

“The plant is inside the seed”: A Sociocultural Perspective on a Preschooler’s Emergent Responses to Information Book Genre.

Ida K Maduram, PhD, Professor, North Park University, imaduram@northpark.edu

Abstract

The early literacy development of young children is significantly influenced by the role played by parents, caretakers, and preschool teachers prior to entering school. There are studies on parents reading storybooks to children to develop early literacy skills (Neumann et al., 2009; Segal et al., 2018; Wood, 2002). However, there is a scarcity of studies on parent-child interactions with information books and, even more, the child’s emergent understanding of the genre structures of information books (Maduram, 2000, 2024; Maduram & Pappas, 1999). Based on data obtained in a larger research project, this case study adopts a sociocultural approach to investigate the significance of sharing informational books.

The analysis of 41 responses to 11 informational books on genre knowledge was categorized into two groups: (1) responses involving dictation, drawing, and writing, and (2) responses with only dictation. The findings demonstrated that a young child as early as three years old has an emergent understanding of information books' global genre structure and linguistic features. The study also explores related observations, such as the significance of ‘genre shifts,’ the wait time in response to the content, and the significance of responses after revisits. The study includes insights and recommendations for parents and teachers, as the findings suggest that incorporating informational books into young children's emergent literacy learning can enhance literacy development under the guidance of parents and preschool teachers.

Key Words

Information Book genre, Parent-child interactions, preschool, Emergent dictations, Emergent drawing and writing skills, ‘Genre shifts’ to information books, Wait time, Case study method, and Sociocultural context.

A part of the paper was presented at the International Round Table at Oxford on March 2024 in Oxford, UK. I would like to thank the participants of the Round Table Conference for their valuable feedback.

For young children, parents or caretakers and preschool teachers play a significant role in fostering early literacy before school entry. There are studies on parents reading storybooks to children to develop early literacy skills (Neumann et al., 2009; Segal et al., 2018; Wood, 2002). However, there is a scarcity of studies on parent-child interactions with information books and, even more, the child's emergent understanding of the genre structures of information books (Maduram, 2000, 2024; Maduram & Pappas, 1999). Case studies on earliest responses to information books can offer insights into the significance of sharing information books with young preschool children before they enter formal schooling. How can the family context facilitate the initial responses to information books toward the emergent understanding of genre structures? This paper explores dictation, drawing, and early writing as emergent responses to information books.

Information Book as a Genre

Over the last decade, the definition of literacy has evolved to include the critical role of information books in elementary classrooms (Bradley & Donovan, 2011). Information books are multimodal due to their visual, verbal, and design cues, facilitating written and drawing responses from elementary-age children (Coleman et al., 2012; Moses et al., 2016; Pappas et al., 2009). As a genre, the information book genre has linguistic features and structure elements such as topic presentation, description of attributes, characteristic events, and final summary (Pappas, 2006., Pappas & Pettegrew, 1998). Studies on elementary school children's written and drawing responses to information books have indicated that primary-grade children can express their genre and content knowledge with teachers facilitating their learning (Donovan & Smolin, 2011; Kersten, 2017; Pappas et al., 2012). However, there is a scarcity of research that extends the studies on elementary children to preschoolers and younger children's emergent genre knowledge and responses to content despite their comparable interest in the topics presented in the books (Maduram, 2000; Maduram & Pappas, 1999; Robinson, 2020). Moreover, there are no studies on the children's spontaneous written or drawing responses to information books without scaffolding instruction. Do young children have a rudimentary understanding of information books? In this study, I analyze the earliest responses to information, such as dictation, drawing, or writing, to information books to provide valuable insights into emergent genre structures in responses to the information book genre.

The Complexity of Sociocultural Context

The learning process of young children is significantly influenced by their sociocultural environment. According to Vygotsky (1978), "Every function in the child's cultural development appears twice: First, on the social level, and later the individual level... All the higher functions originate as actual relationships between individuals." (p. 57). The home's cultural milieu, encompassing social interactions with adults and siblings, life experiences, and literacy routines, plays a vital role in enriching the learning experiences of young children from a sociocultural perspective. Parental research examining children's literacy development through a sociocultural lens suggests that their language and literacy skills are significantly influenced by social interactions, parent scaffolding, and the availability of literacy materials at home (Maduram, 2000; Neumann et al., 2002). Although these factors influence all young children, each family exhibits a unique cultural complexity, emphasizing the importance of considering the individual child within their cultural contexts. How can a family's social and cultural context contribute to a child's literacy learning, particularly responses to information books? This study investigates how a family's social and cultural context may promote a child's early literacy learning.

Dictation, Drawing, and Writing as Emergent Responses to Information Books

Dictation, emergent writing, and drawing as responses to information books are multimodal responses, as they involve interactions between various modes of communication, such as visual, verbal, auditory, gesture, and use of color (Pappas, 2006; Smolkin & Donovan, 2004). For young preschool children, these responses are interconnected and embedded with socially situated literacy practices. These responses contribute to different aspects of development. For example, dictation is the earliest connection

between spoken and written language for preschool children before formal writing. Although dictation does not involve writing, it prepares them to recognize that their spoken words can be translated into written text and convey meaning (Neuman & Roskos, 2012). Emergent writing involves stages of development beginning with preliterate scribbling (Byington & Kim, 2017). This study further explores responses to information books as preliterate scribbling, letter-like forms, and stringed letters. Very young children's emergent responses to books, such as reading, dictation, drawing, or writing, are interconnected and complement their meaning-making processes. Consequently, we can foster a long-term love for literacy and language by valuing children's spontaneous dictations or drawing or writing responses to information books.

Case Study Method and Parent as Researchers

Case studies are longitudinal inquiries of a specific individual (Neumann et al., 2019; Maduram, 2000, 2024; Maduram & Pappas, 1999) or group (Heath, 1983). Detailed and in-depth narratives illuminate the context, interactions, complexities, and relationships that affect or shape the case. Bissex (1980), who studied her son's reading and writing, defined a case study as an "attempt to understand another person through enlightened subjectivity" (p. vi). Wilson (1992) considers the case study method to be a process that describes and analyzes comprehensively over time. Case studies by parent researchers have several advantages due to their perspectives as insiders. Their studies cover several years of literacy development, capturing responses that inform and extend the reading act. These case studies use several data-gathering techniques to illustrate the multiple points of view of the child's early literacy development. There is a dearth of longitudinal case studies on parent-child responses to information books during preschool years (Maduram, 2000, 2024). Case studies on children's response to literature are unique in that they bring to the surface--as Clay (1984) writes in her preface to White's diary notes -- "glimpses of the backward and forward flow" between the child's books and life.

Study Design

This parent-child study offers the sociocultural perspective on a child's earliest responses, such as dictations, emergent writing, and drawing, in response to 11 information books. The data for this study is part of the extensive examination of my daughter Amy's responses to 100 information books over three years from ages 3 to 5 to 6 (Maduram, 2000; 1999), particularly the unanalyzed responses such as dictations, drawing, and writing responses to the information books. The rationale behind revisiting the unanalyzed responses was due to the scarcity of research on preschool children's responses to the information book genre and to offer newer perspectives on the significance of these responses in shaping young children's genre knowledge of information books within the social context of a family.

In this study, I analyzed 41 responses to 11 informational books over five months, covering the age range from three years seven months to four years one month. The books covered diverse topics, including plants, animals, insects, places, and fish (refer to Table 1 for details). To understand the significance of each response, they were counted separately, resulting in 19 dictations (46.3%), 12 drawings (29.3%), and 10 writing (24.4%) responses. Some books elicited multiple responses after days, while others had only one response. Dictations to the information books were categorized as dictation with writing and drawing (63%) and dictation without drawing or writing (37%).

The responses to information books occurred after book sharing or after many days of revising the books. All the dictations were taken verbatim, and often, she asked me to read back her dictations. In this study, the translation of her writing is also considered dictation since Amy wanted me to record her writing. The interactions during drawing or writing were documented in detailed journals and field notes, thus providing valuable insights into the context of writing or drawing. Some dictations revealed the comprehensive knowledge of the entire information book, while others were specific, focusing on particular facts that interested her. The content of these dictations varied widely in focus, addressing the attributes or characteristic events varying in length from a single sentence to multiple sentences. (Table 1)

Table 1: Information book topics and the types of emergent responses.

Topic	Emergent Responses – Dictation, Drawing, Writing
Place	<p>Response to <i>Department Store</i> (Gibbons, 1984)</p> <ul style="list-style-type: none"> • Two responses with dictation, drawing, and writing on personal and functional aspects of the department store. The wait time between the responses was 38 days. <p>Response to <i>Life in the Pond</i> (Curran, 1991)</p> <ul style="list-style-type: none"> • One dictation about the frog, its physical attributes, and characteristic events in its life cycle. • One dictation and drawing response about the butterfly and its growth • One dictation, drawing, and writing response on her ‘world view’ of the pond as a habitat.
Animals	<p>Response to <i>Milk Making</i> (Gibbons, 1987)</p> <ul style="list-style-type: none"> • One dictation, drawing, and writing response about a cow eating grass. <p>Response to <i>Baby Bears and Their Growth</i> (Buxton, 1986)</p> <ul style="list-style-type: none"> • One dictation, drawing, and writing response about dens and bear's family life in the dens. <p>Response to <i>Squirrels</i> (Wildsmith, 1987)</p> <ul style="list-style-type: none"> • One dictation about the squirrel’s physical and characteristic events.
Insect	<p>Response to <i>Ladybugs</i> (Bernhard, 1992)</p> <ul style="list-style-type: none"> • Two responses with dictations, drawing, and writing on the life cycle of a ladybug and the final growth of a ladybug on the same day.
Fish	<p>Response to <i>Sharks</i> (Petty, 1985)</p> <ul style="list-style-type: none"> • Two responses with dictations, drawing, and writing to water as a habitat for fishes and sharks. <p>Response to <i>At Home in Coral Reef</i> (Muzik, 1992)</p> <ul style="list-style-type: none"> • One dictation about corals and the polyps • One dictation about sea urchins • One dictation about starfish in the sea
Bird	<p>Response to <i>What is a Bird?</i> (Hirschi, 1981)</p> <ul style="list-style-type: none"> • One dictation, drawing, and writing response on bird’s nest and eggs.
Plant	<p>Response to <i>From Seed to Plant</i> (Gibbons, 1991)</p> <ul style="list-style-type: none"> • One dictation on seeds and growth • One dictation and drawing on the role of wind in plant reproduction. This response was elicited after nine days after the first response. • One dictation, drawing, and writing response about the complete plant growth with flower and sun 23 days after the second response.
Body	<p>Response to <i>Feet</i> (Pluckrose, 1988)</p> <ul style="list-style-type: none"> • One dictation, drawing, and emergent scribbling writing of her feet.

The analysis of 41 responses to 11 information books on genre knowledge was categorized into two groups: (1) responses involving dictation, drawing, and writing, and (2) responses with only dictation. I was interested in how she incorporated the typical genre knowledge elements such as topic Presentation, description of attribute characteristics, events, and summary, and how the second response varied from the first response.

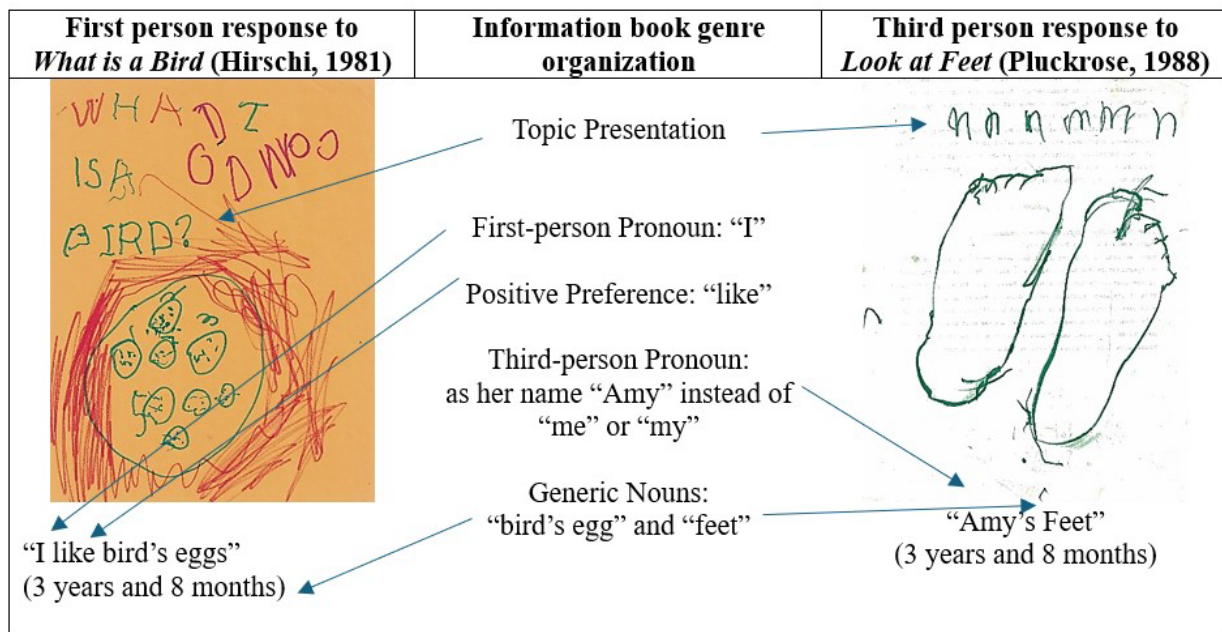
Responses to Information Book Genre Structure through Dictation, Writing, and Drawing

While analyzing the responses to a combination of dictation, drawing, and writing, a set of expressive dictations evolved, and they were different from the other responses to information books.

Expressive Response:

The earliest dictations were expressive, conveying the writer's personal connection to the topic. Expressive writing uses first-person pronouns like 'I' or 'my' to emphasize personal emotions and positive preferences with words such as 'like.' For example, in response to the book "What is a Bird?" (Hirschi, 1987), Amy was most interested in the bird eggs since she had seen nesting birds around our house. Her drawing highlighted significant details, including the twigs used to build the nest, represented by lines, and several eggs within the nest. She counted the eggs, and while they varied in size, they were all speckled. Amy's drawing had little reference to the title of the books, but her expressive writing and matriculas drawing to create the nest with egg shows her emergent content understanding of bird's life as of nest and eggs. She copied the book's title and wrote, "DZODWOO," meaning "I like bird's eggs." (Fig. 1) Amy's response demonstrated that while the book had content on multiple aspects of birds, including their physical features and diet, Amy focused on sharing her interest in birds.

Figure 1: Amy's earliest expressive dictation, writing, and drawing responses to information books.



It is common for young children to develop language that expresses their self-awareness or how they identify themselves. As children as young as three years old begin to speak or write, they also refer to themselves with third-person pronouns to express their thoughts. This form of addressing the self in the third person is visible only briefly in Amy's early writing. By 4 to 5 years old, Amy, like other young children, used the first-person pronouns correctly.

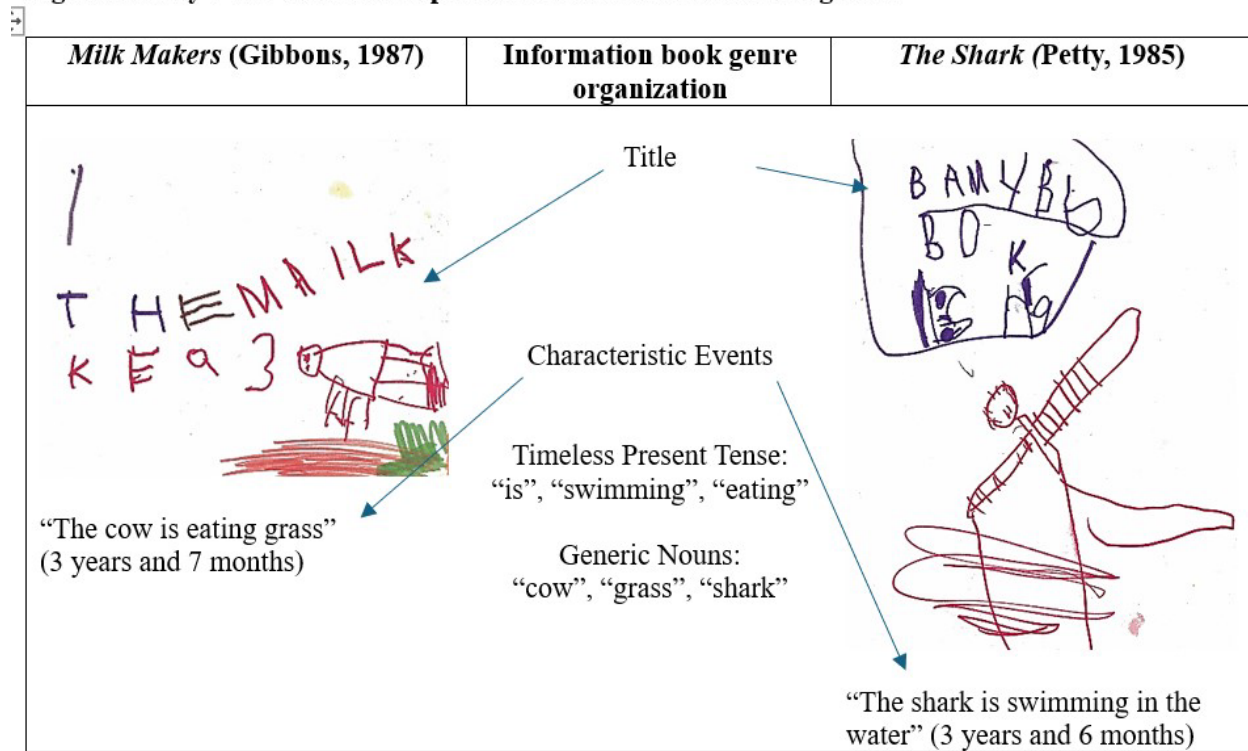
In this study, in a few responses, Amy identified herself as 'Amy' in the third person pronoun. Studies show that name-writing is a significant development in preschoolers (Byington & Kim, 2017; Puranik & Linigan, 2012). Instead of writing 'I,' Amy dictated or wrote her name in her response to other books such as "Amy's bean plant," "This is Amy's ladybug," and "Amy's flower coat."

The information book *Look at Feet* by Pluckrose (1988) began with the text, "Have you ever looked closely at feet?" In her response to the book, Amy traced her feet on a sheet of paper (Fig 1) and wrote in prelitererate scribbling, "Amy's feet." The writing or drawing did not take much time, and she was finished without much effort or help from the book or anyone else. The drawing of the feet was a pictorial representation of her emerging understanding of the foot book. Although the book had other information, such as marathon races and how ligaments hold the bones, she focused on personalizing the concept of her own feet. The writing allowed her to be spontaneous without being constrained by the conventional language structures.

Assessing Responses on Dictation, Writing, and Drawing

Apart from expressive writing, other responses varied from one sentence to a paragraph. All the dictations were complete sentences on the books or topics she read. The single-sentence responses mainly described the characteristic event of the topic. (Figure 2) For example, in her response to *The Milk Makers* (Gibbons, 1987), Amy copied the title and drew a red cow grazing on orange and green grass. She dictated that "The cow is eating grass" using the present tense (is, eating) and generic noun 'cow.' As an emergent writer, the 'R' looked like '9', and the 's' looked like '3.' The book was mostly about milk and milk products, yet she chose to write about the cow as it was on the book cover. In her response, she used timeless present tense as "is" and "eating" and generic nouns as "cow" and "grass."

Figure 2: Amy's one-sentence responses to the information book genre.



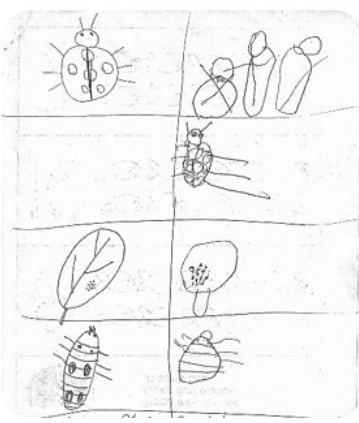

In response to the book *Sharks* by Petty (1985), Amy's drawing elicited two different responses. The first response focused on water as an aquatic habitat for fish, with the drawing depicting fish and lines to represent water. It began by connecting two concepts – water and fish- to describe the aquatic habitat. Her written response in stringed letters was "D600F13 HDDDD," which meant "Fish is inside water." In her second response, Amy shifted her attention to the book's purpose, which centered on sharks (Fig 2). She drew a shark with accompanying lines to represent water and a detailed depiction of the

shark's head with lines representing its teeth. As a preschooler, she was fascinated by the teeth of the fierce predator. Her stringed letter written response, "BAM4B6 BOK H9," was dictated as "The shark is swimming in the water." These two responses broadened her understanding of aquatic habitats and the characteristics event of a shark's life. Notably, both writings used the timeless present tense, such as "is," "swimming," and generic nouns, such as "fish," "water," and "shark."

Longer dictations to information books were more elaborate and detailed on the topic (Figures 3 and 4 for details). As with other responses, dictation freed her from struggling to put words on paper and express her elaborate knowledge on paper. The responses demonstrated that even as a young child, Amy was aware of the genre structure in response to information books.

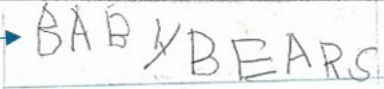

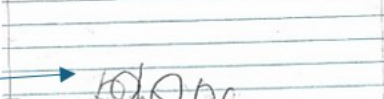
In Figures 3 and 4, Amy's longer dictation of the ladybug and the dens illuminates Amy's emergent understanding of the global structure by copying the titles *Baby Bears* (Buxton, 1985) and *Ladybug* (Bernhard, 1992). Amy's writing about ladybugs was accompanied by her drawing of the ladybug's life cycle with egg, larva, pupa, and finally, ladybug. Understanding the sequences in the lifecycle of the ladybug was essential for the growth details as depicted in the life cycle. Unlike growth in humans, based on size, growth in ladybugs or butterflies has a pause for metamorphosis. My three-year-old Amy initiated a discussion on the metamorphosis process in the lifecycle of a bug, particularly when the caterpillar disappears into the pupa. The information book did not elaborate on the gradual but complex growth process from pupa to butterfly, and she wanted to know what happens inside the 'dark place.' Here, her questions on the concepts presented in the book created a disequilibrium. The scaffolding and discussions extended the growth stages to each stage of a ladybug's life cycle, as in her drawing in Figure 3.

Figure 3: Amy's extended dictation, writing, and drawing responses to the information book genre.

<i>Ladybug</i> (Bernhard, 1992) 1 st drawing of life cycle	Information book genre organization	<i>Ladybug</i> (Bernhard, 1992) 2 nd drawing
 <p data-bbox="219 1606 592 1774">It lays eggs. Then, the pupa grows out of it. Then it lays its eggs. When winter comes, it finds a good place to rest and sleeps on a tree.</p>	<p data-bbox="779 1218 844 1249">Title</p> <p data-bbox="706 1312 925 1344">Topic presentation</p> <p data-bbox="673 1417 958 1449">Description of Attributes</p> <p data-bbox="690 1512 941 1543">Characteristic Events</p> <p data-bbox="673 1585 958 1648">Timeless Present Tense: "is," "has," "growing."</p> <p data-bbox="690 1680 941 1743">Generic Nouns: "it," "winter", "tree"</p>	 <p data-bbox="1031 1596 1307 1627">This is Amy's ladybug.</p> <p data-bbox="1031 1669 1404 1795">The ladybug has three legs on each side. It is red and has black dots. It has a big antenna. It has scary, bubbly eyes.</p> <p data-bbox="1031 1827 1307 1858">(4 years and 0 months)</p>

In Figure 3, the topic presentation was “This is Amy's Ladybug.” Amy's dictations were sensitive to the ladybug's physical attributes: "The ladybug has three legs on each side. It is red and has black dots. It has a big antenna. It has scary, bubbly eyes" (Bernhard, 1992). This elaborate dictation occurred after drawing the lifecycle of the ladybug and a larger ladybug. The characteristic events related to its growth include eggs, pupa coming out, and winter hibernation. Amy also used present tense verbs such as “is,” “has,” “lays,” “grows,” “comes,” “finds,” and “sleeps” in her dictations.

Figure 4: Amy’s extended dictation/writing/drawing responses to the information book genre.

Information book genre organization	<i>Baby Bears and How They Grow</i> (Buxton, J.H., 1985)
Title	
Topic Presentation	
Description of Attributes	
Characteristic Events	Den is a place where bears sleep and eat their fish.
Timeless Present Tense: “is”, “go”, “comes”	The den has a baby and a mommy—one baby and two babies so they won't get cold. When the snow comes, baby bears go into the den.
Generic Nouns “bears”, “deb”	(4 years and 1 month)

In Figure 4, on the life of bears, the dictation showed her sensitivity to information book genre structures. Her title, “Baby Bears,” was copied from the book. She focused on the dens rather than other facts about the bears. She defined dens as “places” for the bear to “sleep” “eat,” hibernate, give birth, and be a safe place in winter. The details of the characteristic events in the life show her understanding of the life of bears and the genre elements of timeless present tense.

In both examples, Amy consistently used timeless present tense verbs such as "is," "has," "lays," "grows," "comes," "finds," and "sleeps" in her dictations. She also used generic nouns such as "it" and "they." Amy's dictation demonstrates Amy's complete understanding of the life cycle of the ladybugs as well as her sensitivity to the "blueprint" of the information genre, even though she was unable to write it down. Thus, the analysis of Amy’s response to the information book through dictation, writing, and drawing demonstrates her awareness of the genre of global organization and linguistic features.

Dictation without Illustrations or Writing

In this study, dictation served as a method to narrate thoughts or knowledge to adults, focusing on the content rather than the mechanics of writing or drawing. Research on interactive writing or ‘sharing the pen’ considers dictation a developmentally appropriate method for preschoolers and valuable in modeling writing and reading skills. (Emerson & Hall, 2018; Hall, 2016, 2019). Amy’s dictations reflected the content or specific parts of the information book that were of interest.

Figure 5: Dictation without illustration or writing. Amy’s first of the three responses to *From Seed to Plant* (Gibbons, 1981).

Dictation	Information book genre organization
The plant is inside the seed.	Topic presentation
It grows bigger and bigger and grows and grows. Then the seed plops down. Then it gets some more seeds	Characteristic events
And then it grows bigger and bigger. (3 years and 9 months)	Summary Timeless present tense "is", "grow", "gets" and "plops" Generic nouns "seed", "it" and "plant"

The books with detailed text and illustrations of seeds facilitated her emergent understanding of the functions of seeds in the lifecycle of plants. In her first dictation, she described the topic presentation as "The plant is inside the seed," a rephrased version of the original text. What intrigued her was that seeds are not mere shells but have the ‘beginnings of the plant’ inside them. This novel concept enriched her understanding of the seeds. The profound statement offered a glimpse of her emergent understanding of plant growth.

Amy’s sensitivity to content-based genre knowledge was evident in the extensive details she added to the characteristic events. Amy did not describe the attributes of the seed in the dictation. However, the characteristic event of growth was described by emphasizing words such as “grows” and ‘grows,’ ‘bigger’ and ‘bigger.’ In her dictation on the characteristic events in the plant, Amy dictation revealed the continuity in understanding the general patterns in the plant growth as growing “bigger” and seeds falling off for new growth. Amy used the timeless present tense in her dictation, including words like "is," "grow," "gets," and "plops," as well as generic nouns like "seed," "it," and "plant." Despite being short, the dictation included specific details of plant growth through seeds, demonstrating her emerging understanding of plant growth. This analysis of longer dictation on plant growth demonstrates her emergent understanding of the genre structure with topic presentation and characteristic events, use of timeless present tense and generic verbs, and her content knowledge of plant growth.

The analysis of her longer dictation on plant growth shows her developing comprehension of the global genre structure, including topic presentation, characteristic events, and content knowledge of plant growth. Her dictations also show her emergent linguistic features using timeless present tense and generic verbs.

Figure 6: Short Dictation without illustration or writing

Dictation	Information book genre organization	Dictation
The frog likes bugs and flies.		It is a sea urchin,
The frog has big eyes.		The sea urchin swims in the water. It bites crabs.
The frog could jump, jump.	Topic Presentation	
{ 3 years and 11 months }	Description of Attributes	The starfish is in the sea. When it goes in the sea, the big fish bites the starfish. Then the starfish is coming to die.
The squirrels eat pinecones. The squirrels want something to eat.	Characteristic Events	
It is warm because it has hair.	Timeless Present Tense	Corals: These are colored corals. They are even green.
The acorn is always cracking, but the squirrel can eat some.	“likes,” “has,” “eat,” “want,” “is,” “swims,” “bites,” “goes,” “coming,” “are,” “have,”	They have lots and lots of polyps inside them. They have tiny stuff inside them.
(3 years and 11 months)	Generic Nouns:	(3 years 10 months)
	“frog,” “squirrels,” “corals,” “starfish”	

While some dictations focused on the broader understanding of the book, others focused on the specific facts that interested her based on revisits and discussions. For instance, in her response to the book on Squirrel (Wildsmith, 1987), she ignored most of the facts about the squirrel's physical attributes or characteristic events, such as how squirrels live, climb trees, or swim. However, Amy's multiple questions focused on the reality that squirrels like to eat bird eggs, illustrated in the book by an unhappy bird and a squirrel holding a bird's egg. Amy questioned if the squirrel was eating the egg with the baby bird inside. It indicated her awareness of growth inside the bird egg. In her dictation, she focused only on other foods, such as pinecones and acorns. In this dictation list (Figure 4), I included her dictation on frogs and animals living in coral reefs, which was facilitated not just by the information book but also by a documentary on coral reefs and other books on coral reefs. Amy used the vocabulary polyps multiple times at home to show her knowledge of coral life.

In summary, the responses to the information books, such as dictations, writing, and drawing, were both developmental and involved multiple modes of communication. The verbal cues from the text, visual cues from the illustrations, discussions, life experiences, and other books facilitated her to recreate her understanding of the text. As a curious child, Amy enjoyed reading information books, and even at a young age, she understood genre knowledge, including topic presentation, description of attributes, and characteristic events. I analyzed both longer dictations and one-line responses, all of which showed her understanding of the structure and linguistic features of the genre.

Additional Observations

Concepts are the fundamental building blocks of our thinking and provide a foundation for more complex cognitive processes. Amy's responses - dictation, writing, and drawing - require subskills, such as choosing and organizing thoughts before dictation, understanding how to represent thoughts through drawing, and understanding emergent writing forms before writing. Within our family context, Amy's

emergent drawing and writing responses were encouraged and appreciated by her older siblings and others. In this section, I highlight the continuity in content learning in response to the information book within the social context of the family on processes, such as (1) the significance of genre shifts, (2) the significance of wait time, and (3) the significance of second responses.

The Significance of 'Genre Shifts'

Book sharing was a familiar routine in our family, and we read varied genres. Unlike the story genre, the information book genre offers facts about an animal or bird, describing its physical attributes and characteristic events in its life cycle. So, for a young child like Amy, the content conflict created the need for 'genre shifts' that involved questions and discussions to internalize the new information. For example, for a young child who enjoyed listening to classic stories on bears, such as Goldilocks and the Three Bears, her habitat concept was depicted as involving talking animals, living in houses or trees, and having a human-like lifestyle. Reading the information book "Baby Bears and How They Grow" (Buxton, 1985) and visiting bears in the zoo illuminates the reality of real bears' lives and their natural habitats. In our first reading about baby bears, Amy was quite perplexed that the dens were mud holes on the forest floor or ice holes dug into a snowdrift, and the dens were not furnished like her home. Her dictation, "Den is a place where bears sleep and eat fish," was part of internalizing the book concepts and restructuring the schema of bears' habitat along with a broader purpose of hibernation, giving birth, and a safe place in winter. The "genre shift" in acquiring genre knowledge is essential for young children to enjoy different genres. Many other book discussions challenged her thinking and led to interesting conversations within the family.



The Significance of Wait Time

Young children are curious about the physical world, and allowing a delay or wait time to process the information is crucial to their cognitive development and understanding the content in response to the information book genre. In this study, I focused on Amy's multiple responses to a few books and the 'wait time' or delayed response to answer the question: How significant is the wait time in cognitive development?

First, wait time activates prior knowledge or experiences related to the book's topic. When reading books, Amy used to say, "I know," followed by a list of things related to the topic. As a three-year-old, Amy had prior knowledge of maple tree seeds flying in the air in spring, bees buzzing over flowers, and so forth. However, Gibbon's *From Seed to Plant* (1981) focused on the complex growth cycle, which increased her domain knowledge. Allowing children to read books more than once also increases prior knowledge. Amy's initial dictation after revisiting the book revealed her assimilation of the concept that "The plant is inside the seed," which indicates a gradual understanding of the purpose of the seed in the plant life cycle.

Secondly, the waiting period promoted the negotiation process to bridge the gaps between concepts and reconstruct a new schema for understanding plant life at her own pace. In the following two examples, there was a 36-day wait time between the two responses. When revisiting the book, the illustration of dandelion fluff carried by the wind initiated her understanding that wind is an agent in pollination and seed distribution and added a new dimension. Consequently, she drew two sunflowers with seeds represented as circles and multiple lines over the flower to represent the movement of the wind. This illustration demonstrated her ability to negotiate in the knowledge process and reconstruct her understanding of plant life.

Figure 7: Wait time in responses to “From Seed to Plant” (Gibbons, 1981)

2 nd Response	Information book genre organization	3 rd Response after 36 days
 <p data-bbox="219 882 641 1018">“The wind is blowing. Seeds are growing bigger and bigger. The seed is falling on the other flower. Seeds are like eyes.”</p> <p data-bbox="219 1050 479 1081">(3 years and 9 months)</p>	<p data-bbox="722 630 950 661">Topic Presentation</p> <p data-bbox="690 693 982 724">Description of Attributes</p> <p data-bbox="714 787 958 819">Characteristic Events</p> <p data-bbox="698 861 974 987">Timeless Present Tense: “is,” “are,” “growing,” “falling,” “has,” “shining”</p> <p data-bbox="747 1029 925 1081">Generic Noun: “seed” “flower”</p>	 <p data-bbox="1015 724 1372 787">~ A O O Z O O Z P P</p> <p data-bbox="1015 871 1404 1008">“Amy’s Potato Plant It has flower. A big orange flower and has a sun. The sun is shing on the potato plant.”</p> <p data-bbox="1015 1039 1291 1071">(3 years and 10 months)</p>

Finally, after the 36-day wait, she was able to connect simple concepts like sun, water, and mud to gain a broader understanding of plant growth (Figure 6). Young children like Amy could benefit from 'wait time' to process information cognitively and engage in social interactions to confirm their conceptual knowledge. Furthermore, the delays in responses within the socio-cultural context of our home, with no time constraints, allowed her to turn the delays into new paths of cognitive development.

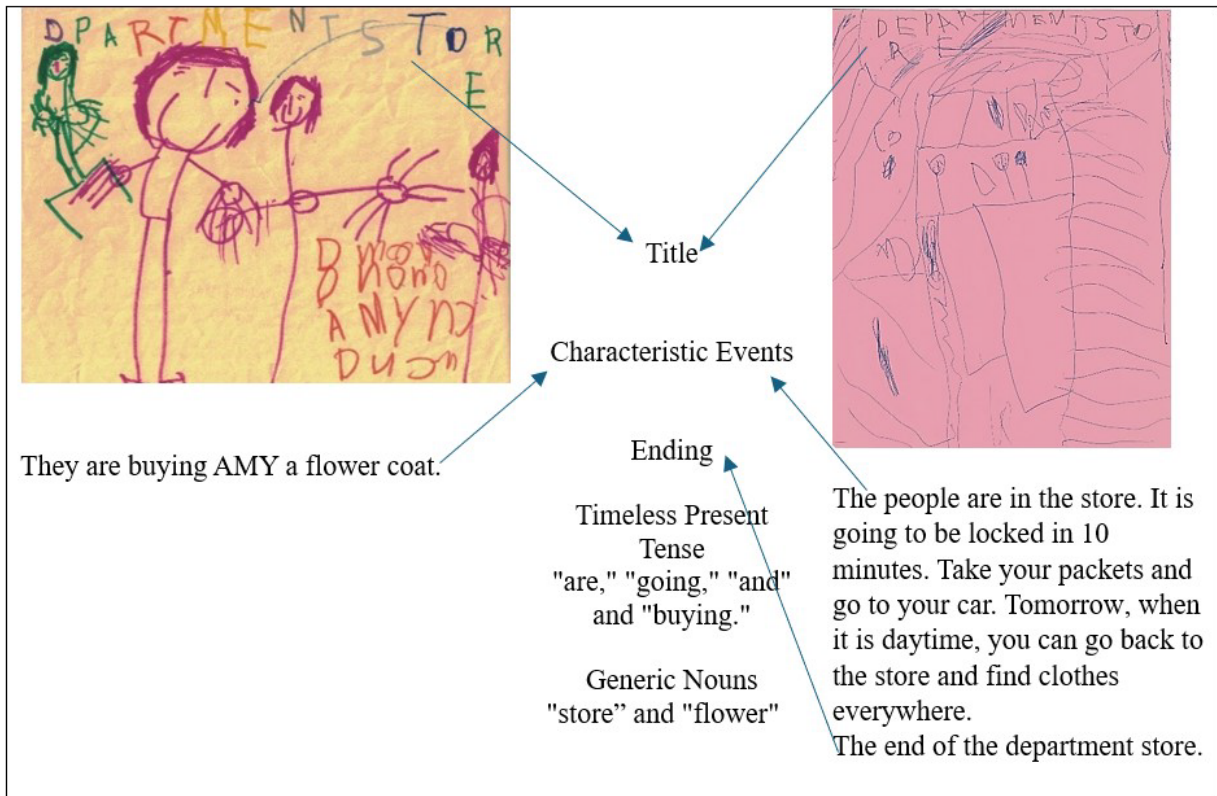
The analysis of the dictations on the two responses also indicated that Amy was aware of the information's genre organization and linguistic features. In the second response, Amy used timeless present tense, such as “is,” “are,” and “growing.” Her sensitivity to genre organization included descriptions of attributes (“Seeds are like eyes” and “big orange flower”) and characteristic events describing the wind’s role in the life of plants and the role of mud and sun in the growth of potato plants.

The Significance of Second Responses

The analysis of responses to informational books included multiple reactions to the same books, such as *The Department Store* (Gibbons, 1984), *Sharks* (Petty, 1985), *Ladybug* (Bernhard, 1992), and *From Seed to Plant* (Gibbons, 1991). Young children enjoy revising books and initiating discussions on the text and illustrations. These varied second and third responses to the same book provide insights into how these responses show continuity in her learning process.

Amy drew two responses to Gibbon’s (1984) *Department Store* and created the second drawing after 36 days of the first. The analysis of the two responses demonstrated a shift from personal and interactional functions to the representational function of the purpose of the department stores. During the first response, Amy needed a new coat, and we took her to the mall; she could relate to the book in the number of shops in the store and the kinds of merchandise the department store had.

Figure 8: Responses to *Department Store* (Gibbons, 1984)



In her first response (Figure 8), she copied the book's title and drew on her experience in the store. In her second response, she drew a map of the department store with a dictation: "The people are in the store. It is going to be locked in 10 minutes. Take your packets and go to your car. Tomorrow, when it is daytime, you can go back to the store and find clothes everywhere. The end of the department store."

The dictations and writing in both responses indicated sensitivity to the information book genre, such as the title and the characteristic events of the store closing and coat buying. There was a timeless present tense, such as "are," "going," "take," "go," and "find." Without a set curriculum, the delay in responses to 38 days gave Amy time to revisit books and draw her responses on content relevant and applicable to her life experiences.

In summary, the process through which young children acquire content and conceptual knowledge is dynamic, complex, and often hidden. Taking a sociocultural perspective, I analyze Amy's responses to demonstrate the continuity in the emergence of conceptual knowledge and, ultimately, cognitive development. Factors such as facilitating shifts in genre due to the purpose of information books, allowing wait time for children to process the content at their own pace rather than that of a fixed curriculum, and revising the books for multiple responses all illustrate how the structure of information book genres contributes to the acquisition of both genre and content knowledge.

Final Thoughts on the Study

From a sociocultural perspective, I analyzed dictation, writing, and drawing as responses to information to demonstrate emergent genre knowledge. The analysis of responses offered a new understanding of the emergence of genre structure and the acquisition of emergent conceptual knowledge in response to informational books. These two purposes are interconnected and interdependent and, hence, examined together. The drawing, dictation, and writing responses to information books in this case

study suggest that young children's earliest responses are significant in understanding the emergent responses to the structure of the information book genre. Revisiting my thesis resulted in my understanding that these emergent responses were significant. Though this study had the limitation of a case study and one child's responses to the information book genre, it invites similar studies to examine preschool children's emergent responses to the information book genre.

As a preschooler, Amy's spontaneous drawing of the concepts presented in the books involved the symbolic representation of concepts in the books. They were interesting since these drawing responses were frames of thought that provided a window into Amy's broader understanding of the world from a child's perspective. They also offered insights into her meaning-making processing of significant concepts, including lifecycle, growth, habitat, and abstract and concrete ideas. Through rudimentary lines and shapes, Amy conveyed her comprehension of plant growth, aquatic habitats, and the lifecycle of ladybugs. While this study does not include all her drawings, they also exemplify her understanding of the concepts and content presented in the books. As a preschooler, she needed adequate time to process information to initiate genre shifts and transition from personal to the book's purpose, particularly within the familiar and social context.

While the study focused only on Amy's first six months of early development from ages three years and six months to four years, I documented her progress in oral, written, and drawing responses until she was six. They reveal the complexity and continuity of meaning-making in language and literacy development. Amy's continued writing and drawing to information books impacted other aspects of literacy, such as vocabulary, comprehension, fluency, world knowledge, and gaining knowledge on several broader topics such as habitat, growth shifts, etc. Amy progressed from simple sentences to mini multi-page books with writing and drawings on her favorite topics, highlighting her continuity in genre knowledge. Overall, this study provided rich and valuable insights into dictation, drawing and emergent written responses to the genre, and acquiring content knowledge in response to the information books genre.

Table 2: Tips for Parents and Early Childhood Teachers

- Select information books that are developmentally age-appropriate with global organization and linguistic features.
- Reinforce positive attitudes and generous appreciation, engage in topic-related conversations, and model writing.
- Evaluate the sociocultural context of the environment to facilitate learning.
- Follow the child's crumbs and curiosity in a continuous journey of exploring the world.
- With digital shifts in literature, evaluate them for content before sharing.
- Evaluate the pace of structuring learning and curriculum and set a slower, more meaningful pace for young learners.
- Develop new ways to create unique learning paths for emergent learners that align with each student's development and sociocultural context.

Engaging parents as researchers in emergent literacy is a powerful approach that leverages their unique insights and deepens their involvement in their children's literacy development. I have included a few tips for parents, caregivers, and early childhood teachers on sharing information books with young children (Table 2). By observing, documenting, and reflecting on their children's literacy activities, parents can enhance their understanding, improve the home literacy environment, and contribute to broader educational research.

References

- Bissex, G.L. (1980). *Gys at wrk: A child Learns to Read and Write*. Cambridge, MA: Harvard University Press
- Bradley, L. G., & Donovan, C. A. (2010). Information Book Read-Alouds as Models for Second-Grade Authors. *The Reading Teacher*, 64(4), 246–260. <http://www.jstor.org/stable/40962075>
- Byington, T. A., & Kim, Y. (2017). Promoting Preschoolers' Emergent Writing. *YC Young Children*, 72(5), 74–82. <https://www.jstor.org/stable/90015861>
- Clay, M. (1987). *Writing Begins at Home: Preparing Children for Writing Before They go to School*. Portsmouth, NH: Heineman.
- Donovan, C. A., & Smolkin, L. B. (2011). Supporting Informational Writing in the Elementary Grades. *The Reading Teacher*, 64(6), 406–416. <http://www.jstor.org/stable/41203424>
- Donovan, C.A., & Smolkin, L.B. (2002). Considering Genre, Content, and Visual Features in the Selection of Trade Books for Science Instruction. *The Reading Teacher*, 55(6), 502–520
- Duke, N.K., & Bennett-Armistead, V.S. (2003). *Reading and Writing Informational Texts in the Primary Grades*. New York, NY: Scholastic.
- Emerson & Hall. (2018). Supporting Preschoolers' Writing Identities in the Scribbling Phase. *The Reading Teacher*, 72(2), 257–260. <https://doi.org/10.1002/trtr.1699>
- Hall, A. (2016). Sustaining Preschoolers' Engagement during Interactive Writing Lessons. *The Reading Teacher*, 70(3), 365–369. <https://doi.org/10.1002/trtr.1521>
- Hall, A. H. (2019). Preschool Interactive Writing Instruction: Inviting Emergent Writers to Share the Pen. *YC Young Children*, 74(5), 78–83. <https://www.jstor.org/stable/26842312>
- Heath, S. B. (1983). *Ways with words: Language, life, and work in communities and classrooms*. Cambridge: Cambridge University Press.
- Lenders, W. (2013). Fracturing Writing Spaces: Multimodal Storytelling Ignites Process Writing. *The Reading Teacher*, 57(3), 227–237. doi: 10.1002/TRTR.1210
- McCarrier, A., Pinnell, G. S., & Fountas, I. C. (2000). *Interactive Writing: How Language and Literacy Come Together, K–2*. Heinemann.
- Maduram, I. & Pappas, C. C. (1999). *A young child's responses to information books: An analysis of Child-initiated questions during three years of parent-child book-sharing events*. [Paper presentation] American Educational Research Association, Montreal, CA.
- Maduram, I. (2000). *Living with Literature: A Case Study of a Preschooler's Response to the Information Book Genre*." Thesis (Ph. D. in education) --University of Illinois at Chicago.
- Maduram, I. (2000). "Playing Possum": A Young Child's Responses to Information Books. *Language Arts* 77.5, 391–397.
- Maduram, I. (2024, March 14). *The Emergence of Genre Knowledge in Written Response to Information*

Book Genre. [Paper presentation] International Round Table at Oxford, UK.

- Moses, L., Serafini, F & Loyd, S. (2016). Looking Closely at Information Text: Considering the Role(s) of Mentor Texts for Kindergarten Children, *Journal of Research in Childhood Education*, 30(4), 529-39
- Neuman, S. B., & Roskos, K. (2012). Helping Children Become More Knowledgeable through Text. *The Reading Teacher*, 66(3), 207–210. <http://www.jstor.org/stable/23321280>
- Neumann, M.A., Hood A.E. & Neumann, D. (2009). The Scaffolding of Emergent Literacy Skills in the Home Environment: A Case Study, *Early Childhood Educ J*, 36, 313–319.
- Pappas, C.C. (2006). The Information Book Genre: Its Role in Integrated Science Literacy Research and Practice. *Reading Research Quarterly*, 41(2), 226–250. <https://doi.org/10.1598/RRQ>
- Pappas, C.C. Pettigrew, B. (1998-01). The Role of Genre in the Psycholinguistic Guessing Game of Reading. *Language Arts*, 75(1), 36-44.
- Pappas, C. C., Varelas, M., Gill, S., Ortiz, I., & Keblawe-Shamah, N. (2009). Research Directions: Multimodal Books in Science-Literacy Units: Language and Visual Images for Meaning Making. *Language Arts*, 86(3), 201–211. <http://www.jstor.org/stable/41483527>
- Pentimonti, J.M., Zucker, T.A., Justice, L.M., & Kaderavek, J.N. (2010). Informational Text Use in Preschool Classroom Read-alouds. *The Reading Teacher*, 63(8), 656–665. <https://doi.org/10.1598/RT.63.8.4>
- Puranik, C.S., & C.J. Lonigan. (2012). “Name-Writing Proficiency, Not Length of Name, Is Associated with Preschool Children’s Emergent Literacy Skills.” *Early Childhood Research Quarterly* 27 (2): 284–94.
- Puranik, C. S. (2011). Contribution of Emergent Literacy Skills to Name Writing, Letter Writing, and Spelling in Preschool Children. *Early Childhood Research Quarterly*. 26(4), 465-474.
- Robinson, A. (2020). Responding to Informational Texts Across the Efferent - Aesthetic Continuum in Preschool. *The Reading Teacher*, 74(3), 265–274.
- Segal, A., Howe, N., Persram, R. J., Martin-Chang, S., & Ross, H. (2018). “I’ll Show You How to Write My Name”: The Contribution of Naturalistic Sibling Teaching to the Home Literacy Environment. *Reading Research Quarterly*, 53(4), 391–404. <http://www.jstor.org/stable/26622526>
- Stead, T. (2014). Nurturing the Inquiring Mind through the Nonfiction Read-Aloud. *The Reading Teacher*, 67(7), 488–495. <https://doi.org/10.1002/trtr.1254>
- Vygotsky, L. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.
- Wilson, S. M. (1992). A case concerning content: Using case studies to Teach about subject matter. In Lee S. Shulman (Ed.) *Case methods in teacher Education*. New York: Teacher College Press.
- Wood, C. (2002). Parent-Child Activities Can Affect the Development of Literacy Skills. *Journal of*

Research in Reading, 25, 241–258. doi: 10.1111/1467-9817.00173.

Yopp, R.H., & Yopp, H.K. (2012). Young Children's Limited and Narrow Exposure to Informational Text. *The Reading Teacher*, 65(7), 480–490. <https://doi.org/10.1002/TRTR.01072>

APPENDIX
Children's Literature

- Bernherd, E. (1992). *Lady Bug*. New York: Holiday House Books.
- Buxton, J. (1986). *Baby Bears and How They Grow*. NY: National Geographic Society.
- Curran, E. (1985). *Life in the pond*. Mahwah, New Jersey: Troll Associates
- Hirschi, R. (1990). *What is a bird?* New York: Walker company
- Gibbons, G. (1991). *For Seed to Plant*. New York: Holiday House.
- Gibbons, G. (1984). *Department store*. New York: Crowell
- Gibbons, G. (1987). *Milk Makers*. NY: Simon & Schuster
- Muzik, K. (1992). *At Home in Coral Reef*. MA: Charlesbridge.
- Petty, K. (1985). *Sharks*. NY: Franklin Watts
- Pluckrose, H. (1988). Look at Feet. New York: Franklin Watts.
- Wildsmith, B. (1975). *Squirrels*. New York: Franklin Watts Inc.