Vocabulary Growth Using Nonfiction Literature and Dialogic Discussions in Preschool Classrooms

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Abstract
The preschool years are a crucial time for children to develop vocabulary knowledge. A quality preschool environment promotes large amounts of language usage including picture book read alouds and discussions. There is growing research to support the use of nonfiction literature in preschool classrooms to promote vocabulary growth and knowledge of the world for preschool children. This research study compared vocabulary growth of preschool children using fiction and dialogic discussions versus vocabulary growth of preschool children using nonfiction and dialogic discussions following a six week study of autumn and changes that happen during this season to the environment and animals. The quasi-experimental design used the Peabody Picture Vocabulary Test-4, a curriculum-based measure for receptive vocabulary, and a curriculum-based measure for expressive vocabulary to assess vocabulary growth. Results showed that there was significant difference in the vocabulary growth in the treatment group indicated by the curriculum-based measure for receptive vocabulary, but the Peabody Picture Vocabulary Test-4 and the curriculum-based measure for expressive vocabulary did not indicate significant difference in growth in the 6-week research period. The findings of this research have implications for teachers. Using nonfiction literature during read aloud times is beneficial to vocabulary growth. Dialogic discussions used with fiction and nonfiction read alouds provide authentic opportunities for students to use vocabulary in meaningful ways. In order to maximize vocabulary growth during the preschool years, teachers should be aware of the benefits of using nonfiction literature for interactive read alouds.

Keywords
preschool students, vocabulary development, read alouds, nonfiction literature, Peabody Picture Vocabulary Test-4

Disciplines
Curriculum and Instruction | Education | Reading and Language

Comments
- A dissertation submitted to the graduate faculty of the University of South Dakota in partial fulfillment for the degree of DOCTOR OF EDUCATION
- Dr. Susan Gapp, Committee Chairperson
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VOCABULARY GROWTH USING NONFICTION LITERATURE AND
DIALOGIC DISCUSSIONS IN PRESCHOOL CLASSROOMS

By

Gwen R. Marra

B. A., Dordt College, 1990
M. A., Dordt College, 2004

A Dissertation submitted in Partial Fulfillment of
the Requirements for the Degree of
Doctor of Education

Division of Curriculum and Instruction
In the Graduate School
The University of South Dakota
August, 2014
ABSTRACT

The preschool years are a crucial time for children to develop vocabulary knowledge. A quality preschool environment promotes large amounts of language usage including picture book read alouds and discussions. There is growing research to support the use of nonfiction literature in preschool classrooms to promote vocabulary growth and knowledge of the world for preschool children. This research study compared vocabulary growth of preschool children using fiction and dialogic discussions versus vocabulary growth of preschool children using nonfiction and dialogic discussions following a six week study of autumn and changes that happen during this season to the environment and animals. The quasi-experimental design used the Peabody Picture Vocabulary Test-4, a curriculum-based measure for receptive vocabulary, and a curriculum-based measure for expressive vocabulary to assess vocabulary growth. Results showed that there was significant difference in the vocabulary growth in the treatment group indicated by the curriculum-based measure for receptive vocabulary, but the Peabody Picture Vocabulary Test-4 and the curriculum-based measure for expressive vocabulary did not indicate significant difference in growth in the 6-week research period. The findings of this research have implications for teachers. Using nonfiction literature during read aloud times is beneficial to vocabulary growth. Dialogic discussions used with fiction and nonfiction read alouds provide authentic opportunities for students to use vocabulary in meaningful ways. In order to maximize vocabulary growth during the preschool years, teachers should be aware of the benefits of using nonfiction literature for interactive read alouds.

Advisor's Approval
The members of the Committee appointed to examine the dissertation of Gwen R. Marra find it satisfactory and recommend that it be accepted.

Chairperson, Dr. Susan Gapp

Dr. Mark Baron

Dr. Gera Jacobs

Dr. Trudi Nelson
ACKNOWLEDGEMENTS

I wish to thank Dr. Susan Gapp, my advisor and the chair of my committee, for her assistance and guidance through the dissertation process and the course work leading me to this point. She was thoughtful, positive, encouraging and knowledgeable. I am truly thankful for her and the gift she was to me. I will miss working with her!

I also wish to acknowledge my committee, Dr. Mark Baron, Dr. Gera Jacobs, and Dr. Trudi Nelson. You have offered expertise, challenged me to do my best, and offered assistance when I needed it. Thank you! Dr. Baron, I especially appreciate your assistance with statistics.

To the Education Department at Dordt College, you are awesome! I am blessed to be on this bus with you! Dr. Kathleen VanTol, you have been an incredible help to me in this process. Kim Starkenburg, I so loved working with you on this project! The encouragement of friends and family made a difference!

To my children: KC, Maddie, Dustin, and Jordyn, you are my inspiration. Watching you learn and grow each day inspires me to continue learning. I am so thankful I get to travel this life with you! To my parents, your years of support and encouragement have helped me get to this place. And to my husband, Kris: You told me at the start not to worry about the mountain I was climbing, but just to work on today’s hill. And you were so right! After many hills, the top of the mountain is here! Thank you for encouraging me to stay on course, even when life got in the way.

I thank God for the opportunity to learn and grow every day of my life. I pray that I may use this degree to bring glory and honor to His name!
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CHAPTER 1

Introduction

A child’s language development is a strong predictor of later reading and writing success (Cunningham & Stanovich, 1997; National Institute of Child Health and Human Development [NICHHD], 2000). However, children begin their formal education possessing a variety of levels of language proficiency (Hart & Risley, 1995). Children who have limited vocabulary knowledge know fewer words and the knowledge of the words they possess is narrower in focus. This is due in part to a lack of background knowledge (Nagy & Herman, 1987). This aligns with the research completed by Curtis (1987) in which she found that vocabulary knowledge and comprehension test scores were highly correlated, and that the child’s background knowledge has significant influence on comprehension.

Vocabulary learning is a social process (Bloom, 2000; Vygotsky, 1986). In early childhood settings, teacher-student interactions and instructional practices play a significant role in providing the quality environment and experiences that foster vocabulary acquisition and children’s school readiness skills (Cazden, 2005; Dickinson, McCabe, & Essex, 2006; Morrow, 2005; Pianta, Mashburn, Downer, Hamre, & Justice, 2008). When teachers engage children in rich language interactions and quality content instruction, they are providing students with the experiences and skills associated with later literacy development and reading success (Dickinson & Caswell, 2007; Landry, Swank, Smith, Assel, & Gunnewig, 2006; Wasik, Bond, & Hindman, 2006). These types of learning
experiences are important to all children, but especially those children who are less likely to have had stimulating early learning environments (Neuman & Cunningham, 2009).

Using picture books with young children provides copious opportunities to engage in vocabulary instruction in a natural context (Silverman & Crandell, 2010). For years educators have been recommending the practice of reading aloud to young children (Bus, van Ijzendoorn, & Pellegrini, 1995; Reese & Harris, 1997). When children are read to and engaged in an interactive discussion, their oral language skills and vocabulary knowledge increase (Beck & McKeown, 2001; Dickinson & Smith, 1994). Children relate to read alouds. In addition, the structure of stories provides many opportunities for students to practice oral language skills through sharing and discussion (Wells, 1986).

When children are read to at a young age, the most commonly used materials are fiction materials in a narrative form (Duke, 2000; Pentimonti, Zucker, & Justice, 2011; Reese & Harris, 1997). Data gathered from 1,000 teachers in grades preschool through grade 3 indicate that teachers read information texts to their students 5% of the time, and narrative texts were read 68% of the time, with poetry and mixed structures making up the remaining 27% (Yopp & Yopp, 2006). Narrative texts provide many learning opportunities. Children relate to narrative stories; they empathize with the characters and connect to their own lives and experiences. Fiction stories can provide lovable and believable characters that children often see as role models or heroes to admire. Fiction stories can help children feel validated if they are facing the same
conflict as the character. Fiction stories can also provide lessons that teach right and wrong (Galda, Cullinan, & Sipe, 2010). Prior to the early 1970s, many educators believed that children understood fiction texts more easily than information text. It was believed that children understood the language and structure of fiction before they could understand literature in non-story formats (Reese & Harris, 1997). Because of this belief, many children were not encouraged to explore information text until they were older (Duke & Bennett-Armistead, 2003; Egan, 1991; Palmer & Stewart, 2003).

Despite the teacher decisions to select primarily narrative texts for read alouds in the classroom (Duke & Bennett-Armistead, 2003; Palmer & Stewart, 2003), children often choose nonfiction books to read independently (Marinak & Gambrell, 2009; McMath, King, & Smith, 1998; Palmer & Stewart, 2003;) because they are curious about the world around them (Duke & Bennett-Armistead, 2003). Nonfiction books promote inquiry and provide meaningful and factual information about topics that interest children (Duke & Bennett-Armistead, 2003). Nonfiction texts are useful for instruction and informing children about the world (McMath, King, & Smith, 1998; Reese & Harris, 1997). Information texts are important in providing children with new vocabulary and content about the world we live in, but also in helping children to understand the different text structures that they will encounter as they learn (Duke & Bennett-Armistead, 2003; Flowers & Flowers, 2009; Hirsch, 2003; Palmer & Stewart, 2003). The availability of appropriate nonfiction texts for young children is increasing at a rapid rate. Interesting information texts on a variety of topics are published more
frequently than ever before (Palmer & Stewart, 2003). This coincides with the emphasis the Common Core Standards places on students’ ability to read and comprehend information texts (Calkins, Ehrenworth, & Lehman, 2012; Moss, 2008).

There are many benefits to reading from a variety of genres aloud to children (Morrow, 2005; Pappas, 1991). By emphasizing narrative texts more than nonfiction reading material, children might be predisposed to understanding one genre more thoroughly than the other (Marinak & Gambrell, 2009). When parents, care givers, or teachers read to young children, there should be a balance of nonfiction and fiction books (Dickinson, McCabe, & Anastasopulos, 2003). This will build children’s knowledge of the world, help to increase their vocabulary development, expose children to a variety of text structures they will be required to read in school, and lay a strong foundation for later reading experiences (Duke & Bennett-Armistead, 2003; Marinak & Gambrell, 2009; Reese & Harris, 1997).

**Need for the Study**

In the past 50 years, there has been a significant change in the types of child care serving families. Since 1960, when 10% of the nation’s three- and four-year old children were attending pre-kindergarten programs, the pre-kindergarten movement has dramatically changed (Center for Public Education, 2007). In 2007, 55% of boys and girls ages three to six years old attend some sort of center-based education or child care program in the United States (Child Trends, 2012). Many states have worked to provide funding for prekindergarten
programs, but it is difficult to ensure that the programs are of high quality. Because children are spending more and more time in child care settings and society is demanding more from students at younger ages (Copple & Bredekamp, Developmentally appropriate practice in early childhood programs, 2009), it is important that the child care environment encourages learning and be of high quality. Many states are developing quality rating systems and licensing standards to ensure that children are provided quality experiences. Quality experiences are those that involve teachers engaging children in conversations and discussions throughout the day in order to intentionally advance children’s linguistic understanding and ability (Copple, Bredekamp, Koralek, Charner, 2013; Dickinson & Tabors, 2002).

More research is needed to help teachers identify teaching strategies that are effective in helping young children learn in ways that are developmentally appropriate (Harris, Golinkoff, & Hirsh-Pasek, 2011; Neuman, 2011). It is known that a child’s environment has a large influence on their language and vocabulary development (Hart & Risley, 2003). When reading aloud and discussion are a part of this environment, children make gains in language development, literacy development, and motivation to read (Gambrell & Marinak, 2009; Swanson, Vaughn, Wanzek, Petscher, Heckert, Cavanaugh, Kraft, & Tackett, 2011). This is highly important because when children enter school there may be large differences in the size of their vocabulary. Children in kindergarten from homes with lower socioeconomic status know about half as many words as children from higher socioeconomic homes (Chall, 1996; Hirsch, 2003). This becomes even
more serious because as children grow, this gap becomes wider, and those with smaller vocabulary size fall further and further behind (Hart & Risley, 1995).

Hart and Risley (1995) completed a longitudinal study on the development of vocabulary in the years prior to school. Their research led to two recommendations. First, that the quantity of words that a child is exposed to is one of the most important factors in vocabulary development. Reading aloud and engaging in conversations with others are natural ways to increase the amount of words that a child hears. Second, when parents are choosing an environment for their young child, one of the most important factors they should consider is the amount of talking going on between caregivers and the children.

Vocabulary is a key indicator for future school success because it is an accurate predictor of later comprehension (Hart & Risley, 1995; Tabors, Snow, & Dickinson, 2001). It is highly important for prekindergarten programs to engage students in language-rich environments that encourage the learning of new words in a meaningful context. Susan B. Neuman (2011) discusses the fact that current practices in schools do not provide sufficient instruction to improve vocabulary development in children, especially for children who have limited opportunities to develop vocabulary skills. Neuman believed there is a need for more explicit teaching of vocabulary in early childhood classrooms. It is important for students to be curious about words they do not know and for them to want to explore the relationships between words.

In order for children to develop a sufficient vocabulary to support beginning reading development and reading comprehension, they need to have a
foundation of specialized and root-word vocabulary that encompasses academic and content areas (Duke & Bennett-Arnistead, 2003). Nonfiction information texts are a logical choice to enhance this learning (Duke & Bennett-Armistead, 2003). This happens through multiple exposures to the vocabulary in authentic contexts (Roskos, Ergul, Bryan, Burstein, Christie, & Han, 2008). In order for readers to comprehend a text, they need to know about 90% of the words in the text. When they are exposed multiple times to vocabulary in related contexts, including interactive discussions, their comprehension increases and they also develop a better understanding of the context (Hirsch, 2003). Using nonfiction books with children increases their knowledge of the world, increases their dialog and interaction with others, and increases their vocabulary (Duke & Bennett-Arnistead, 2003; Reese & Harris, 1997). Both nonfiction and fiction books have instructional value, but it is not known if one is more advantageous than the other when it comes to increasing vocabulary knowledge.

Researchers have studied the genres of books being read aloud to children in preschool classrooms. The work by Pentimounti, Zucker, and Justice (2011) indicates that narrative texts have been the primary choice of preschool teachers, but that future research should consider the benefits of exposing children of preschool age to other genres of texts, especially nonfiction information texts. It is imperative that students are competent in the reading of expository text as the technological advances in society require that adults are able to read and write text that is largely information in content (Moss, 2008). An important component of the widely accepted Common Core Standards includes
the ability to read and comprehend information texts. Much of the content included in standardized tests passages is nonfiction reading material (Flowers & Flowers, 2009). Teachers will need to incorporate more nonfiction texts into daily instruction to meet these new standards in preparing students to be college ready.

Early experiences in school are important to build a solid foundation for literacy acquisition. Yopp and Yopp (2006) have studied the use of information texts in classrooms and homes. They determined that little is known about the use of information texts in classrooms of preschool children. They suggested additional studies to investigate and observe with more accuracy the opportunities preschool children have in working with information texts.

**Purpose of the Study**

The purpose of this study was to investigate differences in vocabulary growth in young children through the use of nonfiction versus fiction children’s literature and the dialogic discussions that follow. The dialogic discussions were further analyzed based on the amount of target vocabulary usage during discussions that children engage in during the read alouds using fiction books and the read alouds using nonfiction books.

**Research Questions**

1. What difference is there in vocabulary development increase when nonfiction literature rather than fiction literature is emphasized?

2. What difference is there in vocabulary use during dialogic discussion when nonfiction literature rather than fiction literature is emphasized?
Significance of the Study

This study investigated reading aloud nonfiction literature and engaging children in discussions in order to encourage vocabulary development in preschool children. A child’s vocabulary size influences the development of other reading skills such as sound identification, rhymes, and decoding skills (Roskos et al., 2008). A child’s vocabulary size during the preschool years is one of the most accurate predictors of their later reading and writing success (NICHHD, 2000). Children need a broad knowledge of the world around them in order to develop a context for new words and concepts they encounter. This develops over time, with repeated exposure, from multiple sources (Hirsch, 2003; Walsh, 2003). This study may provide useful information in helping teachers select the types and genres of literature that will foster rich oral language interactions and meaningful vocabulary learning. This study may also provide teachers with data to help analyze teacher / student discussion during read alouds.

Definition of Terms

The boldface terms following are defined to aid in the understanding of the reader. Definitions that are not referenced have been developed by the researcher and pertain to the research completed here in.

**Dialogic reading / discussion** is an interactive reading and discussion strategy used to promote ongoing opportunities for children to use their developing listening and oral language skills (Cavanaugh, 2012).
Explicit Instruction is instruction that focuses on strategies for teaching vocabulary directly. This may include examples and definitions provided before-, during-, and after- reading a book or during discussions (Neuman, 2011).

Expressive Vocabulary is the words a person produces or expresses.

Implicit Instruction incorporates “teaching words within the context of an activity. For example, implicit instruction might involve reading a storybook without any intentional stopping or deliberate teaching of word meanings” (Neuman, 2011, p. 360)

Informational texts include texts that convey facts and communicate knowledge about the social and natural world (Duke, 2000).

Nonfiction Literature includes any literature that is factual (Duke & Bennett-Armistead, 2003). Biographies would normally fit into this genre, however because of the similarity of the literary structure of biographies to narrative fiction, biographies will not be included as a part of this study (Duke & Bennett-Armistead, 2003).

Oral language includes listening and speaking. For children, it involves using and understanding a growing vocabulary.

A read aloud is a book reading experience that happens in a school or child care setting. A book is read to a child or a group of children who are able to see the text and the pictures. It may be called Shared Reading in some research articles. During the research period for this study, this is a whole group experience.
**Receptive Vocabulary** is a person’s understanding of the spoken word or “interpreting language that is heard or read” (Jalongo & Sobolak, 2011)

**Limitations and Delimitations**

The following limitations were considered during the study:

1. The learning (read alouds and discussion) that occurs at preschool was not directly related to the content of the Peabody Picture Vocabulary Test –IV.

2. The percentages of nonfiction and fiction literature were controlled during the research period. However, the structure of nonfiction encourages the definition of key concepts and their repeated use in context. Narrative structures often use fewer occurrences of target vocabulary, and definitions are often implicit. The number of target vocabulary within each piece of literature was not calculated prior to the research period.

3. True vocabulary measures are difficult to develop and, therefore, the amount of target vocabulary words known will be measured, but depth of knowledge is not being measured.

4. Children begin to develop language skills at birth and they have varied experiences in the years before preschool which means the amount of background knowledge possessed by each child is unique.

5. Many children participate with their families in reading outside of preschool day. This could influence a child’s vocabulary growth.
6. The children involved in this study lacked diversity in their culture, race, and socioeconomic status. This will affect the generalizability of the research results.

The following delimitations were considered during the study:

1. The sample of convenience was small and was not generalizable beyond the sample being studied.

2. The discussions being recorded reflect a small amount of the learning that happens throughout the preschool day. Children often engage their peers and other teachers in discussions which promote vocabulary growth. These interactions are not a part of this research project, although they may positively affect vocabulary growth.

3. The preschool classes used in this study were determined by parent choice (they chose to enroll their child in a morning or afternoon session), then the groups were randomly assigned as control or treatment group. The researcher was not able to randomly assign the groups to control for vocabulary development prior to the research period.

4. The research period encompassed 24 class periods for each group over a six-week time period. A longer research period may allow more accurate data to be collected regarding vocabulary growth of preschool children.

**Organization of the Study**

Chapter 1 contains the introduction, statement of the problem, research questions, significance of the study, definition of terms, and limitations of the study. Chapter 2 presents a review of literature focusing on theories of language
development, quality environments affecting language acquisition, vocabulary as a predictor of later school success, teacher read aloud and discussion, and the assessment of vocabulary growth. Chapter 3 contains details about the methodology including procedures for gathering data for the study. The results of the findings are in Chapter 4. The summary of the findings and conclusions drawn from the research are included in Chapter 5.
CHAPTER 2

Literature Review

In reviewing literature regarding the use of nonfiction literature to increase vocabulary development in children attending preschool, it is important to build background information regarding vocabulary development and topics that are closely related to it. In examining this issue, the following components are reviewed: language acquisition, brain development as it relates to language acquisition, quality environments that support early childhood language acquisition, teacher read alouds and discussion, assessment of vocabulary growth.

The literature review that follows is not meant to be exhaustive in nature, rather it is meant to be a summary of research that is relevant to the topics related to vocabulary development in prekindergarten children.

Language Acquisition

Children begin to develop language in their homes, often through interactions with family members. Ninio (1983) conducted a study looking at the vocabulary development of young children under the age of three years of age as they were read to by their mothers. It was determined that as mothers and children read together, and mothers provided scaffolding of vocabulary through labeling pictures and correcting children’s miscues, comprehension increased. Children would imitate their mothers learning new words and their comprehension deepened (Ninio, 1983).
Children's language development can vary greatly as they enter their first formal schooling (Hart & Risley, 1995). Some children are able to speak clearly and readily internalize syntactic patterns and rules, but others may struggle with speech fluency. Briefly examining the different theories of language development and contemplating how these differences impact classrooms provides insight about arranging environments and activities that will maximize language development for children. The mediation between the influences of nature and nurture is a source of debate among language theorists. The constructivist theories have connections to vocabulary development in preschool classrooms, especially the interactions between teachers and students.

Piaget and Vygotsky have examined language development in children. Piaget observed that as children interact with their environment and learn from sensory experiences, their speech begins to develop focusing on their own actions, the words are egocentric. Their language develops based on what they experience and what is important to them (Piaget & Inhelder, 1969). Preschool children are in Piaget's pre-operational stage, meaning they are egocentric and have difficulty understanding other's point of view. They also may have difficulty with seriation and classification tasks as well as lacking reversibility and the ability to reason logically (Brewer, 2007). Vygotsky (1986) had similar ideas, but emphasized the social nature of language development. He believed that when adults interact with young children, providing the names for things, children begin to develop speech. This is supported and described in the book by Paul Bloom entitled *How Children Learn the Meanings of Words* (2000). When this happens,
the adults expand on the name of the objects, exposing the child to related concepts and words. Children learn as they interact with adults and peers. Eventually adults provide less support because the child becomes more competent and independent in his/her speech. This is an example of Vygotsky’s Zone of Proximal Development (Katz, 2001).

The constructivist theory of language acquisition is based on the work of Piaget and Vygotsky. It emphasizes the social and active process of acquiring language, developing over time as a child matures (Vygotsky, 1986). Language acquisition is unique to each individuals. As they grow and experiment with language, children make progress in internalizing rules and applying them in new situations. Errors in syntax or semantics may be made during this time, but these errors are accepted as a natural part of development. Children learn by practicing their language in social, interactive contexts. Children do more than simply imitate adult’s speech, they create their own based on what they know and their understanding of semantic and syntactic rules (Bredekamp, 2014; Vygotsky, 1986).

**Brain Development as it Relates to Language Acquisition**

Another important aspect of child development during the preschool years is a child’s brain development. Research in brain development has clearly indicated that what happens during the early years (birth – age 3) can impact children’s literacy and language skills for the rest of their lives (Frost, 1998). At birth, a child’s brain is wired to learn any language. As children interact with their environment, listening to parents and caregivers speak and/or hearing music and
other sounds, some connections are strengthened, while those that are not encountered are pruned (Frost, 1998). Children begin to interact with their environment; through reciprocal talk, neural pathways essential to language development are strengthened (Frost, 1998). This has great implications for the early childhood classroom as the importance of opportunities for children to be engaged in language-rich opportunities encourages brain development and language learning. (Bredekamp, 2014; Frost, 1998)

**Quality Environments Support Early Childhood Language Acquisition**

An environment that is developmentally appropriate and supportive is highly important for all children including young children as they are acquiring language (Dickinson & Tabors, 2002). Each year more children are spending time in child care settings while their parents work (Child Trends, 2012). Yet, there is evidence that many child care programs do not provide quality programs in the areas of language and literacy (Justice, Mashburn, Hamre, & Pianta, 2008). Preschool-aged children need language-rich experiences so they have a strong foundation preparing them to learn to read and write when they attend school (Morrow & Tracey, 2007). It is important for preschoolers to have a strong oral vocabulary so that they are able to transition into understanding written vocabulary as they begin to read (NICHD, 2000).

Language development is unique for children due to individual differences and different environments (Dickinson & Tabors, 2002; Morrow, 2009)). The National Association for the Education of Young Children (NAEYC) Position Statement (2009) recommends that instruction for children is developmentally
appropriate. In order for it to be developmentally appropriate it needs to take into consideration a child’s age and level of development, a child’s interests, strengths, and weaknesses, and the social and cultural context of the child. This requires instruction to look different within classrooms, based on the age of students and who they are as individuals. A key factor in making instruction developmentally appropriate is the creation of a relational classroom environment where each person is valued as an individual (Copple, Bredekamp, Koralek, Charner, 2013). Educators must strive to meet each child’s need through meaningful experiences that encourage the child to develop a desire to learn and grow. A large component of teaching is guiding student learning through supported instruction. This involves the teacher knowing when to scaffold instruction, or how much support is needed in order to help students to grow (Copple, Bredekamp, Koralek, Charner, 2013). The support may come through teacher modeling or interactive lessons, or perhaps guided practice. However, the levels of support need to match the needs of the child (Copple, Bredekamp, Koralek, Charner, 2013).

Although it is difficult to put a label on specific components that make a child care setting of high quality, common themes of quality environments have been identified. The child care provider or teacher is the critical component in establishing this quality environment and modeling and eliciting the rich oral language discussions that occur. Positive interactions between the child care provider and the children in their care are extremely important (Boschee & Jacobs, 1997; Copple, Bredekamp, Koralek, Charner, 2013; Dickinson & Tabors,
Following their longitudinal study regarding vocabulary development of preschool-aged children, Hart and Risley (1995) found that the quantity of words heard by children in the preschool years is so influential that parents should evaluate the amount of talking interaction between caretakers and children when choosing a center for their child, and use this as a guide concerning quality of care.

In researching the effectiveness of vocabulary interventions, it is noted that the trainings provided by classroom teachers (holding a bachelor's degree and state certification) were significantly more effective than those given by child care providers (who taught in community based programs without holding a bachelor's degree or state licensure) (Marulis & Neuman, 2010). The NAEYC has addressed guidelines defining what developmentally appropriate practices should look like in an early childhood setting. One characteristic that should be evident is that the learning environment is a “caring community of learners” (Copple, Bredekamp, Koralek, Charner, 2013, p. 16). When preschool teachers take time to interact with their students and really get to know them, the classroom becomes a community of learners. They are able to fill their classrooms with materials that are interesting to their students, including books on a variety of topics and genres. Children are motivated to read when there is a variety of reading material available to them (Gambrell & Marinak, 2009). Reading aloud has been the foundation of literacy programs in many preschools. It usually involves the teacher reading aloud a picture book from beginning to end, stopping to answer questions or comment on pictures (Lonigan, Anthony,
Bloomfield, Dyer, & Samwell, 1999). When teachers model reading strategies and behaviors such as interactive discussion, they are encouraging student participation and increasing their motivation for reading (Gambrell & Marinak, 2009). When more adults are available to interact with children, there are more opportunities for high quality conversation and interaction (Copple, Bredekamp, Koralek, Charner, 2013).

It is important for early childhood educators to provide an environment in which children can learn and grow. “Children are more likely to have positive interactions with adults in better quality programs, while they are more likely to spend time in aimless wandering in poorer quality programs” (Vandell, Henderson, & Wilson, 1988, p. 1292). In the past, school systems and day care centers functioned very separately. This was due to many factors, but a major factor was that public funding was not used to support preschools universally and preschool was not mandatory for children (Copple, Bredekamp, Koralek, Charner, 2013). However, recently this has begun to change.

Schools are experiencing the range in children’s literacy abilities as they enter school (Hart & Risley, 1995; Ramey & Ramey, 2004) and they see the importance of quality early childhood environments (Biemiller, 2006; Ramey & Ramey, 2004). The Response to Intervention (RtI) model recognizes the importance of early intervention, or recognizing when students begin to fall behind and matching instruction to their individual needs (Howard, 2009) helping them while the achievement gap is relatively small rather than following the
discrepancy model. Because early intervention is so important, schools are realizing the importance of prekindergarten programs (Ramey & Ramey, 2004).

A closer relationship between preschool education and K-12 schooling systems would allow for more continuity between preschool classrooms and the primary grade classrooms. A concern is that the pressures felt in public education due in part to high-stakes testing will carry over to the field of early childhood education (Copple, Bredekamp, Koralek, Charner, 2013). An example of this is the standards movement.

Learning standards often function as guidelines and benchmarks for judging program effectiveness. As of 2007, more than 75% of states had learning standards in place for early childhood education. The goal of these standards is to improve learning and teaching in the early years so that children are ready to learn when they get to school (Copple, Bredekamp, Koralek, Charner, 2013). There is anxiety in some preschool educators that the standards movement will try to force them to implement practices that are not appropriate for young children such as using lecture and large group experiences and rigid schedules, for example, expecting preschool curriculum to teach reading and phonics skills, which are more appropriate for first grade classrooms (Copple, Bredekamp, Koralek, Charner, 2013).

The primary focus of preschool programs is to help children develop linguistically, cognitively, creatively, emotionally, socially, and physically (Copple & Bredekamp, Developmentally appropriate practice in early childhood programs, 2009). It is important that the early childhood standards reflect the development
level of young children and allow for individual and cultural adaptations (NAEYC, 2012). It is also important to note, that others see this as an opportunity in which there may be “upward pressure” from early childhood education in sharing successful strategies with educators in the K-12 arena, as well as encouraging a focus on the whole child and the larger cultural world in which we reside (NAEYC, 2012).

According to the Common Core State Standards Initiative website (National Governor’s Association [NGA] and Common Core State Standards Organization [CCSSO], 2010), Common Core State Standards (CCSS) have been adopted by 45 states. They are intended to emphasize high levels of student achievement in the core content areas (English language arts and math), and also the 21st century learning skills. These standards increase in complexity as they progress through the grades working towards the goal of preparing students for the demands of the work force or college when high school is completed. These standards specifically demand that students build knowledge through the comprehension of information texts and content-rich texts, in addition to literature (Coleman & Pimental, 2011).

Common Core State Standards also expected that students regularly engage in practice with academic vocabulary found in complex texts (Duke & Bennett-Armistead, 2003; NGA and CCSSO, 2010). It is important for all schools to meet appropriate standards, involving students in using and thinking about nonfiction literature, as well as practicing with academic vocabulary. The National
Association for the Education of Young Children takes an interest in Common Core State Standards because they overlap in the areas of K-3 education.

When the 21st century world is considered, the following skills are deemed necessary: mastery of core subject areas and a higher level of understanding of civic literacy, global awareness, health literacy, environmental literacy, financial, economic, business and entrepreneurial literacy (Framework for 21st century learning, 2006). These skills may be taught in a developmentally appropriate way in preschool classrooms. Using communication, creativity, collaboration, and critical thinking are skills that are necessary for living in the 21st century. Preschool curriculum often incorporates these skills and encourages students to explore their world and ask questions about how and why things happen (Duke & Bennett-Armistead, 2003; Hirsch, 2003). Nonfiction read alouds foster this learning (Reese & Harris, 1997).

When age-appropriate nonfiction is used together with reading, discussion, and writing, literacy skills such as summarizing, identifying key ideas, and making inferences are developed (Reese & Harris, 1997). Reading nonfiction texts in a group setting “helps children learn specific vocabulary in context and enhances their conceptual understanding of science” (Patrick, Mantzicopoulos, & Samarapungavan, 2013, p. 50). When nonfiction is meaningfully incorporated into the curriculum and tied with scientific investigation and inquiry, children are encouraged to think deeply and consider reasons behind phenomena or events (Bosse, Jacobs, & Anderson-Topete, 2013). Open-ended questions encourage students to connect what they see with what they
already know, linking past and present knowledge. They develop problem-solving skills and are able to make predictions, observe results and record data (Bosse, Jacobs, & Anderson-Topete, 2013; Froschauer, 2013). These types of activities help children develop their oral language skills as well. They hear language models that are more developed than their own and the purposeful interaction with their teachers and peers scaffolds their language development.

**Vocabulary as a Predictor of Later School Success**

According to Hirsch (2003), vocabulary is a key element of oral language comprehension and it provides a firm foundation for later comprehension in reading and knowledge in content areas. Hirsch discussed the importance of helping children develop a large vocabulary at a young age when he stated, “In vocabulary acquisition, a small early advantage grows into a much bigger one unless we intervene very intelligently to help the disadvantaged student learn words at an accelerated rate” (Hirsch, 2003, p. 16). Other reading skills, such as sound identification, rhymes, and decoding skills, are influenced by vocabulary size (Roskos et al., 2008). The size of a child’s vocabulary and the rate of growth of that vocabulary influences early literacy skill development and links to a child’s later ability to write and read in school.

Hemphill and Tivnan (2008) conducted a study in which the relationship between reading comprehension and vocabulary were studied over a period of three years. The results of this study indicate that students who began school with vocabularies that were lower remained on a lower trajectory in comprehension of reading even though they received extra support in reading
instruction. This is supported by Biemiller’s 2006 research with preschool age children’s (pre-literate) vocabulary development. He found that during this stage of development, children may have differences of “several thousand root-word meaning—a gap that is too often not closed in later years” (Biemiller, 2006, p. 42). It is important to help children develop a larger vocabulary when they are young so that they are equipped for further learning and they are able to reach their full potential.

Word knowledge is an important component, but it does not stand alone. A second crucial component is that of domain knowledge. Domain knowledge involves a basic knowledge of the topic that is being addressed. It develops over time; it is an understanding of the context being addressed. It allows the listener or reader to construct meaning by supplying missing knowledge and making inferences based on what is known (Hirsch, 2003). Domain knowledge is knowledge about the world. Students need to build their word knowledge and their world knowledge in order to be successful readers (Duke & Bennett-Armistead, 2003). Word knowledge and world knowledge are connected. When a child lacks vocabulary to understand content, their comprehension will be lower (Sanacore & Palumbo, 2009). It is important, even in the preschool and kindergarten years, that students be encouraged in developing word knowledge and domain knowledge. This learning is a cumulative but gradual process. Starting early will help students build a strong foundation for future learning. Too often learning-to-read is separated from reading-to-learn. Children who are not encouraged to develop word knowledge and world knowledge until the upper
elementary years are at a disadvantage (Walsh, 2003). They have missed an opportunity that influences their learning (Walsh, 2003).

Expansive domain knowledge and broad vocabulary knowledge go together. Researcher Jean Chall, and colleagues Jacobs and Baldwin, in the book, *The Reading Crisis: Why Poor Children Fall Behind* (1991) stresses this when it is pointed out that texts assume that readers are familiar with many facts about the natural world and that readers have an understanding of their culture, but many children may not have this basic knowledge about their world. An excellent way to expand both vocabulary knowledge and domain knowledge is reading a variety of texts on the same topic and discussing them in depth (Duke & Bennett-Armistead, 2003; Palmer & Stewart, 2005; Pappas, 1991). This requires students to use their newly required vocabulary in expressive and receptive ways in a meaningful context. It also encourages the meaningful practice of reading, writing, speaking, and listening as content areas are studied (Duke & Bennett-Armistead, 2003). Carefully chosen teacher read alouds followed by lively discussions provide a way to build word knowledge and world knowledge in the classroom setting (Duke & Bennett-Armistead, 2003; Walsh, 2003).

**Teacher Read Alouds and Discussions**

Teacher read alouds have been the foundation of quality early childhood programs for many years (Jacobs, Morrison, & Swinyard, 2000). Using picture books to promote word learning and exposure to new words is an effective way to increase vocabulary knowledge in young children (NICHD, 2000; Ninio,
Research by Robbins and Ehri (1994) indicated that the Matthew Effect (The rich get richer and the poor get poorer), in regard to kindergarten vocabulary growth, is accurate. This refers to the fact that children who have larger vocabularies initially, are able to internalize vocabulary meanings and comprehend as they learn new vocabulary words causing their vocabulary knowledge to expand, and children who begin with smaller vocabularies at the start, learn more slowly, causing the gap between the two to widen (Robbins & Ehri, 1994; Stanovich, 1986). In response to this research, teachers should scaffold the comprehension and word learning of all children by providing explicit instruction and facilitating open-ended discussions to deepen understanding, as well as helping children learn through context (Chall, 1987; Robbins & Ehri, 1994).

Dickinson and Smith (1994) observed preschool read aloud practices and discovered that the way teachers read books influenced children’s receptive vocabulary. When teachers intentionally repeated unfamiliar words and explained their meanings, connected the words to pictures, story meaning, and context clues, children’s receptive vocabulary was positively affected (Dickinson & Smith, 1994).

In order to scaffold student learning through the use of teacher read alouds, the materials must be carefully chosen. Students’ listening comprehension is greater than their reading comprehension therefore the read aloud books should possess more complex structures as well as advanced vocabulary (Beck & McKeown, 2007). The read aloud should be integrated with a
significant discussion which enhances and builds children’s word knowledge and domain knowledge (Lonigan & Whitehurst, 1998; Morrow & Tracey, 2007; Walsh, 2003). A way to enhance children’s vocabulary after a read aloud is to identify key ideas from the books and identify synonyms and antonyms of key vocabulary to deepen their word knowledge (Beck, McKeown, & Kucan, 2002). Even though literature written for young children and read to them may contain simple concepts and vocabulary, the teacher can use this literature to expand the word knowledge and vocabulary of students.

Read alouds are most effective when the children are actively involved through answering and asking questions rather than listening passively (Dickinson, 2001; Doyle & Bramwell, 2006; Wasik & Bond, 2001). It is a common practice for teachers to read aloud a picture book and answer student questions and discuss pictures as they are encountered (Lonigan, Anthony, Bloomfield, Dyer, & Samwell, 1999). A shared book experience, dialogic reading, encourages listeners to be active participants as the teacher read aloud is happening (Doyle & Bramwell, 2006; Lonigan & Whitehurst, 1998). Dialogic reading is based on three broad principles: children need to participate, teachers should provide feedback to children, and the teacher should scaffold the shared reading to the children’s linguistic abilities (Hargrave & Senechal, 2000). This strategy provides multiple opportunities for children to develop their oral language skills as the teacher prompts children to participate, expands on their ideas, and evaluates their understanding in order to scaffold the discussion to higher levels of thinking (Cavanaugh, 2012; Lonigan & Whitehurst, 1998). The
teacher encourages the child to repeat and internalize the oral literacy skills that were practiced (Cavanaugh, 2012; NELP, 2008). The dialogic reading includes the classroom teacher asking a variety of questions including those that are meant to prompt children to respond to the book, encourage them to evaluate what was happening in the book, expand their understanding of vocabulary, and use and repeat vocabulary in meaningful contexts (Cavanaugh, 2012; Doyle & Bramwell, 2006). The teacher responds to the children by affirming their answers, repeating, and correcting or expanding their answers. The teacher may use prompts that ask students to complete a phrase about the book, ask students recall questions during and after reading, ask open-ended questions (emphasizing why, who, what, when, which and how), and ask questions explaining or expanding on key vocabulary terms (Hargrave & Senechal, 2000).

Another component of dialogic discussions encourages children to make connections between the new content and their own lives. This strategy promotes listening comprehension and oral language skills. Children make gains in their expressive and receptive vocabulary (Callaghan & Madelaine, 2012; Cavanaugh, 2012; Lonigan & Whitehurst; 1998; NELP, 2008; Swanson et al., 2011). Dialogic conversations have been found to be effective in helping preschool children with limited vocabularies increase their expressive vocabulary in as little as four weeks (Hargrave & Senechal, 2000) to six weeks (Lonigan & Whitehurst, 1998).

Both fiction and nonfiction texts provide a shared experience and opportunities for rich discussions (Cazden, 2005; Dickinson & Tabors, 2002;
Morrow, 2005; Pappas, 1991). Children learn from the illustrations supporting the verbal text, and they make meaning from syntactical, semantic, and interpersonal contexts (Leung, 2008). Using fiction literature helps children to develop knowledge of plot, and character, helping them to consider character motivation. Children may be able to empathize with a character and understand the point of view of another (Lever & Senechal, 2011). Using nonfiction literature, a teacher can model the use of scientific vocabulary in a meaningful context, encourage and expand conversations, ask open-ended questions helping children predict and make connections, and observations (Bosse, Jacobs, & Anderson-Topete, 2013; Duke & Bennett-Armistead, 2003). The reading of nonfiction literature prepares children for information text structures they will encounter throughout the rest of their lives (Moss, 2008).

The genres of narrative text and expository text are very different in structure. When children are exposed to narrative reading material and they have little experience with expository texts, they become competent in narrative structures and develop an understanding of characters, their goals and motivations, but they lack an understanding of the structure of expository text; they are not as competent in reading and writing expository text. According to a case study completed by Pappas (1991) regarding a kindergartner's work with fiction and nonfiction literature: “Exclusive use of stories, thus, may end up being a barrier to full access to literacy. Children need opportunities to use books from a range of genres so they can acquire the book language that written language in our culture affords” (p. 461).
It is important for teachers to explicitly teach vocabulary words and their meanings as well as implicitly use the words and imply their meanings (NICHHD, 2000). A meta-analysis of research completed by Marulis and Neuman (2010) considered 57 studies that incorporated explicit vocabulary instruction or implicit vocabulary instruction or a combination of both, implicit and explicit instruction. Their findings indicated that children made a significantly greater gain when explicit instruction was used and an even greater gain (although not a significant difference) when a combination of explicit and implicit instruction was used. When vocabulary instruction is intentional and repeated through multiple opportunities to use the new words in meaningful contexts learning is maximized.

Intensity of vocabulary instruction was also considered by Marulis and Neuman (2010). In examining the studies that met their research criteria, they found vocabulary instruction lasted any time from 7 minutes – 60 minutes in duration and the mean of the sessions was 20 minutes. It was found that longer sessions did not appear more effective. In fact, it was determined that if the goal of the intervention was to increase short-term vocabulary, a shorter session was more effective. But if the intervention was meant to enhance the child’s vocabulary in more of a global context, the longer sessions may be more effective.

Researchers have also studied the length of time needed for vocabulary interventions. Using the meta-analysis completed by Marulis and Neuman (2010), it was determined that studies with fewer than 18 sessions had significantly greater effect sizes than those with 18 sessions or more.
Consequently, this suggests that studies with a “smaller number of sessions can effectively improve children’s word-learning outcomes” (Marulis & Neuman, 2010, p. 316). This is confirmed by the study completed by Hargrave and Senechal (2000), during a four-week intervention, “children in the dialogic reading condition had an average increase in expressive vocabulary that would normally occur in four months” (Hargrave & Senechal, 2000, p. 86). Discussions before, during, and after reading were important to vocabulary growth.

**Assessment of Vocabulary Growth**

Another key component of developmentally appropriate practices is the importance of assessment. Educators need to know if their instructional goals and objectives are relevant and if those goals and objectives are being met through the instruction. This can be difficult when working with young children because their level of development or culture or individual learning style may keep them from showing what they know or what they need to know. Therefore, it is important that assessment follows the recommendations of the NAEYC regarding developmentally appropriate practices. Some of these principles include the importance of assessment being an on-going activity, rather than a one-time event (Copple, Bredekamp, Koralek, Charner, 2013; Kostelnik, Soderman, & Whiren, 2011). The assessment needs to be tied to learning objectives and used to inform instruction. The methods of assessment need to be appropriate for the age and development of the child, respecting his or her background (Copple, Bredekamp, Koralek, Charner, 2013; Kostelnik, Soderman, & Whiren, 2011). Assessment needs to consider multiple sources of relevant

In the meta-analysis of research completed by Marulis and Nueman (2010), different measures were analyzed for their effectiveness in measuring changes in word learning. It was determined that standardized measures such as the Peabody Picture Vocabulary Test (2007) were useful in determining a broader more global change in vocabulary development. Measures created by teachers or researchers were more closely associated with the vocabulary that was part of the intervention and therefore they were more sensitive to these specific changes in vocabulary development (Marulis & Neuman, 2010). This is in agreement with the National Reading Panel’s (2000) suggestion that multiple measures be used to examine vocabulary development.

In order for children to be successful in school they need to make large gains in vocabulary to make appropriate gains in literacy development (Jalongo & Sobolak, 2011). It is difficult to accurately assess this growth. One way to measure probable growth is to consider receptive language and expressive language. Receptive language measures attempt to calculate a person’s ability to understand language that is presented through speaking or reading. Expressive vocabulary measures attempt to calculate the number of words a person produces, or knows in response to a stimuli or question. It is estimated that the receptive vocabulary of young children is often four times greater than their
expressive vocabulary (Jalongo & Sobolak, 2011). By examining both receptive and expressive vocabulary a more accurate picture of literacy development is uncovered.

Curriculum-based measurement (CBM) are measures that allow teachers to continuously measure growth in children’s performance and to determine if they are making sufficient progress, determine if instruction is effective, and assist in planning more effective instruction (Fuchs & Fuchs, 2002). Research has determined that CBM are effective in giving teachers useful data to monitor instruction and modify instruction as necessary (Fuchs & Fuchs, 2002; Roskos et al., 2008). A vocabulary CBM can be developed so that it is closely aligned to instruction. It has been used as “an integral part of vocabulary instruction, providing a systematic and sensitive measure of children’s developing vocabularies and charting their rate of growth” (Roskos et al., 2008, p. 286). A CBM can be developed to measure receptive language and expressive language of children.

Summary

Chapter 2 contains a summary of relevant research related to the use of nonfiction literature to increase vocabulary development in children attending preschool. It highlights background information regarding vocabulary development and topics that are closely related to it. This literature review briefly examines constructivist theories of language acquisition, brain development as it relates to language, the role of preschools and child care centers in our society, and the identification of characteristics of high quality early learning
environments, early predictors of later school success, research-based vocabulary instruction, the importance of reading aloud as a strategy to promote vocabulary growth, and how to assess vocabulary growth. Chapter 3 contains the methodology that was used to collect the data on using nonfiction in early childhood classrooms. Chapter 4 contains the results and the analysis of the findings and Chapter 5 contains a summary of the study and findings as well as a conclusion and recommendations for further study.
CHAPTER 3

Methodology

This chapter explains the methodology used in the implementation of this study regarding the role of nonfiction literature in preschool classrooms.

The purpose of this study was to investigate differences in vocabulary growth in young children through the use of nonfiction versus fiction children’s literature and the dialogic discussions that follow. The discussions also were further analyzed for type of target vocabulary usage and frequency of target vocabulary usage during discussions that children engage in during dialogic read alouds using fiction books and read alouds using nonfiction books. The sixth edition of the Publication Manual of the American Psychological Association was used for this study.

Review of Related Literature and Research

A selective review of literature regarding the importance of a strong vocabulary base in the preschool years and the role of nonfiction literature in building a strong knowledge base during the preschool years were conducted for this study. References used in the literature search included peer-reviewed journal articles from the Educational Resources Information Center (ERIC) database, the National Association for the Education of Young Children (NAEYC), and the International Reading Association (IRA). Collections of research-based reports and articles based on research were found in The Handbook of Early Literacy Research (Volumes I, II, and III) (Neuman & Dickinson, 2002, 2006, 2011), Achieving Excellence in Preschool Literacy...
Instruction (Justice & Vukelich, 2008), and articles from Reading Research Quarterly were used as foundational sources to guide the researcher. Interlibrary loan was used to obtain copies of articles and books.

The facilities where these resources were found included the John and Louise Hulst Library, on the campus of Dordt College in Sioux Center, IA, and the I. D. Weeks Library on the campus of The University of South Dakota, Vermillion.

Research Questions

The following research questions guided this study:

1. What difference is there in vocabulary development increase when nonfiction literature rather than fiction literature is emphasized?

2. What difference is there in vocabulary use during dialogic discussion when nonfiction literature rather than fiction literature is emphasized?

Informed Consent

The researcher requested permission for the study from The University of South Dakota Institutional Review Board (see Appendix A). After consent was given, the researcher sought informed consent and permission for the study from the director of the preschool, the teacher of the preschool, and the parents of children enrolled in the program (see Appendix B). Additional permission for the study was requested from the Dordt College Institutional Review Board, the researcher’s place of employment where data were analyzed and stored (see Appendix C).
Sample

A sample of convenience was used for this study. Forty children who are enrolled in a preschool associated with a small private school in a small Midwestern community of approximately 6000 people took part in this study. The children who participated in this study speak English as their first language. The families served by this preschool program are primarily middle-income families whose incomes are above the poverty level. The preschool is privately funded. All 40 children enrolled had parental permission to participate in the study.

The 40 children were divided into two classes, a morning class and an afternoon class. Parents chose which class their child attended. The classes both had the same teacher and classroom aides. The control group and treatment group were randomly assigned, with the control group being the morning session, and the treatment group being the afternoon session. Both classes were taught the same content and participated in dialogic discussions. Both classes read approximately two to three books each day. The control group was read only fiction children’s literature (see Appendix D), and the treatment group was read 70 – 75% nonfiction children’s literature (see Appendix E) during the whole group instruction time each day.

The children’s literature and dialogic discussions focused on the topic of the season of autumn and changes that happen during this season to the environment and animals. The research was conducted during the autumn, so the content was relevant and meaningful for the students. The research period included 24 preschool sessions of three hours each. The read aloud and dialogic
discussions took about 20 minutes of each day during the research period. The target vocabulary words were displayed using a three dimensional word wall throughout the research period for both classes. The pretesting occurred before the start of the research period. The posttest was completed immediately following the research period.

**Instrumentation**

This study used a quasi-experimental pretest-posttest nonequivalent control group design. All of the children participating in the survey were assessed using a curriculum-based measure for receptive vocabulary and a curriculum-based measure for expressive vocabulary. These tests were aligned to concepts and vocabulary taught during the study. The Peabody Picture Vocabulary Test (PPVT-4) is a widely used standardized measure that was used to assess student vocabulary. All of these tests were used as pretests and posttests.

The classroom teacher and the researcher worked together to develop the list of 27 target vocabulary (using children’s literature) that would be directly taught (see Appendix F). In order to accurately assess vocabulary growth, an appropriate CBM was developed to measure receptive vocabulary knowledge. For each of the target vocabulary words, a photograph was found using Creative Commons Licensing. For the receptive test, children were shown a group of four photos and asked to point to a picture that matched the word spoken by the examiner. (A portion of the receptive CBM is included in Appendix G.) This procedure is similar to the procedure used in the PPVT-4, with the exception of
the pictorial representation of the vocabulary word, photographs versus drawings.

For the expressive CBM vocabulary test, children were shown a photograph and asked to verbally name the photograph indicated by the examiner (scripted prompts were provided). A portion of the CBM is included in Appendix H. The examiner recorded the child’s response on an answer record sheet. A sample score sheet for both of the CBMs is included in Appendix I.

The Peabody Picture Vocabulary Test-4 measures receptive vocabulary of children and adults. It is a norm-referenced tool that is untimed. It is individually administered. The PPVT-4 consists of 228 drawings. The items are grouped into 19 sets of 12 items. The sets are arranged in an order of increasing difficulty so that only those items that are in the examinee’s vocabulary level are administered. The test can usually be administered in approximately 15 minutes. There are two forms available, one was used for the pretest and the opposite form was used for the posttest. The PPVT-4 has a high average correlation of .93 regarding the test-retest reliability. The PPVT-4 was normed using individuals proficient in English and it is a valid test for the context of this research (Dunn & Dunn, 2007). The PPVT-4 is a widely used assessment in research of vocabulary development for young children. It was chosen to be used in this study to provide continuity with previous research that examines the domain of vocabulary.

The researcher recorded video of the dialogic conversations that happened in each classroom on three separate but evenly spread occasions.
The purpose of these discussion recordings was to collect data regarding expressive vocabulary use of children in an authentic context.

**Data Collection**

This study used a quasi-experimental pretest-posttest nonequivalent control group design with a randomly assigned control group and treatment group. This research was implemented at a preschool in the Midwest. There were two sections of preschoolers, a morning section and an afternoon section. Parents chose when to send their child to preschool. Then the groups were randomly assigned as the control group or the treatment group. Prior to instruction, both of the CBMs and the PPVT-4 were administered to each participant to collect pretest or baseline data. Student names were replaced with number codes on the pretest (and posttest) data in order to prevent identifiable information from being shared. After pretests were administered, instruction on a unit study of autumn began. Both sections were taught by the same teacher. The classes met four days per week, for three hours each day. The research period was approximately six weeks long, encompassing 24 preschool sessions, which is the length of time the preschoolers were engaged in a study of autumn, life cycles, and habitats. This frequency of instruction is based on the meta-analysis completed by Marulis and Neuman (2010) which reported that studies with a lower number of sessions, on average 18, can effectively improve a child’s vocabulary growth. Hargrave and Senechal (2000) supported that children can make vocabulary gains in a 4-week intervention of dialogic discussion.
The curriculum was the same for both sections. Prior to the beginning of the school year, the classroom teacher met with the researcher and identified concepts to be taught, chose fiction and nonfiction texts, and identified 1-2 vocabulary words to be taught to the preschool classes each day of the research period, for a total of 27 words (see Appendix F). These words were displayed as part of a word wall throughout the unit. The control group was read to and engaged in dialogic discussions using 100% fiction literature. The treatment group was read to and engaged in dialogic discussions using 30% fiction texts and 70% nonfiction texts appropriate to the concepts being taught. Both classes engaged in dialogic discussions on a daily basis. The classes were read approximately three books each day. (See the list of books read in Appendices D and E.)

The vocabulary of the children was pre-assessed using each of the CBMs and the PPVT-4. Each child was given each of the pretests and posttest individually prior to the start date of the research and at the conclusion of the study.

After pretest assessments were completed the treatment period began. The classroom teacher read aloud to and discussed with the students in the control group using 100% fiction reading material and no nonfiction reading material. The treatment group learned the same content using 70% nonfiction reading material and 30% fiction reading material. The vocabulary was explicitly taught during the read aloud and discussion period for both groups. A list of the
books used in each class is available in Appendix D (Books Read to the Control Group) and Appendix E (Books Read to the Treatment Group).

The discussions followed the guidelines for dialogic discussions. Dialogic reading is based on three broad principles: children need to participate, teachers should provide feedback to children, and the teacher should scaffold the shared reading to the children’s linguistic abilities (Hargrave & Senechal, 2000). This strategy provides multiple opportunities for children to develop their oral language skills as the teacher prompts children to participate, expands on their ideas, and evaluates their understanding in order to scaffold the discussion to higher levels of thinking. The teacher encouraged the children to repeat and internalize the oral literacy skills that were practiced (Cavanaugh, 2012; NELP, 2008). The teacher used prompts, asked students to complete a phrase about the book, asked students to recall questions during and after reading, asked open-ended questions (emphasizing why, who, what, when, which and how), and asked questions explaining or expanding on key vocabulary terms (Cavanaugh, 2012; Doyle & Bramwell, 2006; Hargrave & Senechal, 2000). Another component of dialogic discussions encourages children to make connections between the new content and their own lives. This strategy promotes listening comprehension and oral language skills. A word wall using the target vocabulary with pictures and objects was displayed in the classroom and referred to frequently through the research period.

The analysis of the dialogic discussions of this study investigated the influence of information text on children’s vocabulary produced during dialogic
discussions in the preschool classroom. It was completed by the classroom teacher in cooperation with the researcher. Before the lesson, the classroom teacher and the researcher agreed on appropriate open-ended questions to discuss with children during dialogic reading of nonfiction and fiction literature. The classroom teacher completed a discussion guide to help plan the dialogic discussion (see Appendix J). A completed planning sheet is included in Appendix K. While being video-taped, the teacher led book reading and a dialogic discussion. The target vocabulary words were explicitly taught to each group. One method that was used is identification of the word and its meaning and the addition of the word card and picture to the word wall. Each group was recorded for approximately 20 minutes (or the duration of the conversation). The dialogic discussions for each class were recorded at least three different days throughout the intervention. The recordings took place on the same day for the control group and the treatment group. The discussions were transcribed for analysis.

**Data Analysis**

This study utilized a quasi-experimental pretest-posttest nonequivalent control-group research design. The nonequivalent control group design used intact groups in that the teacher and the children were not randomly selected and assigned to the treatment and control groups. The preschool sections or groups were formed by parent choice based on time of day that the classes met. The researcher then randomly assigned the treatment group, which was the afternoon section. The nonequivalent control group design involved
administration of a pretest and posttest to the control group and the treatment
group. Analysis of covariance was utilized to answer the first research question
to determine whether significant differences existed in posttest normal curve
equivalent scores between the two groups. The independent variable for the
tests was the use of nonfiction literature on vocabulary growth of preschool
children, while the dependent variable was the adjusted posttest normal curve
equivalent score derived from the administration of the tests.

After 24 sessions of this treatment were finished, the vocabulary of each
of the preschool children was evaluated using the CBM for receptive vocabulary,
the CBM for expressive vocabulary, and the PPVT-4. The scores of the pre- and
post-tests were compared, and the difference in vocabulary growth was analyzed
to see if reading more nonfiction literature had an impact on a child’s vocabulary
growth. An analysis of covariance was performed to adjust for differences across
group scores prior to instruction.

According to Borg and Gail (1989), “The main threat to the internal validity
of nonequivalent control group experiments is the possibility that group
differences on the posttest are due to preexisting group differences rather than
the treatment effect” (p. 692). For this reason, analysis of covariance was used
to lessen “the effects of initial group differences statistically by making
compensating adjustments to the posttest means of the two groups” (Borg &
Gail, 1989, p. 692). The covariates, the pretest scores for each group, were used
to adjust the posttest normal curve equivalent scores to lessen the effect of initial
group differences and determine the statistical significance of the treatment. The level of significance of .05 was used for each of the statistical analysis.

In order to answer the second research question the class discussions were analyzed. This included transcribing the video recordings of the dialogic conversations. A descriptive analysis of these conversations was charted, with student speech being coded with the intent of determining if the reading of an increased amount of nonfiction literature led to an increase in use of the targeted vocabulary words by the preschool students. A summary of the findings was developed and is reported in Chapter 4.

**Summary**

Chapter 3 presented the methodology that was used to collect the data regarding the importance of nonfiction texts in the development of expressive and receptive vocabulary in preschool classrooms. Chapter 4 contains the results of the data and findings of the research and Chapter 5 contains a summary of the research findings, conclusions, and a discussion and recommendations for future practice and research.
CHAPTER 4

Results

This chapter will report the research results regarding the study. The purpose of this study was to investigate differences in vocabulary growth in young children through the use of nonfiction as compared to fiction children’s literature both using dialogic discussions that follow. A sample of the dialogic discussions has been analyzed descriptively to identify differences in use of the target vocabulary by the control group and the treatment group. This chapter contains a summary of the actual research process and the data analysis of the results for each research question. The research questions that guided this study are

1. What difference is there in vocabulary development increase when nonfiction literature rather than fiction literature is emphasized?

2. What difference is there in vocabulary use during dialogic discussion when nonfiction literature rather than fiction literature is emphasized?

Demographic Data and Research Process

The research was conducted in a preschool classroom in the Midwest. The community has approximately 6,000 citizens. The privately funded preschool is contained in a school building and the preschool serves 40 children. All 40 children enrolled had parental permission to participate in the study. Most of the children are from families with middle class income.

The 40 children were divided into two classes, a morning class and an afternoon class. Parents chose which class their child attended. The classes
both had the same teacher and classroom aides. The control group and treatment group were randomly assigned, with the control group being the morning session, and the afternoon class being the treatment group. Both classes were taught the same content and participated in dialogic discussions. The control group was read fiction children’s literature only (see Appendix D), and the treatment group was read 70 – 75% nonfiction children’s literature (see Appendix E) during the whole group instruction time each day.

The children’s literature and dialogic discussions focused on the topic of the season of autumn and changes that happen during this season to the environment and animals. The research was conducted during the autumn, so the content was relevant and meaningful for the students. The research period included 24 preschool sessions of three hours each. The read aloud and dialogic discussions took about 20 minutes of each day during the research period. The read aloud and dialogic discussions were recorded on three occasions during the research period. The target vocabulary words (see Appendix F) were displayed using a three dimensional word wall throughout the research period for both classes. The pretesting occurred before the start of the research period. The posttest was completed immediately following the research period.

**Findings**

The first research question addressed whether there was an increase in vocabulary growth when nonfiction literature rather than fiction literature is emphasized. In order to answer this, three assessments were used. Two of the assessments were curriculum-based measures, one measuring receptive
vocabulary and the other measuring expressive vocabulary, and the third
assessment was the PPVT-4, a standardized vocabulary test that measures
receptive vocabulary.

The pretest scores indicate that the treatment group began with a higher
vocabulary level than the control group. In order to eliminate the effect of this
variable, an analysis of covariance was performed and the adjusted scores were
compared. The data collected from the curriculum-based measure for receptive
vocabulary showed significantly greater target vocabulary growth of the treatment
group when it was compared to the target vocabulary growth of the control group.
See Table 1 for the pretest and posttest results and comparison on the control
group and treatment group.

Table 1

*Differences in Gain in Vocabulary as Measured by the Curriculum-based
Measure for Receptive Vocabulary.*

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Adjusted Posttest</th>
<th>F value</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>20</td>
<td>15.85</td>
<td>19.85</td>
<td>19.98</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Treatment</td>
<td>20</td>
<td>16.20</td>
<td>22.40</td>
<td>22.27</td>
<td>5.54</td>
<td>1, 37</td>
<td>.024*</td>
</tr>
</tbody>
</table>

*p < .05

The data of the curriculum-based measure for expressive vocabulary did
not show a significant change in vocabulary of the children in the treatment group
compared to the growth of the control group. Table 2 shows the comparison of scores of the curriculum-based measure for expressive vocabulary after the analysis of covariance is applied.

Table 2

*Differences in Gain in Vocabulary as measured by the Curriculum-based Measure for Expressive Vocabulary*

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Adjusted Posttest</th>
<th>$F$ value</th>
<th>$df$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>20</td>
<td>5.80</td>
<td>13.65</td>
<td>14.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.81</td>
<td>1, 37</td>
<td>.284</td>
</tr>
</tbody>
</table>

Treatment 20 7.70 16.60 15.67

$p < .05$

The PPVT—4 was the standardized measure used to measure receptive vocabulary. The data indicate there was not a significant growth in the difference of the receptive language development in the control group and the treatment group using the standardized PPVT—4 as a measure. Table 3 shows the comparison of scores after the analysis of covariance is applied to the PPVT—4.
Table 3

*Differences in Gain in Vocabulary as measured by the Peabody Picture Vocabulary Test-4*

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>Pretest</th>
<th>Posttest</th>
<th>Adjusted Posttest</th>
<th>F value</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>20</td>
<td>105.5</td>
<td>105.9</td>
<td>107.9</td>
<td>0.04</td>
<td>1, 37</td>
<td>.840</td>
</tr>
<tr>
<td>Treatment</td>
<td>20</td>
<td>110.8</td>
<td>110.8</td>
<td>108.8</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The second research question addresses the difference in vocabulary used during dialogic discussions when nonfiction literature rather than fiction literature is emphasized. In order to answer this question, read alouds and dialogic discussions were recorded and a sampling of the children’s vocabulary usage during the interactive dialogic discussion was analyzed descriptively.

Table 4 addresses the data gathered during dialogic discussions in the preschool classroom. One interesting fact was that the nonfiction literature contained more occurrences of the target vocabulary. The treatment group produced more of the target vocabulary during the dialogic discussions than the control group. The chart identifies the frequency of the target words produced initially by the children (rather than by the teacher or a peer), the frequency of target words repeated by children during the discussion, and the number of times children made connections to their own lives during the dialogic discussions. During dialogic
discussions it is important for children to connect the content of the children’s literature to their own lives. This is called making connections. Children in both groups made connections between the literature and their own lives, but the treatment group made more connections between the children’s literature and their own lives than the control group (see Table 4).

Table 4

*Vocabulary Usage during Dialogic Discussions*

<table>
<thead>
<tr>
<th></th>
<th>Control Group Fiction Samples</th>
<th>Treatment Group Nonfiction Samples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target vocabulary in the literature.</td>
<td>30</td>
<td>44</td>
</tr>
<tr>
<td>Children initially produce target vocabulary.</td>
<td>7</td>
<td>19</td>
</tr>
<tr>
<td>Children repeat vocabulary produced by teachers or classmates.</td>
<td>12</td>
<td>50</td>
</tr>
<tr>
<td>Children respond by making a connection.</td>
<td>10</td>
<td>16</td>
</tr>
</tbody>
</table>

Summary

Chapter 4 provided the detailed findings regarding the research completed as a part of this study. Chapter 5 summarizes the research, findings, and offers conclusions and recommendations for research and practice.
CHAPTER 5

Summary, Conclusions, Discussion, and Recommendations

Chapter 5 presents a summary of the research and conclusions of the research. It also contains suggestions for future practice and research projects.

Summary

Purpose. This study investigated the importance of reading aloud nonfiction literature and engaging children in discussions in order to encourage vocabulary development in preschool children. A child’s vocabulary size impacts the development of other reading skills such as decoding, rhymes, and sound identification (Roskos, et al., 2008). A child’s vocabulary size during the preschool years is one of the most accurate predictors of their later reading and writing success (NICHHD, 2000). Children need a broad knowledge of the world around them in order to develop a context for new words and concepts they encounter. This develops over time, with repeated exposure, from multiple sources (Hirsch, 2003; Walsh, 2003). This study provides useful information to help teachers select the types and genres of literature that will foster rich oral language interactions and meaningful vocabulary learning. This study also provides teachers with data to help analyze teacher / student discussion during read alouds. The following research questions were the focus of this study:

1. What difference is there in vocabulary growth, as measured by the Peabody Picture Vocabulary Test-4 and a curriculum-based measure, when nonfiction literature rather than fiction literature is emphasized?
2. What difference is there in vocabulary use during dialogic discussion when nonfiction literature rather than fiction literature is emphasized?

**Review of Literature** Reading comprehension is important for school success and strong vocabulary development leads to higher comprehension in later years (Hart & Risley, 1995). During the preschool years, children are experiencing brain development that can impact their language skills for the rest of their lives (Frost, 1998). As children interact with their environment, hearing words spoken by parents and caregivers and through book reading and music, some connections are strengthened and those not used are pruned (Frost, 1998). Opportunities for children to interact and strengthen connections they have experienced in language-rich environments encourages language learning and brain development (Bredekamp, 2014; Frost, 1998).

Children develop their vocabulary before entering school by developing their oral language skills. As Vygotsky (1986) and Piaget and Inhelder (1969) discovered, the environment is an important influence on this development. A high quality environment is one that is full of interactions between children and caregivers (Copple & Bredekamp, 2009; Hart & Risley, 1995). Positive interactions between caregivers and children are important for language development (Boschee & Jacobs, 1997; Copple & Bredekamp, 2009; Dickinson & Tabors, 2002). These interactions involve multiple opportunities to use words and engage in conversations. Children are given multiple opportunities to develop their speaking and listening skills through stories and discussions with peers and teachers which builds school readiness and lays the foundation for
later learning (Cazden, 2005; Dickinson, McCabe, & Essex, 2006; Morrow, 2005; Pianta, Mashburn, Downer, Hamre, & Justice, 2008). The use of children’s literature encourages developmentally appropriate scaffolding in which new words are introduced and explained in context (Silverman & Crandell, 2010). The use of discussions promotes the use of the new vocabulary by the children and it leads them to make connections between new information and previous knowledge, this in turn, increases comprehension (Curtis, 1987).

Early school success is important for many reasons, including its link to later school success. Student achievement in core content areas is emphasized by the Common Core State Standards. The expectations of the Common Core State Standards include students engaging in the use of academic vocabulary and building knowledge through the comprehension of nonfiction texts (Duke & Bennett-Armistead, 2003; NGO and CCSSO, 2010). Many texts assume that readers have a broad understanding of their culture and that they have background knowledge about the world, but many children do not possess this knowledge (Chall, Jacobs, and Baldwin, 1991).

The size of a child’s vocabulary is important, but they need more than word knowledge (Hirsch, 2003). Background knowledge gives children context for the new words they are learning and allows them to connect new learning to what they already know, making inferences and supplying missing knowledge to construct meaning (Hirsch, 2003). In order to be successful readers, children need to have strong vocabulary knowledge and strong world knowledge (Duke & Bennett-Armistead, 2003). When word knowledge and world knowledge are
linked, children develop learning-to-read and reading-to-learn skills which lays a firm foundation for future learning (Walsh, 2003). When children are not encouraged to develop word knowledge and world knowledge until later in their education, they are at a disadvantage (Walsh, 2003). Expanding vocabulary knowledge and world knowledge happens in a natural context as teachers use texts from many genres on the same topic and discuss them in depth (Duke & Bennett-Armistead, 2003, Palmer & Stewart, 2005; Pappas, 1991). Children are given opportunities to develop the receptive and expressive use of new vocabulary in a meaningful way.

The use of dialogic discussions encourages children to make connections between the new content and their own lives. Dialogic discussions involve a teacher reading literature to children in an interactive way. This strategy promotes listening comprehension and oral language skills. Children make gains in their expressive and receptive vocabulary (Callaghan & Madelaine, 2012; Swanson et al., 2011; Cavanaugh, 2012; NELP, 2008).

Dialogic conversations have been found to be effective in helping preschool children with limited vocabularies increase their expressive vocabulary within four weeks (Hargrave & Senechal, 2000). Dialogic discussions encourage children to be active participants as teachers read aloud books and provide feedback and scaffold instruction to fit student needs (Hargrave & Senechal, 2000). During book reading, the teacher may ask a variety of open-ended questions, ask students to monitor their comprehension, and expand on children’s understanding of vocabulary (Cavanaugh, 2012; Doyle & Bramwell,
Children are able to expand their word knowledge and world knowledge in a meaningful context.

Fiction texts and nonfictions texts provide opportunities for authentic and meaningful discussions (Cazden, 2005; Dickinson & Tabors, 2002; Morrow, 2005; Pappas, 1991). Fiction texts help children develop an understanding of literary elements including character, point of view, and plot (Lever & Senchal, 2011). Nonfiction encourages the use of academic vocabulary in a meaningful context, often supported by illustrations, inspires children to ask questions, make connections and observations (Bosse, Jacobs, & Anderson-Topete, 2013; Duke & Bennett-Armistead, 2003). It is important that children understand narrative text structures (fiction) and informational text structures (nonfiction) so they are competent in reading both. Through a case study, Pappas (1991) determined that the exclusive use of narrative literature with young children may become a barrier to full literacy learning.

Measuring vocabulary growth is not easy. However, educators need to know if their instructional goals and objectives are relevant and if those goals and objectives are being met through the instruction. This can be difficult when working with young children because their level of development or culture or individual learning style may keep them from showing what they know or what they need to know.

In the meta-analysis of research completed by Marulis and Nueman (2010) different measures were analyzed for their effectiveness in measuring changes in word learning. It was determined that standardized measures such as
the Peabody Picture Vocabulary Test (2007), were useful in determining a broader, more global change in vocabulary development. Measures created by teachers or researchers were more closely associated with the vocabulary that was part of the intervention and therefore they were more sensitive to these specific changes in vocabulary development (Marulis & Neuman, 2010). This is in agreement with the National Reading Panel’s (2000) suggestion that multiple measures be used to examine vocabulary development.

Curriculum-based measurement (CBM) are measures that allow teachers to continuously measure growth in children’s performance and to determine if they are making sufficient progress, determine if instruction is effective and assist in planning more effective instruction (Fuchs & Fuchs, 2002). Research has determined that CBM are effective in giving teachers useful data to monitor instruction and modify instruction as necessary (Fuchs & Fuchs, 2002; Roskos, et al., 2008).

**Methodology.** This study used a quasi-experimental pretest-posttest nonequivalent control group design pre-post design with a randomly assigned control group and treatment group. The research was conducted in a preschool classroom in the mid-west. The community is small (having approximately 6000 people). The privately funded preschool is contained in a school building and the preschool serves 40 children. All 40 children enrolled had parental permission to participate in the study. Most of the children are from families with middle class income.
The 40 children were divided into two classes, a morning class and an afternoon class. Parents chose which class their child attended. The classes both had the same teacher and classroom aides. The control group and treatment group were randomly assigned, with the control group being the morning session, and the treatment group being the afternoon class. Both classes were taught the same content and participated in dialogic discussions. The control group was read 100% fiction children’s literature, and the treatment group was read 70 – 75% nonfiction children’s literature during the whole group instruction time each day.

The children’s literature and dialogic discussions focused on the topic of the season of autumn and changes that happen during this season to the environment and animals. The research was conducted during the autumn, so the content was relevant and meaningful for the students. The research period included 24 preschool sessions of three hours each. The read aloud and dialogic discussions took approximately 20 minutes of each day during the research period. The target vocabulary words were displayed using a three dimensional word wall throughout the research period for both classes.

The pretesting occurred before the start of the research period. The posttest was completed immediately following the research period. The Peabody Picture Vocabulary Test-4 and curriculum-based measures (CBM) were used for pretest and posttest. In order to construct an effective CBM for this research, the classroom teacher and the researcher identified 27 target vocabulary words. For each of these words, a photograph was found using Creative Commons
Licensing. For the receptive test, children are shown a group of four photos and asked to point to a picture that matches the word spoken by the examiner. This procedure is similar to that used in the PPVT-4, although that test uses drawings to represent vocabulary rather than photographs. For the expressive vocabulary test, children are shown a picture and asked to verbally name the picture by the examiner (scripted prompts were provided).

The classroom teacher was trained by the researcher in the area of dialogic discussions. The training consisted of reading about the strategy of dialogic discussion, developing a discussion guide to plan dialogic discussions, seeing dialogic discussions modeled by the researcher, and implementing the strategy throughout the research period. The dialogic discussions were video-taped on three occasions (for each group) and transcribed and coded for frequency of target word generation and usage by the preschool children.

**Findings.** According to the results of the curriculum-based measure comparing the pretest to posttest of receptive vocabulary (CBM-R) data, the receptive vocabulary growth difference of the treatment group did prove to be significant compared to the control group. The children in the treatment group who were read 70 – 75% nonfiction material and engaged in dialogic discussions had a significant difference of growth in their receptive vocabulary of the target words.

The comparison of the data of the expressive vocabulary CBM pretest to posttest did not show a significant difference in vocabulary growth of the students in the treatment group compared to the control group.
The PPVT-4 was a standardized test administered to measure students’ receptive vocabulary. The data indicate the study did not find significant effects in receptive language development in the control group or the treatment group using the standardized PPVT-4 as a measure.

To learn about expressive vocabulary usage of the preschool students, samples of the dialogic discussions were recorded, transcribed, and analyzed descriptively. The data show that during dialogic discussions involving nonfiction texts, the treatment group produced more of the target vocabulary than the children involved in dialogic discussions using fiction texts (control group). It is important to note that the nonfiction texts contained more occurrences of the target vocabulary, and the children in the treatment group produced more of the target vocabulary as they participated in the dialogic discussions.

**Discussion**

The significance in the Curriculum-based measure of receptive vocabulary indicates that nonfiction literature paired with dialogic discussion is a useful strategy in building receptive vocabulary in preschool children. This supports the research by Jalongo and Sobolak (2011) that emphasizes that children need to be actively engaged in vocabulary activities if they are going to fully understand new words. It may be that nonfiction literature is written for the purpose of explaining a concept or phenomena, and therefore the text structure lends itself to explicitly teaching related vocabulary concepts, asking questions, searching for answers (Duke & Bennett-Armistead, 2003; McMath, King, & Smith, 1998). When considering narrative texts, it is important to note that their purpose is to
tell a story or to entertain (Duke & Bennett-Armistead, 2003). Target vocabulary used in narrative texts may be more implicit, rather than the focus of the reading.

The data of the expressive vocabulary CBM did not show a significant change in vocabulary of the students in the treatment group compared to the control group. This may be related to the fact that it is estimated that young children have a receptive vocabulary that “is four times greater than their expressive vocabulary” (Jalongo & Sobolak, 2011, p. 422). In other words, children may understand a lot more language than they produce verbally.

The data regarding the PPVT-4 indicate the study did not find significant effects in receptive language development in the control group or the treatment group using the standardized PPVT-4 as a measure. These results are consistent with research by Hargrave and Senchal (2000) and Lonigan and Whitehurst (1998) who suggested using more sensitive assessment measures targeting the novel vocabulary being introduced to assess the efficacy of receptive vocabulary growth using dialogic discussions. This data was helpful in identifying how closely the control and treatment groups are related using a standardized vocabulary testing measure. The PPVT-4 is a useful global measure for preschooler’s vocabulary growth, but it is not specifically aligned with the target vocabulary taught during the six week research period.

The significance of the descriptive measure of the dialogic discussions may actually lead to more questions and opportunities for future research. The data show that children used more of the target vocabulary when the discussions were focused on nonfiction literature, although, as noted previously, they also
heard more occurrences of the target vocabulary due to its frequency in nonfiction literature.

When beginning the research period, fiction and nonfiction books were paired up as much as possible so that the same content would be taught each day, the literature was the only factor that was different. For example, when teaching about hibernation and how animals prepare for winter, the classroom teacher read the book *Curious George: A Winter’s Nap* by Marcy Goldberg Sacks to the morning class. This piece of fiction tells the story of the monkey, Curious George, trying to hibernate. He eats a lot and finds a dark place, and eventually takes a long nap through the night. It teaches a lot about the topic of hibernation through text and illustrations and how some animals hibernate through the winter. The book uses four of the target vocabulary words. During the dialogic discussion, the children initiated the use of three target vocabulary words, they repeated target vocabulary words four times, and they made two connections to their own lives or other stories they had heard.

On this same day, the treatment group read the book *Animal Hibernation* by Jeanie Mebano. This piece of nonfiction explains why animals hibernate (due to lack of available food in the winter and cold temperatures) and how they prepare for winter (by eating a lot of food and finding an appropriate place to hibernate). This book uses target vocabulary words 12 times. During dialogic discussions, children initiated the use of target vocabulary six times, they repeated the target vocabulary eight times, and they made three connections to their own lives or other books they had heard.
This example illustrates the value of nonfiction in defining and repeating target vocabulary through text and illustrations. This may be an indicator of why there was significant growth in receptive vocabulary for the treatment group as measured by the CBM for Receptive Vocabulary. Children listening to the nonfiction heard the terms more frequently. A more thorough analysis comparing fiction and nonfiction literature and the amount of academic vocabulary in each may lead to a better understanding of why the genre of nonfiction produced more usage of the target vocabulary by the children involved in the treatment group. This data supports the use of nonfiction literature in promoting vocabulary growth in preschool children (Hirsch, 2003).

The findings of this research have implications for the field of early childhood education. It is known that vocabulary development is an important part of learning to read and write. Reading to young children is a wonderful way to build vocabulary and prepare young children for these future tasks (Reese & Harris, 1997). Historically, most early childhood classrooms have included a majority of fiction texts, while reading very little nonfiction (Pentimonti, Zucker, & Justice, 2011; Reese & Harris, 1997; Yopp & Yopp, 2006). However, early childhood educators need to understand the value of using nonfiction literature in building children’s vocabulary and the role it should have in classrooms including the practice of reading aloud. This study demonstrates that nonfiction literature is a valuable genre that supports children in learning vocabulary and building domain knowledge (Hirsch, 2003), and when this genre is used in combination with dialogic reading, the vocabulary growth can be significant.
The dialogic discussions in this study provided rich opportunity for the preschool children to use the target words and hear them used in a meaningful context. The significant results in vocabulary growth for the treatment group may be due in part to the challenging vocabulary in the nonfiction text. One of the purposes of nonfiction text is to inform, therefore, it naturally contains descriptions and context to explain the factual information it is presenting. The structure and language of the text leads to natural opportunities to interact while reading.

Conclusions

This study, of the use of nonfiction literature combined with dialogic discussions in order to build vocabulary in young children, demonstrated that significant vocabulary growth can happen when these strategies are regularly implemented. It is important for teachers to encourage the use of nonfiction literature in early childhood classrooms. It can be used in developmentally appropriate ways, especially using the strategy of dialogic discussions in which children and teacher interact in discussion as the book is read.

Dialogic discussion is a useful interactive reading strategy that classroom teachers and parents should use when reading with young children. It is effective with both fiction and nonfiction literature, in encouraging children to participate in discussions and use target vocabulary in meaningful ways.
Recommendations for Practice

1. To maximize vocabulary learning in early childhood classrooms, nonfiction literature should be regularly promoted during read aloud time (as well as other genres).

2. Explicit teaching of target vocabulary is an important component of oral language learning. Dialogic discussion promotes an authentic way for children to increase the receptive vocabulary skills, and to practice the expressive vocabulary use. This strategy encourages oral language development and provides a natural, authentic context for children to use the vocabulary they are learning. It is developmentally appropriate and it encourages children to take an active role in the book reading. Dialogic discussions should be used in combination with both fiction and nonfiction read alouds.

3. Educate parents, future teachers, and current early childhood educators on the strategy of dialogic reading as a way to make reading of any literature more interactive and meaningful for children.

Recommendations for Future Research

1. Further research may include implementing the use of nonfiction literature and dialogic conversations in small group settings, as opposed to whole group settings that were focused on in this study.

2. Further research regarding target vocabulary for young children and the amount of new vocabulary presented in different genres of books may be
useful in understanding how vocabulary development increases with the use of children’s literature.

3. A similar study could be conducted with a more diverse group of participants. This would allow the results to be more generalizable to other populations.

4. A similar study could conduct research for an extended period of time. This would be helpful in identifying the length of time needed to see gains in expressive vocabulary as well as the receptive vocabulary.
References


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Robbins, C., & Ehri, L. (1994). Reading storybooks to kindergarteners helps them learn new vocabulary words. *Journal of Educational Psychology, 86*(1), 54-64.


Appendix A
Institutional Review Board Approval from The University of South Dakota
(Original and Amended Approval)
The study submission and informed consent for the proposal referenced above has been reviewed and approved via the procedures of the University of South Dakota Institutional Review Board.

Prior to initiation, promptly report to the IRB, any proposed project updates / amendments (e.g., protocol amendments/revised informed consents) in previously approved human subject research activities.

Any research-related injuries (physical or psychological), adverse side effects or other unexpected problems encountered during the conduct of this research study needs to be reported to the IRB within 5 days of notification of the occurrence.

The forms to assist you in filing your: project closure, continuation, adverse/unanticipated event, project updates /amendments, etc. can be accessed at http://www.usd.edu/research/research-and-sponsored-programs/irb-application-forms-and-templates.cfm.

You have approval for this project through 9/12/2014. When this study is completed please notify the Office of Human Subjects Protection. If the study is to last longer than one year, a continuation form is to be submitted at least thirty days prior to the expiration of the study.

If you have any questions, please contact: humansubjects@usd.edu or (605) 677-
The University of South Dakota Institutional Review Board (IRB) has received and reviewed your amendment. The University of South Dakota IRB has approved the amendment and the information has been added to the file. Thank you for keeping the IRB informed of project changes.

Prior to initiation, promptly report to the IRB, any proposed project updates / amendments (e.g., protocol amendments/revised informed consents) in previously approved human subject research activities.

Any research-related injuries (physical or psychological), adverse side effects or other unexpected problems encountered during the conduct of this research study needs to be reported to the IRB within 5 days of notification of the occurrence.

The forms to assist you in filing your: project closure, continuation, adverse/unanticipated event, project updates/amendments, etc. can be accessed at http://www.usd.edu/research/research-and-sponsored-programs/irb-application-forms-and-templates.cfm.

If you have any questions, please contact: humansubjects@usd.edu or (605) 677-6184. Sincerely,

Sandra Ellenbolt, JD
Director, Office of Human Subjects
Appendix B

Permission from Preschool Personnel
September 3, 2013

To Whom It May Concern:

My name is [redacted], I serve as the Principal of [redacted] School and as the Director of [redacted] preschool. The purpose of this letter is to give permission for Gwen Marra of the Dordt College Education Department and students from the Dordt College Education Department to conduct research and gather data at [redacted] preschool.

Gwen Marra has provided [redacted] preschool and the parents of children who attend, a detailed description of the project, along with information about the data that will be gathered and the methods the data will be gathered. We are looking forward to this project and collaborating with Gwen Marra and the Dordt College Education Department.

Respectfully yours,

[Redacted]
Principal
[Redacted] School
September 1, 2013

To Whom It May Concern:

I am writing this letter to let you know that Gwen Marra has my permission to use the classes at [Redacted] for the purpose of her dissertation research on vocabulary development. We have been in conversation over the last few months concerning her research and have met since her proposal was approved. I am looking forward to the results and seeing how it might help us to further develop our curriculum.

Kim [Redacted]
Lead Teacher at [Redacted] Preschool
Parental Consent Form for Research about Preschool Vocabulary Development

Dear Parents,

My name is Gwen Marra and I am an Assistant Professor of Education at Dordt College. I am currently attending graduate school at the University of South Dakota in Vermillion. As part of my course work, I will be doing research this fall in the area of vocabulary development during early childhood.

The purpose of my research is to test how children learn vocabulary through the use of different kinds of children’s literature and class discussions. Mrs. Kim Starkenburg has agreed to work with me on this project. It will take approximately four weeks. Hopefully your child will develop a love for books and discussions.

The project involves reading and discussing children’s literature with preschool students. Before the research occurs, the children’s vocabulary will be tested in a child-friendly way by Dordt College students who are studying to be teachers. The research will be conducted primarily during regular class time during the month of October. I will be videotaping some of the discussions that occur during the book reading. Later I will transcribe the discussions in order to get a better idea of the vocabulary used by the preschool children. In early November, the children will again have their vocabulary tested by Dordt College students. These results will be compared to the pretest in order to determine if there was any growth in vocabulary during this time. The testing should take approximately 20 minutes per child. The videotaped discussions will be used solely for the purpose of this research.

It is completely up to you whether or not your child can participate in this study. One risk for your child is that they will be identified through the video tape, however, the video tape will be transcribed and the identity of the participants will be protected by assigning them a numeric code by order of participation. The video will not be released to anyone other than the researcher. Another risk for your child is the short amount of class time that will be missed due to testing. You have the right to withdraw your child from the study at any time. Your child’s identity will be protected throughout this process. Although your child may not benefit personally from this study, we hope that children in the future will benefit from the data that is collected.

If you have questions about this study, please contact me at (712) 722-6237. If you have any questions in general about the ethics of this study, please feel free to contact Dr. Kathleen VanTol, Chair of the Institutional Review Board (Dordt College) at (712) 722-6266. If you have questions regarding your rights as a research subject, you may contact The University of South Dakota- Office of Human Subjects Protection at (605) 677-6184.

- You may also call this number about any problems, complaints, or concerns you have about this research study.
- You may also call this number if you cannot reach research staff, or you wish to talk with someone who is independent of the research team.
General information about being a research subject can be found by clicking “Information for Research Participants” on the web site: http://www.usd.edu/research/research-and-sponsored-programs/research-participant-information.cfm.

If you decide to participate in this study, please read and sign the form on the back page. Thank you very much for your help!

Please return this form to Covenant Kids Preschool within 5 days.

I give consent for my child to participate in pretests and posttests of vocabulary and I give consent for my child to be videotaped during this study.

Please initial:  ____ Yes  ____ No

I give consent for my child’s quotes to be used in the research; however, my child will not be identified.

Please initial:  ____ Yes  ____ No

Your signature indicates that this research study has been explained to you, that your questions have been answered, and that you voluntarily agree to permit your child to take part in this study. You will receive a copy of this form.

Child’s Name (Please Print): ____________________________________________

_________________________________________  ____________
Signature of Person Authorized to Provide Permission for the Child  Date
Appendix C

Institutional Review Board Approval from Dordt College
Date: September 9, 2013

To: Gwen Marra, Principal Investigator

From: Dr. Kathleen VanTol, Chair, Dordt College Institutional Review Board

Re: IRB Project: Vocabulary Growth Using Nonfiction Literature and Dialogic Discussions in Preschool Classrooms

This letter serves as confirmation that your research project entitled "Vocabulary Growth Using Nonfiction Literature and Dialogic Discussions in Preschool Classrooms" has been approved under the expedited category of review by the Institutional Review Board of Dordt College.

You may now begin to implement the research as described in the application.

Please note that you may only conduct this research exactly in the form it was approved. You must seek board approval for any changes in this project. In addition, if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the Institutional Review Board for consultation.

The Board wishes you success in the pursuit of your research goals.

Kathleen VanTol
Appendix D

Control Group Book List
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Appendix E
Treatment Group Book List
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Appendix F
Target Vocabulary Words
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Appendix G

Curriculum-based Measure for Receptive Vocabulary
Evaluator Prompt: What picture shows seeds?
Evaluator Prompt:

What picture shows hibernation?
Appendix H

Curriculum-based Assessment for Expressive Vocabulary
Evaluator Prompt:
Point to the vine and say: What is this?
Evaluator Prompt:
Birds make their home in a__________
Appendix I

Sample Scoring Sheet
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<td>4. autumn</td>
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<td>5. acorn</td>
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<td>8. seeds</td>
<td>8. cider</td>
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<td>9. pulp</td>
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Appendix J

Planning Template for Dialogic Discussions
Dialogic Reading Planning Form

Text __________________________________________________________ Date ______________

Ways to extend/promote conversation as the book is read:

Prompt

Evaluate

Expand

Repeat

______________________________________________________________

Completion Prompts

Recall Questions

Open-Ended Questions

Wh-Questions

Distancing Questions (making connections)
Appendix K

Sample of Completed Template for Dialogic Discussions
Dialogic Reading Planning Form

Text: Seed, Sprout, Pumpkin, Pie

Ways to extend/promote conversation as the book is read:

Prompt:
- Why do you think the seed sprout?

Evaluate:
- Does pumpkin pie?

Expand:
- Pumpkin begins to

Repeat:

Completion Prompts:
- How does a pumpkin begin?
- What do they do with the juice from pumpkinland?
- What could happen to pumpkinpie that decomposes in a pumpkin patch or garden?
- What word describes a pumpkin that is decorated?

Recall Questions:
- What are some things the book says you can make with a pumpkin?