of this study suggest that children in kindergarten and first grade who are identified as at-risk for emotional and behavior disorders can benefit in multiple ways from a social-emotional intervention that includes direct vocabulary instruction within the context of storybook read alouds.

Student Factors Related to Social-Emotional Vocabulary Outcomes

The second research question was as follows: What student factors are related to social-emotional vocabulary outcomes? This question was addressed by examining the predictive value of students' pretest scores on the Clinical Evaluation of Language Fundamentals-4 (CELF-4; Semel, Wiig & Secord, 2003) subtests of expressive vocabulary and understanding spoken paragraphs and the passage comprehension subtest of the Woodcock Reading Mastery Test-Revised (WRMT-R; Woodcock, 1987). These scores were analyzed to determine whether they were predictors of students' performance on the SELF Vocabulary Measure. Previous research has demonstrated

the effects of students' initial literacy skills, specifically vocabulary, on their ability to learn new vocabulary and benefit from interventions that include direct vocabulary instruction (Coyne et al., 2010; Loftus & Coyne, 2013; Marulis & Neuman, 2010; Pullen et al., 2010; Silverman et al., 2013).

A multiple regression analysis revealed that students' pretest scores on the CELF subtests of expressive vocabulary and understanding spoken paragraphs were significant predictors to their posttest scores on the SELF Vocabulary Measure. Students with higher scores on the CELF-4 subtests and who received the SELF intervention were expected to also have higher posttest scores on the SELF Vocabulary Measure. Students who participated in the treatment condition had greater gains on their posttest scores of the SELF Vocabulary Measure, with a 14.79 point increase in posttest scores overall. This finding is similar to the results of the ANCOVA run to address the first research question, thus, it provides additional evidence confirming the effectiveness of the SELF intervention in developing children's social-emotional vocabulary knowledge. It is interesting to note that the results of the ANCOVA analysis revealed the intervention effectively led to increased scores on all students receiving the intervention, regardless of their initial literacy skills. This is in contrast with the majority of research that has found that initial literacy levels of students is a significant predictor of their ability to benefit from vocabulary interventions (Coyne et al., 2010; Loftus & Coyne, 2013; Marulis & Neuman, 2010; Pullen et al., 2010; Silverman et al., 2013), but it is consistent with the studies conducted by Justice, Meier, and Walpole (2005), who have found that students with lower levels of initial literacy skills can benefit as well as their peers with higher initial levels of literacy. One likely reason that students in the

intervention condition with lower initial knowledge of social-emotional vocabulary were able to make gains comparable to their peers with higher initial vocabulary knowledge is that social-emotional vocabulary is vocabulary that students can more easily relate to. They are, therefore, able to make stronger and more personal connections to these words compared to other vocabulary that may only provide a more sophisticated label for more familiar concepts or objects.

Students who are at risk for emotional and behavioral disorders might have a greater need to develop social-emotional vocabulary because it may help them make the connections with how they feel and how their feelings and actions affect others. Such students might also have more experiences with talking about their feelings because they may have been referred to other school personnel because of their behavioral issues. This would provide the students with greater opportunities to use this vocabulary in context.

In sum, the multiple regression analysis revealed that students' pretest scores on the CELF subtests of expressive vocabulary and understanding spoken paragraphs and their participation in the intervention were significant predictors to their posttest scores on the SELF Vocabulary Measure. These results are promising because they suggest that a social-emotional intervention that provides direct, targeted social-emotional vocabulary instruction through storybook readings may contribute to the increased vocabulary development regardless of students' initial vocabulary knowledge.

Teacher Instructional Factors Related to Students' Vocabulary Outcomes

The third research question was as follows: What teacher instructional factors are related to students' vocabulary outcomes? This question was addressed by examining instructional strategies that researchers in the field of vocabulary

interventions have found to be essential in supporting students' understanding of new vocabulary. Previous research has found that effective vocabulary instruction includes (a) explicit teaching of words with instruction that includes the discussion of word meanings (Marulis & Neuman, 2010; Robbins & Ehri, 1994); (b) student-friendly definitions or synonyms during storybook readings (Beck & McKeown, 2007; Biemiller & Boote, 2006; Justice et al., 2005); (c) multiple exposure and engagement to targeted vocabulary (Ewers & Brownson, 1999; Karweit & Wasik, 1996; Robbins & Ehri, 1994; Sénéchal, Thomas, & Monker, 1995); and (d) asking "what" and "where" questions during book discussions (Ewers & Bronson, 1999). By incorporating these recommended strategies, teachers can have the greatest impact on the students' vocabulary learning and growth.

Using the SELF Vocabulary Observation Protocol, teachers' videotaped implementation of SELF lessons was observed and coded to determine what vocabulary instructional strategies were integrated during the SELF intervention. Coders identified each teacher's use of instructional strategies that support vocabulary learning and scored teachers based on the rubric (Appendix A). Specifically, the lessons were observed to determine if teachers provided evidence of incorporating the following vocabulary instruction strategies: (a) saying the target word, (b) prompting students to repeat the word, (c) providing a student-friendly explanation, (c) connecting new vocabulary to previously taught vocabulary, (d) providing examples of the target word in multiple contexts, (e) providing multiple exposures of the target word, (f) engaging students in discussions about the target vocabulary, and (g) engaging students in gestures and/or actions reflective of the target word.

Based on extant research, it was hypothesized that teachers with higher mean scores on the rubric (i.e., teachers who incorporated more instructional strategies) would have students with better vocabulary gains from pre- to posttest on the SELF Vocabulary Measure. Surprisingly, results of a multiple regression analysis found that a teacher's rubric score was not a significant predictor of their students' social-emotional vocabulary outcomes.

The four most commonly used instructional strategies by the teachers in the intervention condition were (a) saying the target word, (b) providing a student-friendly explanation, (c) providing examples of the target word in multiple contexts, and (d) providing multiple exposures of the target word. This was likely due to support for the use of these strategies explicitly provided in the SELF curriculum. Although the intervention also provides explicit instructions for teachers to engage students in discussion about the targeted social-emotional vocabulary, this strategy was not used as frequently as the four strategies listed above. The instructional strategy that the teachers were least likely to use when teaching social-emotional vocabulary was to have the students repeat the word to create their own phonological representation of the word. This finding is consistent with Feldman and Kinsella's (2005) reporting that classroom observations show that more often than not, the teacher is the only person in the class to pronounce and use academic language. Although this strategy was presented to the teachers when they participated in professional development for the intervention, explicit directions or reminders to have students repeat the target vocabulary were not provided in the curriculum, which the teachers may have interpreted as the strategy being less important. The teachers may also have lacked

understanding about the importance of phonological representations of words in working memory (Gathercol, Willis, Baddeley, & Emslie, 1994). Although the vocabulary instructional strategies incorporated by teachers were not found to be significant predictors of their students' social-emotional vocabulary outcomes, further analysis did find that teachers with an average score of 2 or 3 on the SELF Vocabulary Observation Protocol did have students with higher mean gains. These teachers had students with posttest gains greater than teachers with an average score of 1.

However, the mean gain of the students was almost the same between the teachers that had a rubric score of 2 or 3. Several factors could have contributed to these results. Perhaps the limited number of videotaped lessons did not provide enough of a representative sample of teachers' vocabulary instruction, which may have weakened the analysis. More observations of each lesson type may be needed to detect stable trends in teachers' instructional behaviors. Also, the researcher-created protocol could have been another contributing factor. The SELF Vocabulary Observation Protocol may be sensitive enough to distinguish between weak instruction and adequate instruction, but it may not be sensitive enough to distinguish exemplary instruction from adequate instruction. Further refining of the protocol, as part of larger scale studies, should be considered.

Additionally, demographic teacher factors were analyzed to determine whether there was a relationship between teachers' areas of certification, the numbers of years teaching experience, and the number of years teaching in the grade level they were currently assigned and their students vocabulary gains on the SELF Vocabulary Measure from pre- to posttest. The results of the multiple regression analysis found that

teacher demographic data were not significant predictors of their students' social-emotional vocabulary outcomes. One possible explanation may be that having a structured social-emotional curriculum that provides teachers with scripted supports to implement the lessons may reduce the effects of teacher characteristics that may otherwise influence student outcomes. Another possible explanation for this finding is that although the data revealed that teachers varied greatly in the number of years of teaching experience, there was not much difference in the other variables. Perhaps the data set did not include enough variance to detect which teacher demographic factors may be predictors of students' social-emotional vocabulary outcomes.

Summary of Findings

This study examined the effects of a storybook reading intervention on the social-emotional vocabulary development of kindergarten and first-grade children who were identified as at risk for emotional and behavioral disorders. Statistically significant differences were found between the treatment and control groups on social-emotional vocabulary outcomes of the SELF Vocabulary Measure. Further analyses indicated that the students who received the SELF intervention were better able to provide both definitions of the target vocabulary and to use the word in context by providing examples of when they might experience certain feelings. There was no statistically significant difference between treatment and control groups in students' receptive vocabulary scores.

In addition, statistically significant differences were found between students with differing initial literacy skills. That is, based on the results from the multiple regression analysis, students who had higher pretest scores on the CELF-4 expressive vocabulary and spoken paragraphs subtests and who were in the treatment condition are expected

to have higher posttest scores on the SELF Vocabulary Measure. No statistically significant differences were detected between other student factors and their social-emotional vocabulary outcomes, nor for teacher instructional strategies that could serve as predictors of their students' vocabulary gains.

Limitations

There are a number of limitations to this study, and the findings, while promising, should be interpreted with consideration of these limitations. In this section, limitations to the design of the study and to the analysis strategies that were employed are discussed in detail.

First, because the current study was part of a larger externally-funded development grant, random assignment to condition was not possible. The treatment and control conditions in this study were not significantly different at pretest; however, an experimental-design study with random assignment would ensure any differences between groups were randomly distributed and would strengthen the results of a study.

The small sample size is another limitation to this study. The small sample limits the generalizability of the results to populations that differ from the sample population. Also, the small sample size limits the power of statistical analyses. Specifically, although the larger SELF study had a nested design, with the intervention being conducted in certain schools and in specific classrooms within those schools, the sample size in the current study did not allow for analysis with multilevel models that would account for the nested data.

The limited number of videos available for observation and coding of teachers' vocabulary instruction restricted the amount of data that could be gathered to evaluate the effects of teachers' instructional strategies on students' social-emotional vocabulary

outcomes. This is further compounded by the fact that there were not the same number of videos per teacher, and that there were varying numbers of videos available for each type of lesson. This affected what could be observed, and the unequal cell size restricted the analyses that could be conducted.

Students who were selected to participate in the study were chosen because the teachers screened and identified the students as being at risk for emotional and behavioral disorders. Although criteria were provided, teachers' interpretations of those criteria may have differed. The findings of the current study may not generalize to other student populations. Also, classroom teachers conducted the SELF intervention. The effectiveness and feasibility of the intervention when implemented by other school personnel, such as paraprofessionals or school counselors, are unknown.

The researcher-developed tools pose additional limitations. The protocol used for lesson observation was based on literature about what constitutes effective vocabulary instruction, but the various categories do not necessarily carry equal weight or importance to student learning. Further research to refine this protocol is warranted. The measure of social-emotional vocabulary has not been validated on a large sample of students. Therefore, accurate reliability and validity data were not available prior to the use of the measure in the current study. Finally, a delayed posttest was not administered to the students who participated in the study. Therefore, using the data from the current study, it is impossible to determine if students maintained their vocabulary gains beyond the study period.

Implications for Practice

Findings of the current study have considerable implications for social-emotional vocabulary instruction in the primary grades. First, the results show the potential of

teaching social-emotional vocabulary during shared storybook readings for students who are at risk for emotional/behavior disorders. Second, the positive results of the SELF intervention for students, regardless of their initial levels of vocabulary knowledge, demonstrates how all students can benefit from this type of direct instruction of social-emotional vocabulary. Lastly, there are implications on how to support teachers in their understanding of effective methods to develop vocabulary during storybook readings that can lead to students developing a deeper understanding of the vocabulary being directly instructed.

Findings from the current study suggest that integration of this specialized social-emotional vocabulary can be readily incorporated during shared storybook reading sessions that include direct instruction of social-emotional vocabulary. The characters and events in storybooks provide a springboard for discussion that can support students' social-emotional vocabulary. During read-aloud sessions teachers can provide student-friendly explanations of social-emotional vocabulary as it occurs within a story. The teacher can also model language use of social-emotional vocabulary and can provide students with additional exposures of the social-emotional vocabulary by using this targeted vocabulary in multiple contexts. This facilitates students' understanding of social-emotional vocabulary. Moreover, greater social-emotional vocabulary can facilitate class discussions related to how characters feel and can lead to students better being able to connect their personal experiences with those of others.

Data from the SELF Vocabulary Observation Protocol highlighted that the majority of teachers implementing the SELF intervention did not demonstrate many of the instructional strategies that could help their students develop a greater

understanding of social-emotional vocabulary. This is likely indicative of a general lack of understanding among teachers in the primary grades about how valuable storybook reading can be for building students' vocabularies. Even if they are aware of the potential of storybook reading, many teachers need additional professional development to build their knowledge and skills for implementing high quality, evidence-based vocabulary instruction. During professional development sessions, the SELF Vocabulary Observation Protocol could be introduced and explained in order to scaffold teachers' understanding of effective strategies for vocabulary instruction. Teachers could view video segments of model lessons, which has been demonstrated to improve implementation of effective practices (Dieker et al., 2009). This could also provide teachers with opportunities to analyze vocabulary instruction by using the SELF Vocabulary Observation Protocol, so they can identify examples of the instructional strategies demonstrated by the teachers in the videos. In turn, this could then lead to a discussion with the teachers on how to purposefully plan for instruction of social-emotional vocabulary during the implementation of the SELF intervention.

Data from the current study could be shared with teachers on how to develop social-emotional vocabulary, whether it is integrated with the SELF curriculum or introduced as an extension to interactive storybook reading. Teachers could be provided with demonstrations and could plan to systematically encourage their students to say target words aloud, providing their students with the phonological representation needed when learning novel vocabulary. There could be time allocated during professional development sessions where teachers collaborate and brainstorm different ways they could have their students engage in saying the words. Teachers could

generate a list of strategies that are varied and sound more natural than saying, “Let me hear you say _____.” Discussion could be focused on how to provide students with binary questions or using a cloze procedure or sentence stem, where students complete a sentence by filling in the targeted vocabulary. Examples could be provided to the teachers on how to respond to students when a student responds to questions with more basic emotion words (i.e., happy, mad, sad). Teachers could model by restating what the student said and adding more sophisticated social-emotional vocabulary. Then the teacher can ask the student to repeat what they said using targeted vocabulary. Lastly, the teacher could provide examples such as, “Oh, so you were feeling _____ not _____.” Such examples help students develop a better understanding of the subtle differences there are in the meanings of certain words and they can distinguish shades of meaning.

Another use for the observation protocol and scoring rubric is for it to be incorporated as a tool for coaching sessions with the teachers. The SELF Vocabulary Observation Protocol can provide specific feedback to support teachers’ development of direct vocabulary instruction. This holds true for vocabulary instruction provided by teachers throughout the school day and across academic areas. Teachers could easily monitor their progress and see which strategies they are effectively demonstrating during vocabulary lessons. This would allow teachers and coaches to discuss areas of strengths and areas for improvement. Similarly, the SELF Vocabulary Observation Protocol could be part of peer coaching model that could be of great benefit to the teacher being observed and the observer. It would allow the observer to focus on the examples of instructional strategies being demonstrated and can make the observer

more conscientious of their own instruction. The discussion between peer coaches could lead to greater collaboration in thoughtful planning of how to integrate vocabulary instructional strategies throughout the school day.

This study provides further evidence that many teachers do not naturally engage their students in purposeful read-aloud sessions, but with structured guidance, they are able to implement effective lessons with measureable student gains. This is an important implication for preservice and inservice teacher education practice. Despite the amount of attention and empirical support for storybook reading in the research literature (e.g., Swanson et al., 2011; Teale, 2003), the findings from this study reveal that there remains a need to guide teachers in learning effective and systematic methods for read-aloud sessions that can lead to greater student vocabulary development (Lane & Wright, 2007). There is clearly a need to develop and support teachers' understanding of the extraordinary potential of interactive storybook readings, when the read-aloud sessions are well planned and engaging. .

Implications for Future Research

This study has the potential to add to the current knowledge base in the areas of vocabulary development and social-emotional development. Specifically, this study can provide direction for future research in the field of social-emotional vocabulary development. The results of this study provide information about the use of social-emotional curriculum, centered in the use of storybook readings, to develop social-emotional vocabulary. However, because this study was part of a larger Institute of Education Sciences (IES) Goal 2 development grant, rather than an efficacy study, the participants in this study were not randomly assigned to conditions, and the sample size was small. One natural direction for future research would be to conduct a similar study

using an experimental design with a larger number of participants randomly assigned to condition. This would allow for more robust conclusions about the efficacy of the intervention.

Future studies with larger numbers of teachers and students could provide multiple benefits. It could provide the data needed to determine the reliability and validity of the SELF Vocabulary Measure and the SELF Vocabulary Observation Protocol. Conducting future studies with a larger sample size would increase the power of statistical analyses and reduce the probability of Type I and II errors. It would also allow for more sophisticated statistical analyses.

As part of the larger SELF curriculum development study, the research team created two teacher observation instruments to measure treatment fidelity: the low-inference Direct Observation of Practice Protocol (DOPP-lo) and high-inference Direct Observation of Practice Protocol (DOPP-hi). Fidelity of implementation for the teachers in the treatment condition was recorded on the DOPP-lo. This measure was customized for each SELF lesson and included all the essential components for SELF instruction included in the lessons (i.e., lesson focus, targeted vocabulary, building background, dialogic reading prompts, application activities, and wrap-up). To investigate teachers' general effectiveness during small-group instruction, teachers in the treatment and control conditions were observed using the DOPP-hi, which addressed five domains: (a) preparing the classroom for SELF, (b) social-emotional language development through dialogue, (c) self-regulation skill development that supports listening comprehension and social problem solving, (d) quality of instructional delivery, and (e) sensitivity and respect. Perhaps in the future, the DOPP-hi protocol

could be used to further refine the SELF Vocabulary Observation Protocol to include general indicators of effective teaching. Also, further analysis could be conducted with the SELF Vocabulary Observation Protocol and various combinations of the DOPP-lo and DOPP-hi data to determine if these variables might serve as more robust predictors of students' vocabulary development.

Findings from this research further substantiates the overall effectiveness of the SELF curriculum; however, future research should be conducted to determine which components of the SELF curriculum or types of lessons (i.e., whole group, small-group dialogic reading, small-group application) may have a greater effect on students' social-emotional vocabulary gains. It is important to know which intervention components and which teacher instructional factors are essential for effective instruction of social-emotional vocabulary. This information could guide how the intervention could be effectively implemented in the future. For example, if future studies found that a comparison group that received only whole-group SELF lessons performed as well as another group who received all of the SELF lessons, then the likelihood that the SELF intervention could more easily be integrated and implemented during the school day would increase.

Another study design could have comparison groups that receive some of the SELF intervention materials, but not all. For example, the teachers in these comparison groups would only receive the storybooks included in the SELF intervention. These teachers would not receive information about the specific social-emotional vocabulary targeted in the SELF lessons, nor would they receive any additional materials or training that are part of the SELF intervention. Observations conducted in the comparison

classrooms could illustrate which vocabulary teachers choose to clarify or discuss. Would teachers select social-emotional vocabulary and concepts to discuss when provided with the same books? If so, would teachers target only the social-emotional vocabulary that is included within the text of the storybooks? Might they discuss conceptual social-emotional vocabulary that is not found within the text, but could be addressed in discussions about the book? Would the teachers provide implicit or explicit instruction of the social-emotional vocabulary and concepts that are presented within the storybooks selected for the SELF intervention? Answers to these questions could inform researchers how to guide and work with teachers who do not have a structured social-emotional intervention, but who could be instructed on how to support their students' social-emotional development through planned storybook readings that target social-emotional vocabulary.

Further research could be conducted in which the students receive instruction with the SELF intervention from other school personnel rather than the classroom teacher. This investigation could provide school districts with viable options of effective methods to implement and integrate the SELF intervention in elementary classrooms. Given that teacher demographic variables were not significantly related to student learning outcomes, this possibility holds much promise and is worth additional exploration.

The current study was conducted with students in kindergarten and first grade. Further research could be conducted with modified SELF lessons in other grade levels in elementary schools as well as in prekindergarten classrooms. Such research could investigate if teaching students in the intermediate grades specific social-emotional

vocabulary could affect their ability to better respond to comprehension questions that address the tone of a passage or how a character's feelings may have changed in a narrative passage. This could provide evidence as to the generalizability of the effectiveness of the SELF curriculum at other grade levels.

Finally, the original design of the SELF intervention study included pre- and posttesting of the students on select measures. Additional research could include a delayed posttest to determine if students maintain knowledge of the newly acquired social-emotional vocabulary. This would allow researchers to study the maintenance of the effects of the intervention.

Conclusion

Findings from this research can serve as preliminary evidence of the potential for using planned, purposeful, read-aloud sessions focused on social-emotional concepts to foster social-emotional vocabulary growth. Comparison of the pretest and posttest scores on the researcher-created SELF Vocabulary Measure of the intervention and control groups revealed a significant difference between the groups, with the students receiving the SELF intervention having significantly better social-emotional vocabulary outcomes. The students in the treatment group also developed deeper knowledge of the targeted social-emotional vocabulary. It is important to note that the students in the treatment group developed sufficient depth of knowledge to be able to provide a more complete definition of the targeted social-emotional vocabulary as well as the ability to use the vocabulary in a meaningful context. Children enter school with a limited number of emotion words that they understand and are able to express. Findings from this study suggest that the SELF intervention can build on students' prior knowledge and experiences. These connections can scaffold students' learning and can help students

develop a corpus of social-emotional vocabulary. This would allow students to have the power to be able to make a more precise word choice for emotion words and to understand in what situations or contexts these word choices would be appropriate. Empowering students with appropriate words to express their emotions can improve both their social and academic outcomes and should be integral to providing a well-rounded school experience for all students.

APPENDIX A
SELF VOCABULARY OBSERVATION PROTOCOL

SELF Vocabulary Observation Protocol

Teacher: _____

School: _____

Grade level: _____

Lesson #: _____

Type of Lesson: _____

Length: _____

Targeted Vocabulary: _____

Vocabulary Word	Says the target word aloud	Prompts students to repeat the word	Provides a student-friendly explanation	Connects to previously taught vocabulary	Provides examples of the target word in multiple contexts	Provide multiple exposures of the target vocabulary	Engages students in discussion	Engages students in gestures/ actions	Score
Average									
Uses previously taught vocabulary									
Notes:									

SELF Vocabulary Observation Protocol Instruction Rubric

0	1	2	3	4
<p>Target vocabulary is not presented.</p> <p>May mention target vocabulary but does not support student understanding. In other words, does not provide any explanation of the target vocabulary.</p>	<p>Vocabulary instruction includes:</p> <ul style="list-style-type: none"> • saying the target word aloud; and <p>Incorporates one of the following strategies:</p> <ul style="list-style-type: none"> • providing a student-friendly explanation • incorporating review of previously taught vocabulary • providing examples of the target word in multiple contexts • providing multiple exposures of the target vocabulary 	<p>Vocabulary instruction includes:</p> <ul style="list-style-type: none"> • saying the target word aloud; and <p>Incorporates more than one of the following strategies, but does not include discussion of the target vocabulary</p> <ul style="list-style-type: none"> • prompting the students to repeat the word to provide phonological representation • providing a student-friendly explanation • incorporating review of previously taught vocabulary • providing examples of the target word in multiple contexts • providing multiple exposures of the target vocabulary 	<p>Vocabulary instruction includes:</p> <ul style="list-style-type: none"> • saying the target word aloud; and <p>Incorporates more than one of the following strategies, including discussion of the target vocabulary word as presented in the lesson design:</p> <ul style="list-style-type: none"> • prompting the students to repeat the word to provide phonological representation • providing a student-friendly explanation • incorporating review of previously taught vocabulary • providing examples of the target word in multiple contexts • providing multiple exposures of the target vocabulary 	<p>Vocabulary instruction includes:</p> <ul style="list-style-type: none"> • saying the target word aloud; and <p>Incorporates more than one of the following strategies including discussion of the target vocabulary that goes beyond the lesson design:</p> <ul style="list-style-type: none"> • prompting the students to repeat the word to provide phonological representation • providing a student-friendly explanation • incorporating review of previously taught vocabulary • providing examples of the target word in multiple contexts • providing multiple exposures of the target vocabulary

APPENDIX B
RUBRIC GUIDE FOR SCORING SELF VOCABULARY MEASURE

Kindergarten

angry (2 pts. – very mad, mad; 1 pt. – frustrated, grumpy, mean, upset)

body language (2 pts. – the way our body looks and shows how we're feeling; 1 pt. – the way our body looks)

choice (2 pts. – when you decide to say or do something; when you pick something; choosing something; 1 pt. – pick a choice; when want something)

consequence (2 pts. – what happens because of what you say or do; 1 pt. –getting a reward for good behavior; getting in trouble or getting hurt because of something you say or do)

cooperate (2 pts. – to work with someone or do what someone asks you to do; 1 pt. – be nice, share, pay attention)

delighted (2 pts. – great happiness and extremely pleased or excited; 1 pt. – glad, happy)

difference (2 pts. – different from, or not like, each other; not the same; 1 pt. – opposites)

emotions (2 pts. – feelings; 1 pt. – student names specific emotions such as happy, sad, mad, etc.)

excited (2 pts. – very happy; 1 pt. – happy, surprised)

expectations (2 pts. – think or believe that something will happen; 1 pt. – what you think)

frustrated (2 pts. – upset or angry because you want to do something and are not able to do it; 1 pt. – angry, grumpy, mad)

grumpy (2 pts. – a little bit mad; 1 pt. – angry, frustrated, mad)

jealous (2 pts. – wants something someone else has or can do; 1 pt. – angry, mad, sad, upset)

kind (2 pts. – care for others by being nice and helpful; 1 pt. – good, happy; doing good things; be polite)

nervous (2 pts. – very worried or frightened about something; 1 pt. – angry, mad, sad, scared, shy, upset)

pleased (2 pts. – happy or proud of what you're doing or have done; 1 pt. –happy, excited)

react (2 pts. – you feel, say, or act in a certain way because of something that has happened to you; 1 pt. –how you feel or what you do)

responsible (2 pts. – admit to what you said or did; 1 pt. – pay attention, cooperate, be nice or respectful)

shy (2 pts. – a little afraid or scared of being around someone or something new; 1 pt. – afraid, scared, nervous)

similar (2 pts. – things are the same in some way; they're the same; 1 pt. –)

Note: If a student provides an example when prompted for a definition, score the response as a 0.

First Grade

ability (2 pts. – something you can do well; 1 pt. –something you do)

angry (2 pts. – very mad, mad; 1 pt. –afraid, mean, sad, upset)

body language (2 pts. – the way our body looks and shows how we're feeling; 1 pt. –the way our body looks)

bullying (2 pts. – when someone keeps hurting, scaring, or treating another person badly; 1 pt. – bad, mean, picking on someone)

challenge (2 pts. – something you find difficult or hard to do; 1 pt. –engage in a contest, fight, race, etc.)

choice (2 pts. – when you decide to say or do something; when you pick something; choosing something; 1 pt. – pick a choice; something you want)

consequence (2 pts. – what happens because of what you say or do; 1 pt. –getting in trouble or getting hurt because of something you say or do)

cooperate (2 pts. – to work with someone or do what someone asks you to do; 1 pt. – be nice, share, pay attention)

delighted (2 pts. – great happiness and is extremely pleased or excited; 1 pt. –glad, happy)

embarrassed (2 pts. – feel shy or worried about something; that someone will see you and make fun of you; worried about what someone might think about you; 1 pt. –angry, afraid, mad, nervous, sad, upset)

emotions (2 pts. – feelings; 1 pt. – student names specific emotions; student names specific emotions such as happy, sad, mad, etc.)

excited (2 pts. – very happy; 1 pt. – happy, surprised)

frustrated (2 pts. – upset or angry because you want to do something very badly and are not able to do it; 1 pt. – angry, mad, sad)

grumpy (2 pts. – a little bit mad; 1 pt. – angry, mad)

jealous (2 pts. – wants something someone else has or can do; 1 pt. – angry, mad, sad, upset)

nervous (2 pts. – very worried or frightened about something; 1 pt. –angry, mad, sad, scared, shy, upset)

pleased (2 pts. – happy or proud of what you're doing or have done; 1 pt. –happy, excited)

react (2 pts. – you feel, say, or act in a certain way because of something that has happened to you; 1 pt. –)

responsible (2 pts. – admit to what you said or did; 1 pt. – pay attention, cooperate, be nice or respectful)

unhappy (2 pts. – not happy, sad; 1 pt. –angry, mad, nervous)

Note: If a student provides an example when prompted for a definition, score the response as a 0.

APPENDIX C
SELF SCOPE AND SEQUENCE

SELF Kindergarten Scope & Sequence

Topic/Title/Author	Vocabulary	Concept
Setting the Stage for SELF		
1.	Introductory Lessons <i>David Goes To School</i> by David Shannon	<ul style="list-style-type: none"> • cooperate • expectation • pay attention • rules
Self Awareness		
2.	I am Special <i>I Love You Because You're You</i> by Liza Baker	<ul style="list-style-type: none"> • difference • dislike • similar • special
3.	Recognizing My Feelings <i>Lots of Feelings</i> by Shelley Rotner	<ul style="list-style-type: none"> • body language • expression • feelings • grumpy • proud • shy
4.	Expressing My Feelings <i>Knuffle Bunny: A Cautionary Tale</i> by Mo Willems	<ul style="list-style-type: none"> • express • frustrated • realize
5.	Feelings Change <i>Sometimes I Feel Like A Storm Cloud</i> by Lezlie Evans	<ul style="list-style-type: none"> • delighted • excited • emotions • pleased
Self Management		
6.	Controlling Myself <i>David Gets in Trouble</i> by David Shannon	<ul style="list-style-type: none"> • choices • consequences • responsible
7.	Feeling Angry <i>Sometimes I'm Bombaloo</i> by Rachel Vail	<ul style="list-style-type: none"> • anger/angry • express • fierce
8.	Feeling Afraid <i>Everybody Feels...Scared</i> by Jane Bingham	<ul style="list-style-type: none"> • afraid • comfort • kind

SELF Kindergarten Scope & Sequence (Continued)

Topic/Title/Author	Vocabulary	Concept
Social Awareness		
9.	Recognizing the Feelings of Others <i>How Are You Peeling?</i> by Saxton Freymann & Joost Elffers	<ul style="list-style-type: none"> • jealous • mood • react Paying attention to facial expressions and body language helps us better recognize the feelings of others.
10.	Empathy <i>Bear Feels Sick</i> by Karma Wilson	<ul style="list-style-type: none"> • care • soothe • worried Recognizing how we have been cared for helps us comfort others in need.
11.	Actions Have Consequences <i>Harriet You'll Drive Me Wild!</i> by Mem Fox	<ul style="list-style-type: none"> • react • sorry • upset What we say or do can affect the feelings of others.
12.	Respecting Others <i>My Mouth is A Volcano</i> by Julia Cook	<ul style="list-style-type: none"> • interrupt • respect • rude While our thoughts and feelings are important, we need to learn how to share them in appropriate ways and at appropriate times.
Building Relationships		
13.	Friendship <i>Help! A Story of Friendship</i> by Holly Keller	<ul style="list-style-type: none"> • calm • nervous • trust Being a friend means learning to care for and help others.
14.	Understanding the Feelings of Others <i>Being Friends</i> by Karen Beaumont	<ul style="list-style-type: none"> • compromise • similarities • differences When friends have differences, they sometimes have to compromise to get along and remain friends.
Responsible Decision Making		
15.	Expressing My Angry Feelings <i>When I Feel Angry</i> by Cornelia Maude Spelman	<ul style="list-style-type: none"> • avoid • decide • upset We all have strong emotions, but we can express them without hurting ourselves or others.
16.	Coping with My Jealous Feelings <i>Peter's Chair</i> by Ezra Jack Keats	<ul style="list-style-type: none"> • jealous • share We all feel jealous sometimes, but there are ways to cope with this feeling.
17.	Bringing it all Together	Review previous vocabulary We have lots of different emotions, and have learned ways to express them, and how to make choices that lead to consequences we like.

SELF First Grade Scope & Sequence

Topic/Title/Author		Vocabulary	Concept
Setting the Stage for SELF			
1.	Introductory Lesson <i>My Mouth is a Volcano</i> by Julia Cook	<ul style="list-style-type: none"> cooperate interrupt respect 	Listening and taking turns helps us work and learn together.
Self Awareness			
2.	Accepting Myself <i>I Like Myself</i> by Karen Beaumont	<ul style="list-style-type: none"> ability bother challenge unique 	Our individual strengths and weaknesses are part of what makes us unique. Understanding that everyone has abilities and challenges helps us accept ourselves as we are.
3.	Understanding How I Feel <i>The Way I Feel</i> by Janan Cain	<ul style="list-style-type: none"> body language disappointed emotions frustrated proud thankful 	Recognizing our different emotions and how we feel inside helps us express our feelings to others.
4.	Expressing Uncomfortable Feelings <i>Ira Sleeps Over</i> by Bernard Waber	<ul style="list-style-type: none"> decide embarrassed express worry 	We often feel better when we express our feelings, even uncomfortable feelings like embarrassment or worry.
5.	Understanding My Different Moods <i>Today I Feel Silly: And Other Moods</i> by Jamie Lee Curtis	<ul style="list-style-type: none"> confused discouraged excited grumpy mood 	We all have different feelings throughout the day, and our feelings affect our moods.
Self Management			
6.	Taking Responsibility for Our Choices <i>Lilly's Purple Plastic Purse</i> by Kevin Henkes	<ul style="list-style-type: none"> choices consequences furious responsibility 	When we take responsibility for our actions, we stop and think about our choices and the consequences.
7.	Expressing Anger <i>Mouse was Mad</i> by Linda Urban	<ul style="list-style-type: none"> anger/angry control express 	It's natural to feel angry, and we can learn to express our anger in ways that don't hurt ourselves or others.
8.	Recognizing Bullying Behavior <i>Chrysanthemum</i> by Kevin Henkes	<ul style="list-style-type: none"> bullying dreadful miserable 	When we recognize bullying behavior and understand why it's harmful, we can help prevent it from happening again.

SELF First Grade Scope & Sequence

Topic/Title/Author		Vocabulary	Concept
Social Awareness			
9.	Noticing How Others Feel <i>It's Mine</i> by Leo Lionni	<ul style="list-style-type: none"> • fear • joyful • quarrel • share 	Thinking not only about our own feelings, but also the feelings of others, helps us get along better.
10.	Showing Empathy <i>Knuffle Bunny Free: An Unexpected Diversion</i> by Mo Willems	<ul style="list-style-type: none"> • brave • care • comfort • unhappy 	When we care about the feelings of others, we try to do things to comfort them and help them feel better.
11.	How My Actions Affect Others <i>When the Rain Came Down</i> by David Shannon	<ul style="list-style-type: none"> • argue • choice • consequence • react 	What we choose to do affects how others react.
12.	Noticing when Others Feel Different <i>A Weekend With Wendell</i> by Kevin Henkes	<ul style="list-style-type: none"> • cooperate • disappointed • eager 	Understanding that others may feel different than we do helps us develop respect for others' thoughts and feelings.
Building Relationships			
13.	Respecting the Feelings of Others <i>Olivia Acts Out</i> by Laurie Keller	<ul style="list-style-type: none"> • disappointed • nervous • respect 	It's important to think about others' feelings before reacting, even when we are feeling upset or disappointed.
14.	Making Friends <i>Rainbow Fish</i> by Marcus Pfister	<ul style="list-style-type: none"> • considerate • delighted • lonely • selfish 	Being considerate of the needs and feelings of others helps us make friends.
Responsible Decision Making			
15.	When I Feel Upset <i>Alexander and the Terrible, Horrible, No Good, Very Bad Day</i> by Judith Viorst	<ul style="list-style-type: none"> • decide • horrible • mood • upset 	When we're upset, there are choices we can make that help us feel better.
16.	When I Feel Jealous <i>Three Hens and a Peacock</i> by Lester Laminack	<ul style="list-style-type: none"> • appreciate • complain • jealous 	When we're jealous of others, appreciating our own abilities often helps us feel better.
17.	Bringing it all Together	Review previous vocabulary	Being aware of our different emotions and learning how to express them responsibly, helps us make choices that show we understand and care about the thoughts and feelings of others.

APPENDIX D
SELF VOCABULARY MEASURE

SELF Vocabulary Assessment – Kindergarten

Student Name: _____

Date: _____

School: _____

Teacher: _____

Directions for administration:

1. Read the directions to student before beginning the assessment.
2. If the student does not respond within 5 seconds, repeat the item once.
3. If a student does not respond after an item has been repeated, mark as incorrect and proceed to the next part.
4. If a student responds, “I don’t know,” mark as incorrect, and proceed to the next part.
5. For Part A, if the student provides an example rather than a definition, prompt the student with, “That’s a good example of _____, but what does _____ mean?”
6. For Parts A and B, if the student provides an incomplete or inaccurate response, restate the item or ask a clarification question. (If a clarification question is asked, note the question along with student’s response.)
7. For Part C, be prepared to read each item twice.

Scoring:

Part A (definition)

- 0 = no response/incorrect or unrelated response
- 1 = partial knowledge
- 2 = full knowledge

Part B (student example)

- 0 = no response/incorrect or unrelated response
- 1 = partially correct/related
- 2 = correct response

Part C (application)

- 0 = incorrect response
- 1 = correct response

Total number of points possible:

Per section

- Part A (definition) – 2 x 20 = 40
- Part B (student example) – 2 x 20 = 40
- Part C (application) – 1 x 20 = 20

Overall total – 100 points

Total student score:

Per section

- Part A (definition) - _____/40 = _____ %
- Part B (student example) - _____/40 = _____ %
- Part C (application) - _____/20 = _____ %

Overall total – _____/100 = _____

SELF Vocabulary Assessment - Kindergarten

Directions: I'd like to ask you a few questions about some words you might know. Tell me what you know about these words.

<p>1. angry (2 pts. – very mad, mad; 1 pt. – frustrated, grumpy, mean, upset)</p> <p>A. What does angry mean?</p> <p>B. Tell me when you might feel angry.</p> <p>C. Listen carefully to what I read. Then choose the best answer. Andrew might feel angry if: a) his brother broke his favorite toy. b) his mother bought him a new toy. c) his friend shared a toy with him.</p>	A. ____ /2	B. ____ /2	C. ____ /1
<p>2. body language (2 pts. – the way our body looks and shows how we're feeling; 1 pt. – the way our body looks)</p> <p>A. What does body language mean?</p> <p>B. Tell me how you can use your body language to show that you're happy.</p> <p>C. Listen carefully to what I read. Then choose the best answer. An example of body language is: a) dropping your head b) putting together a puzzle c) scratching your back</p>	A. ____ /2	B. ____ /2	C. ____ /1
<p>3. choice (2 pts. – when you decide to say or do something, when you pick something; 1 pt. pick a choice, when you want something)</p> <p>A. What does choice mean?</p> <p>B. Tell me about a choice you've made.</p> <p>C. Listen carefully to what I read. Then choose the best answer. Someone who makes a choice: a) plays with something. b) picks something. c) puts something together</p>	A. ____ /2	B. ____ /2	C. ____ /1

4. consequence (2 pts. – what happens because of what you say or do; 1 pt. – getting a reward for good behavior; getting in trouble or getting hurt because of something you say or do)

A. What does consequence mean?

A. ____ /2

B. Tell me about a consequence that you've had.

B. ____ /2

C. **Listen carefully to what I read. Then choose the best answer.**

A consequence is when:

- a) a group of people work together.
- b) someone says something nice to somebody else.
- c) something happens because of something else.

C. ____ /1

5. cooperate (2 pts. – to work with someone or do what someone asks you to do; 1 pt. – be nice, share, pay attention)

A. What does cooperate mean?

A. ____ /2

B. Tell me about a time when you cooperated.

B. ____ /2

C. **Listen carefully to what I read. Then choose the best answer.**

Which one of these shows that Angel cooperates?

- a) Angel works nicely with the group.
- b) Angel doesn't follow the rules.
- c) Angel keeps interrupting the group.

C. ____ /1

6. delighted (2 pts. – great happiness and is extremely pleased or excited; 1 pt. – glad, happy)

A. What does delighted mean?

A. ____ /2

B. Tell me when you might feel delighted.

B. ____ /2

C. **Listen carefully to what I read. Then choose the best answer.**

Someone who is delighted is:

- a) unhappy.
- b) special.
- c) pleased.

C. ____ /1

7. difference (2 pts. – different from, or not like each other; 1 pt. - opposites)

A. What does difference mean?

A. ____ /2

B. Tell me about a difference between you and me.

B. ____ /2

C. **Listen carefully to what I read. Then choose the best answer.**

Which of these shows a difference between Joe and Kenny?

- a) Joe is a boy and Kenny is a boy.
- b) Joe has short hair and Kenny has long hair.
- c) Joe has curly hair and Kenny has curly hair.

C. ____ /1

8. emotions (2 pts. – feelings; 1 pt. – student names specific emotions such as happy, sad, mad, etc.)

A. What are emotions?

A. ____ /2

B. Tell me about some emotions you might have.

B. ____ /2

C. **Listen carefully to what I read. Then choose the best answer.**

Emotions are:

- a) feelings.
- b) differences.
- c) expectations.

C. ____ /1

9. excited (2 pts. – very happy; 1 pt. – happy, surprised)

A. What does excited mean?

A. ____ /2

B. Tell me when you might feel excited.

B. ____ /2

C. **Listen carefully to what I read. Then choose the best answer.**

Caleb might be excited if:

- a) he drinks water during his soccer game.
- b) he forgets about his soccer game.
- c) he scores a goal during his soccer game.

C. ____ /1

<p>13. jealous (2 pts. – wants something someone else has or can do; 1 pt. – angry, mad, sad, upset)</p> <p>A. What does jealous mean?</p> <p>B. Tell me when you might feel jealous.</p> <p>C. Listen carefully to what I read. Then choose the best answer. Someone who is jealous: a) is very kind to other people. b) wants what someone else has. c) works nicely with other people.</p>	<p>A. ____ /2</p>	<p>B. ____ /2</p>	<p>C. ____ /1</p>
<p>14. frustrated (2 pts. – upset or angry because you want to do something very badly and are not able to do it; 1 pt. – angry, grumpy, mad)</p> <p>A. What does frustrated mean?</p> <p>B. Tell me how you might feel frustrated.</p> <p>C. Listen carefully to what I read. Then choose the best answer. Anthony might feel frustrated during math if: a) he gets to sit with his friends. b) he gets all the problems right. c) he doesn't understand the directions.</p>	<p>A. ____ /2</p>	<p>B. ____ /2</p>	<p>C. ____ /1</p>
<p>15. similar (2 pts. – things are the same in some way; they're the same)</p> <p>A. What does similar mean?</p> <p>B. Tell me about something that is similar between you and me.</p> <p>C. Listen carefully to what I read. Then choose the best answer. Which of these tells something similar between Mikayla and Sophia? a) Mikayla has brown hair and Sophia has blond hair. b) Mikayla has long hair and Sophia has long hair. c) Mikayla has curly hair and Sophia has straight hair.</p>	<p>A. ____ /2</p>	<p>B. ____ /2</p>	<p>C. ____ /1</p>

19. shy (2 pts. – a little afraid or scared of being around someone or something new; 1 pt. – afraid, scared, nervous)

A. What does shy mean?

A. ____ /2

B. Tell me when you might feel shy.

B. ____ /2

C. Listen carefully to what I read. Then choose the best answer.

Mario is very shy. Mario might feel shy when:

- a) he plays with his brother.
- b) he plays with his friends.
- c) he meets someone new.

C. ____ /1

20. nervous (2 pts. – very worried or frightened about something; 1 pt. – angry, mad, sad, shy, upset)

A. What does nervous mean?

A. ____ /2

B. Tell me when you might be nervous.

B. ____ /2

C. Listen carefully to what I read. Then choose the best answer.

Someone who is nervous is:

- a) jealous.
- b) pleased.
- c) worried.

C. ____ /1

SELF Vocabulary Assessment – First Grade

Student Name: _____ Date: _____

Teacher: _____ School: _____

Directions for administration:

1. Read the directions to student before beginning the assessment.
2. If the student does not respond within 5 seconds, repeat the item once.
3. If a student does not respond after an item has been repeated, mark as incorrect and proceed to the next part.
4. If a student responds, "I don't know," mark as incorrect, and proceed to the next part.
5. For Part A, if the student provides an example rather than a definition, prompt the student with, "That's a good example of _____, but what does _____ mean?"
6. For Parts A and B, if the student provides an incomplete or inaccurate response, restate the item or ask a clarification question. (If a clarification question is asked, note the question along with student's response.)
7. For Part C, be prepared to read each item twice.

Scoring:

Part A (definition)

- 0 = no response/incorrect or unrelated response
- 1 = partial knowledge
- 2 = full knowledge

Part B (student example)

- 0 = no response/incorrect or unrelated response
- 1 = partially correct/related
- 2 = correct response

Part C (application)

- 0 = incorrect response
- 1 = correct response

Total number of points possible:

Per section

- Part A (definition) – $2 \times 20 = 40$
- Part B (student example) – $2 \times 20 = 40$
- Part C (application) – $1 \times 20 = 20$

Overall total – 100 points

Total student score:

Per section

- Part A (definition) - _____/40 = _____%
- Part B (student example) - _____/40 = _____%
- Part C (application) - _____/20 = _____%

Overall total – _____/100 = _____

<p>7. body language (2 pts. – the way or body looks and shows how we're feeling; 1 pt. – the way our body looks)</p> <p>A. What does body language mean?</p> <p>B. Tell me how you can use your body language to show that you're happy.</p> <p>C. Listen carefully to what I read. Then choose the best answer. An example of body language is: a) dropping your head b) putting together a puzzle c) scratching your back</p>	<p>A. ___/2</p>	<p>B. ___/2</p>	<p>C. ___/1</p>
<p>8. choice (2 pts. – when you decide to say or do something; when you pick something; choosing something; 1 pt. – pick a choice; something you want)</p> <p>A. What does choice mean?</p> <p>B. Tell me about a choice you've made.</p> <p>C. Listen carefully to what I read. Then choose the best answer. Someone who makes a choice: a) plays with something. b) picks something. c) puts something together.</p>	<p>A. ___/2</p>	<p>B. ___/2</p>	<p>C. ___/1</p>
<p>9. consequence (2 pts. – what happens because of what you say or do; 1 pt. – getting a reward for good behavior; getting in trouble or getting hurt because of something you say or do)</p> <p>A. What does consequence mean?</p> <p>B. Tell me about a consequence that you've had.</p> <p>C. Listen carefully to what I read. Then choose the best answer. A consequence is when: a) a group of people work together. b) someone says something nice to somebody else. c) something happens because of something else.</p>	<p>A. ___/2</p>	<p>B. ___ 2</p>	<p>C. ___/1</p>

10. cooperate (2 pts. – to work with someone or do what someone asks you to do; 1 pt. – be nice, share, pay attention)

A. What does cooperate mean?

A. ___/2

B. Tell me about a time when you cooperated.

B. ___/2

C. **Listen carefully to what I read. Then choose the best answer.**

Which one of these shows that Angel cooperates?

- a) Angel works nicely with the group.
- b) Angel doesn't follow the rules.
- c) Angel keeps interrupting the group.

C. ___/1

11. delighted (2 pts. – great happiness and is extremely pleased or excited; 1 pt. – glad, happy)

A. What does delighted mean?

A. ___/2

B. Tell me when you might feel delighted.

B. ___/2

C. **Listen carefully to what I read. Then choose the best answer.**

Someone who is delighted is:

- a) unhappy.
- b) special.
- c) pleased.

C. ___/1

12. emotions (2 pts. – feelings; 1 pt. – student names specific emotions such as happy, sad, mad, etc.)

A. What are emotions?

A. ___/2

B. Tell me about some emotions you might have.

B. ___/2

C. **Listen carefully to what I read. Then choose the best answer.**

Emotions are:

- a) feelings.
- b) differences.
- c) expectations.

C. ___/1

13. excited (2 pts. – very happy; 1 pt. – happy, surprised)

A. What does excited mean?

A. ___/2

B. Tell me when you might feel excited.

B. ___/2

C. **Listen carefully to what I read. Then choose the best answer.**

Caleb might be excited if:

- a) he drinks water during his soccer game.
- b) he forgets about his soccer game.
- c) he scores a goal during his soccer game.

C. ___/1

14. frustrated (2 pts. – upset or angry because you want to do something very badly and are not able to do it; 1 pt. – angry, mad, sad)

A. What does frustrated mean?

A. ___/2

B. Tell me when you might feel frustrated.

B. ___/2

C. **Listen carefully to what I read. Then choose the best answer.**

Anthony might feel frustrated during math if:

- a) he gets to sit with his friends.
- b) he gets all the problems right.
- c) he doesn't understand the directions.

C. ___/1

15. grumpy (2 pts. – a little bit mad; 1 pt. – angry, mad)

A. What does grumpy mean?

A. ___/2

B. Tell me when you might feel grumpy.

B. ___/2

C. **Listen carefully to what I read. Then choose the best answer.**

Natalie might feel grumpy when:

- a) she can't find a piece of her puzzle.
- b) she gets a new toy.
- c) she finishes her homework.

C. ___/1

<p>16. jealous (2 pts. – wants something someone else has or can do; 1 pt. – angry, mad, sad, upset)</p> <p>A. What does jealous mean?</p> <p>B. Tell me when you might feel jealous.</p> <p>C. Listen carefully to what I read. Then choose the best answer. Someone who is jealous: a) is very kind to other people. b) wants what someone else has. c) works nicely with other people.</p>	<p>A. ___/2</p>	<p>B. ___/2</p>	<p>C. ___/1</p>
<p>17. challenge (2 pts. – something you find difficult or hard to do; 1 pt. – engage in a contest, fight, race, etc.)</p> <p>A. What is a challenge?</p> <p>B. Tell me about a challenge you've had.</p> <p>C. Listen carefully to what I read. Then choose the best answer. Which one of these might be a challenge for a two-year-old? a) eating a cookie b) crying for attention c) tying her shoes</p>	<p>A. ___/2</p>	<p>B. ___/2</p>	<p>C. ___/1</p>
<p>18. pleased (2 pts. – happy or proud of what you're doing or have done; 1 pt. – happy, excited)</p> <p>A. What does it mean to be pleased?</p> <p>B. Tell me when you might be pleased.</p> <p>C. Listen carefully to what I read. Then choose the best answer. Someone who is pleased is: a) shy. b) happy. c) friendly.</p>	<p>A. ___/2</p>	<p>B. ___/2</p>	<p>C. ___/1</p>

19. react (2 pts. – you feel, say, or act in a certain way because of something that has happened to you; 1 pt. – how you feel or what you do))

A. What does react mean?

A. ___/2

B. Tell me how you might react to something that scares you

B. ___/2

C. **Listen carefully to what I read. Then choose the best answer.**

When someone reacts:

- a) he believes something good will happen.
- b) he does something because of something else that happened.
- c) he thinks about something that might happen.

C. ___/1

20. responsible (2 pts. – admit to what you said or did; 1 pt. – pay attention, cooperate, be nice or respectful)

A. What does responsible mean?

A. ___/2

B. Tell me how you might show you're responsible.

B. ___/2

C. **Listen carefully to what I read. Then choose the best answer.**

Ally was walking backwards in line and bumped into her friend Lisa.

Ally might show she's responsible for her actions when she says:

- a) "It's nobody's fault."
- b) "It's Lisa's fault."
- c) "It's my fault."

C. ___/1

APPENDIX E
SELF VIDEOTAPED LESSONS

SELF Videotaped Lessons 2012-2013				
Teacher	Whole-group Lessons	Small-group Lessons Dialogic Reading	Small-group Lessons Application	Total
K.G.1	1.1 (excluded – audio) 7.1	14.2	8.3 11.3 12.3	6
K.G.2	1.2 3.1 7.2 13.1	11.2		5
K.G.3	5.1	2.2 3.2 8.2 9.2 12.2 13.2	6.3	8
K.R.1	1.1 6.1 11.1 9.1	13.2	3.3 9.2 17.4	8
K.R.2	6.1 8.1 17.3	3.2 4.2		5
K.R.3	1.2 7.2	5.2 10.2	2.3 7.3 16.3	7
1.G.1	7.1 17.1	2.2 9.2 12.2	4.3 14.3	7
1.G.2	1.1 11.1	3.2 6.3 16.2	8.3 13.3	7
1.G.3	5.1 15.1 17.2	7.2 10.2	2.3 12.3	7
1.G.4	1.2 9.1	4.2 14.2	6.4	5
1.G.5	3.1 13.1	5.2 8.2 15.2	2.3 10.3	7
1.R.1	5.1 6.2	2.2	8.3 10.3 13.3 15.3	7
1.R.2	1.1 6.2 3.1	8.2 10.2	12.3	6
1.R.3	3.1 9.1	5.2 16.2		4
1.R.4	1.2 4.1 16.1	9.2 7.2 11.2(excluded incomplete)		6

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BIOGRAPHICAL SKETCH

Lourdes Santiago Poventud received a Bachelor of Science in Elementary Education in 1991 from Florida International University (FIU). After earning her BS, she began teaching in Miami-Dade County as an hourly Chapter 1 teacher, providing additional reinforcement to 3rd-5th grade students in reading and mathematics. She worked as a Chapter 1 teacher for a year before returning to FIU to work on a master's degree in early childhood education. She continued to work part-time in the school system until she completed her Master of Science in Early Childhood Education in 1994. Upon completion of her master's, she began teaching full-time.

After 6 years of teaching, Lourdes returned to FIU to work on a master's degree in reading because of her strong belief that the power to combat illiteracy and provide students with a future where they can serve as successful literate citizens is in the hands of classroom teachers. It is the effectiveness of the classroom teacher that is paramount to student literacy achievement. In 1997, she earned a Master of Science in Reading Education and continued her work in Miami-Dade County Public schools, where she spent the last 3 years at a school site serving as the school's reading leader.

After 15 years with Miami-Dade County Public Schools, Lourdes joined Pearson Scott Foresman as an educational consultant. As an educational consultant she provided professional development for school districts that had purchased the company's reading, science, social studies, and mathematics programs. She worked with Scott Foresman for 2 years before returning to Miami-Dade County Public School to work as a Reading First Curriculum Support Specialist. In this position, she was able to utilize her 15 years of teaching experience to ensure the implementation of the Reading First grant requirements by providing literacy professional development,

modeling and support to reading coaches and instructional staff at assigned Reading First elementary schools.

While completing her doctoral studies in Special Education, at the University of Florida, Lourdes served as a graduate teaching assistant and has worked in various roles in Project SELF: Social-Emotional Learning Foundations, a development grant funded by the Institute of Education Sciences. While working on Project SELF she was part of the team that created the social-emotional curriculum for kindergarten and first-grade children, provided the professional development for the teachers who implemented the intervention, and was part of the research team that assessed the students who participated in the study. Lourdes has presented her work in the areas of social-emotional development, literacy instruction, and teacher knowledge about reading at numerous state and national conferences.

It is because of the profound influence a teacher has on student achievement that Lourdes became dedicated to teacher education. In the future, she intends to become a university faculty member. Such a position will allow her to share her knowledge with pre-service teachers and guide them to the understanding that it is the effectiveness of the classroom teacher that can either drive student success or impede student learning. Lourdes plans to pursue teaching and research in the areas of vocabulary, literacy development and instruction, and teacher preparation.