THE LINKAGES ACROSS LISTENING, SPEAKING
READING, DRAWING AND WRITING

by

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(ABSTRACT)

This investigation examined the linkages between and across the language processes of listening, speaking, reading, drawing and writing as well as the meanings displayed within and across these modes in children's response to story. Eight first grade children whose reading levels represented a range of low to above-average ability participated in four individual storyreading sessions for a total of 32 sessions. Each session was twenty-to-thirty minutes in length and took place during the class's reading/writing period. Drawing/writing samples, field notes, and videotapes and audiotapes were collected over a six week period. The drawing/writing composing sequence was recorded for each story and flow charts were made depicting each child's pattern of movement between and across language
processes. The flow charts were used to examine the
language process usage and linkage patterns evident in the
movement between and across modes.

The kinds of meanings examined included response to
conference questions, functions of language displayed during
the drawing/writing, and the coherence and specificity
present in the story retellings and picture stories.

The results of the study indicated that no one
particular language process was chosen exclusively to
convey meaning in response to story. Some linkage patterns,
described as simultaneous or sequential, did occur more
frequently than others. The simultaneous linkage pattern of
talking/listening and drawing/picture reading was a common
pattern displayed by both the high and low ability groups.

An analysis of the response to conference questions
revealed some awareness by the children of their
drawing/writing composing strategies. Another aspect of
process knowledge, concept of story, was seen in the
analysis of the initial image drawn or written by each
child. The functions of language displayed during the
drawing/writing composing process were identified as
informational, procedural, and format-regulatory. The
concept knowledge, examined in terms of coherence and
specificity, was characteristic of the categories described as skeletal and interpretational for both groups' story retellings and picture stories.

This study suggested that children differ in the way they use the language processes to display meaning in response to story. Parallels were drawn in examining children's thinking processes across the modes. This study supports the notion that recognition and understanding of the various ways children communicate meaning can help educators in their roles as facilitators of language learning.
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I would also like to thank the SAU#48 School District for their support of my study. My special gratitude to , who took the time in her teaching to listen, work, and enjoy the study of children's reading and writing development. I am grateful to for sharing her classroom with me in this study.

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CHAPTER I
INTRODUCTION

Children are asked everyday in classrooms to respond to and make sense of print in their environment. This construction of meaning by children can take many forms, such as talking, drawing, and/or writing about a story that was presented. Young children use the language processes of listening, speaking, reading, drawing and writing to explore meaning and demonstrate their understanding of print. Language is the medium for this expression and reception of meaning. Meaning, as stated by Harste, Woodward, & Burke (1985), "is not something inherent in the print, but created in and through interaction" (p.169). Young children are actively engaged in investing time, thought, and energy in practicing, refining, and developing new strategies in their roles as meaning-makers and meaning-seekers in language learning.

In looking at children's efforts in the classroom to organize and make sense of print, one can observe how children display their knowledge and delight in using language, and their need to communicate personally meaningful messages. Language plays an essential role in the culture of childhood, according to Goodman (1970), for it is through language that a child's perceptions and reflections of the world are revealed.

The notion of capturing and exploring children's ability to communicate meaning became of special interest to this researcher while tutoring first graders (twins) with limited English proficiency three years ago. In evaluating what this little girl and boy knew about...
language, it became apparent in my preliminary case studies that drawing was an important language used by the children, especially the little boy, in responding to a variety of classroom activities. The children's drawings were a pictorial language which provided some clues as to what meaning the children were creating from their experiences. But, like the story of The Little Prince, the children's drawings were often overlooked by teachers who did not recognize or appreciate their value as language. Drawing was not "counted" as a source of information about young children's language learning.

Language learning involves making connections between prior knowledge and new ideas. Young children use a complex repertoire of strategies to construct meaning and drawing is one of these strategies. The language processes of listening, speaking, reading, drawing and writing are the "communicative media" (Temple & Gillet, 1984) children use to construct meaning.

However, despite this recognition, the language processes in general continue to be isolated by teachers in their instruction (Allen, Brown, & Yatvin, 1986) and by researchers in their study of language learning (Parker, 1983). Holdaway (1979) alluded to this problem when he stated that

A traditional error of thinking about reading and writing was to see them as discrete subjects isolated from the world of language and spoken culture, and then to teach them as if they had no relationship to listening and speaking. Although lip service has been given to remedying this mistake in recent
years, the habit of regarding reading, writing, spelling and
written expression as separate subjects is so deeply
entrenched that they continue to be taught in little
relationship to each other or to oral language (Holdaway,
1979, p.12).

The major development in the language education field for the past
decade has been the growing insights about the various links among the
language arts. The trend, according to Dillon (1984), is toward seeing
the language arts as different manifestations of the same sense-making
experience and the classroom teacher as the learner and sharer of those
insights from children.

Recognition of children's demonstrations of communicative media
strategies is a central theme in several research studies. The studies of
Harste, Woodward, & Burke (1985) and Bissex (1980) illustrated children's
beginning writing and reading strategies at the preschool level. Dyson's
(1986) research included study of these language processes and added
drawing in examining the meanings preschool and kindergarten children
expressed in their talking, drawing, and writing. Graves (1983)
described drawing as an integral component in children's writing develop-
ment in the early elementary grades and discussed talking and drawing as
a form of rehearsal for composing. Hansen (1987) built on Graves'

Further investigations of the relationships among the language
processes have focused on the common core of knowledge and routines young children systematically use in their construction of meaning. The linkage between talking and writing and children's ability to produce cohesive writing was described in the lexical analyses in the longitudinal study of King & Rentel (1981). The text structures present in the writing and story retellings of eight, eleven, and fourteen year old students were investigated by Langer (1986), whose study explored the kinds of knowledge and strategies used to convey meaning. Proctor (1987) described the uses of narrative in terms of the elements of talking and symbolic media (movement, play, drawing, writing, gestures) to show how children at this level structure meaning.

These studies provided information about the nature of some of the relationships between and among specific language processes. Some descriptions are given of strategies children use to convey meaning within and across a few of the language processes. There appears to be a lack of case studies of the same children using different language processes to convey meaning.

The idea inherent in the studies is that there are multiple levels and forms of communicating meaning. When young children are allowed the opportunity to use multiple means of expressing meaning, which mode or modes of expression do they use? Is there a routine or pattern in the linkages between and among the language processes of listening, speaking, reading, drawing and writing? What meanings are displayed in young children's story retellings and picture stories?

It is the underlying assumption of this study that recognition and
understanding of the various ways young children, specifically first
graders, display meaning can help educators in their role of understand-
ing and supporting children's language learning. It is the purpose of
this study to examine young children's use of the language processes of
listening, speaking, reading, drawing and writing and describe a
framework for looking at the meanings displayed in story retellings and
picture stories.

Statement of the Problem

The problem this descriptive study examined concerned how young
children, in responding to stories, construct and explore meaning by
making connections between and across the language processes. The focus
of this research was the study of the thinking processes across the modes
as expressed in response to story. An objective of the study was to look
at how young children use language to display their thinking in a typical
activity involving listening to a story and drawing/writing about that
story. The questions which guided this study are the following:

1. What language processes do selected first graders use
to convey and display meaning in response to story?

2. What patterns across modalities do the children display in
their use of the language processes?

3. What meanings are represented in children's response to
story?

A. What drawing/writing process knowledge do children
display in their response to conference questions?
B. What functions of language are displayed in children's unsolicited oral language during the drawing/writing composing process?

C. What concept knowledge, in terms of coherence and specificity, is displayed in children's story retellings and picture stories?

The first two questions developed from the study of research which reported that the language processes are interrelated. The intent underlying questions one and two was to show how the language processes are interrelated by mapping some of these linkages. Question three was asked in order to find out more information about the thinking processes displayed in young children's story retellings and picture stories.

**Importance of the Study**

The problem this descriptive study examined seemed important for a number of reasons. First, this study added to the literature on the interrelationships of the language processes. In recognizing that the developmental aspects of literacy cannot be understood by isolating the language processes, this study examined these linkages, despite the difficulty in analyzing all the components at the same time and with equal depth, as mentioned by Ferreiro (1985). Second, this study addressed a concern raised by Smith (1983) in regard to how the different processes of language are brought together in the learner's mind. This study is an example of the further research suggested by Pearson & Fielding (1982) and Baghban (1985), who advocated conducting studies
that would go beyond the acknowledgement that the language processes are interdependent and intersupportive.

There is relatively little information as to what the various linkages between and among the language processes reveal about children's knowledge of language use. This research documented the linkages between and across the language processes, and provided information on children's meaning constructions within and across these processes. Third, this study provided information on the underlying cognitive processes of children's response to story as displayed in the various modes. This study examined children's thinking displayed within and across the various language processes.

**Purpose of the Study**

The purposes of this descriptive study were twofold: (1) to examine the linkages between and across the language processes of listening, speaking, reading, drawing and writing displayed in young children's (first graders) response to story and (2) to examine the meanings represented within and across these language processes.

**Limitations of the Study**

This study was restricted in the following ways:

1. This study was conducted within the parameters of one first grade classroom from the period of May to the ending of school in June.
2. Generalizations made on the basis of this study are limited based on the number of case studies.
3. The research setting was an area of the classroom and the hallway, subject to the usual noises of a school setting. Optimal performance by the children may have been influenced by the typical noises and disruptions of these settings.

4. The stories used in the study had to be brief because the sessions took place during the children's reading and writing period. The stories served as the source of information for children to respond to in their drawing/writing.

**Definition of Terms**

1. **Language.** Language is a code and a means of representing ideas through a conventional system of sounds, words, sentences, drawings, facial expressions and gestures, and aspects of experience for use in a particular context (Bloom & Lahey, 1978).

2. **Story.** Story is a communicative event in which experiences are conveyed through the use of narratives (Wade, 1980).

3. **Picture stories.** Picture stories, as used here, are children's drawing and writing pieces composed in response to listening to a story and in the framework of a twenty to thirty minute research protocol session.

4. **Language Incident.** In this study, a language incident refers to a particular segment of the language episode of the research
protocol session. It is a particular observed talking/listening, drawing/picture reading, or writing/reading behavior demonstrated by a child during the session. A language incident is a specific recorded language process which occurred during the drawing/ writing composing sequence of the session. (See Appendix C, p. 133).

**Summary and Overview of Remaining Chapters**

This chapter presented an introduction to the descriptive study which examined the linkages between and across the language processes and the ways children represent meaning in response to story. The following chapters present the related research and review of the literature, methods and procedures of the study, data collection and analysis, and a discussion and summary of the study.
CHAPTER II

RELATED RESEARCH AND REVIEW OF THE LITERATURE

The focus of this study was to investigate how young children construct meaning by using the language processes of listening, speaking, reading, drawing and writing in response to story. The review of literature is organized in three categories which relate most closely to the study. The first section presents a theoretical basis for the study of language learning and children's attempts to learn about and use language to construct meaning. The second section reports studies of how meaning is represented in each one of the language processes by young children in response to story and story-related activities. The third section presents studies which have linked particular language processes by analyzing children's response to story.

Theories and Trends in Language Learning Research

Studies of language learning reveal an increased awareness of the interdependence of all aspects of language in children's language development. In the past twenty years, researchers and theorists from a variety of disciplines, including psychology, sociology, linguistics, and education, have made a significant impact on views of language and language learning. The most dramatic change in the studies of children's language learning was the move from the concentration on form and product, such as the number of words used, sentence length, etc., to emphasis on whole discourse, such as children's stories, conversations, etc., and the processes involved in this discourse. Current research focuses on the forms and the functions of language along with the ability of the child...
to think, learn, and communicate meaning through language.

The approach to studying children's language has also changed in its recognition of the importance of context on language. Theorists are now conducting more naturalistic research of children's language learning through observations of children in homes, schools, and communities (Taylor, 1983; Baghban, 1985; Bissex, 1980). As observers of children's communicative interactions, Lund & Duchan (1983) summarize the current research perspective through the following description:

Children's language is woven into the fabric of the event that is occurring as the language is used. Just as pulling a single thread from a cloth changes our perception of that thread, separating language from the context in which it occurs distorts its nature and obscures its communicative function. Descriptions of an individual child's language can be meaningful only when framed by the events and purposes that engender the language (p.xi).

Observation of children in their typical environments through a case study approach captures meaning in context and encompasses the many factors that influence language learning. While the findings of case studies may be less easily generalizable than findings from larger samples as noted by Bissex (1987), these findings provide a more holistic view of learning in the context in which it takes place. Case studies are "more true to life in their revelation of individuals in action and their reflection of the complexities of those individuals and actions" (Bissex, 1987, p.11).
Language learning is a complex process. It involves the construction of meaning which children interactively build from what they know, believe or understand at their level of development, and from what they have experienced in their environment. Observation plays a critical role in helping educators link knowledge of children and language to effective classroom practice. Jaggar (1985) has outlined the following generalizations from research which represent a framework for use as a guide in observing, interpreting, and assessing children's language:

1. Language learning is a self-generated, creative process.
2. Language learning is holistic.
3. Language learning is social and collaborative.
4. Language learning is functional and integrative.
5. Language learning is variable (p.4).

In guiding children's language learning, it is important for educators to be good "kidwatchers" (Goodman, 1985). This involves listening to what children say, reflectively observing what children do, and guiding children in order to facilitate and promote language learning.

Theories of Language Learning

Young children learn language, according to the sociolinguist Halliday (1975), through their interactions with others in social and situational contexts, such as in the classroom and home community. Children's use of language reflects their awareness, appreciation, and interpretation of their environment. Language development involves the construction and transmission of cultural and individual meanings.
In the process of internalizing meaning, children react and respond to language by hypothesizing, inferring and predicting in order to arrive at a knowledge of language (Donaldson, 1978). Thinking is the way a child searches for meaning. Language is a major means in which those thoughts and meanings are communicated. In describing thought, John-Steiner (1985) stated:

> Thought is embedded in the structure of the mind. One way to think of this structure is to view it as formed by networks of interlocking concepts, of highly condensed and organized clusters of representations. Some of these concepts are pulled together rather easily into consciousness, while others become accessible only when an individual, confronted by new challenges, conjoins and transforms inner thoughts into overt and communicable forms that can be shared (p.9).

Drawing, talking, writing and reading are some strategies children use to organize their thinking and develop mental images. Bruner (1986) described these mental images as iconic representations, which are mental categories or concepts, created by the mind to organize experience. The mind makes it possible for children to come to know about things through action, imagery, and symbols. In looking at how children use language for thinking, Bruner (1976) stated:

> The important thing about language as an instrument of thought is not that one can translate actions or imagery into the coin of words and sentences. Rather, it is that
the new medium allows one to transform what one had put into it into a new and powerful form that is not possible by other means. (p. 74).

Children's minds demonstrate cognitive flexibility and ingenuity in their encounters with print. Their growing minds, as defined by Cole & Scribner (1974), contain a set of processes which are always in a state of motion and change. Children expect print to be meaningful, and therefore approach language, as noted by Smith (1983) and Goodman (1976), as a problem-solving process. Children use whatever they know about their world and language in generating and exploring meaning. This emphasis on meaning construction, which is a theme of current language research, can be traced to the ideas of Huey (1908). This same theme was also found by Tovey & Kerber (1986) to be outlined in The Horace Mann Readers (1912):

"Let thought lead." The principle here involved nothing less than the recognition of the truth that, as children are essentially thinking beings, we must in dealing with them "let thought lead." ... For whatever is learned under the impulse of the thought is more easily learned and more vitally remembered than anything learned by mere repetition (Tovey & Kerber, 1986, p.vii).

Development of early knowledge about language comes from children's experiences in talking and learning about the world. The way adults talk to children about everyday experiences influences the knowledge children
gain from that experience and their opportunities to use language (The Report of the Commission on Reading, 1985). The study of children's language processes must then include recognition of adult-child language learning interactions.

**Adult-Child Language Learning Interactions**

Adult-child exchanges, according to Bruner (1975), are the foundation for emergent language learning. Observation of adult dialogue, playtalk, and playsongs with sounds and rhymes are features of language play and demonstrations of meaning (Heath, 1983). Adult-child exchanges provide a shared experience time for language. Bruner (1978) has suggested that the adult in this exchange take the child's ideas seriously, and attempt to understand and support the message which the child is trying to communicate. Examples of this support would be expanding topics introduced by children when appropriate, clarifying children's questions, and providing scaffolding which requires children to supply a more sophisticated response than previously made.

Children enter first grade with a vast amount of language learning. The learning activities children engage in should naturally expand and further develop cognitive, attitudinal, and social meanings. The classroom environment can and should be a supportive setting in building children's "store of knowledge" about language--how it sounds, what it looks like in print, and what it means (Feeley, 1983). Yetta Goodman (1985) suggested that teachers keep a variety of records of children's language, such as anecdotal records of interactions; writing samples of letters, logs, and stories, or tapes of readings and oral reportings to
gain information for planning new language experiences. Teachers influence children's language learning in a number of ways. The creation of a classroom environment that fosters literacy involves offering a variety of opportunities for children to use language to think and communicate personally meaningful messages (Taylor, Blum & Logsdon, 1985). Durkin's (1966) early research and the Report of the Commission on Reading (1985) identified the practice of reading stories aloud to children as the single most important activity for building the knowledge required for success in the language processes of reading and writing.

Section One: Summary

The body of research thus far documented the complex nature of language study and the importance of studying whole discourse within the context in which it occurs. Children's use of language reflects their thinking. In searching for meaning, children use many strategies such as drawing, talking, writing, and reading to organize their thinking and to communicate meaning. Children's experiences talking and learning about their world from interactions with adults and others in their environment help them grow as language learners. One particular experience, storyreading, will now be discussed.

Section Two: Meaning Construction in Response to Story

A story is one of the many uses of language in our culture. Stories, as described by Strickland (1985), are the "best way to introduce literacy into the lives of children (p.199). Children find much delight in hearing and telling stories. Storyreading has long been a traditional language arts experience in the elementary school, especially
at the primary level. The practice of reading stories to young children has been accepted as an influential experience that contributes to children's language acquisition and development, imagination and creativity (Teale, 1984). Holdaway (1979) pointed out that stories display all the functions of language in natural operation and therefore allow children to identify with the purposes of language.

Stories engage children in the role of using language as a "spectator" (Britton, 1970). That is, using all the ways of interpreting and representing life experiences. The research of Farrell & Nessel (1982) described children as spectators to story events and developers of "mind pictures" of the spoken words. This visualization, which was previously noted by Bruner, aids in what Applebee (1978) has identified as a child's "sense of story." A sense of story is developed through a child's background of experiences with books, book language, and adult language models. Each of these experiences is a factor which contributes to the child's world knowledge and sense of print (Clay, 1979; Holdaway, 1979). Sharing literature with children, according to Norton (1983), can encourage the exchange of ideas and develop children's thought processes of perception, memory, reasoning, reflection, and insight. This exchange of ideas occurs through children's use of the language processes, which will now be discussed.

**Language Processes and the Response to Story**

The trend in educational theory and practice tends to be moving, according to David Dillon (1984), editor of *Language Arts*, toward "seeing the language arts as different manifestations of the same sense-making
and self-making experience" (p. 789). When children use language, they do not use each one of its many individual skills separately. The language arts processes form the foundation for classroom learning experiences. A clear demonstration of children using these language processes can be found in children's talking, drawing, writing and reading.

**Oral Language: Talking About Stories**

Children's earliest language of words, intonation contours, and nonlinguistic behaviors serve a diversity of functions in their efforts to communicate meaning. The "functions in which a child first learns to mean" (Halliday, 1977, p.37) were identified by Halliday in observations of children nine months to approximately two years of age. Lindfors (1980) interpreted Halliday's views as:

1. Instrumental or "I want" function through which the child's material needs are met
2. Regulatory or "Do this" function through which a child gets others to do things for him/her
3. Interactional or "Me and you" function through which the child maintains contact with someone else
4. Personal or "Here I come" function through which the child expresses self-awareness and uniqueness
5. Heuristic or "Tell me why" function through which the child explores the environment
6. Imaginative or "Let's pretend" function through which the child creates an environment
7. Informational or "Let me tell you" function through which
the child conveys information to someone (Lindfors, 1980, pp.302-303).

As stories are read to and shared with children, they begin to attend to print and develop a sense of book language, or "book talk" (Clay, 1979). Children's sentence constructions and caption-like speech illustrate their attempts to focus on, question, interpret, and extend the story experience. Language learning is facilitated, according to Holdaway (1979), by children's experiences with books and book language.

In a developmental study of children ages two to seventeen, Applebee (1978) found that in the story and story activities completed by children, the structure of language, such as plot and characterization, became more complex according to the age of the child. In another well known study of the content and language complexity of children's stories, Pitcher & Prelinger (1963) found a developing sense of language in the stories created by preschoolers. This research revealed that as children developed an awareness of language, their knowledge about language increased as well. Slobin (1973) identified this knowledge about language as young children's demonstrations of self-corrections and rephrasings in speech; comments on pronunciation, dialect, style, volume, and appropriateness of language; explicit questions about speech; comments on own speech, and responses to direct questions about language.

Intonation is another way that a child expresses meaning, and this system may be more fully developed, according to Wade (1983), than other language features.

Vygotsky's (1962) studies suggested that children's inner speech is
greatly influenced by their language environment. Based on Vygotsky's research, Temple & Gillet (1984) stated that children need opportunities to talk to themselves and others as they go about their work. Young children cannot "work quietly" the way adults can. If Vygotsky is correct, then to silence children's language in the early grades is to silence their thoughts (p.28).

Longitudinal studies of children's experiences using language to talk about stories, such as in the research of Cochran-Smith (1983) and Sulzby (1985) have helped educators gain insights into beginning language and literacy behaviors. Many questions still remain in terms of how children use the language processes to think about information and demonstrate meaning in response to story.

Talking/Listening Language Processes

All children appear to go through the same stages of language development; however, the rate of development does vary from child to child. The most extensive study of the language development of school-age children was conducted by Loban (1976). This longitudinal study revealed that children who demonstrated high language proficiency spoke fluently, used a rich variety of vocabulary, recognized the attention of their listeners, and used complex sentences. The writing ability of these children was also more fluent, more complex in use of sentence patterns. The variety and richness of their vocabulary was superior to that of the low achieving group. The high group were found to be superior in listening, both attentive and creative in their listening
skills. Oral language skills, then, although developed by the time a child enters school, continue to grow as a child progresses in school. Children possess a wide range of listening abilities. A child's familiarity with the language structures of a story and background of experience influence the way a child listens. The best listener, according to Lundsteen (1971), is one who closely approximates the speaker's meaning in a wide range of thinking processes and in the widest variety of spoken material. Expectations for a message, interest, attention, and concentration are factors that influence comprehension of a message at the various thinking levels.

Story retelling is a technique that has been used to collect representatives samples of speech. John & Horner (1971) identified stages to measure accuracy in retelling. These stages (sequential, skeletal, embroidered, and accurate), seem to overgeneralize the subprocesses involved in retelling a story. For example, the term embroidered story could mean an elaboration of a story theme or a transformation of an author's theme. The terms seem to be a bit confusing and global in their description. Story retelling can provide educators with information about the strategies children use to perceive and recall events. Interpretations can be made about the ability of a child to comprehend the meaning of a story. Another way children respond to print and communicate meaning will be discussed in the next section.

Drawing/Writing Language Processes

Children's drawings have been described as a pictorial language used to represent their thoughts (Vygotsky, 1978; Horovitz, Lewis, & Luca,
Besides being "good to look at," children's drawings, as described by Goodnow (1977), are expressions of a search for order in experiences and natural reflections of those experiences. The nature of the action of children's drawings and the translation of this action can reveal the ways children come to know how to represent meaning. Features such as the sequence of the drawing pattern, spatial relationships within the drawing, detail, action and reaction features, and aspects of change in regard to time are important considerations in understanding the graphic work as "visible thinking" (Goodnow, 1979).

Section Three: Linkages Across Language Processes

Talking and Drawing/Writing

Oral language seems to accompany the drawing and writing activities of young children (Calkins, 1983; Dyson & Genishi, 1982). The linking of talking and drawing generates questions about relationships between and across the language processes. For talking and drawing are just two ways that children "rehearse" before composing, as noted by Graves (1983) and Dyson (1981). In looking at children's drawings and speech as reflections of their thought and problem-solving abilities, Vygotsky (1962) explained that

Writing is speech in thought and image...In learning to write, a child disengages from the sensory aspects of speech and replaces words by images of words (p.98).

Berk (1985), in discussing Vygotsky's studies, described the linkages between drawing and talking by stating that

The youngest children draw first and then describe what they
have drawn. Later, children name their drawings as they work. Finally, they decide beforehand what they will draw. At this last stage, speech precedes action and enables children to plan an idea (p.47).

Transitions From Oral to Written Language

The sequence of drawing to labeling to beginning narrative has been discussed in many research studies (Clay, 1975; Graves, 1983; Bissex, 1980; Hilliker, 1982). Clay's (1975) observations of children's writing development reported that children draw pictures, copy captions, invent word forms, and use their environment to help them make sense of print. Using ideas from the research of Graves, Bissex (1980) explained children's approach to the telling of their story in drawing and writing in this manner:

When children first write, they treat writing as speech. They draw to supply context for subject, run words together, spell words as they sound, let words run around the page, speak out loud when they write, blacken in letters, use capital letters and exclamation points liberally (pp.37-38).

Graves' (1984) case study report for the National Institute of Education on the composing behaviors of primary children listed the following as stages of transition documenting children's progression from oral to written discourse. The stages as outlined are:

Stage I. Overt and early manifestations of speech. In this stage, children speak simultaneously to their writing, use para-language such as sound effects and kinesics, draw, uses a
mixture of upper and lower case letters.

Stage II. Page explicit transitions. There is less demonstration of speaking to the writing, drawing occurs more often after writing, more capitalizations are present and less para-language.

Stage III. Speech features implicit in text. There are less overt sound effects, more selectivity is present in the information written, and less conversation with neighbors is present (Graves, 1984, p. 155).

Handwriting speed was also mentioned by Graves (1984) as a variable in a writer's use of time and space. As children internalize more of the conventions of handwriting, they are able to concentrate more on their writing product.

Drawing plays an important role in the transition from oral to written discourse, as shown in the stages outlined by Graves (1984). Hilliker's (1982) research illustrates how children make the move from labelling to narrative:

Kindergarten children begin to write by drawing and naming the objects with one-word labels. Certain representations or themes have significance for the child and are repeated many times. With each repetition, the associations that the child makes with the drawing/text become more complex and differentiated. Once the one-word label is no longer capable of bearing the weight of accumulated associations, word sequences become necessary...the young writer discovers the
need to move from labelling to more complex modes of expression (p.21).

The decentering process is another aspect of children's approach to writing. This decentering, the act of backing off, getting off the center of the problem in writing and seeing other options (Graves, 1983), gives educators clues as to the paths the child is taking to represent the message. The patterns children follow in composing (drafting, revising, editing, etc.), their recognition of audience, and awareness of voice in their drawing/writing illustrate children's growth as writers.

Children's drawing/writing picture stories demonstrate their use of visual signs and symbols in their efforts to organize their thoughts and communicate meaning. Children who are using drawing/writing to express their meaning approach reading with the same expectation. That is, to get meaning from print.

**Reading and Writing Linkages**

The influence of reading on writing can be traced to the stories and poems which children have heard being read aloud to them. Britton (1970) stated that "as the influence of written language increases, children's progress in writing depends more and more on the nature of the reading input" (p.38). Reading builds on children's language development. Reading instruction in schools generally begins with children reading and telling simple stories. Strickland (1985) suggested that "Children who are exposed to stories are more likely to want to tell stories, write stories, and read stories written by themselves and others" (p.199).
Children move back and forth between picture and print, reading pictures and print in their construction of meaning (Ferreiro & Teberosky, 1982). Children's understanding of the story elements or story grammar facilitates their comprehension and memory of the story. The story elements generally outlined are these:

1. setting- the place and time of the story
2. characters- major person or persons, animals
3. problem- conflict facing major character
4. goal- protagonist's way to alleviate the problem
5. story events- major sequence of happenings
6. resolution- achievement of goal and alleviation of the problem (Pearson, 1982).

Research has recognized some of the multiple strategies young children use to construct and express meaning in their reading and writing. The nature of the density of the topic expressed in children's writing has been explored by Graves (1984) in his research on beginning writers. The characteristics he identified in the four levels of topic concepts are:

1. The topic is the story. The child must relate the entire story if asked what his piece is about. The child cannot identify the topic separate from the story.
2. The topic is what the story is about. The child specifies topic/title and goes on to recite the story. The topic occurs to the child and the story follows.
3. The topic controls the story. The child selects information
to fit the topic. The child uses the concept of topic with other writing concepts. The child selects topic, and the story follows, but the child expresses beginnings of options.

4. The story controls the topic. The child selects the topic based on a writing logic. The child integrates concept of the topic with other writing concepts. The topic evolves, twists and turns as the child is responsive to the dictates of the information (Graves, 1984, p.153).

The complementary nature of reading and writing has been the focus of many research studies (Tierney & Pearson, 1983; Newkirk, 1982; Atwell, 1983). The research of Hansen & Graves (1983) and Hansen (1987) described how elementary school readers who are also writers develop a sense of authorship that helps them in either process. Emig's (1971) study of the composing processes of twelfth graders was significant in revealing how writers revise, reformulate, and reread their writing.

Hennings & Grant (1981) described writing in terms of its relationship to the other language processes. They stated that writing is interrelated with listening, speaking, dramatizing, non-verbal activities, drawing, reading, and thinking. Moxley (1982) reiterated this interrelationship by suggesting that the most important features of writing are those that it shares with other processes of communication.
Summary

The literature cited in this chapter supports the theory that language learning is a complex process that includes all the processes of listening, speaking, reading, drawing and writing in the construction of meaning. Many of the current studies seem to agree that a strong relationship exists between and across the language processes (Parker, 1983; Taylor, 1983). The research does point out that classrooms are contexts which may offer both constraints and potentials which may affect children's language learning.

The literature reviewed reports studies of children's early literacy experiences and response to stories as viewed from particular language processes. Most analyses of these linkages focus on one or two of the language processes. There appears to be a lack of case studies of the same young children using a variety of language processes to convey meaning. An analysis of the ways young children construct and display meaning using the language processes of listening, speaking, reading, drawing and writing in response to story has received little documentation.
CHAPTER III
METHODS AND PROCEDURES

Overview of the Study

The major purposes of this study were to examine the linkages between and across the language processes and to examine the meanings represented in children's response to story. The procedure of the study involved reading a story on an individual basis to eight first graders during the months of May and June. Four stories were read to each child for a total of 32 research protocol sessions. The children were asked to retell the story from memory and then to draw and/or write about the story. Process conference questions were asked during each individual session. Thirty-two drawing/writing picture stories were collected, along with field notes, tapes, and videotapes of the sessions. The sessions, which were twenty to thirty minutes in length, were conducted during the typical reading/writing periods of the first grade class schedule. Flow charts were constructed to depict each child's patterns of movement within and across the language processes. The responses to the conference questions were analyzed in terms of concept density, using ideas from the research of Graves (1984). Unsolicited language comments made during the drawing/writing composing session were analyzed in terms of language functions. Story retellings and picture stories were examined and classified according to categories of concept knowledge defined in terms of coherence and specificity.

Design Selected

A descriptive case study design was chosen to collect information
about the linkages across the language processes and the meaning children construct in response to story. One of the primary purposes of a naturalistic or ethnographic perspective is to look at the meanings individuals construct from their own realities and interactions within a particular social setting. Erickson (1979) explained ethnography as a method which seeks to capture the "unheard melody" in the reconstruction of actual life in educational settings (p.10).

The intent of this study was to generate hypotheses concerning the multi-dimensional aspects of the ways children construct and display meaning in response to story. Field notes, videotapes, and audiotapes of the research protocol sessions were used for data collection, along with discussions with the classroom teacher. This study, then, considered the learner, the teacher or participant/observer in the context of the language learning.

Sample Selection and Setting

The subjects for the study were eight first grade children who attended a middle class school in the north-central lakes region of New Hampshire. The school has a population of approximately 1200 students in a K-12 campus setting. The researcher was a curriculum consultant and elementary methods college supervisor at the school. The researcher was also a frequent guest teacher and visitor at the school and past presenter of staff development workshops. Both the researcher and the research assistant had been occasional visitors in the first grade classroom.

The first grade classroom was selected for two reasons. First grade is a time when children begin to make the transition from drawing to
labelling to narrative, as noted in the research of Hilliker (1982) and Graves (1983). Secondly, the first grade teacher had proclaimed interest in the study of the reading/writing process at a staff development workshop. The teacher had participated in the study of whole language with Don Holdaway at Lesley College in Cambridge, Massachusetts, and subscribed to implementing this whole language philosophy in her classroom. The teacher had three years of teaching experience at the time of the study. The school district's administration was highly supportive of the study and gave their permission for the study to take place during the months of May and June. (See Appendix A).

Subject Description

The subjects selected were eight first grade children, four male and four female, who ranged in age from seven to eight years. Two of the children, one boy (Don) and one girl (Christine), had been in a readiness classroom the year previous to the study. All of the children had attended kindergarten. The children's parents' occupations represented a broad range of the community, including teachers, farmers, professors at the local college, ministers, and local factory workers.

The teacher helped nominate the children who participated in the study. Subjects were selected to provide contrasts between beginning and more experienced readers and writers, labelled in this study as low and high ability groups. This classification was based on interpretation of grade level reading test scores on the Gates McGinitie test and teacher evaluation of children's reading and writing. Since the study involved reading storybooks and the latest reading scores of the children were
available, reading was the major criterion for subject selection. A balance of girls and boys was maintained in the selection of the subjects. Another factor considered was whether the children had participated in recent special projects and would benefit affectively from their participation. The children selected had scored on that year's recently school administered Gates-MacGinitie reading test in the range of 1.6 to 3.3 in grade equivalent scores. Permission for the children to participate in the research was obtained from the parents through phone calls, letters, and conferences by the teacher and the researcher.

Method

The children participated in the twenty-to-thirty minute sessions on an individual basis during their daily reading/writing period. The study occurred over a six week period and the children were divided into two groups, four children per group.

The researcher trained an assistant to work with her during this time. The assistant was a colleague and Associate Professor of Early Childhood/Elementary Education. The assistant's participation included training in the protocol procedures for the study, working with four of the eight children in the study in the sessions, and discussions with the researcher before, during, and after the sessions, along with the reviewing of the tapes. The assistant also participated in conferences with the classroom teacher and the researcher.

Procedure

The researcher and the assistant each read a story to the eight
children on an individual basis, for a total of four stories per child and a total of 32 sessions. Each child was asked to retell the story from memory and then to draw and/or write about the story. The children were told that they would be sharing their drawing/writing picture stories with their classmates at the completion of the study, which occurred at the end of the school year. This sharing took place during the last week of the study.

During the research protocol sessions, the children were asked process conference questions, and their drawing/writing picture stories were collected in a folder. After each session, the children returned to their typical reading/writing work of revising and publishing their books.

**Protocol Session Description**

This descriptive study utilized a think-aloud protocol procedure in each of the eight case studies. Protocol procedures have been used, according to Hayes & Flower (1980) as a method to observe the detail of the moment to moment thinking such as that of a writer in action. Aspects of this model such as the idea, "tell me what you are thinking" and the documentation of this information have been used by Emig (1971) in her study of twelfth graders and by Graves (1983) in studies of elementary children's writing.

This protocol technique was developed by cognitive psychologists as a tool for the identification of psychological processes. The strength of this data gathering method is that it offers a wealth of unsorted information which can then be used to derive a coding scheme that can
detail the realities of the writing process (Swarts, Flower, & Hayes, 1984). The subprocesses of the composing process, the organization of those processes, and individual differences in composing styles can be documented. This protocol technique gives you much information, which is an advantage for data collection. It is up to the researcher to filter through this information based on the research questions.

In a think-aloud protocol, subjects are asked to say aloud everything that they are thinking and everything that occurs to them while performing a task. In this study, the children were given the instructions to "Tell me what you are thinking as you are drawing and writing" more as a permission to express their thoughts if they wished to during their composing. The researcher and the assistant recorded the statements made by the children and then examined them in relationship to the task and the drawing/writing produced.

Think-Aloud Protocol Parsing

Swarts, Flower, & Hayes (1984) have stated that "there is no single, correct way to analyze protocols" (p.56). The method of parsing is determined by the task, the research questions, and the subjects in the study. The protocol is coded using the researcher's notes, tapes, along with the writer's piece. The overt behaviors are classified according to the research questions involved.

In this study, the overt behaviors demonstrated by the children during the research protocol sessions were classified according to the categories of talking/listening, drawing/picture reading, and
writing/reading. The completion of a particular graphic image, pencil pauses, and the comments and questions made during composing were considered in the parsing. The progression of the drawing/writing sequence was coded by the researcher and the assistant during the protocol session, reviewed after the session, and checked again in the review of the videotapes.

Swarts, Flower, & Hayes (1984) have found that in measuring reliability for this method, two or more judges have agreed on 70 percent of the boundaries of the incidents. The protocol can be coded at the different levels of the writing process in order to find the meaning units according to the intent of the study. Data classification was obtained in this study through mutual agreement between the researcher and the research assistant.

Process Questions Framework

Process questions were posed to gather data about the "off-stage rehearsal" ideas of the writer. These ideas contain information about what the writing should include and the preparation taken for putting those ideas into form. Process questions allow educators to get at this information and learn more about how a child approaches the writing process. The process questions chosen were from the work of Eileen Tway (1982), who used Graves' research as a framework in her study of the instructional applications for the writing process.

Selection of Stories

The selections from children's literature used in the study were chosen using the following criteria:
1. The books were to be brief so they could be completely read and shared during the research protocol session.

2. The books were to be new to the children in that they had not been heard or read previously.

3. The books were to be of interest to both girls and boys, containing characters of general interest for their developmental level.

4. The books were to be high quality literature.

The process of selecting fine literature, according to Charlotte Huck (1979), a well-known authority on children's literature, involves looking at some of the following criteria:

1. The book should meet the standards for fine writing. That is, the plot development should contain a generous amount of action and excitement, and the characters should seem believable. The time and place of the story should be identifiable as a real place in a recognizable background. The style, the way the author uses words and sentences, should be appropriate for the characters and the plot. The format of the book, the physical aspects of cover, printing, illustrations, and size should help the story come alive for the children.

2. The content of the story should be appropriate for the group of individuals who will use them. Sexism stereotyping, and degree that the realistic fiction reflects the reality of the times are issues in this category.
3. The books should take into account the needs of the children, their varied interests, and their reading abilities.

Using the guidelines outlined above and those provided by the National Council of Teacher's of English Children's Choice List of 1986 and The Read Aloud Handbook, the four selections from children's literature were made in conjunction with teacher input and book availability. On the average, four books were read to the first grade each day by this first grade teacher, and so selection of a story not heard before was a bit more difficult. The teacher did provide information regarding the children's favorite authors. The four storybooks selected were:


These stories are all narrative fiction selections.

The next pages present an outline of the research protocol procedure followed throughout the study.
Sample Research Protocol

Subject-_________ Date-_______
Story read-_____________

I. Introduction

(Researcher): Hello, _______. How are you today? Today our story is about a_________. After the story, I'm going to ask you a few questions about what you remember. Then I'd like you to draw and/or write about the story. We'll put all your stories into a folder and then make them into a book to share with your class at the end of school. The name of our story is _________. It was written by _________. It was published in ____ and is dedicated to _________.

II. Researcher reads story to child at this point.

III. After the story, the researcher asks:

1. Tell me all you remember about the story.
2. How did you remember all that? What helped you remember?
3. Now I'd like you to draw and/or write about the story. I'm going to be drawing and writing, too, so that I can remember all the things you draw and say about your story. Remember to talk to me as you draw and/or write your story to help me know what you are thinking.

IV. Process Conference Questions

(Asked during the drawing and writing, and at the end of the sessions)

1. How or where did you get the idea for your story?
2. What helps you most with your drawing/writing?

3. What is going to happen next in your story?

4. What's not on the page yet that you would put there?

5. Do you sometimes stop while you're drawing or writing? Tell me about your stopping.

6. Do you draw and write at home?

7. Do you listen to yourself telling the story in your mind? What do you do next?

8. What do you like best about your story so far?

9. Have you ever had problems getting your ideas down on the paper? What helps you then?

10. Tell me more about...

IV. Closing of Session

(Researcher): You did a good job drawing/writing your story...See you tomorrow...
DATA COLLECTION

Protocol Procedures

The researcher and the assistant followed the format as outlined. The researchers read the stories prior to the presentations to the children and coordinated the sequence of the sessions. Each researcher had a copy of the protocol format and protocol questions at the table where the child would be sitting. A story map using the guide outlined by Pearson (1982) was made for each story prior to the presentations. (See Appendix F). The children's answers to the question, "Tell me all you remember about the story" was matched to this map for analysis of story grammar features. The process conference questions were used to probe for information about the drawing/writing composing process and to help expand responses beyond the "yes" and "no" levels. A videotapes and/or audiotape recording was made of each research protocol session. Each protocol session was transcribed using the tapes, field notes, and the drawing/writing picture stories completed by the children. The researcher and the assistant met with the teacher after each research protocol session.

Drawing/Writing Picture Stories

The sequence of the drawing/writing progression was recorded by the researchers during the session and after the sessions in conjunction with the review of the tapes. This progression, along with the narrative transcription of each session, was used to chart each child's usage and pattern of movement between and across the language processes. These patterns or linkages showed the fluidity of movement within and across
the modes of talking/listening, drawing/picture reading, and writing/reading.

The young children's picture stories were placed in a folder and used at each session. These picture stories were later organized into a book format and given to the children to present the picture story of their choice to the class at the end of the sessions.

Data Treatment

Each of the eight case studies was organized as follows:

A. Objective data: Each child's Gates-MacGinitie Reading test score was gathered from school records with the help of the teacher. The children were placed in two groups, four children in each group. Grouping was based on these grade level scores and teacher input, and then the groups were classified as high or low ability. The reading scores ranged from 1.6 to 2.3 for the low group and 2.6 to 3.3 for the high group.

B. Protocol Sessions: The name of the book read to each child was recorded, the progression of the sequence of the drawing/writing sample was noted, and anecdotal records of comments made by the child during the research protocol session.

After the sessions, the data collected was treated in the following manner:

1. Tapes were reviewed and field notes and tapes transcribed and coordinated by the researcher and the assistant.

2. To organize the data to answer the research questions
concerning the use and patterns of movement between and across language processes (research questions one and two), categories of talking/listening, drawing/picture reading, and writing/reading were established. Charts were drawn to illustrate the classification of these behaviors demonstrated by each of the eight children in the 32 total research protocol sessions.

3. A frequency tally was done on each of the categories of the language processes shown in the charts for each story and for each child. This information was totaled and graphed to show the language processes used by the high and low ability groups.

4. A frequency tally was calculated to identify the type of patterns displayed in movement between and across the language processes. This information was graphed in terms of high and low ability groups and depicted the sequential and simultaneous patterns displayed in the charts.

5. To examine the kinds of meanings displayed in response to stories, the following steps were taken. Responses to the conference questions were reviewed and classified to determine a profile of concept knowledge for the low and high groups. These responses were organized in a matrix to illustrate the range of response for each question.

6. Unsolicited language comments made by the children during composing were collected from the research protocol descriptions and categorized to identify the functions of
language present in these comments. This information was then placed in a table. The aspects of meaning depicted in the initial sequence of the drawing/writing picture story were analyzed and images translated first were identified. Character and setting images were aspects of meaning identified and documented in the format of a table.

7. Finally, a category system was developed to code the story retellings and the picture stories in order to provide a framework for looking at and interpreting the data. The story retellings and picture stories were examined in terms of the category system established. Tables were constructed to illustrate the results of this classification.

Summary

This chapter has recorded the methods and procedures used in this study of the linkages between and across the language processes and the meanings represented in response to stories.
CHAPTER IV

FINDINGS OF THE STUDY

The purposes of this investigation were to examine the linkages between and across the language processes of listening, speaking, reading, drawing, and writing, and to analyze the display of meaning represented in children's responses to stories. Thirty-two drawing/writing samples were collected in videotaped and/or recorded storyreading sessions involving eight first graders. The focus of this research was to study how children represent meaning in their response to stories through their usage of the language processes. Research protocol interviews were used to examine the meanings represented in children's responses to stories. This chapter reports the descriptive research study findings of those language incidents.

The findings of this study are reported in two sections, content analysis findings and research protocol reports. The content analysis was derived from the videotaped and/or recorded sessions and the drawing/writing (picture story) samples, including field notes made by the researcher and research assistant. The categories of language processes used to classify the information observed during the creation of the picture story were drawing/reading, talking/listening, and writing/reading. The first section reports the findings for the research questions concerning the linkages between and across the language processes and the patterns displayed in these linkages. The second section presents the findings of the research protocol interviews used to
explore the meanings represented in children's response to story.

Content Analysis Interpretation

The content analysis research was done in order to answer these questions:

1. What language processes do children use to convey and display meaning in response to story?

2. What patterns across modalities do children display in their use of the language processes?

The intent underlying questions one and two was to show what language processes young children use and show how these processes are interrelated by mapping the linkages displayed in response to story.

The method used to gather the information to answer these questions involved categorizing and tallying the language processes demonstrated by the children during the session. These categories were then analyzed for sequential and simultaneous patterns of linkages between the language processes. Information was gathered in the following manner.

First, the thirty-two videotaped and/or recorded sessions were transcribed into narratives. These transcriptions described the protocol sessions which involved the reading of four stories on an individual basis to eight first graders. The stories read were about a bear, a turtle, a flying machine, and a stream. The transcriptions described the children's retellings of each of these stories, their drawing/writing picture story construction sequence, their drawing/writing unsolicited language comments, and their responses to process conference questions.

The transcription of the tapes was accomplished by the researcher
and the researcher's assistant after each day's sessions with the children. The researcher and the research assistant viewed the tapes and coordinated field notes written during the sessions. The camera set-up, the logging of the drawing/writing picture stories progression, and the words used as a part of the research protocol were reviewed so that consistency in the study could be maintained. The progression of the drawing/writing picture stories was recorded in number sequence during the story session, and reviewed after the session. This number sequence was determined by charting the graphics and words in the order written by the children, as previously done in the studies of Graves (1983). The overt behavior demonstrated by the children, such as stopping to ask a question or make a statement about the drawing to the researchers was recorded as a change from the drawing/reading modality to the talking/listening modality.

The picture story sequence, along with the narrative descriptions, led to the actual parsing of the processes into specific categories. The charting of the responses into the appropriate language process category represents the movement within and across the modalities by the eight first grade children in their response to four different stories during the 32 research protocol sessions.

These eight children's reading scores ranged from low to above average in grade level ability, as documented from their Gates McGinitie reading scores of May of 1986. The division of the children into two groups, a low ability and a high ability group was based on teacher input and these reading scores. The low group consisted of grade level reading
scores of 1.6 to 2.3, and the high group's scores ranged from 2.6 to 3.3. The purpose of charting the language incidents in the categories of talking/listening, drawing/picture reading, and writing/reading was to document the fluidity (patterns of movement) and the diversity of meaning construction displayed by both groups in response to each of the four stories.

**Language Process Modality Charts**

The language process modality charts illustrate the language processes demonstrated by the children during the sessions. From these charts, one can see the talking/listening incidents, the drawing/picture reading incidents, and the writing/reading incidents which occurred during the session. The following charts are examples of how the language processes were categorized and then analyzed for sequential and simultaneous patterns of linkages. The number sequence on the chart depicts the language process usage sequence.

An understanding of the charting of the language processes demonstrated by the children can be acquired by examining Figures 1 and 2. These figures display the data, which included the picture story and the accompanying narrative, collected during the research protocol session. Figure 1 illustrates the data collected after the reading of the book, *This is the Bear*. The numbers correspond to the language process incidents displayed during the research protocol sessions. For example, in the language process modality chart of Bob, a low ability reader, number one corresponds to the words written, which was the title of the picture story (see Figure 1). Number one, therefore, was recorded
Drawing/Writing Sequence

1-writes title of book
2-draws bear
3-more of bear is drawn
4-more bear
5-bear
6-bear
7-bear
8-draws face
9-face
10-face
11-paint can drawn
12-draws and says, "The rocks"
13-draws rocks
14-talks about drawing a block
15-draws dog
16-makes junk pile and rocks
17-draws more of the dog
18-talks about a road and draws it
This is the BEAR

Figure 1
Bob's Drawing/Writing Composing
Sequence Picture Story
under the writing/reading category. The second thing that Bob (B) did, number two on the chart, shows his beginning attempt at drawing the bear. The sequence of language incidents is shown by the number progression and arrows drawn to show the pathways of this progression between and across the modalities. Bob utilized the drawing/picture reading modality for the majority of his composing sequence (Table 43a). Writing/reading initiated the composing sequence, with talking/listening leading to drawing/picture reading on three occasions of the composing sequence pattern. Drawing/picture reading and talking/listening were simultaneously occurring patterns in four instances of the composing process, as noted by the two-sided arrows between the numbers eight and twelve and fourteen and sixteen on the chart.

In Mitch's (HK) language process modality chart (Figure 2) one can see a more varied pattern than Bob's in his response to the same story. Mitch, whose reading scores placed him in the high group, utilized drawing/picture reading primarily for his meaning construction. Drawing/picture reading occurred simultaneously with talking/listening and writing/reading, as shown by number seven on the chart. Drawing/reading occurred simultaneously with writing/reading as shown by number twelve.

Figures one and two are examples of the data collected for each of the eight first grade children in the 32 sessions. The language process modality charts for each child were analyzed and the categories were tallied. This information revealed the total number of language incidents per session and the total number of language incidents per category.
Drawing/Writing Sequence
1-draws lines
2-draws box in center
3-draws shape of can
4-draws bear
5-grass
6-talks about shape of car, draws
7-asks to see book for picture
8-draws boy
9-bear, talks about making a dog
10-license plate
11-bumper, lights
12-stop sign written
13-colors, draws bear in garbage
14-trash can
15-colors trash can
16-top of car drawn
17-bench
18-handle, talks about pulling it
19-clothes
20-stripes on can
21-grass
22-colors bear
23-says,"Almost finished"
24-wheels, colors plate
25-says,"Here's the dashboard"
26-name written in colors

D/PR | T/L | W/R
---|---|---
1 | 2 | 3
4 | ← | 4
5 | ← | 6
6 | ← | 7
7 | ← | 7
8 | ← | 9
9 | ← | 9
10 | 11 | 12
12 | ← | 13
13 | ← | 12
14 | 15 | 16
16 | 17 | 18
18 | 19 | 20
20 | 21 | 22
22 | ← | 23
23 | 24 | 25
25 | ← | 25 (26)
Figure 2
Mitch's Drawing/Writing Composing
Sequence Picture Story
A total number of 627 language incidents was recorded over the 32 total research protocol sessions. The language incidents were tallied by counting the number of recorded talking/listening, drawing/picture reading, and writing/reading behaviors from each child's language process modality charts. The high ability readers averaged 20.3 recorded language incidents per session and the low ability readers averaged 18.8 language incidents. Individually, the children's total of recorded language incidents ranged from 61 to 98 responses across the four stories. A total of 325 language incidents were recorded for the high group and 302 language incidents for the low group.

This section presented information illustrating how to read the findings concerning questions one and two. The next section will describe the findings.

A Comparison of Group Language Process Modality Use

Research Question 1: What language processes do children use to convey and display meaning in responding to stories?

The language processes demonstrated by the young children during the sessions were categorized into drawing/picture reading incidents, talking/listening incidents, and writing/reading incidents. The following is a display of this data. The figures illustrate the frequency of occurrence of a particular language process within and across the four stories presented during the 32 sessions. The tables report the frequency of occurrence of a particular language process for each child and each story.
Drawing/Picture Reading

Figure 3 depicts the drawing/picture reading incidents for each story as recorded for each group. The high and low group differed most in use of this language process modality in the story of the bear and the story of the turtle. In the bear story, drawing/picture reading occurred on the average of 16.75 incidents for the high group and 9 incidents for the low group. An average of 15 drawing/picture reading incidents were recorded for the high group in response to the turtle story and 6.25 incidents were recorded for the low group's responses. The drawing/picture reading language process modality was used by both groups in all four stories at a higher average rate of occurrence than the talking/listening and writing/reading language process modalities (Figure 3 and Table 1).

Talking/Listening

Listening was interpreted as an implied component in the categorization of the talking/listening modality. That is, it was inferred that children were listening (Appendix C). In looking at Figure 4, one can see that the talking/listening language process modality was used at a similar average rate of occurrence by both the low and high groups. The largest variation occurred in the turtle story, with the high group demonstrating talking/listening behaviors at an average of 6 incidents and 4.5 incidents for the low group (See Table 2). Perhaps interest in this particular story was a factor which led to this variation.

Writing/Reading

Figure 5 reports the frequency of occurrence of the writing/reading incidents recorded in each story for the high and low groups. The low
STORY

FIGURE 3

DRAWING/PICTURE READING INCIDENTS

KEY

F - Flying Machine Story
B - Bear Story
T - Turtle Story
S - Stream Story
TABLE 1
Language Process Incidents Across Stories: Drawing/Picture Reading

<table>
<thead>
<tr>
<th></th>
<th>Fly Machine</th>
<th>Bear</th>
<th>Turtle</th>
<th>Stream</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>08</td>
</tr>
<tr>
<td>MM</td>
<td>15</td>
<td>16</td>
<td>29</td>
<td>11</td>
</tr>
<tr>
<td>MK</td>
<td>08</td>
<td>23</td>
<td>08</td>
<td>10</td>
</tr>
<tr>
<td>M</td>
<td>18</td>
<td>14</td>
<td>08</td>
<td>13</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>54</strong></td>
<td><strong>67</strong></td>
<td><strong>60</strong></td>
<td><strong>42</strong></td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td><strong>13.5</strong></td>
<td><strong>16.25</strong></td>
<td><strong>15.0</strong></td>
<td><strong>10.5</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Fly Machine</th>
<th>Bear</th>
<th>Turtle</th>
<th>Stream</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>12</td>
<td>05</td>
<td>07</td>
<td>17</td>
</tr>
<tr>
<td>D</td>
<td>16</td>
<td>14</td>
<td>06</td>
<td>07</td>
</tr>
<tr>
<td>DW</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>B</td>
<td>20</td>
<td>17</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>48</strong></td>
<td><strong>36</strong></td>
<td><strong>25</strong></td>
<td><strong>39</strong></td>
</tr>
<tr>
<td><strong>MEAN</strong></td>
<td><strong>12.0</strong></td>
<td><strong>09.0</strong></td>
<td><strong>06.25</strong></td>
<td><strong>09.75</strong></td>
</tr>
</tbody>
</table>
FIGURE 4 - TALKING/LISTENING INCIDENTS

KEY
F - Flying Machine Story
B - Bear Story
T - Turtle Story
S - Stream Story
TABLE 2  
Language Process Incidents Across Stories:  
Talking/Listening

<table>
<thead>
<tr>
<th>STORIES</th>
<th>Fly Machine</th>
<th>Bear</th>
<th>Turtle</th>
<th>Stream</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>03</td>
<td>03</td>
<td>08</td>
<td>04</td>
</tr>
<tr>
<td>MM</td>
<td>10</td>
<td>01</td>
<td>08</td>
<td>09</td>
</tr>
<tr>
<td>MK</td>
<td>02</td>
<td>08</td>
<td>03</td>
<td>02</td>
</tr>
<tr>
<td>M</td>
<td>14</td>
<td>08</td>
<td>05</td>
<td>09</td>
</tr>
<tr>
<td>TOTAL=</td>
<td>29</td>
<td>20</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>MEAN =</td>
<td>07.25</td>
<td>05.0</td>
<td>06.0</td>
<td>06.0</td>
</tr>
<tr>
<td>C</td>
<td>03</td>
<td>03</td>
<td>03</td>
<td>09</td>
</tr>
<tr>
<td>D</td>
<td>16</td>
<td>13</td>
<td>04</td>
<td>07</td>
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<tr>
<td>DW</td>
<td>02</td>
<td>05</td>
<td>08</td>
<td>04</td>
</tr>
<tr>
<td>B</td>
<td>06</td>
<td>04</td>
<td>03</td>
<td>08</td>
</tr>
<tr>
<td>TOTAL=</td>
<td>27</td>
<td>25</td>
<td>18</td>
<td>28</td>
</tr>
<tr>
<td>MEAN =</td>
<td>06.75</td>
<td>06.25</td>
<td>04.5</td>
<td>07.0</td>
</tr>
</tbody>
</table>
FIGURE 5 - WRITING/READING INCIDENTS

KEY

F - Flying Machine Story
B - Bear Story
T - Turtle Story
S - Stream Story
group's recorded use of this modality was much greater in each story than
the high group's. Although many times the low group wrote first and then
drew, their drawings appeared to be a primary source for obtaining
meaning from the picture story. One child in the low group preferred to
write rather than draw, although both drawing and writing were encouraged
in the protocol directions. The incidence of writing/reading was similar
for the high group in the flying machine and in the bear story. No
writing/reading incidents were demonstrated by the high group for the
turtle and the stream stories (See Table 3).

Language Process Modality Comparisons

Tables 1, 2, and 3 display the language process modality frequencies
collected per story per child. A summary of the language process
modality totals is reported in Table 3. The use of the drawing/picture
reading modality for the high ability group was documented across the
four stories for a total of 223 occurrences and 148 total occurrences for
the low ability group. Overall, the modality usage by the eight children
in the order of observed highest average frequency of use were
drawing/picture reading, talking/listening, and writing/reading
modalities.

Time Allocation and Picture Story Development

In exploring the question of why the low ability group, one child in
particular, would use the writing/reading modality, a stop watch was used
to time the picture story composing sequence for additional information
about language process usage. This stopwatch was used while watching the
videotapes of the research protocol sessions. Two children from the low
Table 3  
Language Process Incidents Across Stories:  
Writing/Reading  

<table>
<thead>
<tr>
<th>Stories</th>
<th>Fly Machine</th>
<th>Bear</th>
<th>Turtle</th>
<th>Stream</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>H</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>i</td>
<td>00</td>
<td>04</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>g</td>
<td>04</td>
<td>01</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>h</td>
<td>TOTAL=</td>
<td>04</td>
<td>05</td>
<td>00</td>
</tr>
<tr>
<td></td>
<td>MEAN =</td>
<td>01</td>
<td>1.25</td>
<td>00</td>
</tr>
<tr>
<td>C</td>
<td>00</td>
<td>01</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>L</td>
<td>02</td>
<td>01</td>
<td>01</td>
<td>02</td>
</tr>
<tr>
<td>O</td>
<td>12</td>
<td>14</td>
<td>19</td>
<td>08</td>
</tr>
<tr>
<td>W</td>
<td>01</td>
<td>01</td>
<td>01</td>
<td>01</td>
</tr>
<tr>
<td>TOTAL=</td>
<td>15</td>
<td>17</td>
<td>21</td>
<td>11</td>
</tr>
<tr>
<td>MEAN =</td>
<td>3.75</td>
<td>4.25</td>
<td>5.25</td>
<td>2.75</td>
</tr>
</tbody>
</table>

Summary of Language Process Modality Comparisons

<table>
<thead>
<tr>
<th>Groups</th>
<th>Modalities</th>
<th>Draw/Pict.Rdg</th>
<th>Talk/List.</th>
<th>Writ/Rdg</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td></td>
<td>223</td>
<td>97</td>
<td>9</td>
</tr>
<tr>
<td>Low</td>
<td></td>
<td>148</td>
<td>98</td>
<td>64</td>
</tr>
</tbody>
</table>
group, Deb and Bob, and two from the high ability group, Molly and Mitch were selected and their approaches to their picture stories were reviewed. Upon reviewing the videotaped sessions involving the story, The Foolish Tortoise, observations of the children's drawing and writing were made. (Tables 4, 5, 6, and 7. See also Figure 6).

One child from the low group, Deb, (DW) seemed to need constant cueing (see Appendix C) in drafting her response. This cueing was accomplished either by the research assistant's continual feedback or by Deb herself, in her vocalization of each sound and/or word she attempted to write. Her re-reading of each word written was also very noticeable. Deb moved the paper around several times, and appeared to pre-editing ideas/words/sounds before they even reached the paper. Behaviors seen as evidence of this pre-editing were her false starts at attempting to write something and then just staring and sighing. Deb also crossed out a lot, and was seen crossing out even one letter she had just made, and then stopping to figure out what she could write instead.

Once Deb's words did reach the paper, these words or consonant sounds were again subject to editing, as noted by her crossing out marks (See Figure 6).

Bob, (B) another member of the low group, created a picture story that showed a "sketch-like" picture of the initial ideas of the story. He started drawing as soon as he was given the paper and pencil. Bob appeared to have a story creation sequence in mind, moving from one side of the paper to the other. He integrated writing as a final touch to the picture story, and added the sound of "whoooooo" for the wind he drew in
FIGURE 6
TIME ALLOCATION AND PICTURE STORY COMPARISON
Deb's Time Allocation Chart

Table 4

Child- Deb

Turtle Story

<table>
<thead>
<tr>
<th>Time (Minutes)</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting time</td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>- pencil in hand, moves it and stares at the paper. Looks at researcher. holds head.</td>
</tr>
<tr>
<td>1.40</td>
<td>- turns paper, researcher questions her about what she may remember about the story</td>
</tr>
</tbody>
</table>
| 2.24           | - starts to write and vocalizes letters, and whole line of words. Talks about how she made a "K" by mistake, looks at page and pauses, looks at researcher and crosses out word as she states "it doesn't make sense."
| 4.00           | - reads for researcher what she has written so far. |
| 4.24           | - Starts next line of words, vocalizes. |
| 5.25           | - looks at researcher, pauses, writes |
| 6.26           | - on to the next line, moves paper, vocalizes, looks back at what she has written, pushes paper up. |
7.00  - Continues to write, moves in chair, pauses, rereads, continues to vocalize, tongue out, sighs, stops.

8.14  - new line-pushes paper away, makes a face, vocalizes, rereads, moves paper, rereads again

9.29  - new line-shakes head, rereads each part, pushes back paper, sighs.

10.19 - shakes head, pauses, says that's it.

Ending time
# Bob's Time Allocation Chart

**Table 5**

<table>
<thead>
<tr>
<th>Time (Minutes)</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Starting time</td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>takes pen off, starts right away, draws turtle and then a bird</td>
</tr>
<tr>
<td>2.00</td>
<td>mouth open, looks back, turns paper, writes about the bird, works on background grass.</td>
</tr>
<tr>
<td>3.00</td>
<td>Goes to the other side of the paper, stops and goes to the top of the page.</td>
</tr>
<tr>
<td>4.00</td>
<td>talks about the wind, makes wavy lines and sounds &quot;whoooo&quot;. Stops and thinks, turns paper, writes more words, talks about camouflage for the bird.</td>
</tr>
<tr>
<td>5.09</td>
<td>looks at picture and is finished</td>
</tr>
</tbody>
</table>

Ending time
the picture story.

In the high group, Molly's (H) picture story approach was one which began instantly as she received her writing tools. Her body, her fingers, and her tongue were involved in her approach to her picture story. She would point to the picture portions on her own, tell what she planned to do next, and reread portions of her picture, not isolated features.

Mitch's (HK) picture story began as he systematically divided up the picture page and then concentrated on the images he was drawing in an obvious planned progression. He interjected very little talk during his picture story, and appeared to have a definite sequence in mind as to what his final picture story would look like.

The amount of time in which the picture stories were constructed varied from approximately ten minutes for Deb, seven minutes for Mitch, five minutes for Bob, and about five minutes for Molly. This variation in the amount of time illustrated individual differences in approaches to picture story construction. These children's language process modality charts (See Appendix B) for the turtle story illustrate the fluidity and the diversity of the patterns of movement within and across modalities. Bob and Mitch demonstrated frequent use of the drawing/picture reading modality. Deb used the modes of writing/reading and talking/listening. Molly primarily used drawing/picture reading and talking/listening. The patterns of movement within and across the modes show how young children use the language processes to construct meaning, as discussed next.
Molly's Time Allocation Chart

Table 6

<table>
<thead>
<tr>
<th>Time</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.00</td>
<td>starts drawing right away, looks upward</td>
</tr>
<tr>
<td></td>
<td>uses fingers to re-grasp pen, draws more</td>
</tr>
<tr>
<td></td>
<td>uses fingers to point to the drawing</td>
</tr>
<tr>
<td></td>
<td>tongue comes out, laughs, makes a mountain</td>
</tr>
<tr>
<td></td>
<td>proceeds left to right, uses whole page</td>
</tr>
<tr>
<td></td>
<td>comments on what comes next-&quot;I'm going to draw the turtle up here&quot;</td>
</tr>
<tr>
<td>2.00</td>
<td>tongue out, thinks some more, moves pen a bit, looks up, pauses, rereads</td>
</tr>
<tr>
<td>4.00</td>
<td>draws grass on the mountain, moves to the other side of the paper and continues.</td>
</tr>
<tr>
<td></td>
<td>&quot;Just going to make it look dark&quot;, tongue out</td>
</tr>
<tr>
<td>5.20</td>
<td>holds pen like a paint brush, pauses, and is finished</td>
</tr>
</tbody>
</table>

Ending time
**Table 7**

**Mitch's Time Allocation Chart**

<table>
<thead>
<tr>
<th>Time (Minutes)</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Starting time</strong></td>
<td></td>
</tr>
<tr>
<td>1.00</td>
<td>divides paper up, thinks pauses, draws next line, draws figure of turtle</td>
</tr>
<tr>
<td>2.06</td>
<td>draws more of turtle and finishes turtle, talks about chipmunk</td>
</tr>
<tr>
<td>3.20</td>
<td>continues to work on shell, pauses</td>
</tr>
<tr>
<td>4.25</td>
<td>works on new space at the top, draws sky</td>
</tr>
<tr>
<td>5.16</td>
<td>begins new figure, pauses, continues</td>
</tr>
<tr>
<td>5.50</td>
<td>starts on next figure</td>
</tr>
<tr>
<td>6.27</td>
<td>finishes page and then goes to middle of page</td>
</tr>
<tr>
<td>7.18</td>
<td>finishes picture</td>
</tr>
</tbody>
</table>

**Ending time**
Linkage Patterns Across Language Process Modalities

Research Question 2: What patterns across modalities do young children (first graders) display in their use of the language processes?

The progression of movement across modalities was collected by observing the language process modalities charted for each picture story for each child and tallying the frequency of occurrence of the movement from one modality to the other. One language process can be linked to another either by sequential or simultaneous links. Figure 7 illustrates the sequential and simultaneous linkage patterns demonstrated by the high and low groups.

Sequential Linkage Patterns

The high group's language process modality charts illustrated two sequential linkage patterns as occurring most often. Drawing/picture reading was linked more often to talking/listening in the high group's language process modality charts. Talking/listening was linked sequentially to drawing/picture reading more often in the low group's language process modality charts (See Tables 8, 9, and 10 and Figure 7). The sequential pattern of writing/reading linked to talking/listening was more often characteristic of the low group. Overall, the sequential linkage patterns that were characteristic of the high group were drawing/picture reading followed by talking/listening and talking/listening leading to drawing/picture reading. The sequential linkage patterns that were characteristic of the low group were talking/listening followed by drawing/picture reading and drawing/picture reading leading to talking/listening.
LINKAGE PATTERN

FIGURE 7 - SEQUENTIAL AND SIMULTANEOUS LINKAGE PATTERNS

KEY

SEQUENTIAL
1 Talking/Listening to Drawing/Picture Reading
2 Talking/Listening to Writing/Reading
3 Drawing/Picture Reading to Talking/Listening
4 Writing/Reading to Talking/Listening
5 Writing/Reading to Drawing/Picture Reading

SIMULTANEOUS
6 Talking/Listening and Drawing/Picture Reading
7 Talking/Listening and Writing/Reading
8 Drawing/Picture Reading and Writing/Reading
Table 8
Sequential Linkage Patterns - 1

Pattern: Drawing/Picture Reading to Talking/Listening

<table>
<thead>
<tr>
<th></th>
<th>HIGH</th>
<th></th>
<th>LOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>07</td>
<td></td>
<td>03</td>
</tr>
<tr>
<td>MM</td>
<td>04</td>
<td></td>
<td>05</td>
</tr>
<tr>
<td>MK</td>
<td>04</td>
<td></td>
<td>00</td>
</tr>
<tr>
<td>M</td>
<td>06</td>
<td></td>
<td>01</td>
</tr>
<tr>
<td>TOTAL=21</td>
<td></td>
<td>TOTAL=</td>
<td>09</td>
</tr>
<tr>
<td>MEAN = 05.25</td>
<td></td>
<td>MEAN =</td>
<td>02.25</td>
</tr>
</tbody>
</table>

Pattern: Talking/Listening to Drawing/Picture Reading

<table>
<thead>
<tr>
<th></th>
<th>HIGH</th>
<th></th>
<th>LOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>05</td>
<td></td>
<td>03</td>
</tr>
<tr>
<td>MM</td>
<td>01</td>
<td></td>
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</tr>
<tr>
<td>MK</td>
<td>01</td>
<td></td>
<td>00</td>
</tr>
<tr>
<td>M</td>
<td>01</td>
<td></td>
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<td>TOTAL=</td>
<td>13</td>
</tr>
<tr>
<td>MEAN = 02.0</td>
<td></td>
<td>MEAN =</td>
<td>03.25</td>
</tr>
</tbody>
</table>

Pattern: Talking/Listening to Writing/Reading

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th>LOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>00</td>
<td></td>
<td>00</td>
</tr>
<tr>
<td>MM</td>
<td>00</td>
<td></td>
<td>01</td>
</tr>
<tr>
<td>MK</td>
<td>00</td>
<td></td>
<td>06</td>
</tr>
<tr>
<td>M</td>
<td>02</td>
<td></td>
<td>01</td>
</tr>
<tr>
<td>TOTAL=21</td>
<td></td>
<td>TOTAL=</td>
<td>08</td>
</tr>
<tr>
<td>MEAN = 00.50</td>
<td></td>
<td>MEAN =</td>
<td>02.0</td>
</tr>
</tbody>
</table>
TABLE 9
Sequential Linkage Patterns - 2

Pattern: Writing/Reading to Talking/Listening

<table>
<thead>
<tr>
<th></th>
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<th>LOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>00</td>
<td>C</td>
</tr>
<tr>
<td>MM</td>
<td>00</td>
<td>D</td>
</tr>
<tr>
<td>MK</td>
<td>00</td>
<td>DW</td>
</tr>
<tr>
<td>M</td>
<td>00</td>
<td>B</td>
</tr>
<tr>
<td>TOTAL</td>
<td>00</td>
<td>TOTAL= 09</td>
</tr>
<tr>
<td>MEAN</td>
<td>00.0</td>
<td>MEAN = 02.25</td>
</tr>
</tbody>
</table>

Pattern: Writing/Reading to Drawing/Picture Reading

<table>
<thead>
<tr>
<th></th>
<th>HIGH</th>
<th>LOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>00</td>
<td>C</td>
</tr>
<tr>
<td>MM</td>
<td>00</td>
<td>D</td>
</tr>
<tr>
<td>MK</td>
<td>00</td>
<td>DW</td>
</tr>
<tr>
<td>M</td>
<td>01</td>
<td>B</td>
</tr>
<tr>
<td>TOTAL</td>
<td>01</td>
<td>TOTAL= 01</td>
</tr>
<tr>
<td>MEAN</td>
<td>00.25</td>
<td>MEAN = 00.25</td>
</tr>
<tr>
<td>Pattern</td>
<td>Ability Groups</td>
<td></td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>----------------</td>
<td></td>
</tr>
<tr>
<td>Talking/Listening to Drawing/Picture Reading</td>
<td>High 2.0   Low 3.25</td>
<td></td>
</tr>
<tr>
<td>Talking/Listening to Writing/Reading</td>
<td>High 0.5   Low 2.00</td>
<td></td>
</tr>
<tr>
<td>Drawing/Picture Reading to Talking/Listening</td>
<td>High 5.25  Low 2.25</td>
<td></td>
</tr>
<tr>
<td>Writing/Reading to Talking/Listening</td>
<td>High 0.0   Low 2.25</td>
<td></td>
</tr>
<tr>
<td>Writing/Reading to Drawing/Picture Reading</td>
<td>High 0.25  Low 0.25</td>
<td></td>
</tr>
</tbody>
</table>
Simultaneous Linkage Patterns

Talking/listening and drawing/picture reading was a simultaneous linkage pattern that occurred at a high frequency rate for both the low and the high groups. The talking/listening and writing/reading linkage pattern occurred at the next highest frequency rate for both groups, with the low group at a 2.25 and the high group at 1.0 frequency rate of occurrence (See Tables 11, 12 and Figure 7).

Summary of Content Analysis Findings

Children differ in the language processes they use and the linkage patterns they display across modalities in responding to stories. No single linkage pattern was found to exist in children's responses to story. Some language processes and linkages did occur more frequently than others. Drawing/picture reading and talking/listening were language processes utilized at a high average frequency rate for both the high and the low groups. The sequential linkage patterns of talking/listening to drawing/reading and drawing/picture reading to talking/listening occurred at a high frequency rate for both groups. The talking/listening and drawing/picture reading simultaneous linkage pattern occurred at a high frequency rate for both groups.

While the previous section examined the modes of response to stories, the following section examines the underlying cognitive processes of these responses as displayed in various modes.

Research Protocol Interviews

The research protocol interviews took place in order to answer these questions:
TABLE 11  
Simultaneous Linkage Patterns Across Stories

Pattern: Talking/Listening and Drawing/Picture Reading

<table>
<thead>
<tr>
<th></th>
<th>HIGH</th>
<th></th>
<th>LOW</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>11</td>
<td>C</td>
<td>11</td>
<td></td>
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<tr>
<td>MM</td>
<td>15</td>
<td>D</td>
<td>22</td>
<td></td>
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<tr>
<td>MK</td>
<td>11</td>
<td>DW</td>
<td>00</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>21</td>
<td>B</td>
<td>16</td>
<td></td>
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<tr>
<td>TOTAL</td>
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<tr>
<td>MEAN</td>
<td>14.5</td>
<td>MEAN</td>
<td>12.25</td>
<td></td>
</tr>
</tbody>
</table>

Pattern: Talking/Listening and Writing/Reading

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th>LOW</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>00</td>
<td>C</td>
<td>00</td>
<td></td>
</tr>
<tr>
<td>MM</td>
<td>00</td>
<td>D</td>
<td>02</td>
<td></td>
</tr>
<tr>
<td>MK</td>
<td>01</td>
<td>DW</td>
<td>07</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>03</td>
<td>B</td>
<td>00</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>04</td>
<td>TOTAL</td>
<td>09</td>
<td></td>
</tr>
<tr>
<td>MEAN</td>
<td>01.0</td>
<td>MEAN</td>
<td>02.25</td>
<td></td>
</tr>
</tbody>
</table>

Pattern: Drawing/Reading and Writing/Reading

<table>
<thead>
<tr>
<th></th>
<th>HIGH</th>
<th></th>
<th>LOW</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>J</td>
<td>00</td>
<td>C</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>MM</td>
<td>00</td>
<td>D</td>
<td>01</td>
<td></td>
</tr>
<tr>
<td>MK</td>
<td>00</td>
<td>DW</td>
<td>00</td>
<td></td>
</tr>
<tr>
<td>M</td>
<td>00</td>
<td>B</td>
<td>00</td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
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<td>MEAN</td>
<td>00</td>
<td>MEAN</td>
<td>00.5</td>
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</tr>
<tr>
<td>Pattern</td>
<td>Ability Groups</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>---------------------------------</td>
<td>----------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking/Listening and Drawing/Picture Reading</td>
<td>High 14.50</td>
<td>Low 12.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talking/Listening and Writing/Reading</td>
<td>High 1.00</td>
<td>Low 2.25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drawing/Picture Reading and Writing/Reading</td>
<td>High 0.00</td>
<td>Low 0.50</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research question 3: What meanings are represented in children's response to story?

A. What drawing/writing process knowledge do children display in their response to conference questions?

B. What functions of language are displayed in children's unsolicited oral language during the drawing/writing composing process?

C. What concept knowledge, in terms of coherence and specificity, is displayed in children's story retellings and picture stories?

The connection among these questions is the common exploration and examination of meaning demonstrated in young children's response to story as displayed in their story retellings and construction of picture stories.

### Meanings Represented in Terms of Drawing/Writing Process Knowledge

#### Conference Question Responses

The questions posed during the drawing/writing composing process were used to help gather information about what children know about their drawing/writing. The responses to these questions which were posed at different points of the protocol session were examined to determine a profile of the range of responses given. The responses were organized according to the nature of the complexity and density of thinking explicitly apparent in the response.

Table 13 reports a profile of the responses made by the low and high
Table 13
Process Conference Responses

<table>
<thead>
<tr>
<th>Process Questions</th>
<th>Low Group</th>
<th>High Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>(high-low density responses)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. How do you remember the story?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>lock up in brain, boxes</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>act out, imagine</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>remember first, last parts</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>make an effort</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>easy-just do</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>don't know</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2. Where do story ideas come from?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>my brain, have lots of them</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>imagination</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>talk to friends</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>look at books, tv</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>3. What helps you most with drawing/writing?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>save up ideas, long words in head</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>my mind, imagination</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>think of wow-exciting story</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>drawing pictures, book's pictures</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>friends, teachers</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Process Questions (con't)</td>
<td>Low Group</td>
<td>High Group</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-----------</td>
<td>------------</td>
</tr>
<tr>
<td>4. Do you ever stop while writing and explain?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- decide what to write next</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>- to try to organize</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>- to reread</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>- calm myself down</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>- if hand, arm aches</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>5. What gets in your way when writing?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- people talking-friends</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>- time is up</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>- someone hits my arm</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>6. Do you draw/write at home?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- a lot</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>- have lots of books to help draw</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>- sometimes</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>- used to draw every night</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>- not much-play with friends</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>7. What happens when you draw/write a lot?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- makes you talk about it</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>- drawing helps give more info</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>- you get better at it</td>
<td>X</td>
<td>X</td>
</tr>
</tbody>
</table>
groups during the session. The responses were compiled into categories shown on the matrix and an example of one of the eight children's responses to the conference questions can be seen in Table 14.

The responses obtained to the initial question about how one remembers a story show the low group generally unaware of any strategy that they use. Mention was made of copying things down to remember what to buy at the store or asking mother to remind them of something that they had to remember to do. The high group articulated strategies of remembering story sentences, "locking sentences up in their mind," and using drawing or pictures in a book to help them. Most of the children from both groups stated that they spent time drawing and/or writing at home.

Meanings Represented in Functions of Language Displayed

In an effort to understand what ways children were using language to put their ideas into print, the questions and comments uttered by the children during the drawing/writing protocol were analyzed. The children's utterances were classified according to common characteristics and functions. The categories created illustrate the ways that oral language was used along with the drawing/writing picture story to communicate meaning. The categories created were procedural, informational, and format-regulating.

Utterances which gave information about what particular object the child intended to draw and its sequence were classified as procedural
Summary of Process Conference Response for One Child

Bob-B, LOW

R- What helps you remember?
B- My mind.

R- What made the book good?
B- The drawing and the words.

R- How did you make the decision to draw the bear?
B- The face...oh...I draw bears good.

R- How do you know what to draw first?
   Say on a bear--his face or arms and legs?
B- 'cuz the face is the foundation, so you know where the part goes next.

R- Where do you get the ideas when you draw?
B- I just kinda look at the book.

R- What do you do when you stop when you are writing?
B- Think about what's going to be next.

R- Do you have a lot of stories in your mind to write about?
B- Yes, lots.

R- Do you write or draw at home?
B- Yes, lots.

R- Have you written or drawn any other stories about bears?
B- Um, I remember one, I wish I was a bear.

R- Have you had dreams before?
B- Good or bad?

R- Either.
B- I've dreamed I was a police.
Comments. Example: "Now I'm going to add some grass." Comments providing clues as to what part of the story was being drawn or providing facts about the drawing were grouped as informational comments. Example: "This is the turtle at the end of the story." Statements and questions about spelling mechanics or concerns about editing were grouped under format-regulating. These descriptions were classified by the researcher and research assistant through mutual agreement. For example, Don's (D) responses during the research protocol interviews for the four stories were reviewed and then the comments made were classified under the category related to that comment (See Table 15).

The language functions portrayed in the unsolicited language comments during the drawing/writing composing process can be reviewed in Table 16. The high group made a higher number of procedural comments than the low group. Format-regulating comments occurred more often in the low group's comments.

The next section discusses the concept knowledge displayed in story retellings and picture stories.

Coherence and Specificity of Retellings and Picture Stories

The concept knowledge was defined in terms of coherence and specificity displayed in the text of the retellings and picture stories. The analysis procedure to determine these aspects of concept knowledge began by considering various aspects present in the story retellings and picture stories. These aspects of meaning involved looking at language across the modes in a systematic manner to gather information about the meanings represented in the retellings and picture stories. The context
Table 15
Sample of Research Protocol
Unsolicited Language Comments

<table>
<thead>
<tr>
<th>Language Function</th>
<th>Categories</th>
<th>Format-Regulatory</th>
</tr>
</thead>
<tbody>
<tr>
<td>Informational</td>
<td>no junk pile</td>
<td>use best handwriting</td>
</tr>
<tr>
<td>Child's name- Don (low ability group)</td>
<td>now I got it</td>
<td>reads, says excellent</td>
</tr>
<tr>
<td>Number of Stories- N=4</td>
<td>black because</td>
<td>spell contraption</td>
</tr>
<tr>
<td>Language Function</td>
<td>windy day</td>
<td>rereads title</td>
</tr>
<tr>
<td>Categories</td>
<td>put paper back</td>
<td>I can print better</td>
</tr>
<tr>
<td></td>
<td>in time</td>
<td></td>
</tr>
<tr>
<td>Procedural</td>
<td>this is a wolf</td>
<td></td>
</tr>
<tr>
<td>Categories</td>
<td>den</td>
<td></td>
</tr>
<tr>
<td></td>
<td>this is a short</td>
<td></td>
</tr>
<tr>
<td>Format-Regulatory</td>
<td>picture</td>
<td></td>
</tr>
<tr>
<td></td>
<td>I left claw out</td>
<td></td>
</tr>
<tr>
<td></td>
<td>makes lines he</td>
<td></td>
</tr>
<tr>
<td></td>
<td>says to correct</td>
<td></td>
</tr>
<tr>
<td></td>
<td>trying to draw</td>
<td></td>
</tr>
<tr>
<td></td>
<td>uses cover for</td>
<td></td>
</tr>
<tr>
<td></td>
<td>reference</td>
<td></td>
</tr>
<tr>
<td></td>
<td>best I can do</td>
<td></td>
</tr>
</tbody>
</table>
Table 16
Functions of Language Identified in Unsolicited Language Comments

<table>
<thead>
<tr>
<th>Language Functions</th>
<th>Ability</th>
<th>Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High</td>
<td>Low</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>Mean</td>
</tr>
<tr>
<td>Informational</td>
<td>46</td>
<td>11.50</td>
</tr>
<tr>
<td>Procedural</td>
<td>33</td>
<td>8.25</td>
</tr>
<tr>
<td>Format-Regulating</td>
<td>15</td>
<td>3.75</td>
</tr>
</tbody>
</table>
in which this concept knowledge was illustrated was young children's response to story on a one to one (teacher and child) situation. The objective for establishing the categories was to design a framework for looking at children's display of meaning in their retellings and picture stories.

The analysis procedure began by considering various aspects present in the retellings and picture stories. The retellings were compared to the story maps constructed for each of the four stories. The evidence of story grammar, use of "book talk," integration of personal experiences, complexity of language used, and general nature of the summary given were reviewed in each of the 32 retellings.

The picture story analysis included consideration of the detail, spatial relationships, cause and effect, time-lapse, and overall context illustrated in the picture story. Inductive analysis procedures were used to classify this information into categories which would allow the comprehensive description and interpretation of the observed behaviors. Previous studies described narratives in terms of lexical variables (Langer, 1986; King and Rentel, 1981) and topic density levels (Graves, 1984). The aim of this analysis was to develop categories based on the aspects considered for both the retellings and the picture stories. Categories were continually modified and refined as each child's retelling and picture story was examined. The categories were then reapplied to both the retellings and the picture stories for classification based on mutual agreement between the researcher and the research assistant.
The retellings and the picture stories were classified in terms of the unity of meaning as defined as the coherence and specificity illustrated in the language (verbal and graphic) displayed. The retellings and the picture stories were examined and dimensions of meaning expressed through the use of detail, information convergent with the story, and information divergent from the story were considered. The integration of writing in the picture story and the primary or secondary nature of writing in the picture story were aspects considered in the organization of the categories. The idea that economy in words and picture, such as in Molly's cartoon-like picture story (See Appendix D) could also indicate a strategy of focused thinking was another dimension of meaning acknowledged in the formation of the categories.

The intent of the development of the categories was to specify some of the aspects of meaning expressed yet often overlooked in retellings and picture stories. This would provide one method for educators to systematically look at some of the thinking processes displayed in young children's construction of meaning. These categories are part of a beginning framework for linking language process and product in the analysis of young children's meaning construction in the context of responding to story. The following are characteristics of four of the categories of coherence and specificity: (unity of meaning)

1. Fundamental Sketch- In this category, the retelling and the picture story present one aspect, impression, or event from the story in a very generalized manner. The sketch presents a story event which appears in isolation rather than
connected to the story sequence.
Example in retelling: Mitch's retelling- "They had this dream about a fox who was going to eat them." (Only one event of the story mentioned).
Example in picture story: Bob's turtle picture story- (This was only one of several events which occurred in the story).

2. Skeletal Tale- In this category, the details are presented in a sequential outline framework. The story is "recited" in a recognizable and reasonably accurate beginning, middle, and ending fashion.
Example: Mitch's retelling- "At first, the dog pushed him...Then, he went...Then at the end." (Here, transition words are present, and key events of the story are given).
Example: Mitch's turtle picture story- (The sequence of events is very clearly drawn).

3. Interpretational Tale- The characteristics of this category are that the story remains essentially true to the original storyline but expresses an identifiable deviation, departure or insight, a divergence from the storyline presented.
Example: Molly's retelling- "The teddy bear was sort of
fooling around...they probably looked all around the house."
(The interpretation of fooling around--misbehavior on the bear's part-- and the inclusion of looking around the house are the evidence of departure from the story text).
Example: Mary M's (MM) picture story- (The trees clearly are a personal touch of hers to the story line).

4. Transformational Tale- In this category, a synthesized or summary version of the story is presented. The story is divergent in that the child changes the story to express more of a personal preference or version of the story. The child transforms the author's version, evaluating story elements and changing the story to reflect a personal perspective and point of view.
Example: A retelling of the flying machine story could state ideas about the importance of flying in present day times.
Note: In this study, no retellings were told which could be classified in this category.
Example: Don's picture story- (The story was about a flying machine, but Don chose to write about a flying contraption in the dinosaur time period).
Tables 17 and 18 illustrate the classification of the retellings and the picture stories for each child and each story. An annotation is provided to show what aspect was significant in categorizing the retelling and picture story into this framework. Both groups' retellings and picture stories were characteristic of the skeletal and interpretational tale categories. The low group's picture stories were generally characteristic of the categories of fundamental, skeletal, and interpretational. The high group's picture stories were characteristic of the interpretational and skeletal categories.

<table>
<thead>
<tr>
<th>Meaning Displayed in Initial Images of Picture Stories</th>
</tr>
</thead>
</table>

In looking at the progression of young children's drawings, the sequence of images translated initially into graphics and/or print displays young children's beginning attempts to construct and organize meaning. This information can provide some clues as to the language cues and story elements the child is making sense of in the process of meaning construction.

During the drawing/writing protocol, the researchers made note of this progression by numbering the graphics and/or print generated by the child. Table 19 reports the initial images displayed in graphics and/or print for each story session. The images recorded took place within the first three print events documented during the story session. The character and the setting of the story were the two images typically translated by the children in their response to story. The low group initially translated the idea or image of character in 11 of the 16
TABLE 17
STORY RETELLING COHERENCE AND SPECIFICITY

<table>
<thead>
<tr>
<th>Subjects</th>
<th>F. MACHINE</th>
<th>BEAR</th>
<th>TURTLE</th>
<th>STREAM</th>
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<tbody>
<tr>
<td>High Group</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>J</td>
<td>3-found neat stuff</td>
<td>3-sick of</td>
<td>3-taxi</td>
<td>2</td>
</tr>
<tr>
<td>MK</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>MM</td>
<td>2</td>
<td>3-fooling around</td>
<td>3-wanted to be same</td>
<td>2</td>
</tr>
<tr>
<td>M</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Low Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>3-touch-up</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>3-exploring</td>
<td>2</td>
<td>3-better &amp; faster</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>2</td>
<td>2</td>
<td>3-tired</td>
<td>2</td>
</tr>
<tr>
<td>DW</td>
<td>2</td>
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</tr>
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KEY - CATEGORIES
1-Fundamental Sketch
2-Skeletal Tale
3-Interpretational Tale
4-Transformational Tale

Frequency Totals

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TABLE 18
PICTURE STORY COHERENCE AND SPECIFICITY

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<th>STREAM</th>
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<tr>
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<td>3-TV</td>
<td>2-draw in</td>
<td>3-weather-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>related</td>
<td>order</td>
<td>vane</td>
</tr>
<tr>
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<td>3-different trees</td>
<td>2-story</td>
<td>1-one part</td>
<td>3-dog for</td>
</tr>
<tr>
<td></td>
<td></td>
<td>together</td>
<td>fox</td>
<td></td>
</tr>
<tr>
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<td>2-barn, broke</td>
<td>3-draws</td>
<td>2-sequence</td>
<td>3-hay in</td>
</tr>
<tr>
<td></td>
<td></td>
<td>license</td>
<td>barn</td>
<td></td>
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<tr>
<td>M</td>
<td>4-ramp ribbons</td>
<td>2-dog,</td>
<td>3-hill,</td>
<td>2-sequence</td>
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<td></td>
<td></td>
<td>bear</td>
<td>moon</td>
<td></td>
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<tr>
<td>B</td>
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<td>2-story</td>
<td>1-bird</td>
<td>3-rabbits</td>
</tr>
<tr>
<td></td>
<td></td>
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<td>incident</td>
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<tr>
<td>D</td>
<td>4-back in time</td>
<td>1-bear</td>
<td>4-cougar</td>
<td>3-wolf den</td>
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<tr>
<td></td>
<td></td>
<td>drawn</td>
<td>lost tail</td>
<td>added</td>
</tr>
<tr>
<td>C</td>
<td>3-spokes in wheels</td>
<td>2-car</td>
<td>2-sequence</td>
<td>3-ladder</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&amp; trash</td>
<td></td>
<td>added</td>
</tr>
<tr>
<td>DW</td>
<td>2-sequence of machine</td>
<td>2-boy</td>
<td>1-turtle</td>
<td>1-ducks riding</td>
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<tr>
<td></td>
<td></td>
<td>got</td>
<td>bear</td>
<td>lost</td>
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KEY - Categories
1-Fundamental Sketch
2-Skeletal Tale
3-Interpretational Tale
4-Transformational Tale

Frequency Totals

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TABLE 19
Drawing/Writing Picture Story Initial Images

SUBJECTS
HIGH

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</thead>
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<td>Fly</td>
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<td>barn</td>
<td>tree</td>
<td>barn</td>
</tr>
<tr>
<td>Machine</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>O</td>
<td></td>
<td>trash</td>
<td>house</td>
<td>trash</td>
</tr>
<tr>
<td>R</td>
<td></td>
<td>can</td>
<td>can</td>
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<td></td>
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<td></td>
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<td>E</td>
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<td>ground</td>
<td>turtle</td>
<td>turtle</td>
</tr>
<tr>
<td>S</td>
<td></td>
<td>chick</td>
<td>hen</td>
<td>house</td>
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HIGH- Totals:
Character - 05
Setting - 11

SUBJECTS
LOW

<table>
<thead>
<tr>
<th></th>
<th>C</th>
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<th>DW</th>
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<tr>
<td>Fly</td>
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<td></td>
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<td>dinosaur</td>
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<tr>
<td>Machine</td>
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<td>sign</td>
<td>boy</td>
<td>machine</td>
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<td>can</td>
<td></td>
</tr>
<tr>
<td>I</td>
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<td>cougar</td>
<td>hill</td>
<td>turtle</td>
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<tr>
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<td></td>
<td>wolf</td>
<td>duck</td>
<td>duck</td>
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<tr>
<td>S</td>
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</tr>
</tbody>
</table>

LOW- Totals:
Character - 11
Setting - 05
picture stories. The high group initially translated the image or idea of setting in 11 of the 16 picture stories.

In general, the young children's picture stories included the basic story elements (character, setting, problem, story events, etc.) as outlined by Pearson (1982). This documentation of the initial images illustrated what each group's individual preferences were in this context of responding to a story.

**Summary of Research Protocol Interview Sessions**

Many levels of cognitive processing are present in children's response to story as displayed in the various modes. The conference responses displayed the high group's awareness of strategies in remembering a story. The functions of language identified in the unsolicited comments made during the drawing/writing revealed some similarity in the number of informational comments made. The low group exhibited format-regulating comments more often than the high group. The high group demonstrated procedural comments more often than the low group.

The categories created to describe the concept knowledge, as defined in terms of coherence and specificity, in the story retellings and picture stories were fundamental, skeletal, interpretational, and transformational. Both group's retellings were characteristic of the first two categories mentioned above. The picture stories for both groups were generally classified as skeletal and interpretational. The initial image of character was more often translated first by the low group. The initial image of setting was more often translated first in the picture stories by the high group.
CHAPTER V
SUMMARY AND DISCUSSION

The purposes of this descriptive study were twofold:
(1) examine the linkages between and across the language processes of
listening, speaking, reading, drawing, and writing and (2) to examine the
meaning displayed in within and across these language modes in children's
response to story.

Summary

Research Question 1: What language processes, in terms of listening,
speaking, reading, writing, and drawing, do children use to convey and
display meaning in response to story?

No one particular language process was chosen exclusively to convey
meaning in response to story. The use of some of the language processes
did occur more frequently than others. Drawing/picture reading and
talking/listening were language processes used at a high average
frequency rate for both the high and the low groups. The order of the
language processes in highest to lowest rate of occurrence for both
groups was drawing/picture reading, talking/listening, and
writing/reading.

Research has stated that children differ in the language processes
they use to convey meaning. The language process modality charts
constructed in answering this first research question show how young
children differ in the modes used to communicate meaning.

Research Question 2: What patterns across modalities do children display
in their use of the language processes?

The fluidity and diversity of movement within and across the modes was examined by observing the language process modalities charted for each picture story created by each child across the 32 sessions. The frequency of occurrence in movement was charted from one modality to the other. This pattern of movement or linkage of one modality to another was identified as a sequential or simultaneous linkage pattern. Drawing/picture reading led more often to talking/listening in the high group's language process modality charts. Talking/listening led to drawing/picture reading more often in the low group's language process modality charts. Talking/listening and drawing/picture reading was a simultaneous linkage pattern that occurred at a high frequency rate for both the low and the high groups.

Research Question 3: What meanings are represented in young children's response to story?

A). What drawing/writing process knowledge do children display in their response to conference questions?

An analysis of the process conference responses revealed some awareness by the children of their drawing/writing composing strategies. This awareness was demonstrated in the explicit answers the young children gave to questions concerning their drawing/writing composing behaviors. The high group articulated some of their strategies and perhaps had a greater understanding of the drawing/writing composing process. Both groups did state that they drew and/or
wrote stories at home.

Another aspect of process knowledge, concept of story, was seen in the analysis of what initial image was drawn/written by each child. The low ability group translated the image of character more often than the high group, whose picture stories reflected the translation of setting in the initial steps of drawing/writing. Both groups displayed recognition of basic story elements in their picture stories.

B). What functions of language are displayed in children's unsolicited oral language during the drawing/composing process?

The questions and the comments uttered by the young children during their drawing/writing composing segment of the session were analyzed in an effort to understand what ways children were using language to put their ideas into print. The children's utterances were classified according to common characteristics and functions and labelled as informational, procedural, and format-regulating. The high group's comments were generally characteristic of the informational and procedural categories. The low group's comments were generally characteristic of the format-regulating and informational categories.

These functions of language identified in the drawing/writing composing process are similar to the
composing behaviors described by Graves (1984) in his
discussion of the transition from oral to written
discourse. Children from both groups often spoke
simultaneously with their drawing/writing,
identified by Graves (1984) as Stage one. Some children
from both groups tended to draw more often after writing
(Stage two).

C). What concept knowledge, in terms of categories of
coherence and specificity is displayed in children's story
retellings and picture stories?

Concept knowledge was defined in terms of coherence
and specificity displayed in the text of the retellings and
picture stories. Categories were developed to provide a
framework for looking at aspects of meaning across the
modes in a systematic manner. These categories attempt to
link language process and product in the analysis of young
children's retellings and picture stories in the context of
responding to story. The categories are fundamental,
skeletal, interpretational, and transformational. Both
groups' retellings and picture stories were characteristic
of the skeletal and interpretational categories.

Analysis of Response to Story

Initially when a teacher asks a first grade child to draw and/or
write about a story heard, one expects to see drawing as the focus of
meaning construction. The idea that a child may choose to write and not
draw may even cause one to consider the child to be at an advanced level for first grade. The fact that teachers often interpret data in isolation from the child's language processes influences perceptions of a child's display of meaning. Research has described this lack of integration, such as in the writings of Holdaway (1979) and Parker (1983).

An analysis of three of the eight children in the study shows how a contrast can be drawn from the construction of meaning displayed and interpretations of that meaning. In Deb's (D) drawing/writing picture story, one can see the absence of drawing which occurred throughout the study. Deb stated that she would rather write than draw. Her writing, however, even though a page in length (often a first evaluation of "enough work"), depicts her struggle to get the words on paper. Cross-outs are prevalent, and the nature of the text is characteristic of the skeletal level of the story. (See Figure 8)

Holly's (H) drawing/writing picture story of the same bear story features a cartoon-like display of the characters of the story. Writing is integrated into the drawing, and "Opse!" reflects her personal interpretation of the story event. Although there isn't much writing in the text, the drawing and the writing work together in telling the story with economy of words and pictures.

Don's (D) picture story of the bear story reveals writing as a feature which initiated the picture story. This writing of the story is not integrated with the picture story and actually functions more as a label to the drawing rather than providing additional information.
the dog pooched
he bare in the din
and he went to the
tomp. "and he then
then the boy came"

To get him aint.

FIGURE 8
INDIVIDUAL RESPONSE TO STORY
In each of these picture stories, it is not the amount of drawing or writing that is important. The way the language processes-- in this case drawing and the writing-- are used to reflect the thinking and meaning constructed by the child is the primary concern. Fluency in text and/or pictures, flexibility in expression of ideas, and the range of language processes which the child can use in constructing meaning are aspects of meaning that can be recognized in language development. The ability to display meaning using a variety of modes is further evidence of the interrelationships across the language processes.

The strategies Deb, Don, and Molly utilized to complete their picture story were very different. Deb really needed the constant feedback and support from the researcher to complete the task. She paused many times while writing, and seemed to need the "push" from the researcher to continue and complete the task. Don talked as well as drew for most of his story. He seemed to want to discuss himself as well as his picture story. Molly drew and talked about what she was going to draw. Talking served more as a planning device for her picture story development.

There are many ways to approach the task given which involved drawing and/or writing about the story. The differences noted in any task completion are often equated with placement in a high or low ability group or a test score. The differences can be recognized as strategies children use to convey and display meaning. Children use the language processes to reflect their thinking. Children's construction and expression of meaning is what they interactively build from what they know, believe or understand at their level of development, and from what
they have experienced in their environment. Too often language learning is perceived as a linear process, rather than as a complex multiple modality system of interrelated processes which make up its meaning construction framework. Language learning is a multifaceted process through which children can use all the language processes to extract meaning, make sense of print, and express meaning in language natural to them at their stage of development.

Typically, some of the usual ways first grade teachers evaluate comprehension of a story are oral language discussion activities, classwork completion of worksheets on various aspects of language, and listening and following directions for a task such as drawing and/or writing about a story. Even though teachers generally acknowledge that these are not the only ways to evaluate and make decisions about a child's language learning, the above methods are what is often used. The key seems to be to collect as much data possible on children responding to a task in a particular context and sort through this to get the "total picture" of children's construction and display of meaning.

The major conclusions that can be drawn from this study are:

1. Children use many language processes to construct meaning.
2. Children differ in which language processes they tend to use.
3. These patterns of movement within and across these modes and these language processes illustrate strategies children are using in the construction of meaning.
4. The categories developed in this study are a beginning step in classifying the dimensions of meaning displayed in
Implications of the Study

1. Research has recognized the interrelationships between and among the language processes of listening, speaking, reading, drawing and writing. This study has shown how these processes are interrelated by mapping some of these linkages. We know that young children use a variety of language processes in response to story and so classroom instruction should offer opportunities for children to use this variety in their efforts to make sense of print. The way children make connections through language for meaning (drawing, drawing and talking, writing and reading, etc.) can provide insight into the strategies they use to convey and display meaning.

2. Children know about their drawing and writing composing process, as shown in some of the process conference responses. This recognition of children's active role can aid in the selection of appropriate instruction to build on this process knowledge.

3. Young children's retelling of stories and their comments/discussion while composing are tools for gathering information about children's meaning construction efforts in response to story. Often, children are asked to compose their stories in silence and so this valuable information is not heard. The process and product of
meaning generated in response to stories needs to be considered. Story retellings and picture stories can contribute to further understanding of the interrelatedness of the language processes in the expression of meaning. The categories developed in this study are a major beginning in building a framework to understand the dimensions of meaning displayed in children's retellings and picture stories. These categories can be used as a guide in helping teachers assess children's construction of meaning in a particular context. The categories are one bit of information that can be useful in making instructional decisions about children's language learning. This classification can provide teachers with terms to discuss specifics in children's retellings and picture stories. This information can also be a tool for children.

Suggestions for Future Research

Future case studies are needed to expand the data on children's language process use and the dimensions of meaning displayed in their response to story. Continuing study of the complementary nature of the language processes and the interrelationships among these processes is suggested to help educators further understand the integration of these processes by the child in communicating meaning. This understanding could influence instructional decisions concerning integration of the language arts across the curriculum. Further research could explore the following questions:
1. How does children's understanding of concepts deepen as they use preferred modes to convey and display meaning?

2. How do linkages between and among the language processes change when classroom instruction places constraints on children's meaning constructions?

3. What are some of the other dimensions of meaning that can be classified as categories of concept knowledge in young children's story retellings and picture stories?

4. How does context and the child's intention influence what is drawn and/or written in response to story?

In responding to story, young children use the language processes of listening, speaking, reading, drawing and writing as their communicative media in constructing meaning. In guiding young children's language learning, educators need to systematically observe, collect, and be cognizant of the many features of children's display of meaning.
BIBLIOGRAPHY


APPENDIX A

PERMISSION FOR STUDY
April 3, 1986

Dear ______,

The SAU#48 school district has been most cooperative in letting me talk with and work with the principal and first grade teacher in the _____ Elementary School about the reading/writing process. I would like your permission to share some current selections from children's literature with your child and talk about drawing, writing, and reading.

The children will be videotaped making picture stories which they will share with the class at the end of the sessions. You are invited to come to the class presentation of the stories.

The purpose of this project is to learn more about children's drawing, reading, and writing. The Superintendent of Schools, is very supportive of this project and hopes to have more reading and writing integrated into the new curriculum guide.

If you have any questions, please call me or your child's first grade teacher at the school's number.

Sincerely,

Dennise M. Bartelo

cc:
APPENDIX B
LANGUAGE PROCESS MODALITY CHARTS
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Language Process Modality Chart
Mary M. - (MM, HIGH)
Language Process Modality Chart
Mary M. - (MM, HIGH)

Stream Story

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1 ←→ 1
2 ←→ 2
3 ←→ 3
4 ←→ 4
5 ←→ 5
6 ←→ 6
7 ←→ 7
8 ←→ 8
9 ←→ 9
10 ←→ 10
11 ←→ 11
12 ←→ 12

Flying Machine Story

D/PR T/L W/R
1 ←→ 1
2 ←→ 2
3 ←→ 3
4 ←→ 4
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6 ←→ 6
7 ←→ 7
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9 ←→ 9
10 ←→ 10
11 ←→ 11
12 ←→ 12
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Language Process Modality Chart
Mitch- (MK, HIGH)

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Language Process Modality Chart
Molly- (M, HIGH)

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### Language Process Modality Chart

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Language Process Modality Chart
Christine- (C, LOW)

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Language Process Modality Chart

Don- (D, LOW)

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Language Process Modality Chart
Don- (D, LOW)

Stream Story

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1 ←→ 2
2 ←→ 2
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4
5 ←→ 6
7 ←→ 7
8 ←→ 8
9 ←→ 9
10 ←→ 10

Flying Machine Story

D/PR  T/L  W/R
1
2 ←→ 2
3 ←→ 3
4
5 ←→ 5
6 ←→ 6
7
8
9 ←→ 9
10 ←→ 10
11 ←→ 11
12
13
14 ←→ 14
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22 ←→ 22
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#### Bob- (B, LOW)

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APPENDIX C
Drawing/Writing Protocol-
Retellings and Sequence
These retellings were given by the children in response to the statement by the researcher or the assistant to "Tell me all you remember about the story."

**High Group**

**Story Retellings - Mitch (MK)**

**Turtle story** - At first he didn't want to wear his shell so he just dropped it and it sort of flipped off. In the middle, he wanted his shell again. There was a big storm and then he went back into his shell and said goodnight.

**Bear story** - At first, the dog pushed him into the trash can. Then, he went to the dump. Then the boy took the bus to the dump. The man was grumpy from looking for the bear and then they found the bear. The man gave him a ride home. Then at the end, the bear woke up and said, "When can we go out?"

**Flying Machine** - Well, first in the summer, he found an old barn. Then he decided to make a flying machine and then it was time for supper. He had to go in. Then it was time for bed. He was dreaming about what his flying machine would look like and then - oh - during the next day - oh um, he could do stunts on his flying machine and like hang by his feet blindfolded. When he would win every race, he'd have so many ribbons and service medals, he wouldn't know where to put them. The next day, he went back into the barn and everything was where he had left it but he wanted to do somemore stuff on the flying machine. So he nailed another wing on. But somehow, his flying machine - it didn't look like he
thought it would. He found some paint and painted it. Then he wanted to put it in the shade to dry off. At the end, he said, "Tomorrow, I'll start a rowboat."

Stream story- They had this dream about a fox who was trying to eat them - that's all.

Story Retellings- Mary M (MM)

Turtle story- There was this turtle, you see, who wanted to be like everyone else. So he took off his shell, but later he found out that wasn't too smart because he was cold and so he later put it back on again.

Bear story- I remember that the teddy bear was sort of fooling around I think, and he bumped into a dog and the dog pushed him in the garbage can. The dog said sort of like "I don't know what I've done. I better get out of here." The teddy bear was still in the garbage can and the man took the garbage out. I think the dog was trying to stop him and the man doesn't listen to the dog. Dogs don't talk anyway. So the man took him out in the garbage truck and dumped him in the dump. So then the dog went in and told the boy. And they went to the dump. First they probably looked all around the house. Then, the boy asked the man to look for the teddy bear and they couldn't find it. The doggy smelled something that smelled good to him. He found the bone and the can. He found the bear and took him to the boy. The man who took the garbage drove them home and then they went to bed. In the middle of the night, the boy said, "Are you all right?" The bear said, "When can we have another trip again?"
Stream story- The hen and the ducks were having a bad dream that the wolf was coming to eat them. They ran to the house near the stream. They saw some ducks and the ducks didn't mind if they went on their backs. The hen got on the momma duck's back and the chickens got on the ducks' backs and the ducks swam across the stream away from the wolf.

Flying Machine- Okay, I've got some parts. He walked up to some place and he found an old barn. He looked in there and there was lots of wood and nails in there. So, he took the wood and the nails and started to build a machine that could fly. He was sort of like it was time to come in. He went in and went to bed and was dreaming about what he could do with a machine that could fly that he wanted to build. So, the next day, he went up to the barn and started working on his machine that could fly. He tried to pull it out of the barn when it was finished to dry off the paint. But before he could get it all out of the barn, it broke down. He said that the next day he'd try to build a boat!

Story Retellings- Jay (J)

Turtle story- The tortoise was walking and was sick of carrying his shell on his back, so he took it off and started to have all his troubles. He almost got hurt. The shell - it was good because it was protection. That's it.

Bear story- I remember that the bear got dumped in the trash can. The dog dumped him in and that man come up and picked him up and brought him to the dump. The boy took a taxi and went over and asked the man for help. He said, "You must be nuts!" Then the dog sniffed around and finds the bear. Then the man brought him home and the man said, "Kid -
you must be nuts, kid." Then he went to bed with him and asked if he was all right and that was it.

Stream story- Well they had a bad dream and started to run. A fox came and they started to run away. Ducks came along. They got a ride on the ducks.

Flying machine- At the beginning of the summer, the boy found this barn and all this neat stuff. He could do whatever he wanted. He decided to build a flying machine and started to build it and then when he had to go home, he dreamed about it and thought he'll build a big one. He decided it would be too big and then he found a little one and found all this neat stuff for it. The next day, he ran over to it. Then when he finished it all up, he tried to take it out of the barn, but when it came out, it just busted.

Story Retellings- Molly (M)

Turtle story- First he was walking on and wanted to go faster. So he took off his shell. He slipped off his shell and walked off. First he met a hornet and so he hid around a rock. Then a bird was flying past. Then he hid behind a tree. Think then a snake twirled. He met a fish in the sea and then the sun was up and then he said, "I wish for a shady place." Then it began to rain. Then he felt so cold then he walked back to his shell and went back on the hill and said, "Goodnight."

Bear story- First, there's this bear and the dump person and the dog. The dump person, he drove by and picked up the trash can and put it in his truck. Then he drove away and the bear said, "Stop, stop!" Then the man said, "Let's go" and they throw him in the dump and he landed
with a thump and he said, "Ouch!" Then the boy took a bus to the dump and was looking for the bear and he got lost. The dog smelled the bone and he said, "Ummm." He then found a can and he said, "What's this?" Then he found the bear and he said, "Hi, Fred." I forgot the rest of it.

Stream story- There's a hen and three chicks and they had a bad dream. They went to a stream and they said, "Cluck, cluck." Then they met the duck and three ducklings and the duck came and said, "Get on my back." So they did and went across the stream.

Flying Machine- At first, he wanted to build a flying machine and so he found an old barn and he put things from the old barn together; nailed them and stuff and then he finished some of it. It was time for dinner and he had to wash his dog. So, he had to wait 'til the next day to finish and he said, "Bye, bye flying machine." He went off. Then the next day, he ran to the ran - actually in the night, he dreamed about what his flying machine would look like. Then, he went, the next day, he ran to the barn. Then he finished it up and got a rope, an old rope, and tied it to the flying machine and pulled it out. Before and he was trying to get it to his house and he pulled it and it broke.

Low Ability Group
Story Retellings- Christine (C)

Turtle story- He was walking and he took off his shell off because he thinks he is kind of tired. When the bee came, he hides under a stone. Then a bird swept over and he hid behind a tree and that's all I can remember.

Bear story- The bear fell in the trash can and the dog pushed him.
The boy - he found him and took him home - that's all.

Stream story- There were some chicks and they were dreaming about a fox and they went to a stream. the duck said, "Quack, get on my back." The chick on a duckling, a chick on a duckling, and a hen on a duck.
Then the hen got to the other side of the pond.

Flying Machine- It is about a boy building a flying machine. Then birds could rest on the wings and he won that contest. Then he ran back to the barn and started trying to build more things on it. He found some paint and some brushes and tried to pull it out of the barn and it broke.

Story Retellings- Deb (DW)

Turtle story- He took off his shell and he went and he didn't like it so he put it back on.

Bear story- When the dog pushed him into the dump and then he went to the dump in the dump truck. Then the boy found him and the dog found the bone. They went home and the boy woke up and he asked the bear if he felt all right.

Stream story- They had a bad dream and they were walking and came to a stream. The mother sees the ducks. The ducks saw the chicks across the stream and the fox was left on the other side of the stream.

Flying machine- First he went in the old barn. Then, he found all the pieces. Then he had to go back and get the - wash the dog - then he had to go to bed. Then he had to go and the next day he went out there and finished it. Then when he was getting out, it broke and he said, "The next day - tomorrow, I'll build a rowboat."
Story Retellings- Don (D)

Turtle story- There was this turtle. He wanted to be better and faster and so what he did was took off his shell and went exploring.

Bear story- The bear was named Fred and he was lost in the dump yard and a man who was very grumpy helped him find Fred. Then he got a ride home in a van and he shouted, "When can we have another day out?" And, it says, "This was the bear - a lot of those - and that's about all I remember.

Stream story- Well, one big hen and three little chicks had a bad dream about a fox who was trying to get them. So they ran. And then, they said, "We are in luck. I see one big duck and three little ducklings." And so, the mother got the three ducklings - got the ducks - got the baby - the three chicks, got on the baby ducklings and the mother hen got on the big duck. They went down stream - like this way is down stream. They got off at the river and the fox said,"I'll just give up."

Flying machine- He said he was out exploring one day and he found an old barn. There was pieces, all kinds of good stuff, and he is curious about building something. So he wanted to build a flying machine. But when he finished it, he tried to pull it out and it was obviously too big and something happened. But he didn't nail it right so it broke and he said, "Maybe I'll build a rowboat tomorrow."

Story Retellings- Bob (B)

Turtle story- Well he took off his shell and he's walking and then he meets a bird and he hid behind a tree so the bird won't see him. Then he walked in and he met a snake. Then he backed up and it started
raining and then he walked in and found his shell and said goodnight.

Bear story- The bear went to the dump and then that boy - that man were searching around. Then that bear said,"Here I am," and then that man found the dog with the bone and he took them all home and the boy woke up in the night and the bear said, "When can we have another day out?" The bear said, "Soon."

Stream story- That duck had a bad dream and that it came true. He ran off and went to the duck and he was - she was - in luck. He got a ride on the ducklings and the duck and they got across the stream and the fox was looking back at them.

Flying machine- That he went and found the barn and he found lots of pieces that were in it. Then he filled it half way, and it was time for supper and to feed his dog. He dreamed about it and the next day, he went and it didn't look like he thought it would and he had to do a lot of things on it. And then he painted it, put a touch here and a touch-up down there and then he was pulling it out and it went "Baaashuum." Then he said, "I want to build a rowboat."
Drawing/Writing Protocol Summaries

Child's name - Mitch (high group)

Story - Turtle story
1- talks and drawsturtle
2-says he is drawing when he dropped his shell
3-sky
4-lines
5,6,7,8- circle, stars
9- tells researcher about the box he drew in the middle

Flying Machine Story
1- lines
2- barn
3- boy running into the barn
4- trees
5- sleeping in the bed
6- flying machine
7- window
8- boy
9- says the boy is dreaming about models
Mitch's Drawing/Writing Protocol Description (high group)

story- THIS IS THE BEAR

Drawing/Writing Sequence

1- draws lines
2- draws box in center
3- draws shape of the can
4- begins to draw bear
5- draws grass
6- says thinking about shape of car and wheels, draws
7- asks to see book for picture
8- draws boy
9- bear, says not good at making a dog
10- makes license plate
11- bumper with lights
12- stop sign = writing
13- colors, draws bear in garbage
14- trash can
15- colors more of trash can
16- top of car
17- bench
18- adding a handle-you pull it down
19- boy's clothes are drawn
20- stripes on can
21- makes grass near the trash
22- colors bear
23- almost-finished he says-draws wheels
24- colors license plate
25- one more thing-heres' the dashboard
26- puts name in colors

Bob's Drawing/Writing Description (low group)
Title- THIS IS THE BEAR

DRAWING/Writing SEQUENCE
1-writes the title of the book, uses book
2- draws bear
3,4,5,6,7 - more of the bear is drawn
8,9,10- draws the face
11- draws the paint can
12,13-draws and says the rocks
14- says he is drawing a block
15-draws dog
16-makes rocks and junk
17-draws more of dog
18-says thinking about the road and draws it
Child- Bob

Flying Machine Story

1-I'm thinking about the plane
2-Im making a nail
3-flat tire
4-door
5-says here is the dog standing up
6-it's flying-draws man
7,8,9- draws trees
10-water
11,12,13- draws boats and writes US NAVY -says this might not be way there were in the book
14- draws squadron fighter
15,16-clouds
17-draws machine
18-lines on plane
19-says more nails
20-front of ship and decorations
Drawing/Writing Protocol

Bob- Turtle story
1-tree
2-top of tree
3-turtle
4-bird
5-bird is hiding in the tree- he says while drawing
6-more of the bird is drawn
7-lines
8- says making some grass
9,10 - more grass
11-sun
12-wind lines

Bob-Stream story
1- draws the barn
2- I'm thinking about fox
3- window
4,5- fox
6,7- Thinking about when the chicken went cluckkkkk.
8 - he must have been scared
9-chickens
10-ladder
11,12- another chick
13-big chicken drawn
14-this is the back of one (he says) while drawing
15-This is going to be rocks in the stream
16-This is going to be rabbits
17-they are just asleep
18-'Going to draw the back side of the ducks
19-writes having a bad dream, using the book for reference

Drawing/Writing Protocol
Child's name- Don

Turtle story
1-draws wolf
2-this is going to be a short picture
3-I can make Mt. Everest
4-writes -is that how you spell cougar?
5-colors blue sky
6-side of sky-turns page
and says this is pretty simple
7-The cougar just lost his tail-draws remaining parts of cougar.
Drawing/Writing Protocol

Flying machine story - Don

1- I'm going to put the paper back in time
2- I'm trying to draw steps
3- I left a claw out
4- claw
5- Now I've got it - draws foot
6- I'll make it a cool flying machine - draws
7- Can I put anything on it? I'll need light speed
8- colors
9- I make the best sabertooth tiger in my class
10- this guy is stopped in his tracks
11- the brontasaurus was king of time - today the shark is
    king... I've seen it in Florida
12, 13- colors
14- Think I'll draw the transasaurus
15- draws body
16- Here's the hard part
17- This guy was so powerful - known for his hunting
18- ok - one more thing
19- How do you spell contraption?
20- writes
21- vocalizes and says its a long word
22-counts the letters

23-Writes his name, polishing his writing

Don-Bear story
1-writes the title
2-I'm going to make a picture of this bear except it is
   not going to have a junk pile
3-draws arm
4-says -that's excellent
5,6,6-more of bear
8-There's going to be a mountain behind him
9-There
10-It's a big mountain
11- draws tree
12-I am going to make the sky
13-Can you still see this?
14-I think I'll make trees-the best way-Mrs. H. showed us
15-I like the way I draw mountains
16- colors the mts.
17-These are what my trees look like-still coloring
18-What color should the background be?
19-I'm going to use brown-oops-no brown-colors
Drawing/Writing Protocol

Don- Stream story
1- begins to color and then to write
   the title-uses book
2- says he is going to do his best
   and writes
3- oh shoot-I did good on my seatwork today
4- animal is drawn
5- sky
6- says the lighter colors are better
7- ok watch this-(stands)-I always draw this
8- I'm going to make black background
9- this is a wavy stream-draws
10- this is a wolf den-draws

Drawing/Writing Protocol
Child's name- Deb
Turtle story
1- writes the
2- sounds out-says I did that wrong
3- crosses out
4- writes "chel"
5- asks about turtle story
6- rereads and crosses out
7-writes more
8-big sigh and a period
9-she says this is what else-writes
10-crosses out d
11-writes back
12-sounds- he
13-rereads last two words
14-rereads "took it"
15-rereads and crosses out
16-sigh-writes shell
17-puts period
18,19, 20- writes last line
21-sounds and writes last three words

Deb- Bear story
1-I'm thinking about what to write-pencil touches paper
2- writes dog
3-writes pushed
4-says what was the name of thing pushed him in?
5-looks at book-writes
6,7-rereads and writes
8-writes and vocalizes
9-puts period after bin
10-writes dump
11-writes- and then he
12-scribbles out
13-says wait
14-rereads to self and writes
15- wait-the boy came to get him out-right?

Deb-Stream story
1-writes duck and says-Does duck have a c or k?
2-looks at book-oh
3-copies word
4,5- sounds out and writes
6-sounds out across
7-How do you spell across?
8-writes
9-sounds stream
10-done

Deb-Flying machine story
1-writes- the boy
2-writes- went in
3- writes -his barn
4- puts in apostrophe on his
5-fixes the he
6-writes- flying
7-writes-machine and puts period
8-rereads and writes-
9-says almost done
10- fixes d
11-rereads
12-rereads more
13-writes-give the dog
14-writes-a bath
15-oh-ok
Drawing/Writing Protocol
Child- Mary M
Story-Flying machine

1- I'm drawing what I remember from the story
2- I like drawing better than writing
3- I'm thinking
4- draws trees
5- I can't really draw a tree that looks real
6- tree
7- I can draw another tree
8- going to make this one different
9- tree
10- supposed to be a barn
11- hay
12- Now I'll do this house
13- his room
14- window
15- door
16- window
17- window
18- roof
19- sun
20-cloud
21-That's all

Mary M- Stream story
1-draws chicken
   It looks like a duck-she says
2-Can I just draw the chickens
3-I put grass there because they are outside
4-hill
5-This is going to be sort of like a dog
6-Oh=I don't know
7,8-draws grass
9-sometimes I write songs about a story
10-I'm going to make ducks in the grass
11-I'm going to fix the head-otherwise it will look like a dog
12-I've never tried to make them in grass before

Mary M- Bear story
1-house
2-bottom of house
3,4,5,6-windows
7-bear
8-rock
9-colors
10-colors roof
11-dog
12-top of can
13-bottom of can
14-sun
15-cloud
16-last cloud

Drawing/Writing Protocol
Child's name- Jay
Story- Flying Machine
1-barn
2-Now I like it -looks like a machine
3-makes stuff on head of boy
4-does the face
5-barn
next page-
6-the boy
7-makes circle for the dream
8-draws machine in the dream circle
9-drawing chain to head
10-colors the boy
11-rock
12-He's going back through the woods—he says
13-draws trees
14-Can I make the boy—these trees are like my uncle's camp

Jay—Stream story
1-begins to draw chicken
2-says—I have to make the eyes look like they are open
3-draws other chicken
4-draws the barn
5-says—I think I remember a weathervane
6-draws fox, and says forgot something
7,8- colors inside the barn
9-draws the river and the grass
10—I could do ducks over the river, he says as he finishes the grass.

Jay—Bear story
1-draws trash can
2-lines on can
3-top of it
4-shape of the dog
5-I'm trying to think where all the pictures were in the story- he says while coloring
6- draws truck and says messed up-talks about the truck looking like one on TV
7-draws the man
8-car shape
9-lines
10-top of the lines
11-man
12- colors him in
13-How do you spell-need apostrophe here?
14-talks about a hyphen and turns paper and draws dog

Jay- Turtle story
1-I have to draw lots of ground
2- ground
3-I messed up -he says
4-This is the sidewalk
5-This is what I'm making here
6-I'm not good at making this-still draws
7-turns paper to color shell
8-turns to next page
9-I forgot what happened-he says

Do I have to draw things just in order?
10-draws shell
11-colors shell
12-turns and colors
13-returns to position and draws face
14-makes the grass
15-turns the page-and draws more grass
16-Can I stand up?
17-draws humps and sits down
18-draws more grass
19-oops-I messed up he says- ok

Drawing/Writing Protocol
Child's name- Christine
story- Flying machine
1-says this is a barn
2-draws loft
3-more barn
4-chimney
5-door
6-lines near door
7-That's the flying machine-she says
8-talks about the spokes
9-more of the wheels
Christine-Stream story
1-I'm going to draw a hen and some chicks
2-draws chicks
3-more chicks
4-Says she is thinking about the barn and her chicks
5-talks about her "grampy has chicks in Laconia"
6- says her family doesn't have to buy eggs
7,8,9- ducks
10-I'm thinking about those chickens
   still draws
11- barn roof
12-draws pond
13-fixes beak, talks about swimming
14- draws door knob
15-draws ladder and talks about the stars
16- talks more -stars are up here
17-draws star
18-there's the moon-she says and draws it
19- draws another star
20- I'm making some fur on the chicks
21-retraces and makes a big star

Christine- Turtle story
1-turtle
2-draws round things on shell
3-face-says her mom had to stop on the road for a turtle
4-makes another turtle
5-now, she says, he took shell off and draws it
6-sun is drawn
7-it's windy-draws lines

Drawing/Writing Protocol
Child's name- Molly
Story- Turtle story
1-hill
2-star
3-the man in the moon-she says-at night he is in the moon
4-stars-I'll draw different ones from the story
5-says Now I'm going to draw the turtle up here
6-turtle
7-I'll add some grass- she says
8-grass is drawn
9-says- Put this so it looks dark-done

Molly - Bear story
1-draws lines for trash can
2,3- trash can
4-side of bear
5-draws more of bear
6-I'm thinking about the shape of the nose
7-says-they usually do this on teddy bears
8-draws tail
9-I'm going to draw the dog- she says
10-draws
11-I'm trying to do him sitting- It's hard -she says
12,13 - draws
14-I'm going to draw a little thing that says what they say
15-I'll do the bear's one-she says
16-he might have said- oops-
17-write "opse"
18-cloud
19-I'm drawing another cloud-there
Molly-Flying machine story

1-I'm going to write about he won-like his dreams
2-writes hero
3-Now I have to draw trophies-she says
4-draws trophy for flying-she says
5-I'm going to make a little one-she says-draws
6- trophy with arms
7-This is his best one-she says
8-Here's the stand-she says
9-There's another one-she says
10,11,12,13,14- trophy drawing
15-He's getting ready to pick it up-she says
16,17,18-ramp and bars drawn
19-There's no more bars -she says
20-Now I'm going to draw two men walking
21-draws hats
22-I'll make them say-WOW
       and writes it
23-This is going to be his saying-
    and writes
24- Now I'll draw another man
25-He is going to say-oops-he's falling-he tripped a
       little-writes
Molly-Stream story

1-I'm thinking about a duck
2-He has a tall-she says and draws it
3-does the beak
4-Now I'm going to draw a chick
5-How do you draw a chick?
6-draws chick and says his leg is on the other side
7-says another chick is on a duck's back
8-chick
9-Now-she says-still draws the chick
10-grass
11-Going to make grass on this side-she says-drawing
12-fish
13-motion for fish on paper
14-there-finishes
APPENDIX D
DRAWING/WRITING PICTURE STORIES
Good Night

Molly's Picture Stories

Oops!
The Foolish Cager

Don's Picture Stories
The trrrl did it kick his chick. Soon he took it.
Then he went back (war)
Then he put his chick back on.

The dog poched the bare in the bin.
and he went to theomp. "And he then then the boy came to get him aw.
The dog took the hen and her chicks across the stream.

Deb's Stories

the boy went in
his brown and the billy:
"fly Ing" micene and
when he was almost on
he had to get the
dog a bath.
A big brown bear came swooping by.

This is the bear.

Bob's Picture Stories

Brad
APPENDIX E
SUMMARY OF PROCESS
CONFERENCE RESPONSE
Summary of Process Conference Response

Jay- J, HIGH R- Researcher

R- How do you remember stories?
J- Well, if its exciting, I remember. If it is bad or not exciting, I don't.

R- Do pictures help you remember?
J- yes, they tell you what to write and give you details.

R- Do you draw much at home?
J- I don't draw much. I play with my friends.

R- How do you get your ideas?
J- I imagine them. I don't write them down. I talk to my friends.

R- How do you plan your story?
J- I just remember them.

R- Do you listen to stories in your mind sometimes?
J- no, it's hard to explain. I just try to think of something exciting. I have written some stories. One is about to be published.

R- What gets in the way when you write?
J- Sometimes I forget and sometimes my friends talk and I forget. Drawing makes you have more information and if you don't understand to write, you can draw more.
Summary of Process Conference Response

Mitch- MK, HIGH
R- Researcher

R- How do you remember?
MK- I just listen with my ears and take what I want up to my brain-the stuff I want to remember.

R- Do you like to talk about the story?
MK- Sometimes.

MK- You know that bear on the front?
R- The one in the story?
MK- I have that bear-his name is Cuddle.

R- Does knowing about the story-like you have a bear-make it more interesting?
MK - yes.

R- How would you teach someone to remember?
MK - I would tell them to remember...write it down for the first two weeks and just remember it in your brain.

R- Does drawing help you get your ideas across?
MK- Yeh, I like to draw.
Summary of Process Conference Response

Molly- M, HIGH                       R- Researcher

R- How do you remember?
M- I kinda remember, see it in my brain.
    I use my imagination. I already knew some things about the story.

R- Do you ever write or draw at home?
M- Sometimes

R- What helps you when you do?
M- My imagination

R- Do you imagine the story-how do you do it?
M- I kinda you know-act it out-imagine.
Summary of Process Conference Response

Mary M.- MM, HIGH

R- How do you remember the story?
MM- I sort of lock it up in my mind. I got a sentence and hooked words on to it.
I went over the story in my mind.

R- How do you know what is going to happen in your story?
MM- If I read the book first, I know.

R- Does drawing help you in your writing?
MM- It sort of helps me, like if the book is scary, then you can make the story scary too.

R- Are there lots of stories in your mind to write down?
MM- Yes, I ignore some of them-have to finish what I'm doing.

R- Do you ever stop when drawing or writing?
MM- I stop to get organized and calm myself down.

R- Do you think pictures are important?
MM- I use drawing so if I tell it again, I can just use the words-like when you are reading and you don't know the word, just use the pictures.

R- Do you like to draw?
MM- I like drawing better because I'm better at it.
Summary of Process Conference Response

Christine- C, LOW  
R- Researcher

R- What helps you remember?  
C- I don't know.

R- Have you written any books about the stories?  
C- I've written a book about my chickens.

R- Do you like to draw and write?  
C- Uh huh.

R- Do you draw and write at home?  
C- Sometimes.

R- Do you stop when you are writing?  
C- Sometimes.
Summary of Process Conference Response

Don - D, LOW R - Researcher

R- Where does the brain get this information?
D- From one corner of my head.
R- Does it have anything to do with what you read or watch on TV.
D- Oh yea, I've seen JAWS 3-3d.
R- You know so many things- how do you know so much?
D- I study up.
R- If you were teaching, how would you help the children remember?
D- You could take a peek at the book one time.
Summary of Process Conference Response

Deb- DW, LOW
R- Researcher

R- How did you remember?
DW- Oh, I don't know

R- Is there anything you would tell the author about the story if she were here?
DW- I would tell her it was good.
R- Do you like to draw?
DW- A little
R- Would you rather write?
DW- Yes
R- Are some things hard to write?
DW- No...but sometimes...
R- Well tell me about it
DW- Well say we had to write and make a picture; sometimes she tells us to make a picture of animal- our favorite animal. We make what we think about and make it what we want and color it.

R- How would you teach a kindergardener to draw and write?
DW- First I'd write the alphabet to see if they could do it like me and then I'd draw a picture and see if they could copy it. Then that would mean they could do their own thing. I'd let them draw their own thing. If they had words to say, I'd help them.

R- Do you write down things to remember them?
DW- Sometimes... otherwise I have my mom tell me.
R- So how do you remember things so well?
DW- I just try to understand what the story is about and remember what the words are.
APPENDIX F
STORY MAP
Title of Story - THIS IS THE BEAR by Sarah Hayes
Setting - backyard, garbage can, dump
Characters - the bear, "Fred" the dog, the boy, and the junk man
Problem - Fred got dumped into the trash can by the dog and so the bear's owner goes to retrieve Fred from the dump.
Goal - To bring Fred back home from the dump

Story Events:
1. Fred falls in the trash can
2. The junk man carries Fred to the dump
3. Fred falls into a mess of trash
4. The boy takes the bus to the dump
5. While at the dump, the boy asks the junk man to help him find Fred
6. Meanwhile, Fred doesn't really feel lost
7. The dog smells a bone and finds Fred
8. The junk man drives Fred, the boy, and the dog home
9. The bear gets a bath and won't tell the other toys where he has been
10. The boy tells Fred that he won't tell the toys. The dog says that he will.
11. The boy wakes up at night and asks Fred if he's ok
12. Fred asks the boy when can they have another day out?

Resolution: Fred gets back home to his owner and is happy.
Story Map#2
Title of book- ME AND MY FLYING MACHINE by Marianna and Mercer Mayer
Setting- farm area, the country
Characters- the boy and the dog
Problem- How to build a flying machine using the materials found in an old barn

Story Events
1. The boy finds an old barn full of stuff
2. He decides to build a flying machine and works all day.
3. He realizes it is dinnertime and also time to wash the dog. So he leaves to go home.
4. He has a dream that night about the finished flying machine.
5. The boy thinks the machine should be smaller than a castle and bigger than a truck.
6. He thinks about all the things he'll be able to do with his flying machine, like delivering mail to the Eskimos.
7. And fly over to rescue boats in a fog
8. He could carry mountain climbers to the top so they would spend less time climbing.
9. Birds could fly next to the flying machine and even rest on the machine's wings.
10. He would never get lost and would always be able to see everything from his flying machine.
11. He could help cowboys catch cows.
12. The boy could win first prize in every race.
13. He could do dangerous tricks like hanging blindfolded by his teeth with his dog.
14. If the boy fell, he would be able to parachute to his flying machine.
15. Soon, the boy would have so many medals and trophies that he'd have no place to put them all.
16. The next day, the boy runs all the way to the barn.
17. He finds everything just as he had left it.
18. He nails some things onto the machine and nails on a wing.
19. The boy finishes. He thinks that the flying machine is not quite what he thought it would be.
20. The boy finds a brush and paint, so he paints.
21. He thinks the flying machine looks better now and ties a rope to pull it outside to dry.
22. The flying machine creaks and moans. The dog helps the boy pull it outside.
23. Before it gets out the door, the machine falls apart.
24. The boy thinks tomorrow he'll build a rowboat.
Resolution- The boy will build something new.
Story Map #3

Title- ACROSS THE STREAM by Mirra Ginsburg

Setting- farm near a stream

Characters- a hen, 3 chicks, ducks, and a fox

Problem- The hen and the ducks had a bad dream about crossing a stream before a fox got to them.

Goal- To cross the stream safely

Story Events

1. The hen and the chicks had a bad dream.
2. They saw a fox and ran to a stream.
3. They met a duck and 3 ducklings.
4. The duck and the ducklings let them get on their backs to cross the stream.
5. The hen and the chicks cross the stream safely.
6. The fox and the bad dream are left on the other side of the stream.

Resolution- The hen and chicks were safe from the fox.
Story Map #4

Title- THE FOOLISH TORTOISE by Richard Buckley

Setting- a grassland

Character- the turtle

Problem- The turtle was tired of being slow because of his shell.

Goal- To try to see the world without his shell and see what it is like not to wear a shell

Story Events
1. The turtle took off his shell.
2. He hides from a hornet by crawling beneath a stone.
3. He hides from a bird by hiding behind the trees.
4. He goes to the river to hide but is frightened by a fish.
5. The turtle passes by a snake.
6. A hare, hound, and a horse race by him and he feels so slow.
7. The sun feels hot and the turtle wishes for the shade of his shell.
8. A thunderstorm comes and soaks him to the skin.
9. The wind blows and makes the turtle feel cold.
10. The turtle regrets his decision to be bold.
11. He wants to go home and sees his shell.
12. He climbs back into his shell and says goodnight.

Resolution: The turtle is safe back in his shell.
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