THE IMPACT OF INSTRUCTION IN TEXT STRUCTURE ON LISTENING COMPREHENSION IN PRESCHOOL AGE STUDENTS

A Thesis in
Educational Psychology

by

Cynthia R. Bochna

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The thesis of Cynthia R. Bochna was reviewed and approved* by the following:

Robert J. Stevens  
Associate Professor of Educational Psychology  
Thesis Advisor  
Chair of Committee

Peggy Van Meter  
Associate Professor of Education  
Program Chair, Educational Psychology

Rayne A. Sperling  
Associate Professor of Education

J. Daniel Marshall  
Professor of Education

Kathy L. Ruhl  
Professor of Special Education  
Head of the Department of Educational and School Psychology and  
Special Education

*Signatures are on file in the Graduate School
Emergent literacy concerns the experiences children have with language prior to learning to read and write conventionally. These oral and written language experiences encourage the development of strategies and behaviors that encourage and facilitate the child’s later reading ability. While much attention has been given to the development of vocabulary and phonological awareness knowledge in the young learner, less has been paid to the growth of comprehension skills, particularly in the area of non-fiction, or expository, text. This study investigates the impact of comprehension instruction on disadvantaged preschool children’s understanding of expository children’s books. Forty-five children enrolled in year round Head Start services in Central Pennsylvania were split into ten small groups and read ten non-fiction books over a six week period. Approximately half of the children were taught to summarize content and identify topic during shared book reading sessions, while the remaining children were read the books without explicit instruction. Results indicate that children as young as three can be taught to identify the topic in a novel expository text. Limitations of the study and directions for future research are also discussed.
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Chapter 1

Introduction

While a substantial component of literacy development is learning how to read through formal instruction in school, educational research has demonstrated that the process of becoming literate begins, “long before a child enters a formal education environment” (Haney & Hill, 2004, p. 215). Literacy development begins in the home and the experiences of the child with oral and written language at home will play an important role in the child learning how to read (Hill-Clark, 2005). The literacy behaviors of families during these early years with books, conversation, and environmental print contribute to the child’s home literacy environment (Roberts, Jurgens, & Burchinal, 2005; Whitehurst & Lonigan, 1998).

The term, “home literacy environment” is often used to describe all literacy related activities that take place in the home (Rashid, Morris, & Sevcik, 2005). Sénéchal, LeFevre, Thomas, and Daly (1998) divide literacy activities in the home into two categories, informal and formal literacy experiences. In their classification, informal experiences include indirect exposure to print, such as occur when parents read to their children, while formal experiences involve those instances where parents directly teach their children about print (Sénéchal et al., 1998). For instance, a formal literacy experience would be teaching the child how to spell their name. While Sénéchal (2006) found formal literacy experiences predict kindergarten alphabet knowledge and fourth grade reading fluency, Roberts et al. (2005) found that the presence of home literacy experiences were predictive of preschool children’s early literacy skills regardless of
type. In other words, both formal and informal literacy experiences may positively influence children’s early literacy development.

The importance of the home literacy environment cannot be understated. Early experiences with text are a critical foundation in literacy skill development (Chall, Jacobs, & Baldwin, 1990; Rush, 1999). There are long lasting repercussions for children who grow up in disadvantaged homes where literacy activities are not a consistent part of the daily, or weekly, routine, as both the quality and quantity of early childhood literacy experiences play a key roll in later academic success (Teale, 1986, Rush, 1999).

Reading to children and discussing the content of books with them is an essential part of the home literacy environment. Thirty minutes a day of listening to books during infancy and early childhood adds up over time, and children who have this experience with interactions surrounding books at home will enter school with approximately 1,000 hours of print exposure (Adams, 1990). These early and frequent exposures teach children that printed words have sounds and carry meaning (Gambrell & Morrow, 2002).

Shared storybook reading between parents and children has been found to be a predictor of later reading skill (Scarborough & Dobrich, 1994). Oral language development precedes written language development and the act of reading and discussing books with a child utilizes oral language as a means of promoting listening comprehension development (Diakidoy, Stylianou, Karefillsidou, & Papageorgiou, 2004). Ultimately, the child who has had experience with listening comprehension tasks, in concert with decoding ability, may transfer their listening comprehension skills to reading comprehension tasks (Diakidoy et al., 2004; Hagtvet, 2003).
Listening and reading comprehension are the processes of deriving meaning from text. Text can be divided into two categories: narrative and expository. Narratives are fictional accounts written to tell a story while expository texts are non-fiction discourses designed to inform. Both types of text possess certain structures inherent to their type. Narratives are generally written with the elements of story grammar (Mandler & Johnson, 1977; Stein & Trabasso, 1982) in mind. Story grammar includes the elements of character, conflict, and resolution and often are written in a style that shares similarities with oral discourse.

Expository texts, in contrast, are written in one or more styles commonly known as text structures. Each of these structures serves the purpose of giving information about a main idea or ideas, the most important information the author wants to convey about a particular topic area (Richgels, McGee, Lomax, & Sheard, 1987). These structures include description, sequence, cause and effect, problem/solution, comparison, explanation, and definition-example (Meyer, Young, & Bartlett, 1989; Anderson & Armbruster, 1984). Expository texts may be written in the style of one or more of these structures, but more commonly several structures simultaneously. For instance, a passage may describe a particular topic as well as express information concerning a problem with the topic and possible solutions for the problem.

In both narrative and expository text comprehension, knowledge of text structures is a large component of subsequent understanding (Meyer, 2003). Text structures provide an organizational framework for comprehension. As readers’ process text, they are continuously creating and amending a mental framework, sometimes called a schema, of the information presented (Rumelhart, 1977). This framework helps the reader to make
sense of the text being read. New information is encoded and either stored into slots in a pre-existing schema or used to create a new schema if necessary. Prior knowledge of text structures facilitates this encoding process and therefore is beneficial to subsequent organized retrieval of information in the text. In other words, text structure knowledge leads to better comprehension (Gersten, Fuchs, Williams, & Baker, 2001).

*Rationale for Current Study*

Previous comprehension research with young children has tended to utilize narratives rather than expository books (e.g. Morrow, 1984; McConaughy, 1980; Martinez, 1983; Lehr, 1988). This may be due to the fact that during early childhood, children tend to have more literacy experiences with narrative than expository texts (Stein & Trabasso, 1982; Duke, 2000). In early elementary school, while children are learning to read, narrative text is the predominant vehicle for instruction. However, during the later elementary school years, the focus of language arts curriculum shifts to reading to learn, and expository texts become the prevalent form of literature in the classroom as children are expected to read with the goal of gathering information (Smith, 2003). This shift from familiar text structures to unfamiliar may create a problem for many young learners, commonly referred to in reading as the, “fourth-grade slump.” Students who previously were successful in reading begin to exhibit problems, and those who already had reading difficulties fall further behind (Chall et al., 1990).

Not only have narratives tended to be more predominant in the elementary classroom (Duke, 2000), narrative text is easier to understand than expository text. Expository texts tend to include more abstract relationships among concepts while narratives include more repetition and less complex sequences among ideas (Stein &
Trabasso, 1982; Williams, 2005). The tendency for expository texts to include more than one type of text structure simultaneously may also increase the comprehension difficulty (Williams, 2005). As a result, one cannot assume that students’ ability to comprehend narrative text leads to proficient comprehension of expository text (Moss, Leone, & Dipillo, 1997).

This suggests that young learners need to be taught the structure of expository texts so that they may develop schemata for non-fiction materials, and they need this instruction before fourth grade, when expository text structure knowledge becomes crucial to reading comprehension and ultimately to academic success. Explicit instruction in and experiences with expository text structures during early childhood may be the solution to avoiding the, “fourth-grade slump.”

Given the research on the impact of text structure knowledge on later reading comprehension and the literature demonstrating that young children can learn narrative text structure, this study was designed to explicitly instruct preschool-age children in the components of the descriptive text structure in expository text (Meyer, Young, & Bartlett, 1989). While Williams, Hall, and Lauer (2004) found evidence that explicit expository text structure instruction improved second graders’ reading comprehension of expository text, the impact of expository text structure instruction in preschool age students had not been investigated.

In the current study, seventeen children enrolled in Head Start, a preschool program for disadvantaged children, were taught to identify topic and main idea in expository children’s books through nineteen shared book reading sessions with the author. It was hypothesized that repeated exposure to children’s information books in
combination with explicit text structure instruction would increase comprehension of expository books in preschool age emergent readers. The following questions were considered:

1) Can explicit instruction on text structure strategies for topic and main idea increase preschool age children’s ability to identify the topic and main idea of expository children’s books?

2) Does explicit instruction affect preschool age children’s recall and comprehension of expository books read to them?
Chapter 2

**Review of Literature**

Educational research in early childhood literacy has grown and developed over the past several decades as the importance of knowing how to read at a young age has become widely accepted as necessary to a child’s success in school. Prior to this time, the prevalent belief concerning literacy development focused on children’s experiences in school as the starting point of the child learning how to read, with teacher instruction being the primary influence upon the acquisition of literacy skills (Teale & Sulzby, 1986; Justice & Kaderavek, 2002). This school-based perspective of literacy development did not allow for the fact that some children were entering their first years of school able to identify letters and write their own names (Read, 1971). These behaviors foster a prior knowledge of print that provide children with an advantage at the start of their formal schooling careers.

_Emergent Literacy_

The study of emergent literacy arose out of the realization that children develop knowledge about language as they have “active and intimate experiences with it” (Goodman, 1986, p.11). Emergent literacy includes all oral and written language development that takes place prior to a child being able to read and write in a conventional sense. Emergent literacy also includes all the literacy practices that take place from birth as the child progresses developmentally from infancy through early childhood. Emergent literacy encompasses a range of knowledge and awareness of oral and written language: print and phonological awareness, knowledge of the connection between the two, and vocabulary and text knowledge. In contrast, conventional literacy
involves the ability to capitalize upon this knowledge through usage of reading strategies as well as knowledge of a wide range of sight words (McGee & Richgels, 1996).

What is emergent literacy? A systematic analysis of the research revealed the use of various terms and phrases to describe the concept. While some (e.g., Purcell-Gates, 2001) argue that emergent literacy is the development of written and not oral language knowledge, others (e.g., Sénéchal, LeFevre, Smith-Chant, & Colton, 2001) postulate that emergent literacy is not about language knowledge, but instead conceptual and procedural knowledge about print. In their definition, conceptual knowledge refers to understanding that reading and writing have a purpose, while the procedural component includes letter-name and letter-sound knowledge (Sénéchal et al., 2001). Korat (2005) modifies, and in some ways complicates, the Sénéchal et al. (2001) conceptualization of emergent literacy by renaming conceptual knowledge, “contextual knowledge” and procedural knowledge, “non-contextual knowledge.” He also includes phonemic and print awareness as part of his model (Korat, 2005).

Perhaps the Whitehurst and Lonigan (1998) model of emergent literacy best encompasses the construct by dividing emergent literacy into outside-in and inside-out processes, outside-in referring to processing starting in the external environment of the child while inside-out describing processes beginning within the child. The authors categorize phonological and syntactic awareness, letter-name and letter-sound knowledge, and invented spelling as inside-out processes; vocabulary, print awareness, and story structure are identified as outside-in processes.

While all aspects of emergent literacy development are significant, it is the development of story structure knowledge, the final outside-in process in the Whitehurst
and Lonigan (1998) model, that is the primary focus of this paper. Knowledge, or concept, of story is a component of written language development. Children become familiar with the structure of narrative stories through book reading experiences. Children may learn that stories contain a beginning, a middle, and an end, as well as certain characteristics called, “story grammar” (Mandler & Johnson, 1977; Thorndyke, 1977). Familiarity with text structure facilitates listening comprehension as evidenced through the child’s ability to retell stories (Mason & Stewart, 1990). In other words, children who know what to expect as they listen to a story are likely to produce more detailed retellings. In addition, retelling stories may increase story structure knowledge (Gambrell, Koskinen, & Kapinus, 1991). A more thorough explanation of text structure and its effects will be discussed later in this chapter.

*Developing Emergent Literacy Skills*

Having identified the various types of literacy development that can take place prior to entering school, it is now necessary to consider how such awareness can be fostered in children. How do young learners acquire these various skills? While some (Pullen & Justice, 2003; Korat, Bahar, & Snapir, 2002; Saracho, 2002) have investigated literacy learning through children’s play, the predominant focus of research has centered on shared book reading.

Shared book reading is an activity in which someone reads a book out loud to someone else. In the context of emergent literacy, shared book reading generally takes place between a parent, sibling, relative, or caregiver and a younger child, with the older participant reading to the younger one. This process of interacting over one or several
stories, often multiple times daily, has a large influence on the development of emergent literacy skills in the young child.

Comprehension is the process of constructing meaning from text (Dole, Duffy, Roehler, & Pearson, 1991). Comprehension is an active process requiring the reader to actively utilize background knowledge of how books work to organize and interpret the relationships described in the text to create understanding (Fielding & Pearson, 1994; Johnson, 2002). Comprehension research can be divided into one of two areas: listening comprehension, where an individual is read a story out loud and then asked questions to gauge understanding, and reading comprehension, where the learner reads the story on their own followed by an oral or written assessment of understanding. Reading comprehension is dependent on decoding and vocabulary knowledge, whereas listening comprehension, while dependent upon vocabulary knowledge, is not hindered by decoding ability. Typically children’s comprehension skills begin as listening comprehension, often during shared book reading experiences.

Mason (1992) emphasizes the importance of explicitly bridging the gap between oral and written language through shared book reading. Oral language tends to be more informal and redundant than written language so using oral language to talk about aspects of written language such as vocabulary, print, and structures within the context of books facilitates children’s understanding of how books work. DeBaryshe (1993) found the age of initial shared book reading experiences between a child and adult to be a significant predictor of oral language ability. In this study, children initially read to during infancy scored higher on measures of receptive and expressive language than children initially read to as toddlers (DeBaryshe, 1993). Similarly, Mason (1992) sights evidence of
reading to children as promoting connections between oral and written language, vocabulary development, and listening comprehension.

*Emergent Literacy: Shared Book Reading and Dialogic Reading*

Shared book, or storybook, reading typically involves an adult and child reading together, with the adult actively engaging the child during the reading. This engagement may involve discussion about illustrations (Richards & Anderson, 2003a; Richards & Anderson, 2003b; Jalongo, Dragich, Conrad, & Zhang, 2002), vocabulary (Ninio, 1983; Dickinson, 1984; Elley, 1989; Sénéchal & Cornell, 1993), and/or questions surrounding the plot of the story itself (Dickinson & Smith, 1994).

Interactions between the adult and child are at the center of shared book reading. These interactions are a verbal confirmation of what the child is attending to during reading. Research has shown that when parents focus children’s attention on various aspects of the book and relate the story to the child’s personal interests and life experiences, the child’s interest in the book is higher than when the parent reads without directing attention (Bus & Sulzby, 1996).

Illustrations in children’s books often serve as another representation of the information described in the text (Richards & Anderson, 2003a). Pictures can depict both the physical and emotional state of the characters while providing information about the setting of the story. Yaden, Smolkin, and Conlon (1989) found that 3-5 year olds’ spontaneous questions surrounding books predominantly focus upon the pictures within the text. The children were concerned with the characters and events depicted in the pictures in particular. Illustrations may provide a bridge between text meaning and the child’s own understanding of the story.
Discussion about pictures where parents ask questions about the illustrations and then elaborate upon the child’s answers has been shown to positively affect the child’s oral language development through a technique known as dialogic reading (Whitehurst, Falco, Lonigan, Fischel, DeBaryshe, Valdez-Menchaca, & Caulfield, 1988). Dialogic reading is a shared book reading intervention program designed to encourage adult-child interactions with books. Specifically, “dialogic” refers to the type of dialogue taking place during shared book reading. Dialogic reading is based on three key points: prompting and encouraging the child to participate and engage during book reading, providing feedback when the child participates, and adapting the cognitive demands placed upon the child according to the child’s linguistic abilities (Hargrave & Sénéchal, 2000). These principles were designed around the fundamental goal of gradually transferring the responsibility for reading the picture book from the adult to the child (Valdez-Menchaca and Whitehurst, 1992).

While most any book can be used during dialogic reading, books with fewer words and especially picture books are ideally suited to the process (Renea, 2005). These types of books are more open to interpretation due to few story constraints and may enhance discussion between the adult and child. At the center of dialogic reading is the principle that children benefit from taking an active rather than a passive role in the reading process. For example, in dialogic reading the adult is careful to phrase questions in such a way as to elicit longer responses from the child. In other words, the number of questions that lend themselves to, “yes” or “no” responses, or questions that can be answered nonverbally through pointing, are gradually reduced while the number of “wh”
questions: “who”, “what”, “when” “where”, and “why” are increased with the goal of facilitating expressive language growth in the child (Whitehurst et al., 1988).

While these “wh” questions may elicit a one word response from the child, they provide a foundation for a subsequent open-ended question that elaborates upon the initial response. For instance, a, “What is the boy doing in the picture?” could be followed with, “Where do you think he is going?” and, “Why do you think he is running instead of walking?” Open-ended questions that prompt subjective answers are as valuable as those with a single objective answer (Renea, 2005). The goal is to get the child actively thinking about the book and expressing their thoughts concerning the progression of events.

Just as the types of questions asked during dialogic reading are important to the process, so are the types of feedback the adult provides to the child’s answers. As the child takes on a more active role in the reading process, the adult becomes a more active listener and respondent (Whitehurst, Arnold, Epstein, Angell, Smith, & Fischel, 1994). Feedback can be simultaneously instructive and motivating to the young learner as the adult may rephrase, expand upon, correct, and/or praise the child’s answer (Hargrave & Sénéchal, 2000). In the event that the child cannot answer a question, the adult provides an answer for the child to imitate, and the interaction ends with the adult praising the child’s response (Valdez-Menchaca & Whitehurst, 1992).

The final key to dialogic reading is that as the child matures and advances in language development, so should the level of demand placed on them by the reader (Hargrave & Sénéchal, 2000). For instance, a child who has mastered answering identification questions (e.g. “What is this a picture of?”) should be prompted to answer
questions regarding other story features (e.g. “What is happening in this picture?”).

Through structured feedback the adult can initially model appropriate answers to these new types of questions and over time the child can master responding to a variety of questions.

Whitehurst et al. (1988) found that after a one-month home-based dialogic reading program the expressive language skills of middle-class two year olds significantly increased. The children were speaking in longer words and phrases and were less likely to answer questions with single word responses, demonstrating a “6 to 8.5 month gain in expressive language ability” (Whitehurst et al., 1994, p. 680). These results were particularly noteworthy as the children exhibited advanced levels of language development during pretesting (Whitehurst et al., 1994). Even though the families involved in the study were already engaging their children during shared book reading such that language development occurred, the dialogic reading training gave parents specific instruction in how best to structure the reading sessions so as to maximize language growth in the young learners. The training capitalized and expanded upon what was already taking place in the homes.

In an effort to demonstrate that the impact of dialogic reading was not a byproduct of socioeconomic status, Valdez-Menchaca and Whitehurst (1992) implemented a dialogic reading intervention in a day-care center in Mexico with children from low-income backgrounds. Results indicated a growth in expressive and receptive vocabulary development among children in the dialogic reading group. However, these results should be interpreted with caution as the comparison group in the study participated in arts and crafts instruction rather than a literacy based non-dialogic reading activity (Valdez-
Menchaca & Whitehurst, 1992). In a study of low-income American children, Whitehurst and colleagues investigated the impact of simultaneous dialogic reading experiences for children at both home and day-care in comparison to a group of children experiencing dialogic reading techniques only at day-care (Whitehurst et al., 1994). Children who received dialogic reading in both settings demonstrated greater expressive vocabulary gains than did children who experienced dialogic reading at day-care only (Whitehurst et al., 1994). These results suggest that both the quality and quantity of dialogic reading experiences positively impacts language development in children from advantaged and disadvantaged populations.

**Shared Book Reading: Vocabulary Development and the Importance of Active Engagement**

While vocabulary knowledge is developed indirectly through discussion surrounding pictures, explicit instruction in vocabulary also can occur during shared book reading (Sénéchal, 1997; Sénéchal & Cornell, 1993; Sénéchal, Thomas, & Monker, 1995). While Sénéchal & Cornell (1993) demonstrated that a single book reading could result in new receptive vocabulary learning, future studies (Ewers & Brownson, 1999; Sénéchal, 1997) investigated both receptive and productive vocabulary acquisition. Receptive vocabulary knowledge is demonstrating understanding of a given word’s meaning without oral production of the word (e.g. “Point to the **dog** on this page.”). Expressive vocabulary knowledge involves language production using a particular word to demonstrate understanding (e.g. ability to answer the question, “What is this?” when prompted with a picture).
In Sénéchal et al. (1995), a group of 4 year olds were divided into two groups based upon their prior word knowledge and assigned to one of two groups. While participants in one group passively listened to a story in a one-on-one setting, the other required the child to verbally respond during a shared book reading experience. Results indicated that children who produced responses during the book readings comprehended and produced more words at posttest than those in the passive listening condition. More importantly, these gains were evident in both the low and high prior word knowledge conditions, illustrating that active engagement during story time facilitates comprehension in both populations of learners.

Sénéchal (1997) further investigated vocabulary learning using three reading conditions: a single exposure to a book, repeated (three) exposures to a book, and a questioning condition where target vocabulary were explicitly identified and spoken by the child during three exposures to the book. These results indicate that the greater the level of involvement by the child in the reading the greater the gains in vocabulary knowledge, reaffirming the earlier results of Sénéchal et al. (1995).

In a related study, Ewers and Brownson (1999) utilized a two condition model to determine the impact of word production on vocabulary acquisition. Kindergarten participants were assigned to either an active participation or a passive participation group. Those in the active participation intervention were asked to generate target vocabulary words during a single shared book reading with the experimenter. Children in the passive participation group were read the target word in context and then heard a synonym of the target word but were never prompted to say either word. Children in the active participation condition outperformed those in the passive participation condition.
on a post-intervention recall measure, further supporting the findings of Sénéchal et al. (1995) and Sénéchal (1997).

These studies and others (Pullen & Justice, 2003; Reese & Cox, 1999) provide evidence that the act of questioning a child before, during, or after book reading, as well as discussing the child’s answers, places a cognitive demand on the young learner (Allison & Watson, 1994). The questions and subsequent verbal discourse requires the child to stop, think, process, and produce answers about the story that they are hearing. The level of cognitive demand on the child depends upon the type of question being asked. As is demonstrated in the dialogic reading literature, questions which focus upon labeling pictures tend to place a lower cognitive demand upon the child than questions requiring the child to make predictions about what will occur next in the story.

While reading to children is commonly known to be an important impetus for early childhood literacy, the type of interactions during book readings often varies among populations (Teale, 1986). Anderson-Yockel & Haynes (1994) observed the interactions of African-American and Caucasian mother-child pairs during book reading. The researchers found that the types of questioning behaviors varied, with the African-American mothers asking significantly fewer questions of the children during book reading episodes than the Caucasian mothers. In Hispanic families, mothers were found to ask more conceptual questions of children than fathers (Tenenbaum & Leaper, 1997). Sonnenschein, Baker, Serpell, Scher, Fernandez-Fein, and Munsterman (1996) found that preschool-age children from disadvantaged homes where shared book reading was infrequent or uncommon performed better on tasks involving environmental print than phonological awareness.
These results demonstrate a critical difference in print experiences among populations. Adams (1990) estimated that the typical middle-class child enters school with 1,000 hours of experience listening to books during early childhood, while a child from a low-income home may enter school with just 25 hours of book exposure. This enormous difference in time spent engaged in literacy activities is evident when children begin school, as the children with so few hours of experience enter school at a vast disadvantage in comparison to their peers. While some children are read to more frequently and asked questions requiring a higher level of understanding, such as being asked to predict what will happen next in a story, other children are read to infrequently and either asked questions requiring a low level of comprehension or no questions at all (Anderson-Yockel & Haynes, 1994; Sonnenschein et al., 1996). Children from the later group enter school with not only fewer exposures to books, but also with a more shallow understanding of how stories work. As a result, some children enter school prepared to learn how to read while others do not.

Perhaps the best way in which to address the discrepancy in early childhood experiences and reduce the impact of such differences is through extra exposure and instruction in preschool. Programs like Head Start are designed to address the educational and physical needs of preschoolers from low-income families. Box, Cowles, and Aldridge (1991) found that Head Start children who engaged in shared book reading experiences in the classroom performed better on a concepts about print measure than did other Head Start children who did not have these same experiences. Dickinson and Smith (1994) also found shared book reading in preschool programs for disadvantaged children to be beneficial to children’s literacy growth so long as the programs involved the active
engagement of the child in discussion of the book being shared. It appears then that the impact of growing up in a disadvantaged home on the development of literacy skills can be somewhat reduced through participation in structured early intervention programs involving shared book reading.

*Schema Theory*

As children are both exposed to books and engage in structured discussion surrounding books, they begin to develop an understanding of how books work. For instance, the young learner comes to expect the books that they hear to have a beginning to the story, a middle part, and an ending to the story. One theory of how knowledge is cognitively organized to facilitate comprehension is schema theory (Anderson & Pearson, 1984).

A schema is the basis for understanding, learning, and remembering the ideas in texts (Anderson & Pearson, 1984). Schemata can be formed through experiences with one’s environment and, over time and repetition, become organized background knowledge for the learner (Ajideh, 2003). Schemata serve as internal structures for the child that facilitate new learning.

The term, “story schema” describes a particular type of internal cognitive structure or “mental set” that the learner may use while reading or listening to a story (McConaughy, 1982). “The schema represents people’s conceptions of how a well-formed story is organized from beginning to end, and operates as a general framework for organizing different categories of information in memory” (McConaughy, 1985, p.220). This cognitive schema serves several purposes. While listening to a story, the reader’s expectations for what will occur in the story are guided by this framework. Salient details
concerning the characters and the plot are attended to and encoded. When asked to recall the story, the learner will retell the key elements in a sequential fashion, as the information was organized before it was encoded. Once the learner possesses a story schema, they no longer have to focus attention on such information every time a new book is read. In other words, the child is able to utilize this internalized model to guide their understanding.

Schemata facilitate the reader’s ability to infer meaning from text and to generate predictions of what will happen next (Newton, 1996). Knowledge of text structures, as described below, facilitates this continual process of inference formation and prediction, all with the end result of comprehension (Goldman & Rakestraw, 2000). Readers who do not possess text structure knowledge will not be able to utilize this information to facilitate their understanding and thus may struggle to comprehend novel text.

Types of Text and Text Structures

Children learn about print through experience with it (Purcell-Gates, 1996). Reading to children and talking about books can be the foundation of teaching children to think critically about books and text comprehension (Ouellette, Dagostino, & Carifio, 1999). Text can be divided into two types: narrative and expository. Narrative text is written to tell a fictional story, while expository text is intended to inform and explain. Both types of text possess an organizational structure unique to their genre, and knowledge of these structures plays a crucial role in comprehension. Text structure knowledge facilitates strategic reading, an important component of metacognition (Brown, Armbruster, & Baker, 1986). Learners who know comprehension strategies and how to use them are successful readers (Brown et al., 1986).
Narrative text structure. While story schema refers to the internal cognitive representation or mental set the learner utilizes to facilitate text comprehension, the term story grammar describes the structure of the text itself. Most narrative texts share a common structure called story grammar (Mandler & Johnson, 1977; Stein & Trabasso, 1982; Gersten et al., 2001). “Story grammar evolved from the work of cognitive psychologists and anthropologists who found that, regardless of age or culture, when individuals relate stories they have read or heard, their retellings follow a pattern” (Dimino, Taylor, & Gersten, 1995, p.54). The works of Mandler and Johnson (1977), Thorndyke (1977), and Stein and Trabasso (1982), define and describe in detail story grammar systems which vary slightly from one another but share many similarities. The main elements of story grammar that are repeatedly mentioned in the research are those of a setting in which main character or characters have a problem, make attempts to solve the problem, and ultimately determine a solution (Gardill & Jitendra, 1999). In other words, the majority of stories share a common ‘grammar’ in which events in the text center upon a problem and the main character’s efforts to resolve the problem (McConaughy, 1985). Story grammar can also include character’s reactions to story events as well as themes within the story (Dimino et al., 1995).

Applebee (1978) and Fitzgerald (1984) found that preschool age children could develop mental models for story grammar after repeated exposure to narrative stories over several years. Mandler and Johnson (1977) observed that six year olds used knowledge of story structure to remember important details. These indications of naturalistic development of story grammar knowledge fostered research into whether
explicit story grammar instruction would improve narrative text comprehension (Dimino et al., 1995).

Short and Ryan (1984) investigated the impact of training in story grammar elements on a sample of fourth grade boys, the majority of whom exhibited comprehension problems on a standardized reading test. At posttest, students who received the explicit story grammar instruction exhibited increased reading comprehension ability. Both Idol (1987) and Carnine and Kinder (1985) replicated these results with low-performing third through sixth grade students using similar direct instruction in story grammar techniques. These and other (Rumelhart, 1977; Fitzgerald, 1984) studies support the idea that knowledge of story grammar facilitates text comprehension. Children who are familiar with story grammar are more likely to understand unfamiliar narrative texts since they possess the prior knowledge of what to expect and what to attend to in the story (Gersten et al., 2001). Knowledge of story grammar contributes to the mental model that is generated during reading, allowing the learner to predict what will happen in new material and to organize new information based upon prior knowledge of what to expect, thus increasing the ability to encode the new information such that later retrieval will not suffer (Ouellette et al., 1999). Information that is most relevant to comprehension is more likely to be recognized and encoded and inconsequential details are less likely to cause distraction and misunderstanding.

Expository text structure. Young children tend to have more experiences with narrative text than with expository text (Baker & Stein, 1981; Fitzgerald, Spiegel, & Webb, 1985). Stein and Trabasso (1982) estimated that as many as 90% of the texts
children are exposed to in preschool and elementary classrooms are narratives. More recently, Duke (2000) observed few expository texts being shared in the first grade classrooms she studied. This prevalence of narrative text could be due to relatively few non-narrative texts being written for young children prior to 1990, a problem most likely influenced by the perception that narratives are the foundation of children’s conceptualizations of the world (Caswell & Duke, 1998). “Some believe that there exists a developmental progression from story forms to other forms of text, with young children’s understanding and interest remaining confined to story forms” (Duke & Kays, 1998, p.298). However, recent research (Caswell & Duke, 1998; Newkirk, 1987; Duke & Kays, 1998) suggests that this perception is likely incorrect and young children can learn from expository texts.

The lack of exposure to non-fiction books during early childhood may play a part in the difficulties children have with expository text during elementary school (Hidi & Hildyard, 1983; Pelligrini, Galda, & Rubin, 1984; Caswell & Duke, 1998; Moss, Leone, & Dipillo, 1997). Early interactions with expository text can both prepare children for later encounters as well as capitalize on the child’s own current interests and experiences (Caswell & Duke, 1998). In other words, sharing expository books with young learners may positively impact future literacy success both academically and motivationally.

Research suggests that young learners encounter more comprehension difficulties with expository texts than they do with narrative materials (Hidi & Hildyard, 1983). Expository texts place less emphasis on dialogue, include more abstract concepts than narratives, and use various text structures in addressing these ideas (Gersten et al., 2001).
In other words, the conversational nature of narratives and the common structure the
majority of stories share may make narratives more comprehensible to young learners.
Unlike narratives which tell a story, expository texts describe and explain facts about
topics such as nature, culture, health, and social studies (Duke & Kays, 1998; Gersten et
al., 2001). The main idea is the most important information the author is trying to explain
about a topic and main ideas are supported by related details (Richgels, McGee, Lomax,
& Sheard, 1987).

The ability to identify the main idea given a text is a critical skill in reading
Identifying the main idea in an expository text is a strategic process facilitated by
knowledge of text characteristics (Dickson, Simmons, & Kame’enui, 1998). In other
words, knowledge of text structures can aid students in identifying the main idea
(Jitendra, Chard, Hoppes, Renouf, & Gardill, 2001), and explicit instruction can promote
this comprehension (Nelson, Smith, & Dodd, 1992).

Expository text is structurally different from narrative text (Meyer, 1977). Well-
written expository text is logically organized which facilitates reader comprehension
(Meyer, 2003). This organization utilizes a leveled structure in which the main or most
important idea is the top-level and subsequent details are presented in a hierarchical
manner based upon relevance to the main idea (Meyer, 2003). Knowledge of this
structure allows the reader to recognize the importance of various points in text. In other
words, the ability to identify the top-level main idea as the key information in a given
piece of text enables the reader to focus on the most salient message the author is
attempting to convey (Brown & Smiley, 1978). In addition, recognition of the main-idea
supports identification of relevant lower-level details related to the main idea and reduces the likelihood of distraction by inconsequential information within the text (Brown & Smiley, 1978).

Meyer, Young, and Bartlett (1989) identified five patterns in expository text structure: description (topic and main idea), collection/sequence (ideas grouped in a particular order), antecedent/consequent (cause and effect passages), problem/solution, and comparison (ideas described based upon similarities and differences), while Anderson and Armbruster (1984) presented two additional structures of explanation (concepts and terminology explained) and definition-example. Texts often include several of these structures simultaneously (Gersten et al., 2001).

As demonstrated in the narrative text structure research, knowledge of expository text structures facilitates comprehension. Children who possess knowledge of text structures are likely to ask themselves germane questions while reading, questions that demonstrate understanding (Gersten et al., 2001). Meyer, Brandt, and Bluth (1980) found that readers without text structure knowledge approach text in a haphazard fashion, utilizing no particular strategy to facilitate comprehension. As a result, these readers tend to recall text information in a random way without any particular pattern to the recall being evident and demonstrate a lack of understanding of what is read (Gersten et al., 2001). In contrast, learners aware of text structure tend to organize text as they read and, during recall, their recollections are organized in the pattern of the test structure (Meyer et al., 1980). Englert and Thomas (1987) replicated this finding in a learning disabled population. Students who lacked knowledge of basic text structures could not distinguish between salient and inconsequential details within text nor were they cognizant of their
lack of comprehension in both reading and listening comprehension situations (Englert and Thomas, 1987).

**Expository Text Strategy Instruction for Children**

Extensive research has been conducted investigating the impact of strategy instruction on expository text comprehension in middle school populations (e.g. Brown & Palinscar, 1982; Gajria & Salvia, 1992; Boyle, 1996; Wong & Jones, 1982; Wong & Wilson, 1984). Fewer studies have looked at expository text strategy instruction with elementary age learners.

Duke and Kays (1998) looked at the impact of expository book exposure on kindergarten children’s pretend readings of expository texts. After three months of near-daily exposure to non-fiction books, the participant’s pretend retellings of an unfamiliar expository book contained more key elements unique to non-fiction books, such as vocabulary and text structure (Duke & Kays, 1998).

Nelson, Smith, and Dodd (1992) investigated the impact of teaching elementary-age special education students a summarization strategy. The students were taught a nine-step summary skill strategy which included a written guide to visually organize the information. The intervention emphasized explanation of why the strategy was important and the rationale behind each step, as well as guided and independent practice with the strategy. Positive results indicated that the students did learn to effectively use the strategy to promote their own reading comprehension.

Building upon previous evidence that explicit single strategy instruction was conducive to expository text comprehension gains, Klingner, Vaughn, and Schumm (1998) looked at the impact of multiple strategy instruction in mainstream fourth-grade
classrooms. The students were taught to make predictions before reading, to periodically monitor understanding during reading, and to identify main ideas and summarize what was read after reading; in other words, a modified reciprocal teaching process. Strategy instruction was administered to the classrooms as a whole over three days followed by a three-week period of small group guided and independent practice with the strategies. Even after the short duration of the intervention, regular education students exhibited significant gains in reading comprehension over peers who did not receive the strategy instruction, although students with learning disabilities did not demonstrate the same improvements. The results suggest that while a short intervention is sufficient for some learners, a longer instructional period might be more conducive to success for the majority.

**Purpose of Study**

Young children learn about narrative text through listening to and discussing books with others (Ouellette et al., 1999). Through these shared book reading interactions, children may develop knowledge of story grammar naturalistically (Applebee, 1978; Fitzgerald, 1984) or through explicit instruction (Short & Ryan, 1984). This knowledge facilitates the development of schemata for narratives and in turn increases their narrative text comprehension (McConaughy, 1980; Short & Ryan, 1984; Gersten et al., 2001; Ouellette et al., 1999). This research demonstrates that perhaps children can be explicitly taught about story structure as a means of improving their comprehension of narrative text. In other words, story grammar knowledge enhances comprehension of new narrative books as the child is able to incorporate new information into their pre-existing framework of how books work.
When young children are exposed to text, they tend to be exposed more often to narratives than to non-fiction works (Baker & Stein, 1981; Fitzgerald et al., 1985). As children progress through school there is an increasing emphasis on understanding expository text, and the lack of expository text exposure early on may play a roll in later comprehension difficulties when reading non-fiction books (Hidi & Hildyard, 1983; Pelligrini et al., 1984). Research also shows that children who grow up in disadvantaged environments are more likely to experience delays in language development, cognitive functioning, and academic achievement (McLoyd, 1998). Children who grow up in these homes are less likely to be exposed to any and all types of literacy activities, let alone those involving expository text.

Past research indicates that text structure knowledge can impact reading comprehension. Given the evidence that narrative text structure can be taught to young learners (Williams, 2005), it is possible that children can also be taught the text structures of expository books and that this knowledge may help them to comprehend expository text better than children who are not taught about expository text structures. Such structures are more complex and abstract than those of narratives (Williams, 2005), making them perhaps more difficult to teach to young learners than the simple story structure of narratives. The inherent complexity of expository text magnifies the importance of starting explicit instruction in expository text structures at a young age so as to maximize exposure to the concepts and enhance the development of expository text knowledge in the minds of young learners. As such, the present study was designed to explicitly instruct preschool-age children in elements of text structure in expository prose.
This study investigated the impact of explicit expository text instruction in a population of disadvantaged preschool age children. The descriptive text structure describes text that provides information about a topic (Meyer, Young, & Bartlett, 1989). In this structure, the term main idea refers to the specific attributes and details of the topic that are focused on in the text (Meyer, Young, & Bartlett, 1989). Children were taught to identify the topic and main idea in the context of shared book reading lessons involving information books written in the descriptive text structure. The following research questions were considered.

Research Questions

1) Can explicit instruction on text structure strategies for topic and main idea increase preschool age children’s ability to identify the topic and main idea of expository children’s books?

2) Does explicit instruction affect preschool age children’s recall and comprehension of expository books read to them?
Chapter 3

Method

Participants

Forty-five children enrolled in central Pennsylvania’s Head Start were participants in the study. Head Start is a government funded preschool program for children from disadvantaged families. The children qualified for full-day, full-year services based upon their socioeconomic status and attended school from 9 am to 3 pm, five days a week. The children were spread out among three sites – fifteen at site number 1, eighteen at site number 2, and twelve at site 3. While informed consent was obtained for forty-five children, there was some attrition during the study. Four children turned six years old and subsequently graduated from Head Start, four children were absent during the posttest days, and one child refused to participate in the study after the pretest. As such, thirty-six of the forty-five children in the initial sample were assessed at both pre and posttest and included in the analyses presented here. At the start of the study, the children ranged in age from 37 to 70 months.

Head Start. Prior to the start of the study, the author spent a day in each at each of the three sites meeting the teachers, children, and getting a feel for the course of events and activities in an average school day. Although there were variations from site to site, the three Head Start centers were approximately the same in terms of the materials displayed, the activities available for the children, and the program of study. Each location had a large main area for the children where instruction, meals, play, and naps took place.
The walls of the classrooms were decorated with paintings created by the children and word walls. The word walls were arranged in columns of letters, and under each letter were three to four words beginning with that letter. The walls might also display original student artwork and individual photographs of the children with their birth dates listed underneath.

At each site, the main room was divided into various areas called centers where objects sharing a theme were congregated. Included among these centers were two dedicated centers to literacy activities. The writing center was stocked with pens, crayons, markers, and paper while the library center was stocked with books. In both areas, the preschoolers were given the freedom to choose what they wanted to draw, write, or read.

Literacy activities were a main focus of the school day at each site. At the beginning of the school day, the teacher would sit and read a book with the children until the majority of the class arrived. Children sat on individual carpet squares in a semi-circle around the teacher and waited to be called up individually to pick up their nametags and spell their names aloud. The teachers would help the students to identify the letters in their names as they needed help. Each day the teacher would read the morning message. This message was written on a large piece of paper and without punctuation. The teacher would read the message slowly and prompt the students to indicate if a sentence needed a period or a question mark to indicate completion. Later in the day, the teacher would read another book, this one related to the week’s theme, such as the beach. A substantial part of the lessons involved discussion of the role of the author and the illustrator in creating
the book being read. During free time in between activities, the children looked at books individually while waiting for the rest to finish.

For approximately 20 minutes each day in between center time and going outside, the teacher would hold what was termed by one as, “readiness time”. During this portion of the day, the teacher would conduct a literacy activity with the children related to the theme of the week’s lessons. On the date of observation, the teacher laid out pictures of various beach objects on the ground: a shell, a crab, and a towel, for example. She then had the children choose letters out of a bucket one at a time to spell each word. The spelling was done by the teacher as she worked to get the children to identify the letter they had chosen from the bucket and the sound that particular letter made. For example, if the child chose the letter ‘s’, the teacher would ask them to identify which picture began with the sound an ‘s’ makes. The activity was made more difficult by the number of words being spelled at a given time and the variety of chosen letters that did not fit with the incomplete spelling words. This particular activity was confusing to the young learners and the teacher did the majority of the work, telling the students where to place the letters they had chosen and spelling the words aloud herself. The children enjoyed picking the letters out of the bucket but did not appear to understand the connection between the letters and words that the teacher was diligently trying to make. Near the end of the lesson, the children seemed distracted and bored by the difficulty of the task and the teacher concluded by choosing the remaining letters and spelling the remaining words herself.

In sum, at all three sites the literacy instruction centered upon reading books and discussing the authors and illustrators with the children prior to reading the book. Of the
three sites, two teachers tended to ask questions of the children while they read and prompted the children to make predictions about what would happen next. The third teacher discouraged interruptions when she was reading but would discuss the books with the children once she had finished reading.

**Materials**

Twelve expository children’s books were used in the study. All books were written for a 4-8 year-old age range and contained between 30 and 40 pages of short text and pictures. The books were chosen from Harper Book’s Let’s Read and Find Out Science series for stage 1. Each book discussed one topic and details pertaining to that topic (see Appendix A for complete list of books). Two of the twelve books were used as pretest and posttest materials while the remaining ten books were read twice to the students during the instructional lessons.

Prior to the start of the study, the author visited a local preschool to practice her script with a group of young learners. The goal of the visit was to determine the length and flow of the scripted lessons. On the day of the visit, five preschool children were randomly chosen by their teacher to take part in the lesson with the author. The author read, *A Safe Home for Manatees*, and conducted the session as though it were part of the intervention condition. The visit revealed the approximate length of the intervention and revealed the difficulties the author would have with the short attention spans of the young learners. The preschoolers were willing to listen to the book and respond to the questions but had trouble sitting and paying attention for the ten minutes the lesson required. The visit did not cause the author to change the lesson formats but did reveal that conducting the lessons would require patience and a swift pace to keep the children on track.
Measures

Pretest. All children were assessed individually using the book, Fireflies in the Night. The book was read out loud to the child by the author or two other trained graduate students. The researcher began the assessment by asking the child if they liked books and would like to hear a book. The researcher then read the book straight through without stopping. If the child asked a question or made a statement during the reading, the researcher acknowledged the question or statement but did not elaborate or engage in discussion surrounding the child’s utterances. This was done to control the amount of extraneous interactions between the participants and the researchers so as to make the assessment environment as uniform as possible for all.

Immediately following the reading, the child was asked to provide a free recall of the book: “I want you to tell me everything you remember about the story. Tell me the story”. The researcher wrote down the child’s response verbatim. When the child appeared to be finished with their free recall, they were given a single, “Anything else?” prompt, and the researcher wrote down any additional comments from the child. Following the free recall, the child was asked to answer two prompted recall questions: “What is the topic of the book?” and, “What does the book mostly tell about fireflies?”

Posttest. Posttest procedures were the same as those at pretest. The posttest book was also a book that had not been read to the children previously, entitled, From Tadpole to Frog. The free recall and other prompted recall question remained the same as at pretest, however, for the posttest, the second prompted recall question was modified to, “What does the book mostly tell about tadpoles and frogs?” since the book used both
words consistently to describe the growing amphibian (see Appendix B to view the pretest and posttest protocol).

Scoring Recall Measures

A rubric was developed by the author in collaboration with a colleague to score the recalls. The recall measures were used to measure a component of comprehension, the recall of facts. In developing the measure, each book was read several times by the raters and a list of idea units was determined for each book. An idea unit was comprised of a single fact, and sentences could contain more than one idea unit (see Appendix C for the rubrics). The responses were scored by counting the number of idea units that the child produced during their recall. A total score of 38 was possible for the book *Fireflies in the Night*, and a total possible 46 points could be achieved on the book, *From Tadpole to Frog*. Participants were not given credit for a one word response, such as firefly or frog.

For the free recall and “What does the book mostly tell about (fireflies/tadpoles/frogs)?” questions, the verbal response of the child earned a point for each idea unit recalled. At pretest, these responses could earn a possible 38 points; at posttest, responses were scored out of a possible 46. The prompted recall question, “What was the topic of the book?” was scored dichotomously as either correct or incorrect.

The free recall measure was scored a second time to count the number of relevant elaborations produced in the retellings. A relevant elaboration was defined as a personal recollection produced by the child that related to the expository book being read.

Twenty percent of the pretest and posttest recall measures were scored by two raters to obtain inter-rater reliability. At pretest, the inter-rater reliability was .90 for the
free recall question, .95 for the topic prompted recall question, and .90 for the main idea prompted recall question. At posttest, the inter-rater reliability was .92 for the free recall question, .89 for the topic prompted recall question, and .92 for the main idea prompted recall question. After reliability was obtained, subsequent recalls were scored by the author alone.

Procedure

The children were randomly assigned to small groups of 4 to 5 children. At the onset of the study, four groups of four children and one group of five children comprised the intervention condition, and two groups of four children, two groups of five children, and one group of six children were part of the comparison condition. All groups met with the author for between sixteen and nineteen shared book reading sessions. Time constraints and scheduling prevented the author from conducting make-up sessions for children absent at the time of their group session. Nine of the ten books were read to the groups twice at the rate of one book per day, while the final book was read once due to a scheduling conflict.

Experimental condition: Lessons one through five. The five groups in the experimental condition all met with the author during the first five lessons. The lessons took approximately ten to twelve minutes per book and each lesson was conducted on a different day. In other words, no group had two lessons in the same day. During the first five lessons, the participants received explicit instruction in identifying the topic of five unique expository books, with each lesson utilizing a different expository book.

The lessons began with the author defining topic as what the book is about and prompting the children to repeat the definition after her, followed by a prompt to listen
carefully to the following book for the topic. These activities took place prior to reading
the book and took approximately three minutes each day.

After the initial discussion, the author read one of the selected books (see the list
in Appendix A) aloud to the students, pausing periodically to ask the children to identify
the topic of the current book. This portion of the lesson took approximately six minutes
per day.

After the author finished reading the book to the participants, she reviewed the
definition of topic with the children and asked them to identify the topic in the book they
had just heard. If the children were unable to answer the question, the correct response
was provided. Erroneous answers were corrected as well. This portion of the lesson took
approximately three minutes each day. All lessons ended with the author asking the
children if they had enjoyed the book, and thanking the students for their time. Children
were rewarded with a sticker at the end of each session for their participation (see
Appendix D for the complete script of lessons one through five).

Experimental condition: Lessons six through ten. Lessons six through ten were a
repeat of lessons one through five, as shown in Table 1. During these five lessons, the
same expository books were read a second time to the children and the lessons were
conducted using the same script (see Appendix D for the complete script of lessons six
through ten).
Table 1 *Books Read at Each Lesson*

<table>
<thead>
<tr>
<th>Lesson Number</th>
<th>Book Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>What’s it Like to be a Fish?</td>
</tr>
<tr>
<td>Two</td>
<td><em>A Nest Full of Eggs</em></td>
</tr>
<tr>
<td>Three</td>
<td><em>A Safe Home for Manatees</em></td>
</tr>
<tr>
<td>Four</td>
<td><em>Animals in Winter</em></td>
</tr>
<tr>
<td>Five</td>
<td>What Lives in a Shell?</td>
</tr>
<tr>
<td>Six (Repeat of Lesson One)</td>
<td>What’s it Like to be a Fish?</td>
</tr>
<tr>
<td>Seven (Repeat of Lesson Two)</td>
<td><em>A Nest Full of Eggs</em></td>
</tr>
<tr>
<td>Eight (Repeat of Lesson Three)</td>
<td><em>A Safe Home for Manatees</em></td>
</tr>
<tr>
<td>Nine (Repeat of Lesson Four)</td>
<td><em>Animals in Winter</em></td>
</tr>
<tr>
<td>Ten (Repeat of Lesson Five)</td>
<td>What Lives in a Shell?</td>
</tr>
<tr>
<td>Eleven</td>
<td><em>Our Puppies are Growing</em></td>
</tr>
<tr>
<td>Twelve</td>
<td><em>From Caterpillar to Butterfly</em></td>
</tr>
<tr>
<td>Thirteen</td>
<td><em>Ducks Don’t Get Wet</em></td>
</tr>
<tr>
<td>Fourteen</td>
<td><em>Starfish</em></td>
</tr>
<tr>
<td>Fifteen</td>
<td>Where are the Night Animals?</td>
</tr>
<tr>
<td>Sixteen (Repeat of Lesson Eleven)</td>
<td><em>Our Puppies are Growing</em></td>
</tr>
<tr>
<td>Seventeen (Repeat of Lesson Twelve)</td>
<td><em>From Caterpillar to Butterfly</em></td>
</tr>
<tr>
<td>Eighteen (Repeat of Lesson Thirteen)</td>
<td><em>Ducks Don’t Get Wet</em></td>
</tr>
<tr>
<td>Nineteen (Repeat of Lesson Fourteen)</td>
<td><em>Starfish</em></td>
</tr>
</tbody>
</table>
Experimental condition: Lessons eleven through fifteen. The five groups in the experimental condition all met with the author during lessons eleven through fifteen. These lessons expanded upon the first ten to include the concept of main idea in the context of five unique expository books that the author had not yet read to the young learners. Each lesson was conducted with a different book and took approximately ten to twelve minutes. The lessons were conducted once per day with each of the groups.

Lessons eleven through fifteen began with a review of topic as it had been covered during the first ten lessons. In addition to discussing the definition of topic prior to reading the book, the lessons were different in that the children were also asked to listen for the most important ideas in the text. This portion of the lesson took approximately three minutes each day.

After going over topic and main idea with the learners, the author then read the book aloud to the children, stopping periodically during the reading to ask the students questions about what had just happened in the previous pages and to review the most important information. The author asked the students to tell her details about what they had just heard. This portion of the lesson took approximately six minutes per day.

After reading the book, the participants were asked to identify the topic and main ideas of the book that they had just heard. If the participants were unable to provide a response, the author provided the answer. This portion of the lesson took approximately three minutes each day. All sessions ended with a review of the lesson and a question as to whether the children enjoyed the book. Children were rewarded with a sticker at the end of each session for their participation (see Appendix D for the complete script of lessons eleven through fifteen).
Experimental condition: Lessons sixteen through nineteen. Lessons sixteen through nineteen were a repeat of lessons eleven through fifteen, as shown in Table 1. During these four lessons, the same expository books were read a second time to the children and the lessons were conducted using the same script (see Appendix D for the complete script of lessons sixteen through nineteen). Not all of the experimental groups completed the nineteen lessons due to scheduling constraints. Of the five experimental groups, one completed sixteen lessons, two completed seventeen lessons, and two completed nineteen lessons.

Comparison condition: Lessons one through nineteen. Participants in the comparison condition were read the same books as those in the intervention condition but did not receive explicit instruction in topic identification. In addition, each book was read from start to finish without pause for review. The students were not asked to provide any responses during the readings nor encouraged to talk about any aspects of the books. The focus of these lessons was upon sitting quietly and listening to the books rather than talking about what was being read. In contrast to the experimental condition, there was little to no interaction between the author and the young learners, and no discussion of text structure before, during, or after the readings. At the conclusion of the book, the author asked the students if they liked the book and gave each child a sticker for their participation. The lessons took approximately seven minutes each day.
Chapter 4

Results

Two research questions were considered in this study. First, can explicit instruction on text structure strategies for topic and main idea increase preschool age children’s ability to identify the topic and main idea of expository books? This question was addressed using two prompted recall measures. In one measure, children were asked to identify the topic of the book they just heard. In the other measure, children were asked to tell the researcher what the book was mostly about as a means of measuring knowledge of main idea. It was hypothesized that explicit strategy instruction would increase the children’s ability to respond correctly to the prompted recall measures.

The second research question asked if explicit instruction affected preschool children’s listening comprehension of expository books as measured by their ability to recall information from the book. A free recall measure was used to determine if the number of idea units and relevant elaborations recalled would benefit from explicit instruction during the shared book reading sessions. It was hypothesized that children who received the instruction would remember more of the text and therefore produce more detailed recollections on the free recall measure than children who had not received the explicit instruction.

Data was analyzed using chi-square and correlation analyses.
Table 2: Descriptive Statistics for Participants: Experimental Condition

<table>
<thead>
<tr>
<th>Participant</th>
<th>Lessons Attended</th>
<th>Age in Months</th>
<th>Pretest Free Recall</th>
<th>Posttest Free Recall</th>
<th>Pretest Topic</th>
<th>Posttest Topic</th>
<th>Pretest Main Idea</th>
<th>Posttest Main Idea</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>6</td>
<td>44</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>39</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
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</tr>
</tbody>
</table>
Students in the experimental condition attended as few as six of the lessons and as many as eighteen. There does not appear to be a pattern among the descriptive data indicating that the number of lessons had an impact upon the outcome measures. Children who attended the majority of lessons (e.g. fifteen or more) did not outperform learners who attended fewer lessons. This pattern was consistent across all three measures (free recall, topic, and main idea).

There appears to be a slight trend in the data based upon age. Three of the four children who were sixty months or older at the onset of the study recalled more ideas on the free recall measure at posttest. However, due to the small number of children in the sample who fall into this category, these results should be interpreted cautiously. Eight of the participants in the experimental condition did not produce a response on the free recall measure at both pretest and posttest.
Table 3: *Descriptive Statistics for Participants: Control Condition*

<table>
<thead>
<tr>
<th>Participant</th>
<th>Lessons Attended</th>
<th>Age in Months</th>
<th>Pretest Free Recall</th>
<th>Posttest Free Recall</th>
<th>Pretest Topic</th>
<th>Posttest Topic</th>
<th>Pretest Main Idea</th>
<th>Posttest Main Idea</th>
</tr>
</thead>
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<td>18</td>
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</tr>
</tbody>
</table>
Students in the control condition attended as few as seven of the lessons and as many as nineteen. As with learners in the experimental condition, there does not appear to be a consistent pattern among the descriptive data indicating that the number of lessons attended had an impact upon the outcome measures. At posttest, children who attended the majority of lessons (e.g. fifteen or more) did not outperform learners who attended fewer lessons. This pattern was consistent across all the measures of free recall and main idea. On the topic measure, three of the five children who had attended fifteen or more lessons identified the topic of the book at posttest.

There appears to be a slight trend in the data based upon age. Three of the four children who were sixty months or older at the onset of the study recalled more ideas on the free recall measure at posttest, however, the differences are minimal. Eight of the nineteen participants in the control condition did not produce a response on the free recall measure at both pretest and posttest.
Table 4 Distribution of Response Frequencies on Pretest Prompted Recall Measure of Topic

<table>
<thead>
<tr>
<th>Identification of Topic</th>
<th>Experimental N</th>
<th>Comparison N</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
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<td>16</td>
</tr>
<tr>
<td>1</td>
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</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>19</td>
</tr>
</tbody>
</table>

The chi-square analysis shows no significant differences between the two groups at pretest, $\chi^2(1, N = 36) = .963, p = .326$. The experimental and comparison groups were equivalent in their ability to identify the topic of an expository passage prior to the instructional lessons.
Table 5 *Distribution of Response Frequencies on Posttest Prompted Recall Measure of Topic*

<table>
<thead>
<tr>
<th>Identification of Topic</th>
<th>Experimental N</th>
<th>Comparison N</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
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<tr>
<td>1</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

The chi-square analysis demonstrates a significant difference between the two groups at posttest, $\chi^2(1, N = 36) = 9.368, p = .002$. After instruction, significantly more of the students in the experimental group were capable of identifying the topic of passages that were read to them.
Table 6 Distribution of Response Frequencies on Pretest Prompted Recall Measure of Main Idea

<table>
<thead>
<tr>
<th>Number of Idea Units Recalled</th>
<th>Experimental N</th>
<th>Comparison N</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>16</td>
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<td>1</td>
<td>1</td>
<td>5</td>
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<tr>
<td>2</td>
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<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>19</td>
</tr>
</tbody>
</table>

The Chi-Square analysis reveals no significant difference between the two groups at pretest, $\chi^2(2, N = 36) = 3.878, p = .144$. The experimental and comparison groups were equivalent in their initial ability to identify the main idea of expository passages after the passages were read aloud to them.
Table 7 Distribution of Response Frequencies on Posttest Prompted Recall Measure of Main Idea

<table>
<thead>
<tr>
<th>Number of Idea Units Recalled</th>
<th>Experimental N</th>
<th>Comparison N</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>1</td>
<td>4</td>
<td>7</td>
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<tr>
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<tr>
<td>3</td>
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<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>19</td>
</tr>
</tbody>
</table>

The Chi-Square analysis shows no significant difference between the two groups at posttest, $\chi^2(3, N = 36) = 2.759$, $p = .430$. There were no significant differences after the five week instructional period in students’ ability to identify the main idea of an expository book that was read aloud to them.
Table 8 *Distribution of Response Frequencies on Pretest Free Recall Measure*

<table>
<thead>
<tr>
<th>Number of Idea Units Recalled</th>
<th>Experimental N</th>
<th>Comparison N</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>1</td>
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<td>6</td>
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<tr>
<td>4</td>
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<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>19</td>
</tr>
</tbody>
</table>

The chi-square analysis demonstrates no significant difference between the two groups at pretest, $\chi^2(2, N = 36) = 1.333, p = .514$. The experimental and comparison groups were equivalent in their ability to recall information from an expository book read to them.

There were no measurable relevant elaborations produced by the participants on this measure.
Table 9 *Distribution of Response Frequencies on Posttest Free Recall Measure*

<table>
<thead>
<tr>
<th>Number of Idea Units Recalled</th>
<th>Experimental N</th>
<th>Comparison N</th>
</tr>
</thead>
<tbody>
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<td>1</td>
<td>3</td>
<td>5</td>
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<tr>
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<tr>
<td>6</td>
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</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>17</strong></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

The chi-square analysis reveals no significant difference between the two groups at posttest, $\chi^2(6, N = 36) = 8.415$, $p = .209$. The experimental and comparison groups remained equivalent in their ability to recall information from expository books after the five weeks of lessons.

There were no measurable relevant elaborations produced by the participants on this measure.
Correlations between children’s age in months and their scores on the recall measures were conducted in an attempt to investigate relationships in the data. These analyses yielded four significant and fairly large intercorrelations, as shown in Table 7. There were significant intercorrelations between age and pretest free recall for the experimental group (r = .51), posttest free recall for both the experimental (r = .65) and comparison (r = .58) groups, and for the experimental group’s topic prompted recall posttest (r = .64).

These intercorrelations, however, need to be viewed cautiously because the correlations are based upon a small sample size and are therefore unstable. In addition, in many cases (e.g. pretest free recall) the correlations are based on a restricted range of scores for the recall measure, which may adversely affect the correlation, typically by reducing its magnitude.
Chapter 5

Discussion

The results of this study provided mixed results concerning the two hypotheses of the study: a) Can explicit instruction on text structure for topic and main idea increase preschool age children’s ability to identify the topic and main idea of expository children’s books? and b) Does explicit instruction affect preschool age children’s recall and comprehension of expository books read to them? The study showed that explicit instruction on identifying the topic of expository children’s books may increase preschool children’s ability to identify topic during initial exposure to an unfamiliar text. However, the study did not provide evidence that instruction on identifying the main idea increased children’s ability to identify the main idea in text, nor did the study support the hypothesis that the instruction used in this intervention increases overall comprehension as measured through recall.

Effects of Explicit Instruction and Practice

The children who received explicit instruction and practice were significantly better at identifying the topic of expository passages. This suggests that, even with a relatively short duration, explicit instruction can improve children’s recall of expository passages. The combination of clearly teaching children what a topic is, combined with repeated practice identifying the topic of expository text, produced measurable improvements in children’s ability to recognize the topic of text.

In her work with preschoolers, Sénéchal (1997) found that repeated readings of a book facilitated language development. Much like the children in Sénéchal’s study, the preschoolers in the current study benefited from explicit instruction and were able to
transfer this definitional knowledge to identification of the topic of a novel text after repeated practice in doing so. This study also supports the findings of Haney and Hill (2004) who, in their investigation of the development of emergent literacy skills in preschool age children, found that the preschoolers who received direct instruction in literacy tended to perform better on emergent literacy tasks.

On the other hand, there were no differences between the groups in children’s ability to identify the main idea of the text. The frequency data (Table 7) indicates a high proportion of the students had no response for the main idea question (65% for the experimental and 63% for the control group). Perhaps this could be due to the fact that identifying the most important elements in a text is a more difficult and vague task than that of defining and identifying topic. In other words, the concept of topic is more literal to comprehend and therefore easier than the more abstract concept of main idea. This was consistently evident in the quantity and quality of child responses during the sessions. While children answered the question of, “What is the topic?” with confidence and enthusiasm, the question of, “What did the book mostly tell about ___?” was met with silence.

Perhaps a larger mitigating factor in the research was the nature of the materials. The expository books used in the study were essentially lists of facts about the topic. There were no explicit main ideas included in the text, making the task of main idea identification even more difficult for the young learners. This is a common problem among expository books written for this age group. Had the books included explicit main ideas, perhaps the young learners would have had an easier time learning to identify main idea.
In addition to the greater difficulty of the task of summarizing the most important ideas in the text, the children had fewer exposures to this concept. While topic was taught, discussed, and reviewed in all nineteen lessons, the discussions of main idea did not occur until the final nine lessons. As such, not only did the difficulty of the material being taught increase, the amount of exposure to the instruction decreased in relation to the instruction given concerning topic.

As shown in the prompted recall measures, students did not master all of the content during instruction, so one is less likely to see a transfer of the effects of the instruction to the more general comprehension and recall of the passage as is necessitated by the free recall measure. This finding is supported by the work of Stein and Glenn (1979), who found that young children tend to omit story information during free recall yet are able to supply specific information upon request, as in cued recall. The results of the free recall question at both pretest and posttest demonstrate the inability of the majority of the children to recall information from expository text. While the distribution at posttest was minimally more diverse than that of pretest, the majority of the children provided no response to the question. Rall and Harris (2000), in their investigation of the verb choices of three and four year old children on a narrative comprehension task, came to a similar conclusion, noting that the younger children were less likely to respond than the older ones. With so few non-zero answers to this question at both pre and posttest, few if any conclusions can be made from the data beyond the above, that younger children are less likely to respond to such a question. Perhaps this is due to the wide scope of such a question with no readily apparent right or wrong answer.

_correlations between recall and age_
In an attempt to better understand these findings, I conducted correlational analyses between the recall measures and children’s age. As expected, older children tended to recall more information of what was read, as indicated by the significant positive correlation between age and posttest free recall for both groups. A similar relationship was found at pretest, but only for the experimental group. However, at pretest, over 50% of all students offered no information when asked to recall what was read, so interpreting these correlations is tenuous due to the small sample and the resulting poor stability.

One interesting correlation, worthy of further investigation, is the significant positive correlation between age and prompted topic recall for the students who received instruction (r = .65). This finding suggests that older children were better able to learn from the kind of instruction and practice provided in this study. While this correlation is also based on a small sample, it may suggest that children need to be more mature to benefit from instruction on how to identify the topic of expository passages. Alternatively, because of the short duration of the instruction, this correlation may indicate that it takes longer for younger children to master the skill of identifying the topic of expository passages. However, again, due to the small sample size and the number of non-responses during assessment, these results must be considered with a critical eye.

Limitations of the Study

The first limitation to consider in the study is the duration of the intervention. Nineteen lessons spread over five weeks is not long when one considers the age level and the difficulty of the material being taught. The children in this study were from
disadvantaged homes where literacy activities were most likely limited. As such, the activity of sitting and listening to books was unfamiliar to them already, and the additional difficulty of learning to comprehend expository books made the task more challenging. Expository text is less familiar and more complex than the narratives the children traditionally heard in their classrooms. The study described here required the children to learn how to listen to books while simultaneously expecting them to learn how to comprehend the information presented in books.

Another limitation associated with the duration of the intervention was the non-gradual transfer of responsibility for comprehension from the author to the learners. While the experimental lessons were designed to be interactive discussions between the students and the author, the outcome measures involved no such discussion and may have negatively impacted the student’s recalls. Learning is a process that ideally takes place over time and involves a gradual transfer of responsibility for learning from the teacher to the student. The brevity of the research discussed here did not provide enough time for the learners to fully master the content sufficiently enough to learn independently.

Perhaps the biggest challenge during data collection was the age of the participants. Twelve of the thirty-six participants were forty-seven months or younger at the time of the study and of those, five were not yet forty-two months, or three and a half years of age. While not systematically considered during data collection, the three year old children generally and understandably had a much more difficult time sitting still and listening to the stories during the sessions. This resulted in multiple disruptions and, while the books were all approximately the same length, some sessions took much longer to complete, which led to even more disruptions as the children lost interest in the task.
While the comparison condition sessions were entirely comprised of a straight reading of the text, the intervention condition participants were asked to listen, engage, and participate before, during, and after the shared book reading. At times the additional questions increased the engagement of the children in the task, especially when the text being read described an animal of which they had prior knowledge. At other times, however, the need to sit, listen, and answer questions about a book, however interesting, was viewed as a large annoyance and cause for frustration.

A second mitigating factor in the research was scheduling conflicts. Sessions at two of the three sites often needed to be conducted during the children’s recess time. This understandably resulted in a lack of motivation among the preschoolers to come inside and sit still while listening to a book about butterflies. At one site, elaborate tales of encouragement and excitement were regularly generated between the author and the classroom teachers to entice children off the swing sets and into the classroom.

After the first week of the study, the author recognized that motivating children to willingly participate in the reading sessions for the remainder of the five week period would require an external motivator powerful enough to compete with the tire swing. At that point, the author started to bring a box of stickers along with her to each session at all three sites. Every child who participated in a reading session received the sticker of their choosing at the end of the reading task. While this tactic led to a greater willingness among the preschoolers to participate, at times the children became more fixated on the reward than the task. While not ideal, the use of stickers as rewards led to a higher voluntary participation rate among the preschoolers and resulted in less tears.

*Implications and Directions for Future Research*
The results of this study indicate that preschool age children can be taught an element of expository text structure as the children in the experimental group learned to identify topic over five weeks of short daily lessons. This research demonstrates that perhaps young children can learn about not only narratives but expository texts as well before they start kindergarten, and that expository books are not too difficult for young learners. Given that expository text comprehension is a large component of state educational standards, the more opportunities children have to listen to and discuss expository books, the more chances they will have to learn and become familiar with the various structures of non-fiction text. As has been mentioned earlier in this paper, there is generally a lack of exposure to expository text in the early childhood classroom (Duke, 2000). The importance of increasing exposure to expository text for all young learners cannot be understated and all the children in the study most likely will benefit from having had additional experience with this kind of text.

While the children did learn to identify topic over the five week period, the short duration of the study most likely played a role in the less successful main idea instruction. As such, future research with this age group and expository text should be expanded to encompass an entire semester or, ideally, a year of lessons. Perhaps with a longer interventional period, the children in this study would also have learned to identify the main idea of passages and to produce more detailed retellings, in addition to reinforcing their topic identification ability.

In addition to increasing the number of lessons and time period over which the lessons take place, future research with this age group may benefit from being better fit into the classroom’s daily schedule. The scheduling conflicts inherent to this study were a
result of the children being in three separate preschool centers sharing similar schedules and the author’s inability to be in all three simultaneously. Perhaps a better alternative to trying to read to children during outdoor play time would be to conduct the lessons entirely during classroom instructional time when the preschoolers already expect to be engaged in a shared storybook reading lesson with their classroom teachers. Better scheduling may also reduce the need for material motivators at every lesson.

While beyond the scope of this research, it would also be interesting to follow the development of the children involved in a study such as this one longitudinally. Does this early knowledge of topic and exposure to expository text give children an advantage in school lessons involving non-fiction text? The preschoolers in this study were part of a brief, intense instructional period of lessons, and it would be intriguing to know if the instruction resisted extinction when the instructional period ended.

In conclusion, there is still a great deal to be learned about the young mind’s capacity for learning from and interacting with expository text and the research presented here is an encouraging beginning. Young children do seem to benefit from shared book reading experiences involving non-fiction material. Preschool age learners can learn from expository texts and perhaps become familiar with the text structure of non-fiction passages just as they become familiar with the text structure of narratives. This work reinforced the findings of others that learning is more likely to occur when young learners are required to actively participate in the lessons (Whitehurst et al., 1988; Whitehurst et al., 1994). This study also demonstrates that underprivileged children can learn from early childhood explicit instruction and perhaps this type of instruction, in connection
with other emergent literacy experiences, will help to prepare these young learners for academic success.
References


Gajria, M., & Salvia, J. (1992). The effects of summarization instruction on text comprehension of students with learning disabilities. Exceptional Children,


McConaughy, S. H. (1982). Developmental changes in story comprehension and levels


Williams, J. P. (2005). Instruction in reading comprehension for primary-grade students:
A focus on text structure. *Journal of Special Education, 39*(1), 6-18.


Appendix A

Book List

1. *A Safe Home for Manatees* by Priscilla Belz Jenkins
2. *Fireflies in the Night* by Judy Hawes
3. *Ducks Don’t Get Wet* by Augusta Goldin
4. *What’s it Like to be a Fish?* By Wendy Pfeffer
5. *From Caterpillar to Butterfly* by Deborah Heiligman
7. *From Tadpole to Frog* by Wendy Pfeffer
8. *Where are the Night Animals?* By Mary Ann Fraser
9. *Starfish* by Edith Thacher Hurd
10. *A Nest Full of Eggs* by Priscilla Belz Jenkins
11. *Animals in Winter* by Henrietta Bancroft & Richard G. Van Gelder
12. *Our Puppies are Growing* by Carolyn Otto
Appendix B

Pretest and Posttest Protocol and Answer Sheet

1) Say: “Hello, my name is Miss _____. I’m here to read you a book. Do you like books? (Pause for response) I really like books and if it is ok with you I’d like to read you this one called Fireflies in the Night/From Tadpole to Frog. (Show book while you say this) I’m going to read this story and then we will talk a little about it, so make sure you listen! Are you ready? (Pause for response)”

2) Read book to the child. If the child comments during the reading, acknowledge the comments but do not pursue an extended conversation (e.g. don’t ask questions).

3) When the book is finished, say: “Wasn’t that a good book? (Pause for response) Now I’m going to ask you a couple questions about the story. Can you tell me what you remember about the story? Can you tell me the story?” Write down the child’s response on the paper. If it’s tangential (nothing to do with the book), indicate on the paper but don’t transcribe word for word. If the response is related to the book, transcribe as close to word for word as you can.

4) When child appears done say, “Good/ok! Two more questions and we are all done! What is the topic of the book?” Write down response. If the child doesn’t know/answer, please indicate as well.

5) When child appears done say, “Last question! What does the book mostly tell about fireflies/frogs and tadpoles?” Write down response. If the child doesn’t know/answer, please indicate as well.

6) Say, “We’re all done! Thank you for being such a good listener!”
Free Recall: “I want you to tell me everything you remember about the story. Tell me the story.”
Prompted Recall:

“What is the topic of the book?”

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

“What does the book mostly tell about (fireflies/tadpoles/frogs)?”

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________________________________________________________________________
________________________________________________________________________
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Appendix C

Pretest and Posttest Scoring Rubrics

Pretest Rubric – Fireflies in the Night

Free Recall: “What happened in the story?” and prompted recall: “What does the book mostly tell about fireflies?”

Idea Units – 1 point for each idea unit mentioned

1. Fireflies are lightening bugs.
2. Fireflies are beetles.
3. Fireflies/beetles have two sets of wings.
4. Fireflies have hard front wings.
5. Fireflies have soft back wings.
6. Fireflies fold front wings over back wings when resting.
7. Young fireflies do not have wings.
8. Young fireflies/beetles live underground.
10. Fireflies live in trees.
11. Fireflies live in bushes.
12. Fireflies are easy to catch.
13. Fireflies can stay in a jar with air holes.
15. Fireflies shine brighter in warm weather.
16. A jar of fireflies fades in cold water.
17. In the Caribbean/South America, people wear net bags full of fireflies.
18. Net bags full of fireflies are homemade flashlights.
20. Lanterns of fireflies can light paths.
21. Lamps of fireflies can light paths.
22. Firefly lamps can light operations.
23. Fireflies make cold light.
25. Candles in jars make jars hot.
26. Firefly lanterns never get warm.
27. Firefly lamps never get warm.
29. Fireflies have special chemicals inside them.
30. Small holes in the firefly let air in.
31. Small holes are in the underpart of the firefly.
32. Air mixes with chemicals in the firefly.
33. Fireflies make cold light.
34. Fireflies flash their lights in signals.
35. Each signal is a different pattern of flashes and pauses.
36. Males and females flash different signals.
37. Fireflies find their mates by flashing signals.
38. A human flashing a flashlight on and off can fool fireflies.

Prompted Recall: What is the topic of the book?

1 point for answering fireflies/lightening bugs/beetles. Zero for anything else.
Posttest Rubric – From Tadpole to Frog

Free Recall: “What happened in the story?” and prompted recall: “What does the book mostly tell about tadpoles and frogs?”

Idea Units – 1 point for each idea unit mentioned

1. Frogs sleep in mud at the bottom of the pond.
2. Frogs hibernate all winter.
3. After winter, flowers grow.
4. After winter, birds return.
5. After winter, pond creatures wake up.
6. At night male frogs call their mates.
7. Male frogs hug female frogs.
8. Male frogs fertilize eggs.
9. The female frog lays eggs in the water.
10. The female lays thousands of soft jelly-covered eggs.
11. The eggs cling together in the water.
12. After ten days, the eggs hatch.
13. Tadpoles come out of the eggs.
14. Tadpoles wiggle their tails.
15. Tadpoles breathe underwater with gills like fish.
16. During the summer the tadpoles swim.
17. Tadpoles eat water plants.
21. Tadpoles are brownish-speckled.
22. Tadpoles get fat.
23. During winter, tadpoles burrow.
24. Tadpoles burrow in the mud at the bottom of the pond.
25. Tadpoles do not eat during winter.
26. Tadpoles do not move during winter.
27. Tadpoles sleep during winter.
28. In the spring tadpoles wake up.
29. Tadpoles wake up hungry.
30. Tadpoles sprout hind legs.
31. Tadpole legs grow longer.
32. Tadpole legs grow stronger.
33. Tadpole tails grow shorter.
34. Tadpoles sprout front legs.
35. Tadpoles get lungs.
36. Tadpoles get bigger mouths.
37. Tadpoles get bigger eyes.
38. Tadpoles become frogs.
39. Tadpoles are frogs when their tails disappear.
40. Frogs use legs to swim.
41. Frogs use webbed feet to swim.
42. Frogs capture worms with their tongues.
43. Frogs capture spiders with their tongues.
44. Frogs capture dragonflies with their tongues.
45. Frogs can rest on lily pads.
46. Frogs can rest on land.

Prompted Recall: “What is the topic of the book?”

1 point for answering tadpoles/frogs. Zero for anything else.
### Experimental Group Example – Topic Lessons 1-10

#### Before the Book

<table>
<thead>
<tr>
<th>Experimenter</th>
<th>Participants</th>
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</thead>
</table>
| **Hi boys and girls, my name is Cindy and today I’m going to read you a book. Do you like books?** *(Pause for response)*. **Great! The book I am going to read to you today is called, “What’s it Like to be a Fish?”* Before I start, does everyone want to listen to a story? *(Pause for response)*  
Note: If a child doesn’t want to participate, say: **You don’t have to stay and listen if you don’t want to!**  
Once sure that all children want to proceed, begin with: **Great! Let’s get ready to listen to a good book!** |              |
| **Before we read the book, I’m going to tell you something new. Are you ready?** |              |
| **Books like this one have topics. The topic of a book is what the book is about. I’m going to say that again. The topic of a book is what the book is about.** | The topic of a book |
| **Now I want you to say this after me. “The topic of a book”** |              |
| **“is what the book is about.”** | is what the book is about. |
| **Very good! So the topic of a book is what the book is about. Are you ready to listen to the story?** *(Pause for response)* |              |
| **Great! Let’s read, “What’s it Like to be a Fish?” Remember to listen for the topic, what the book is about!** |              |
While reading the book

<table>
<thead>
<tr>
<th>Experimenter</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pause every 4-5 pages and ask the children what the topic is.</td>
<td>Fish.</td>
</tr>
<tr>
<td><strong>This book is talking a lot about fish.</strong></td>
<td></td>
</tr>
<tr>
<td>What do you think the topic of this book is?</td>
<td>Fish.</td>
</tr>
<tr>
<td>Or</td>
<td></td>
</tr>
<tr>
<td><strong>What is this book about?</strong></td>
<td>Fish.</td>
</tr>
<tr>
<td>Or</td>
<td></td>
</tr>
<tr>
<td><strong>What do you think is the topic of this book?</strong></td>
<td>Fish.</td>
</tr>
<tr>
<td>Vary the prompts so that the same one isn’t repeated twice in a row.</td>
<td></td>
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</tbody>
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After reading the book

<table>
<thead>
<tr>
<th>Experimenter</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Wasn’t that a good book? I hope you liked it as much as I did.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>So in the book, we learned all about how fish eat, and sleep, and breathe!</strong></td>
<td></td>
</tr>
<tr>
<td><strong>What do you think the book was about?</strong></td>
<td></td>
</tr>
<tr>
<td>Call on individual students. If they answer correctly, say:</td>
<td></td>
</tr>
<tr>
<td><strong>You’re right! The book was about fish.</strong></td>
<td></td>
</tr>
<tr>
<td>If they answer incorrectly, or no one volunteers, say:</td>
<td></td>
</tr>
<tr>
<td><strong>The book was about fish.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Remember before we read the book we talked about the topic. The topic of a</strong></td>
<td></td>
</tr>
<tr>
<td><strong>book is what the book is about.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>What is the topic of a book?</strong></td>
<td>What it’s about.</td>
</tr>
<tr>
<td><strong>Great! What was the topic of this book?</strong></td>
<td>Fish.</td>
</tr>
<tr>
<td>Give children a chance to answer, if no one</td>
<td></td>
</tr>
</tbody>
</table>
responds, say, “The topic of this book is fish.”

| Great job! Today we learned about topic. The topic is what the book is about, and the topic of this book was? | Fish. |
| Thank you for letting me read to you! Next time I visit your class we’ll read another book and talk some more, ok? |  |
**Expository Book:** *What’s it Like to be a Fish?* By Wendy Pfeffer

### Before the Book

<table>
<thead>
<tr>
<th>Experimenter</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hi boys and girls, my name is Cindy and today I’m going to read you a book. Do you like books?</strong> (Pause for response). <strong>Great! The book I am going to read to you today is called, “What’s it Like to be a Fish?”</strong> Before I start, does everyone want to listen to a story? (Pause for response) Note: If a child doesn’t want to participate, say: <strong>You don’t have to stay and listen if you don’t want to!</strong> Once sure that all children want to proceed, begin with: <strong>Great! Let’s get ready to listen to a good book!</strong> <strong>Remember the last time we read this book we talked about topic, what the book is about. Today we’re going to listen to the book again and listen to what the book mostly tells us about fish. Do you think you could do that?</strong> <strong>Great! Let’s read, “What’s it Like to be a Fish?”</strong> Remember to listen for the topic and for what happens!</td>
<td>Pause for response.</td>
</tr>
</tbody>
</table>

...
While reading the book

<table>
<thead>
<tr>
<th>Experimenter</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pause every 4-5 pages to think aloud about what has occurred so far and to summarize. If children do not answer, provide the answer.</td>
<td>Fish swim, fish are big, fish are small.</td>
</tr>
<tr>
<td><strong>1) These pages are talking about fish living in the water. What did we learn about fish so far?</strong></td>
<td>Fish.</td>
</tr>
<tr>
<td><strong>2) Who swims better, a person or a fish?</strong></td>
<td>Mouth and gills.</td>
</tr>
<tr>
<td><strong>3) How do fish breathe?</strong></td>
<td>Mouths.</td>
</tr>
<tr>
<td><strong>4) How do fish eat?</strong></td>
<td>Cold water.</td>
</tr>
<tr>
<td><strong>5) Do fish like cold water or hot water?</strong></td>
<td>No, move slowly.</td>
</tr>
<tr>
<td><strong>6) Do fish sleep?</strong></td>
<td></td>
</tr>
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</table>

After reading the book

<table>
<thead>
<tr>
<th>Experimenter</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wasn’t that a good book? I hope you liked it as much as I did.</td>
<td></td>
</tr>
<tr>
<td>So in the book, we learned all about how fish eat, and sleep, and breathe!</td>
<td></td>
</tr>
<tr>
<td>What was the topic of this book?</td>
<td>Fish.</td>
</tr>
<tr>
<td>Call on individual students. If they answer correctly, say:</td>
<td></td>
</tr>
<tr>
<td><strong>You’re right! The topic of this book was fish.</strong></td>
<td></td>
</tr>
<tr>
<td>If they answer incorrectly, or no one volunteers, say:</td>
<td></td>
</tr>
<tr>
<td><strong>The book was about fish.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>You are so smart! Ok, now can anyone tell me what we learned about fish in this book?</strong></td>
<td></td>
</tr>
<tr>
<td>Call on individual students.</td>
<td>Pause for response.</td>
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<td>----------------------------</td>
<td>---------------------</td>
</tr>
<tr>
<td><strong>What did the book mostly tell about fish?</strong></td>
<td></td>
</tr>
<tr>
<td>If child provides a correct response, say:</td>
<td></td>
</tr>
<tr>
<td><strong>You’re right! We learned that fish like cold water. Good job!</strong></td>
<td></td>
</tr>
<tr>
<td>If no response, say:</td>
<td></td>
</tr>
<tr>
<td><strong>How do fish breathe?</strong></td>
<td>Gills.</td>
</tr>
<tr>
<td>Give children time to respond. If they don’t, say:</td>
<td></td>
</tr>
<tr>
<td><strong>Fish breathe through their gills.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>What’s one other thing we learned about fish today?</strong></td>
<td></td>
</tr>
<tr>
<td>If no response, say:</td>
<td></td>
</tr>
<tr>
<td><strong>Who swims better, a fish or a person?</strong></td>
<td>Fish.</td>
</tr>
<tr>
<td>Give children time to respond. If they don’t, say:</td>
<td></td>
</tr>
<tr>
<td><strong>Remember the book told us that fish swim better.</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Great! Almost done! Today we learned about fish. We learned that they breathe through their gills and that they swim better than us. We learned they like cold water and they never sleep!</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Thank you for letting me read to you! Next time I visit your class we’ll read another book and talk some more, ok?</strong></td>
<td></td>
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</table>
Comparison Group Example Lessons 1-19

Expository Book: What’s it Like to be a Fish? by Wendy Pfeffer

Before reading the book

<table>
<thead>
<tr>
<th>Experimenter</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hi boys and girls, my name is Cindy and today I’m going to read you a book. Do you like books? (Pause for response) Great! The book I am going to read to you today is called, “What’s it Like to be a Fish?” Listen carefully!</td>
<td></td>
</tr>
</tbody>
</table>

After reading the book

<table>
<thead>
<tr>
<th>Experimenter</th>
<th>Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wasn’t that a good book? I hope you liked it as much as I did. Thank you for letting me read to you! You are very good listeners. Next time I visit your class we will read another book and talk some more, ok?</td>
<td></td>
</tr>
</tbody>
</table>
Cynthia R. Bochna  
Curriculum Vitae  
crb182@psu.edu

**Education**

2000 - 2006  The Pennsylvania State University  State College, PA  
Ph.D., Educational Psychology, Learning and Instruction Concentration

1999 - 2003  The Pennsylvania State University  State College, PA  
M.S. Educational Psychology

1994 - 1998  Loyola Marymount University  Los Angeles, CA  
B.A. Psychology  
B.A. Spanish

**Teaching Experience**

Spring 2004, Fall 2003, Spring 2000  Penn State University  
Teaching Assistant EDPSY 14

Summer 2003  Penn State University  
Instructor EDPSY 14

Fall 2002  Penn State University  
Instructor COMM 404

1998 - 1999  Palms Middle School  Los Angeles, CA  
Special Education Teacher

**Research Experience**

2005 – Present  Mesa Public Schools  Mesa, AZ  
Supervisor Analyst

1999 – 2004  Penn State University  
Research Assistant for "Reading and Intensive Learning Strategies" (RAILS).  
Collaborative project between the Pennsylvania State University Department of  
Educational and School Psychology and Special Education, and Altoona Area School  
District, Altoona PA. Funded by the Office of Special Education, US Department of  
Education.

**Publications**

to independent reading in first grade students. *Early Childhood Education Journal.*

in literacy. In B. S. Plake, J. C. Impara, & R. A. Spies (Eds.), *The sixteenth mental  
measurements yearbook.*

List of awards and presentations available on request.