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An Investigation of Kindergarten Children’s Concepts Related to Reading in Emergent Literacy

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AN INVESTIGATION OF
KINDERGARTEN CHILDREN'S
CONCEPTS RELATED TO READING
IN EMERGENT LITERACY

Thesis

Submitted to the Graduate Committee of the
Department of Education and Human Development
State University of New York
College at Brockport
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Requirements for the Degree of
Master of Science in Education

by
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Abstract

The primary purpose of this study was to investigate the literacy concepts related to reading that children have acquired by the end of kindergarten. A secondary purpose was to examine the relationship between these concepts and reading comprehension ability as indicated by performance on a standardized reading achievement test.

The subjects of this study were twenty kindergarten children randomly selected from six heterogenous classes totaling 122 students. The students were interviewed individually and administered Clay's (1979) Concepts About Print test CAP) entitled "Stones." The semi-structured interview was given to each child to determine the child's understanding of the purpose and process of reading. The following questions were asked: 1) "What is reading?" 2) "Can you read? When do you think you will learn to read?" 3) Why do you read or want to learn to read?" 4) "How is reading done?" 5) "What must you do to learn to read?" 6) "What is a word?" The interview was tape recorded and observations recorded.

Following the interview, the child was administered the Concept About Print test. The responses to each item of the test were scored and summarized in table form to show the items which most children responded to accurately.
The responses to the interview questions were analyzed and categorized to answer the following question: What concepts related to reading do children possess at the end of kindergarten?

Based on the results of the analysis of the responses to the interview questions and the analysis of the CAP test results, it was found that the children in this study have varied concepts of reading at the end of kindergarten. Each child's concept of reading was based on his experience and was unique.

Also investigated in this study was the relationship between children's Concepts About Print (CAP scores) and their reading comprehension ability (scores obtained from the California Achievement Test). The raw scores from the CAP test and the CAT test were recorded and a Pearson Product Moment Correlation analysis was calculated to determine if a statistically significant relationship existed between children's concepts and reading ability.

The coefficient of correlation (r) was found to be .68 which indicated a moderately strong, positive association between the level of print awareness (CAP) and the level of reading comprehension ability (CAT) for the children in this study.
# Table of Contents

<table>
<thead>
<tr>
<th>Chapter I</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement of the Problem</td>
<td>1</td>
</tr>
<tr>
<td>Purpose</td>
<td>1</td>
</tr>
<tr>
<td>Need for the Study</td>
<td>1</td>
</tr>
<tr>
<td>Questions to be Answered</td>
<td>6</td>
</tr>
<tr>
<td>Definition of Terms</td>
<td>6</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>7</td>
</tr>
<tr>
<td>Summary</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter II</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review of the Literature</td>
<td>10</td>
</tr>
<tr>
<td>Natural Language Learning</td>
<td>10</td>
</tr>
<tr>
<td>Cognitive Development and Literacy Learning</td>
<td>17</td>
</tr>
<tr>
<td>Concepts of Literacy</td>
<td>29</td>
</tr>
<tr>
<td>Concepts of reading</td>
<td>29</td>
</tr>
<tr>
<td>Factors Which Affect Children's Concepts of Literacy</td>
<td>42</td>
</tr>
<tr>
<td>Concepts of Writing</td>
<td>54</td>
</tr>
<tr>
<td>Importance of Stories in Literacy Learning</td>
<td>63</td>
</tr>
<tr>
<td>The Emergent Literacy Perspective</td>
<td>78</td>
</tr>
<tr>
<td>Summary of the Chapter</td>
<td>88</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chapter III</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design of the Study</td>
<td>90</td>
</tr>
</tbody>
</table>
Chapter IV

Analysis of Data ................................................. 96

Purpose ......................................................... 96

Analysis of the Interview Questions .............. 96

Analysis of the Results of the Concepts About Print Test .... 112

Relationship Between CAP Test and Reading Comprehension Test Scores .... 116

Summary of the Chapter .............................. 117

Chapter V

Conclusions and Implications ......................... 119

Conclusions .................................................. 119

Implications for Research ......................... 121

Implications for Classroom Practice ............... 123

References ................................................... 126
List of Tables

Table IA: Responses to Question One: What is reading?......97
Table 1B: Number of Responses to Question One Within Each Category.................................98
Table 2A: Responses to Question Two: Can you read? When do you think you will learn to read better?.100
Table 2B: Number of Responses to Question Two Within Each Category.................................101
Table 3A: Responses to Question Three: Why do you want to learn to read? Why do people (you) read?......102
Table 3B: Number of Responses to Question Three Within Each Category.................................103
Table 4A: Responses to Question Four: How is reading done? or What must you do to read?...............105
Table 4B: Number of Responses to Question Four Within Each Category.................................106
Table 5A: Responses to Question Five: How do you learn to read? or What helps you learn to read?......107
Table 5B: Number of Responses to Question Five Within Each Category.................................108
Table 6A: Responses to Question Six: What is a word?......110
Table 6B: Number of Responses to Question Six Within Each Category.................................111
Table 7: Summary of Responses to CAP Test.........................113
Table 8: Results of Pearson Product Moment Correlation....116
Chapter I

Statement of the Problem

Purpose

The primary purpose of this study is to investigate the literacy concepts related to reading that children have acquired by the end of kindergarten. A secondary purpose is to study the relationship between these concepts and reading ability as indicated by performance on a standardized reading achievement test.

Need for the Study

Literacy learning begins long before children come to school. Much has been written about the abundance of knowledge and experiences children possess upon entering school. Investigators have recognized that young children acquire concepts about every conceivable aspect of their environment and have begun to study young children's general notions about reading and writing.

Researchers in the field of early literacy have provided much information on the development of literacy in preschool children. Case studies of preschool children have indicated that some children learn to read and write before formal instruction (Bissex, 1980; Clark, 1978; Clay, 1979).
Many researchers have stated the importance of the preschool years and the extensive exposure to print that many children have in their home environment. Brown and Briggs' (1986) study of kindergarten children indicated that children continue to develop concepts about print during the kindergarten year but not at the same rate as during the preschool period.

Young children are surrounded by printed language within their home and school environments. They have many opportunities to learn about print. As a result, many children have learned that print communicates and is functional. Most preschoolers have acquired this linguistic understanding because of their interactions with print in their environment.

There seems to be little doubt that children's concepts about print are directly related to their ability to profit from reading instruction. Clay (1982) states "There is evidence from several countries that children's literacy knowledge or concepts about print when they enter school is highly related to progress in learning to read two years later" (p. 228). As cited by Brown and Briggs (1986), "Clay (1979) provided evidence that many children have entered formal instruction without an understanding of the concepts related to the process of reading" (p. 49).
Clay (1979) discovered that many young children who were entering formal reading instruction did not have a visual or oral concept of a "word."

An examination of past research regarding young children's developing awareness of print has shown that teachers should raise serious questions about the concepts that children have related to "reading readiness."

Until about the last 15 years, the general belief held by most educators was that reading and writing had to be taught in a very systematic and sequential way. The belief therefore put a great deal of emphasis on the teacher, and although there were trends which affected the teaching methods, such as phonic, alphabetic, whole word, or sentence methods, the emphasis on the teacher remained unchanged.

Hall (1987), in discussing conventional instruction, refers to the fact that "there has been a devaluation of children's competence, and an emphasis on direct instructional practices" (p. 2). Hall cites Ferreiro and Teberosky (1983):

We have searched unsuccessfully in this literature for reference to children themselves, thinking children who seek knowledge, children we have discovered through Piagetian theory. The children we know are learners who actively try to understand the world around them, to answer questions the world poses...it is absurd to imagine that four and five year
old children growing up in an urban environment that displays print everywhere (on toys, on billboards and road signs, on their clothes, on TV) do not develop any ideas about this cultural object until they find themselves sitting in front of a teacher (p. 2).

In the last ten years, especially over the last five years, there has been a shift of emphasis from the teacher and teaching methods toward the child as a literacy learner. There has been a shift toward viewing children as active participants in learning—hypothesis generators and problem solvers—rather than as passive recipients of information. In fact there is a multitude of research which now deals with the "emergence of literacy."

Children today are growing up in a print oriented society, and it has been recognized that children are actively seeking ways of making sense of the print in their environment. A serious attempt has been made recently to understand how children come to develop their own knowledge about literacy. Major studies on how children develop as readers are having a direct and powerful effect on classroom teaching.

In discussing recent research trends, Holdaway (1984) stated:

A growing awareness of natural stages of development in reading and writing is at last beginning to influence the teaching
of literacy. In particular, a complete rethinking about early reading is underway. Traditional assumptions about readiness and pre-reading have been largely discredited and are being replaced by a more accurate perception of emergent literacy (p. 27).

Much research has been done regarding children's emergence of literacy and it is still important that the research continues. Each investigation is an attempt at furthering our knowledge and understanding of the ongoing process of children's "emergent literacy."

Although much has been written about children's concepts of reading, a need exists to further investigate these concepts in light of recent research on emergent literacy. Furthermore, there needs to be continued research to investigate and substantiate the recent suggestion that reading and writing be taught together since the two processes are so closely related. Holdaway (1984) sums up this need when he states:

In contrast to the traditional separation of reading and writing within instructional programs, modern research has displayed the integrity of learning to deal with print. Increasingly, programs will embody this integral association between reading and writing, speaking and listening (p. 28).

In order to develop learning experiences for young children, teachers must first determine the knowledge children possess and continually assess their developing concepts of literacy.
Questions

In view of the past research on children's developing concepts of written language in emergent reading and writing competence, the present study was designed to explore the following questions:

1. What concepts related to reading do children possess at the end of kindergarten?
2. Is there a statistically significant relationship between the concepts related to reading and reading comprehension scores on a standardized achievement test?

Definitions

**Concepts related to reading**: Those concepts which facilitate children's developing competence in learning to read. Examples are: concepts about print, concepts about the purpose and function of reading, concepts about the alphabetic principle of letter/sound relationships, concepts of word, letter, et cetera.

**Concepts about print**: Those concepts which are learned as children observe, respond to, and attempt to make sense of print. This includes the print in books and environmental print. Examples are directionality of lines of print, page sequences, directionality of words, the matching of spoken word to written word, et cetera.
Environmental print: Those items of print outside of books to which there is some kind of public or general access, such as: labels, signs, print seen on TV, and other forms of print that a child is exposed to in his/her environment.

Emergent literacy: The range of behaviors resulting from a child’s first encounters with printed materials---the concepts about reading and writing that represent the early indicators of entrance to literacy.

Limitations of the Study

The findings of this study are limited in their application based on the following conditions:

1. The subjects consisted of 20 kindergarten children randomly selected from six heterogeneously grouped, self-contained classrooms in a middle-income, suburban school in western New York. The children ranged in age from approximately five to six years old. Since this sample is small, the conclusions drawn from this study cannot be generalized to all kindergarten children but only to this group or a matching group.

2. This study did not include an investigation of the backgrounds of the children regarding previous attendance in a preschool program or home background.

3. This study did not investigate the nature of the kindergarten program in which the children were enrolled.
4. This study did not investigate the writing behavior or concepts of writing of the subjects although the researcher recognizes the importance of writing in a child's emergent literacy development.

5. The researcher recognizes that some of the young children in this study may understand a concept but may be unable to verbalize it. Therefore, the response may not have been an accurate indication of their true knowledge or thinking about reading.

Summary

Literacy learning begins long before children come to school. Children have a wide range of literacy conceptualizations and behaviors before they read and write conventionally.

In light of the recent research in emergent literacy, it is evident that further investigation is needed to determine on what teachers need to focus while teaching children to read and write. It is important to be aware of how children perceive print not only in their environment but also the print they encounter in books and other engagements with literacy events in their surroundings. It is important for teachers to be able to use this knowledge or lack of knowledge as an assessment tool when determining appropriate instruction for each child.
The results of this investigation will contribute to the body of literature already available concerning children's developing concepts of literacy. In addition, some further insight into the emergence of literacy may be forthcoming.
Chapter II

Review of the Literature

The primary purpose of this study was to investigate the literacy concepts related to reading that children have acquired by the end of kindergarten. A secondary purpose was to study the relationship between these concepts and reading ability as indicated by performance on a standardized reading achievement test. For the purpose of organization, the review of the literature was divided into the following areas: natural language learning and literacy learning, cognitive development and literacy learning, concepts of literacy, and the emergent literacy perspective.

Natural Language Learning

Language is an expression of ideas by words or written symbols. Language is a single phenomenon consisting of both a receptive and productive mode. When the oral code is used, the receptive mode is listening and the productive mode speaking. When the graphic code is used, the receptive mode is reading and the productive mode is writing. The common root, and hence the reason for the interdependence among the four aspects of language lies in the search for meaning.
A review of the literature suggests that oral language plays a critical role in facilitating the child's literacy learning. Language acquisition research sought to describe the strategies employed in learning and using language. Since reading is a language process, researchers hypothesized that oral and written language proficiency might develop in parallel ways. Harste, Woodward, and Burke (1982) refer to a multi-lingual event in which oral and written language develop in parallel fashion.

Several researchers have likened natural literacy development to oral language acquisition (Cambourne, 1984; Clark, 1976; Y. Goodman, 1987; Goodman and Goodman, 1979; Holdaway, 1979; Hoskisson, 1979; Smith, 1976; Teale, 1982).

Goodman and Goodman (1979) believe that "acquisition of literacy is an extension of natural language learning for all children" (p. 138). Goodman and Goodman point out that for some children, the process parallels that of developing oral language. Children learn to read and write in the same way and for the same reason that they learn to speak and listen. Language learning, whether oral or written, is motivated by the need to communicate, to understand and be understood. Y. Goodman (1980) states "my research has shown that literacy develops naturally in all children in our
literate society" (p. 31). In other words, literacy is learned in much the same way, and to some extent at the same time as oral language.

The linguist Halliday (1973) stated that "learning language is learning how to mean" (p. 24). Holdaway (1984) describes language as a coded transaction of meanings. Holdaway (1979) linked talking, reading, writing, thinking, drawing, and making activities in terms of a semantic drive.

Holdaway (1979) compares learning to read to learning to talk. The foundation of Holdaway's (1984) theory of literacy learning (the development of reading and writing competencies) considers reading and writing to be a unity "akin to listening and speaking, learned by copious use in genuine transactions of meanings" (p. 7). Children learn language by using it for a variety of purposes as a personal expression of their own needs and motivation.

Literacy is a part of the entire complex process of language. Literacy growth is part of the acquisition of language. Utility in the daily lives of learners offers motivation for both oral language and literacy acquisition.

Both oral language and literacy development are dependent on an appropriate context for the "natural" development of those skills. According to Cohn (1981), reading and writing can develop in the same natural way as oral language, provided
that the conditions of learning are similar. A stimulating environment is necessary along with encouragement and a relaxed adult attitude.

Emergent reading and writing, like spoken language, begins with gross approximations (Clay, 1975; Holdaway, 1979). Parents and teachers need to treat these approximations in the same way as in learning to talk. They must be recognized and welcomed, understood, appreciated, and nurtured as children go through the progression of stages in learning to read and write just as they did in oral language development (Cohn, 1981).

Cambourne (1984) believes that the conditions which are necessary for children to learn to talk are relevant to all kinds of language learning, e.g. learning to read, write, spell; learning a second language.

Cambourne outlines seven conditions under which children learn to talk and that he believes help learning "how to mean in the oral mode of language" (i.e. talking) so universally successful. The seven conditions are immersion, demonstration, expectation, responsibility, approximation, employment (use), and feedback.

In learning to talk, children are immersed in language which is meaningful, usually purposeful, and more importantly, whole. For literacy learning, learners need to be immersed
in texts of all kinds.

Children receive demonstrations (or models) of the spoken form of the language being used in functional and meaningful ways. For literacy learning, learners need to receive many demonstrations of how texts are constructed and used.

Children are expected to learn to talk. These "expectations are very subtle forms of communication, to which learners respond" (p. 7). By the same token, if children are expected to learn to read and write and expectations are given off that they will, they do.

When learning to talk children are left to take responsibility for what they learn about their language. Children should be left to take responsibility for what they learn when learning to read and write also. Children will eventually arrive at the same destination (conventions, but by different routes.

Children, when learning to talk are given opportunities to approximate or experiment with language to eventually arrive at correct pronunciation or words to communicate intended meaning. This should also occur when children are learning to read, write, and spell. Learners must be free to approximate the desired model -- "mistakes" are essential for learning to occur.
Plenty of opportunity to use the medium is provided when learning to talk. Learners need time and opportunity to use, employ, and practice their developing control of literacy in functional, realistic, non-artificial ways.

When learning to talk children receive responses from parents and siblings in a non-threatening, meaning centered way. The language is expanded and/or corrected so that the learner is not discouraged and will not be afraid to take the risk of trying again. For literacy learning, the learner must also receive feedback from exchanges with more knowledgeable others. The response must be relevant, appropriate, timely, readily available, non-threatening, with no strings attached (Cambourne, 1987).

In summary, early literacy support resembles the environmental support for early oral language learning that surrounds the child in the home. Whether it be at home or at school, the environment supplies a continuous, interactive, meaning-focused opportunity for the use of language in one of its forms within a social milieu in which the child is comfortable.

Smith (1971) states that "many of the skills employed by a child in learning about speech are relevant to the task of learning to read" (p. 2).

Several writers have described how learning to read can be natural (Cambourne, 1984; Goodman & Goodman, 1979; Holdaway, 1979; Hoskisson, 1979; Hiebert, 1983; Sulzby, 1986;
Teale, 1987; Taylor, 1983). Hiebert (1983) states "Natural does not mean innate, but rather means that learning about print can occur much as oral language acquisition" (p. 253). Children learn about print within contexts in which print serves meaningful purposes. Loughlin and Davis (1987) suggest that "In the development of reading and writing, speaking and listening, each draws on sensible awareness of language purposes and potentials in the environment as part of the integrated language process in the home and community" (p. 4).

Learning to read naturally starts when parents read to their young children and let them handle books (Holdaway, 1979). Frank Smith (1977) maintains that "children must have two fundamental insights before they can learn to read... that print is meaningful, and that written language is different from speech" (p. 386).

Research on natural language learning provided information concerning the interrelationships among the four language processes. Beardsley and Marecek-Zeman (1987) urge us "to think of all children as readers at different stages of development (p. 160). Literacy begins emerging with the child's first language experiences; listening, talking, singing, rhyming, and naming. It is as natural a process for a child as that of learning to walk (Beardsley and Marecek-Zeman (1987).
The growing body of research on how children naturally become literate is changing many of the old ways that reading and writing was taught. Knowledge does not exist outside a learner; it is constructed and actively discovered by the learner. Children make sense of new learning, including reading and writing, when they relate it to what they already know. It is important for researchers and educators to respect the child as a learner.

K. Goodman (1986) states that "the psychology of learning teaches us that we learn from the whole to the parts" (p. 9) ... and that "language is actually learned from whole to part" (p. 19). The natural way of learning to read seems to be a refining process going from the whole to the detailed, from the global to the specific (Clay, 1972).

Goodman and Goodman (1979) state that "instruction does not teach children to read. Children are in no more need of being taught to read than they are of being taught to listen. What reading instruction does is help children to learn" (p. 140). Helping children learn to read is, as Smith (1973) believes, "responding to what the child is trying to do" (p. 95).

**Cognitive Development and Literacy Learning**

Researchers have studied the cognitive development of young children in relation to developing literacy.

The Swiss psychologist Jean Piaget, realized that a key
aspect of children's learning was for them to use their own innate, active intelligence rather than act on someone else's directions and approaches to learning. His insight regarding the power of children's thinking was that error making was part of the learning process.

Piaget's theory of child development has recently been used to study the acquisition of written language (Ferreiro and Teberosky, 1982). One of the basic principles of this theory is that the learner is an active constructor of knowledge and not simply a recipient of information from the world. Through interaction with written language, the learner acquires knowledge, creating conceptualizations at each stage of development which increasingly approximate adult understandings. When new information conflicts with previous conceptualizations, the conflict is ultimately resolved by forming new conceptualizations which comprise the next stage of development.

Vygotsky's theory of development is also interactionist, but the interaction is between the learner and another person. Vygotsky's (1962) research, designed to account for the tremendous lag between the school child's oral and written language, concluded that it is the abstract quality of written language that is the main stumbling block. This same conclusion can be drawn from Piaget's theory. The
school beginner is at a stage of development when abstract concepts are the least appropriate for his understanding. The importance of conceptual processes in perceptual activities in the acquisition of reading skill seems to be suggested by Piaget in discussing object identification. For example, in referring to young children and their confusion between the letters b and d, Piaget believes that learning to perceive them as different requires problem solving and concept formation. The young learner hasn't yet discovered that a difference in orientation is relevant when learning to perceive the difference.

One of Piaget's significant contributions was the shifting of attention from product to process and the cognitive operations involved (Harste, Woodward, and Burke, 1984).

Vygotsky (1962), in his research on young children's learning of concepts, concluded that direct instruction of concepts is impossible and fruitless. A teacher who tries to do this usually accomplishes nothing but empty verbalism, a parrotlike repetition of words by the child, simulating a knowledge of the concepts but actually covering up a vacuum.

Temple, Nathan, and Burris (1982) state "Conceptual learning resists teaching (p. 11) ... It has to run its own
course, as children make discoveries, operate according to a particular hypothesis for a time, and then revise it as they find information that challenges the way they thought things were" (p. 112). They suggest that teachers encourage this process along by offering helpful practice and steering children's attention to things that matter about literacy.

Piaget (1959) has pointed out that the child of beginning school age typically believes that he does understand what others say to him. But this understanding may not have been the meaning that was intended. One of Piaget's most important contributions to education was his demonstration of the difference between the way in which children and adults see the world. Adults, who have conceptualized many facets of the world, find it difficult to appreciate the difficulties children encounter in their attempts at making sense out of their world.

Piaget's work shows the difficulty that a child has with his conception of the letter (Elkind, 1974). In discussing the difficulties in beginning reading related to cognitive development and concept formation, Elkind states "It is generally not until the age of six or seven, when children attain what Piaget calls concrete operations, that most children grasp that one and the same numeral has ordinal and cardinal properties" (p. 12). Elkind goes on
to say that "letters are even more complicated than numbers because, in addition they also have phonic contextual properties" (p. 12).

The child's ability to assume the role of others is a central issue in reading and writing. "The reader's ability to understand the writer as a person behind and in the text and the writer's ability to understand the reader's perspective accentuate the role of egocentrism in thinking" (Dahlgren and Olsson, 1986, p. 2).

Piaget and Vygotsky both wrote about the child's early egocentrism and egocentric speech. Egocentric speech is a phenomenon described by Piaget. Vygotsky regards egocentric speech as a precursor to what he calls "verbal inner speech" and pure thought (thinking in meanings without identifiable form).

Vygotsky describes egocentric speech as the young child's attempt to internalize verbal behavior previously used for direct communication purposes. Egocentric speech can, in his opinion, unveil the development of inner verbal thought. As Dahlgren and Olsson state "both the structure and the function of this egocentric speech within such a frame of reference is quite different" (p. 2). The child is directing his speech to himself and not to others. Gradually this language develops into verbal inner speech.
Bissex (in Goelman, Oberg, and Smith, 1984) refers to this same idea when she talks about her view of "child mind." She states that children mediate between the structures of their minds and the information available in their environment, that they carry on several kinds of dialogue with both outer and inner voices, and that this teaching-learning process is guided by certain principles (very possibly innate) that organize human learning (p. 87).

Dialogue is essential to learning. Bissex believes this dialogue of question and answer and of reflection seems to be a natural part of the learning process. Dialogue is carried on between children and the sources of information in their environment and "it is carried on within children's minds as they hypothesize and reflect" (p. 91). Child mind asks questions, seeks order, and monitors and corrects its own learning. Children come to school with much information about literacy and teachers must be aware of the "power of child mind." One role of education according to Bissex is "to affirm each child's inner teacher" (p. 101).

In discussing the process of conceptual development, Ferreiro and Teberosky (1979) state that "success in learning depends on the child's condition when he or she begins receiving instruction" (p. 280). They believe that the traditional school program ignores this natural progression. "Only those at quite advanced levels of
conceptualization can benefit from traditional instruction; they are the ones who learn what the teacher intends them to learn. The others fail, accused by the school of having learning disabilities" (p. 280). Henderson (1980) stated that "what children can learn depends upon the conceptual frame they bring to the task" p. 2).

Studies of children's thinking and of language acquisition show that the child acts on his own theories of how things work and changes these theories slowly, in the face of conflicting evidence (Clay, 1986). Piaget's theory helps explain this. As Clay states "the child in thinking, in oral language, in reading for meaning, and in early writing is motivated to make the world make sense" (p. 767).

Psycholinguistic theory describes the reading process as an active process that involves extracting meaning from print and assimilating that meaning to one's existing store of information. K. Goodman (1986) refers to reading as a psychological guessing game. Learning to read is learning to make sense of print and learning to write is learning to make sense through print. Reading requires interaction between the reader's thought and language and the thought and language of the writer as represented by print. In the process of constructing meaning the reader is a thinker involved in a systematic series of strategies which include:
predicting, confirming, or disconfirming and correcting, and comprehending. The reader is enabled to use these strategies by his knowledge of three language cueing systems: the grapho-phonic (sound/symbol), the syntactic (grammatical relations and functions of sentence components), and the semantic (meaning). The strategies are part of an integrated whole, and without integration the process breaks down.

Cochrane, Cochrane, Scalena, and Buchanan (1984) believe that "one of the most unenlightening things the teaching profession ever did was to set aside materials, books and reading periods for the sole purpose of teaching reading. Reading cannot be taught, it can only be learned" (p. 15). Children learn best how to use language, that is to speak, write, listen, and read, while pursuing other purposes. When children have a purpose for reading, an intention to read and expectations of what they will find as they read, they will know what reading really is and develop as readers. A teacher's job is to help children become readers/thinkers. Thinking is intrinsic to reading. Thinking should happen after reading, thinking must happen before reading as readers set up expectations, and it must happen during reading as readers confirm or disconfirm their predictions. Children need to be shown that reading can provide its own feedback and be helped in learning to monitor themselves as they read.
Bridge (1979) acknowledges that beginning readers already possess much intuitive knowledge concerning the acceptable ordering of words within sentences. "Linguists have found that by age four, children have mastered the basic syntactic structures of the language" (p. 503).

Many factors are necessary and affect the reader's ability to comprehend the printed word. Along with the visual aspect of the reading process, other factors include, experiences, prior knowledge, vocabulary, language facility, conceptual development, and schema for what is being read. According to Smith (1978), in reading, what the brain says to the eye matters more than what the eye says to the brain.

One of the major contributions of cognitive psychologists to our understanding of reading comprehension has been schema theory. Schema theorists believe that the human memory system is made up of interacting cognitive structures called schemata. Schemata (plural of schema) enable one to impose an explanation on the events that occur around him. With them it makes the world more predictable and thus one can comprehend or understand these events. In other words, a schema is an abstraction of experience that a person is constantly fine-tuning and restructuring according to new information received. Pearson (1982) states:

It is believed that schemata inadequacies are responsible for a great many roadblocks to reading comprehension (p. 47)...Many children
are unaware that they possess relevant schemata because they are so involved with decoding each word that they are not comprehending much. They need help in organizing prior knowledge (p. 48).

Social interaction is seen as essential to the young child's literacy development. Harste, Burke, and Woodward (1981) state that "reading and writing are sociopsycholinguistic processes and, as such, children develop models of written language from natural, ongoing encounters with print" (p. 127). Data in their study suggest that preschool children discover much about print prior to formal language instruction. Written language, like oral language, is learned naturally from encountering written language in use. When asked to write, young children make markings which reflect the written language of their culture. These cognitive and linguistic decisions which each child makes are rooted in the sociolinguistic context of their early written language environment. Further, the data suggest that "formal instructional programs which assume that the young child knows little if anything about print and which focus primarily on the more abstract systems of language such as letters and words, may fail to allow children to access what they already know about language" (p. 127).

It appears that the roots of literacy are cultivated much earlier in a child's life than was once thought. Loughlin and Martin (1987) believe that this revised
opinion comes from a view of literacy as a part of the broad spectrum whole-language context and from increased awareness of the writing and reading of preschool children. Y. Goodman believes that children do not have to be taught to be literate. As cited in Hall (1987), she claims that:

In an environment rich with written language experiences which have real purpose and function for the children, the concepts and oral language about written language develop over a period of time...given time, children work out for themselves what items belong in what categories (p.7).

As children attempt to make sense of and through written language in order to comprehend or express meanings, ideas or emotions, they develop their "roots of literacy" (Y. Goodman, 1986). These roots include: print awareness in situational contexts, print awareness in connected discourse, functions and forms of writing, oral language about written language, and metalinguistic awareness about written language. Children need active experiences with literacy in order to grow and develop the roots of literacy. From her research on the roots of literacy and through an awareness of the research of others, Y. Goodman (1983) concluded that children construct a variety of principles about language relevant to their developing literacy. The principles are seen as developmental, since all children grow into and through all of them. The principles are: functional, linguistic, and relational. Functional
principles emerge as children discover when and how written language is used and for what purposes. Linguistic principles emerge as children discover how written language is organized. Relational principles emerge as children discover how the oral/written language systems relate or how print relates to the meaning it represents. In summary, she believes that young children use the print and its meaning, interacting with it through their own knowledge about the world—their own developing system of language and concepts. The child's intuitive knowledge about the principles of written language is their greatest asset in becoming literate when entering formal reading instruction.

Taylor (1983) concluded from her study of family literacy that print is one medium through which the children are learning to master their surroundings. "In this study children learn to organize their environment through the use of print" (p. 54).

In summary, research has investigated the cognitive development of young children in relation to developing literacy. Current literacy research holds that children follow a complex developmental path which involves cognitive development and interaction with the environment. Children are actively involved in attempting to make sense of written language and through written language as they grow.
into literacy. Literacy learning begins long before formal instruction and children's competence with language needs to be recognized in order to understand how children learn. Only then can an environment be provided that will facilitate cognitive development and literacy learning.

**Concepts of Literacy**

Children's concepts and perceptions about literacy have been studied. Research by cognitive developmental psychologists as well as reading researchers have identified the importance of concepts about language in early reading. More recently reading and writing researchers have focused on writing as a result of the realization that both are language processes and many children who learned to read before formal instruction have demonstrated competence in producing written language as well. Because of the large amount of research reviewed, the research was divided into the following areas: concepts of reading, factors which affect children's concepts of literacy, print awareness, concepts of writing, and the importance of listening to stories.

**Concepts of Reading**

There have been many research efforts that have focused on the concepts and perceptions of reading held by beginning readers and children not yet able to read.
Vygotsky (1934) found in his study of school beginners in Russia, that they had only a vague idea of the purposes of written language. More recently, Reid (1966) indicated that young children's conceptions of reading and writing were very different from those of adults. She concluded that five year old Scottish children showed "a general lack of any specific expectancies of what reading was going to be like, of what the activity consisted in, of the purpose and use of it" (p. 58). Downing (1970) replicated and extended Reid's study and confirmed that young beginners have difficulty in understanding the purpose of literacy. Downing found that children performed better on tasks which used concrete aids along with interview questions. He suggested that children may have some understanding of what reading involves in settings where print is presented in a familiar meaningful context, although they may not be able to precisely describe it in abstract settings.

Edwards (1958) and Johns (1970) both investigated the perceptions of reading held by disabled readers. Both concluded that one of the contributing factors to students' reading problems may be their failure to understand what is involved in the reading process.

Weintraub and Denny's (1965) study asked first-grade children in the first week of school to answer the question
"What is reading?" They then categorized the responses into one of seven categories. Of the 108 responses, the analysis revealed that 27% were of the vague or "I don't know variety; 33% were object related, such as "Reading is when you read a book"; and 20% were of a cognitive nature or described reading as a cognitive act that "helps you to learn things." The remaining 20% of the responses were distributed almost evenly across three categories: value terms, mechanical descriptions, and expectations. Their major finding was that children come to school with widely varied conceptions of what constitutes reading, and that a large number of students were not able to answer the question. Based on their findings, Denny and Weintraub stressed the need to develop well-planned and carefully executed experiences to help students build an understanding of reading. Dictated stories, poems, and actual experiences were included among the activities they suggested to help students build an accurate perception of the reading process.

Mason (1967) states "it appears that one of the first steps in actually learning to read is learning that one doesn't already know how" (p. 132).

Johns and Johns (1971) found that some of the children in their study refused to answer or provided irrelevant answers.
Johns (1971-72) found a significant relationship between children's concepts of reading and their reading achievement. He stated that "it may be that one of the contributing factors to children's reading achievement is their understanding of the reading process" (p. 57). A positive relationship was also found in a study by Mason and Blanton (1971).

Johns and Ellis (1976) found that 39% of the children provided vague irrelevant, or "I don't know" answers when asked "What is reading?" They found that few children felt reading is concerned with a search for meaning; 64% of the answers concerned classroom procedures or educational value (e.g., reading books out loud, switch to a different class). Of the remainder, 25% reflected a word recognition/decoding emphasis (sounding out words), and only 11% a meaning emphasis.

Downing (1971-72) viewed learning to read as a problem solving task and proposed that the best indicator of the child's reading readiness in learning to read would be his level of understanding of the reading process. Downing also suggested that cognitive clarity would be highly correlated with reading success and cognitive confusion would be highly correlated with reading failure.

Elkind (1972) warned teachers to start instruction
with the child's language and his cognitive abilities. The language of reading instruction seems to be of special significance in a child's readiness to profit from the teacher's verbalizations about written language and reading it. In learning to read, children face the difficulty of understanding the content of the so called "reading instruction register," that is, "the special language used to talk about reading and its relation to speech". Behind this register lies the concepts of language which are used in thinking about reading and the task of learning how to do it (Downing, 1976).

Reid (1966) stated that the children she interviewed had "a great poverty of linguistic equipment to deal with the new experiences, calling letters "numbers" and words "names", and so on" (p. 58). These findings have been confirmed by subsequent studies (Clay, 1972; Downing, 1970; and Johns, 1977).

Downing (1979) proposed the Cognitive Clarity theory of learning to read which has as its central premise that learning to read is "essentially a problem solving task in which the child applies reasoning abilities to understand the linguistic relationships between speech and writing" (p. 10). Linguistic awareness is defined as understanding the functions and features of language.
Evidence has suggested this awareness is an important correlate of reading acquisition.

Francis (1973) inferred from her study that "difficulty in comprehending the technical vocabulary of reading...appears to be an integral part of the difficulty in learning to read, rather than a separate conceptual difficulty" (p. 23). She noted that "the use of words like letter, word, and sentence in teaching was not so much a direct aid to instruction but a challenge to find their meaning" (p. 22). She believes that the best way of helping children to understand these terms is in their proper use by teachers. Ayers and Downing (1982) also believe this, but add that "teachers will use the technical vocabulary of reading instruction much more effectively when they know to what extent their pupils comprehend it" (p. 281).

Evanechko, Ollila, Downing, and Braun (1973) gave beginning first graders a test of "Technical Language of Literacy" which tested the child's understanding of what a number, letter, and word was. They found that 15-20% of the children had difficulty in discriminating among word, number, and letter.

Papandropoulou and Sinclair (1974) refer to Piaget's theory of general cognitive development when explaining growth in metalinguistic competence. In their study,
involving extensive interviews with over 100 French children, the relationship between Piagetian levels and metalinguistic awareness is inferred from the age ranges of the children.

Evans, Taylor, and Blum (1979), citing Ferreiro suggest that "there may be developmental constraints on the ability to form metalinguistic concepts" (p. 18). Vernon (1971) stated that metalinguistic understanding "...necessitates a fairly advanced state of conceptual reasoning" (p. 77).

Many research studies have shown that very often too many assumptions were made about the prior knowledge thought to be possessed by pupils. It was often assumed that children have the same concepts of language as adults. Downing (1970) investigated the development of linguistic concepts in children's thinking. He concluded that common assumptions about children's linguistic concepts ought to be challenged by more extensive research.

Downing has completed many studies on children's thinking about reading and he believes that cognitive confusion is a state that all children pass through in learning how to read. In this state, the child lacks a thorough understanding of the features of written language (letters, words, paragraphs, etc.) and of the purposes and process of reading (Downing, 1969; 1970; 1976; 1979).
Holdaway (1979) claims there is growing evidence that cognitive confusion is a major cause of early literacy failure. Clay's (1972) study documents confusion during the first two years of schooling over the concept "word" and "letter." According to Clay, unwarranted assumptions are often made about what children have understood in instruction. In working with children who are making slow progress one needs to be alert to possible confusion and attempt to clarify ambiguities as soon as one becomes aware of them.

Hall (1987) refers to a child who was a subject in a study conducted by Johns (1976-77), and states that "the prize probably goes to the child who when asked what reading was said "reading is stand up, sit down" (p. 57)".

Fletcher (1977) found significant relationships between a child's concept of reading, cognitive development, and reading achievement, and concluded that "teachers must not make assumptions concerning the child's cognitive ability or clarity in reading, but instead must assess these abilities by observing, listening, and talking with the child" (p. 86).

The learner must understand the purpose of the skill to be acquired (reading) and must grasp the concepts that are used for talking and thinking about how to perform the skill. Thus, to benefit from instruction in reading and
writing, the child must understand the functions of these literacy skills, and must comprehend such concepts as "word," "letter," "top line," "print," and so on. Research has shown that there is a close relationship between what the children know about these functions and features of written language and their achievements in reading and writing.

Downing (1984) reviewed evidence that reading belongs to the class of behavior that psychologists call "skill." He suggests that since reading is a member of the skill category, psychological research findings on skill learning in general can be applied to learning how to read. One such finding is that the initial step in learning a skill is to conjure up a conception of the task to be accomplished in performing the skill. This is task awareness, also referred to as the "cognitive phase" in skill development. Downing (1979) proposed a "cognitive clarity theory" of learning to read. Downing (1984) takes the view that task awareness is a cause of success in learning how to read.

Collectively, research from Australia, Canada, England, Belgium, Switzerland, New Zealand, the USA and the USSR has shown that the development of linguistic awareness and concepts is significantly related to the development of literacy skills no matter what the language of the country (Downing, Ayers, and Schaefer, 1983).
From these studies, it seems clear that it is normal for most beginners to enter the task of learning to read "in a state of cognitive confusion about the characteristics and purposes of reading activities" (Downing, Ayers, and Schaefer, 1978, p. 12). The conclusion that young children's understanding of the functions and features of written language cannot be taken for granted seems inescapable. The chief conclusion seems to be that teachers need to be aware of the absense or insecurity of these linguistic concepts in at least some children. It is hazardous to leave the development of these linguistic concepts to chance.

However, traditional reading readiness tests do not include the evaluation of children's awareness of language and their concepts of the functions and features of written language. According to Downing, Ayers, and Schaefer (1983), "Recent research has shown that linguistic awareness and related concepts are more closely related to progress in learning to read and write than such factors as visual and auditory perception or letter name knowledge" (p. 1).

Clay (1972; 1979) has produced instruments for testing a variety of concepts about print. They have proved to be useful, but they have to be administered individually which makes it difficult to test large samples. The Concepts About Print test is a relatively simple examination of some aspects of reading and print knowledge which are
not covered by conventional reading readiness tests. Clay denies that this test is a "readiness" test and states that "it reveals some of the behaviours that are related to reading progress but only a very few of them" (Clay, 1982, p. 87). Clay (1979) states that "the test's greatest value is diagnostic. Items should uncover concepts to be learned or confusions to be untangled" (p. 18).

As cited in Hall (1987), "Downing's interest in linguistic awareness and his views about the importance of cognitive confusion as a factor in literacy failure have led him and co-workers to devise a test which examines this aspect of literacy development" (pp. 66-67). The development of the test was a result of several studies. According to Downing, Ayers, and Schaefer (1983), the Linguistic Awareness in Reading Readiness (LARR) Test is a new type of reading readiness test for use with young children in their first two years at school. The LARR test is a series of group tests which samples a cross section of children's linguistic awareness and their concepts of reading and writing and the functions and features of these skills. The test is useful for determining the strengths and weaknesses of both individual pupils and the class as a whole with regard to their understanding of the linguistic concepts that they need for reasoning about the tasks of reading instruction.
The LARR has three subtests: Recognizing Literacy Behavior, Understanding Literacy Functions, and Technical Language of Literacy. The LARR test provides a survey of children's concepts of literacy—concepts that have direct relevance in reading readiness. Ayers and Downing (1982) state:

Clearly children's recognition of reading and writing activities, their concepts of the purposes of literacy, and their comprehension of the linguistic terminology used by teachers in reading instruction must be important in their readiness to profit from such teaching (p. 280).

The LARR test can be used to determine children's knowledge at the beginning of the term or year and the teacher may provide appropriate experiences and instruction that should help children to develop those concepts that are found to be inadequately understood. The LARR test may also be used to evaluate the effectiveness of teachers' efforts to foster the growth of linguistic awareness and concepts of the functions and features of written language by readministering the tests near the end of the year.

The third subtest from the LARR test, "Technical Language of Literacy", which tests the child's knowledge of technical terms used in describing language, was found to be a useful predictor of reading achievement in grade one as measured by scores of the Cooperative Primary Reading Test. Secondly, the LARR test was found to be an effective predictor of reading achievement for most
individual classes.

Results of a study conducted by Abramson (1981), revealed a significant relationship between linguistic awareness as measured by the LARR test, and reading achievement in first graders as measured by the Stanford Achievement Test.

Mason and Swanson (1984) state that the LARR test has been found to make a significant addition to predictions based on standardized test scores. If the test is administered as a screen, misconceptions about reading behavior and instructional terminology could be clarified before beginning formal reading instruction.

Hall (1987) cites Yaden (1984) who reviewed over one hundred studies of young children's metalinguistic awareness. All of the studies came to similar conclusions. According to Hall, almost all of the investigations seem to assume that linguistic awareness is a necessary precondition of being able to read and write. The majority of the studies were correlational and investigated the relationship between reading ability and metalinguistic awareness. They all found significant correlations but these do not demonstrate the cause and the effect. "Instead of metalinguistic awareness being necessary for development in literacy, it may be the case that it is the development in literacy that causes an increase in metalinguistic
awareness" (p. 58).

Although the original intention for these studies was to investigate the way that children became readers, the nature of the investigations did not allow children to demonstrate their literacy competence. Children are actively involved in making sense of literacy events in their environment, and to view children as cognitively confused would be in error. When children experience an event that conflicts with what they already know, they evolve new ideas, new beliefs, and new structures to account for the evidence. The "cognitive confusion" does not last long as a result of children's curiosity and desire to create order. This view is shared by the Goodmans, Ferreiro and Teberosky, and Harste and his collaborators. Harste et al. (1984) state that "After many years of work in this area...we have yet to find a child who is cognitively confused" (p. 15).

According to Hall (1987), if one approaches children by considering them competent, "then perhaps one should look for teaching strategies which perpetuate the circumstances that have allowed competence to develop" (p. 63).

Factors Which Affect Children's Concepts of Literacy

Perhaps the most important development in the field of reading during the past decade has been the changing view of language and literacy learning during the pre-
school years. Insights have been gained by looking at the home background of early readers and describing the environment that facilitated their early reading ability.

Young children are acquiring knowledge about written language much as they learn to speak through exposure to it in their environments and without direct instruction. Smith (1976) claims:

"The roots of reading are discernable whenever children strive to make sense of print, before they are able to recognize many of the actual words...not only are the formal mechanics of reading unnecessary in the initial stages, they may well be a hindrance. It is the ability of children to make sense of the printed word that will enable them to make use of the mechanics we offer (p. 299)."

Smith (1971) stated that "many of the skills employed by a child in learning about speech are relevant to the task of learning to read" (p. 2). Smith (1976) believes that children probably begin to read from the moment they become aware of print in any meaningful way. Goodman (1983) also believes that reading begins when children become aware that print communicates---that it involves an act of meaning.

In one of the first books published in the United States regarding reading instruction, written by Edmund Burke Huey in 1908, the following statement was made:

"The child should never be permitted to read for the sake of reading, as a formal process..."
or end in itself. The reading should always be for the intrinsic interest or value of what is read, reading never being done as "an exercise". Word pronouncing will therefore always be secondary to getting whole sentence meanings and this from the very first (as cited by Tovey and Kerber, 1986, p. vii).

This statement, although made in 1908, is similar to recent psycholinguistic research findings which emphasize meaning.

A similar statement which indicates the emphasis on meaning was made in the Horace Mann Readers published in 1912: "Let thought lead". Children are essentially thinking beings and one must remember this when teaching children to read. Children learn better when thinking is involved rather than learning by mere repetition.

John Holt (1967), in his book How Children Learn, wrote:

> If from the start they could think of writing as a way of saying something, and reading as a way of knowing what others are saying, they would write and read with much more interest and excitement... If we begin by helping children feel writing and reading are ways of talking to and reaching other people, we would not have to bribe and bully them into acquiring the skills; they will want them for what they can do with them (p. 95).

Children need to perceive reading as getting meaning and less as an activity involving decoding skills. Teachers need to continually reinforce the communication purpose of reading.

Research into the development of literacy in preschool children includes investigations into the influence of home background on children's concepts of the purposes of literacy. Downing conducted two studies using the Orientation to Literacy test developed by Evanechko, Ollila, Downing, and Braun (1973),
which is a paper and pencil test in which subjects are required to select and circle a picture which illustrates a function of literacy (Downing, Ollila, Oliver, 1975; 1977).

The first study confirmed Downing's hypothesis that home background experiences are related to the development of children's concepts of the purposes of literacy. Canadian Indian children with no cultural tradition of literacy were significantly less able to recognize acts of reading and writing, which indicated that their literacy concepts were less well developed. The second study found kindergarteners from high socioeconomic family backgrounds scored significantly higher than those from lower socioeconomic family backgrounds.

Durkin (1961) found that children who learned to read early had rich family backgrounds. In general, early readers learned within an environment that stimulated them to learn in natural developmental ways (Clark, 1976; Clay, 1979; Durkin, 1966). Almost all early readers came from book-orientated homes and have been read to most of their lives (Butler and Clay, 1979, 1983; Crago and Crago, 1983; Taylor, 1983).

Durkin (1966) suggested a significant relationship existed between the reading and writing processes, saying that several of the early readers in her studies were "paper and pencil kids" for whom "the ability to read seemed almost like a by-product of ability to print and spell" (p. 137). Several studies have confirmed this finding.
(Bissex, 1980; Clark, 1972, 1975; Chomsky, 1971; Read, 1970).

Clay was a pioneer in examining young children's reading and writing in light of language acquisition research findings which initiated the hypothesis that oral and written language proficiency might develop in parallel ways. Clay (1966) began observing young children's early reading behaviors and called them emergent literacy behaviors. Clay (1975) included observations of children's early writing behaviors in describing children's early literacy development. Clay (1982) believes that besides gaining knowledge from stories told and read to children, "...children are constructing theories about print from diverse experiences---seeing print in their environment, putting pencil to paper, thumbing through magazines, and receiving birthday cards, invitations and letters" (p. 229).

Print Awareness

It is clear from previous studies that the early experiences children had with print played a significant role in the development of literacy. Y. Goodman (1967) examined the reading process of beginning readers in light of K. Goodman's model of reading as a psycholinguistic process. "It slowly became obvious to me that children's discoveries about literacy in a literate society such as ours must begin much earlier than at school age" (Y. Goodman,
This was the beginning of studies which examined the importance of environmental print in children's literacy learning. Study after study has shown young children who have competence with environmental print (Goodman and Altwerger, 1981; Hiebert, 1981, 1983; Harste, Burke, and Woodward, 1982, 1984; Mason, 1980). The print awareness work led to the conclusion that learning to read in a literate society is natural.

Hall (1987) believes that the emergence of literacy is facilitated by environmental print and states that "the environment is replete with rich examples of written language which can be, and are, used by children to develop their understandings of the ways in which written language works" (p. 29).

Smith (1984) states that "the first requirement for children who will become readers must be the recognition that written language exists, that there are aspects of the visual environment worth paying attention to in a particular way" (p. 44).

Children's earliest experiences with print are in such settings where it is presented in a meaningful contextualized way (Smith, 1976). Young children attempt to give meaning to this print, using cues from the environment to assist them in the process. Hiebert (1978) suggests that the young child may be able to make sense of "written language within the
environmental context, although not yet able to read when the environmental context is absent" (p. 1233). She also found that preschoolers made more errors in identifying letters than words and concluded that "learning letter names may be an entirely different task than learning to read words and not a prerequisite for learning words as is often surmised" (p. 1233). Her study indicated that young children have acquired knowledge about written language which could be considered part of the reading process and precursors to reading skills.

Hiebert (1981), through careful observation as well as the use of concrete tasks, assessed preschool children's print related knowledge. Her findings revealed strategies young children employ when interacting with print and found that there are substantial individual differences in developmental stage and style. Another finding was that young children responded to print more significantly when exposed to print within meaningful contexts.

In a similar study, Harste, Burke, and Woodward (1981) investigated young children's knowledge of print and concluded that as children become proficient language users and as they experience print in social contexts, they thus begin to expect print to be functional and meaningful. They concluded that written language, like oral language is learned naturally from encountering written language in use. Insights into
written language and how it works are as important to growth in reading as they are to growth in writing.

Hiebert (1983) investigated preschool children's concepts of reading. She found that "while the majority of children recognized the acts of reading in both its silent and oral forms, there were some children who did not have this awareness, even at age five" (p. 258). Another finding was that of the 60 children, only 4 incorrectly evaluated their own reading ability. She also found that knowledge of what is actually read on a printed page increased significantly from three to five years of age. Three year olds were, on the whole, quite unaware of the salient information in books. Even among the five year olds, who performed significantly better than three and four year olds on this task, some children's responses indicated an ambiguity about the role of print in reading.

Thus the evidence from studies with environmental print suggests that experience is an intrinsic part of becoming literate language users, but that such experiences operate in conjunction with many other oral and written language experiences. The Goodmans, Harste et al., and Hiebert all agree that the emergence of literacy is multifaceted. Environmental print has a vital role in conjunction with experiences of other types of written language.
In the preschool years children can learn important ideas about print from the print in their environment. The concepts about print "cannot be taken for granted in the early stages of learning to read. It is sometimes the source of some fundamental confusions" (Clay, 1979, p. 246). Clay (1972, 1979) developed an instrument which can provide insight into what children know about written language called "Concepts About Print" (CAP). Y. Goodman (1981) summarizes Clay's main objectives for this tool: 1) observing precisely what a child is doing, 2) uncovering the processes a child controls, and 3) discovering reading behaviors which need to be taught. Clay (1979) states "items should uncover concepts to be learned or confusions to be untangled" (p. 18).

The findings of a study by Day and Day (1978) suggest that some of the concepts of print are, or can be, acquired after a child is reading, i.e. functions of punctuation.

A number of researchers have found that print awareness, measured either prior to or during first grade, is related to reading achievement at the end of first grade (Ayers and Downing, 1982; Day and Day, 1981; Taylor and Blum, 1981).

Harlin (1984) explored the relationship between print awareness, as measured by Clay's CAP, and subsequent achievement in children. The CAP proved to be an adequate predictor of reading achievement. Therefore, the results
support the use of the CAP for young children from kindergarten through grade three and especially for disabled readers. Harlin claims that the test has been shown to be an effective indicator of the child's knowledge and understanding of print concepts. As part of a preventive strategy, the test may be used to identify potential reading failure early in the school year, thus facilitating intervention strategies. Harlin states that "the reliability and validity of the CAP test has been demonstrated with American children. The results support the use of the CAP in the early diagnosis and monitoring of problems that may produce later reading difficulties" (p. 11).

An understanding that must be acquired early in learning to read is the concept of word or concept of the spoken word/written word match (Morris, 1981). Clay (1979) states that "to read, an individual must be aware that print represents the combination of individual words which communicate meaning" (p. 119).

Morris (1981) suggests some indirect ways (understanding is inferred from behavior) that teachers can use in measuring a child's awareness of the spoken word/written word match in reading. These include: pointing to words as one reads aloud, self-correcting errors in pointing, identifying individual words within a single line and within a five line memorized rhyme (p. 661). These measures are
indirect yet they are highly sensitive to young children's ability to map spoken language to written language at the word level.

Morris (1983) found a significant relationship between concept of word and phoneme awareness in the beginning reading process. Turbill (1987) states that the ability to hear phonemes is developmental.

Templeton and Spivey (1980) investigated the developmental nature of the concept of word in young children and the degree to which these developmental aspects correspond to levels of cognitive development as described by Piaget (preoperational, transitional, cognitive operational). Templeton and Spivey state that "metalinguistic awareness apparently begins to emerge during the five to seven year old period" (p. 267). The results indicated that words were "understood" first in a global sense as referring to spoken language or speech. The child's first mention of internal structures of words was in terms of letters rather than sounds. Templeton and Spivey suggest that although conscious word analysis may depend on the attainment of a certain level of cognitive operations (what Piaget terms concrete), it may also be dependent upon considerable experience with written language. Teachers are cautioned not to begin formal reading instruction which includes the study of phoneme-grapheme correspondences unless
preceded by experiences with substantial quantities of written language.

Allan (1982) claims that children gradually learn to understand the linguistic concept of word and this ability is related to reading ability.

Masonheimer, Drum, and Ehri (1984) investigated whether environmental print identification leads children into word reading. They found that experiences with environmental print alone are not sufficient to lead children into word reading.

From the beginning in school, children should experience print in a variety of forms in order for concepts about written words to emerge. Opportunities to write—to invent spellings—can exercise this developing concept of wordness.

Current research shows that significant written language development is occurring during the preschool period. According to Calkins (1985), long before children come to school they are writing—as best they can. Many are reading also, some fluently with continuous text and some reading environmental print (but with more skill than previously thought). Case studies of preschool children have indicated that some children learn to read and write before formal instruction (Bissex, 1980; Clay, 1979; Torrey, 1969).
Concepts of Writing

The emergence of writing has received far less exposure than reading. It is only relatively recently that researchers have focused on the knowledge that children possess about writing before formal instruction. Children have many experiences with written language as they grow. Goodman (1984) describes literacy learning as "learning how to mean," through written as well as spoken language. Children discover and invent literacy as they participate actively in a literate society. "They discover as they are immersed in using written language and watching others use it, that written language makes sense" (p. 102).

Taylor (1983) observed that "many of children's writing activities pass unnoticed as the child's momentary engagement merges with the procession of other interests" (p. 56).

The use of language in its written form begins long before school instruction and is shaped by many influences other than direct instruction (Clay, 1972; Holdaway, 1979). Ferreiro and Teberosky (1983) also believe that children possess conceptualizations about the nature of written language long before the intervention of systematic instruction.

Many investigations of recent years have found a great deal of evidence about emerging writing abilities in young children. Some have looked at individual children at
home (Baghdan, 1984; Bissex, 1980), and others have looked at emergent writers in nursery and kindergarten settings (Dyson, 1985; Ferreiro and Teberosky, 1983; Harste, Burke, and Woodward, 1982, 1984; Pearce, 1987; and Sulzby, 1985).

Read (1970) completed his pioneering study of young children's categorization of speech sounds as evidenced by invented spellings found in their compositions. Read's research prompted Chomsky (1971) to suggest that young children should write first, read later.

What I propose is that children be permitted to be active participants in teaching themselves to read. In fact, they ought to direct the process. By reversing the usual order of read first, write later, this can be allowed to happen (p. 296).

Clay (1975) and others such as Bissex (1980) provided evidence that indeed young children do write as they learn to read.

Clay (1975) identified thirteen principles which may be observed in the writing behavior (or mark making) of young children, but are not in any particular order: 1) sign concept, 2) message concept, 3) copying principle, 4) recurring principle, 5) directional principle, 6) reversing the directional principle (mirror writing), 7) flexibility principle, 8) inventory principle, 9) generating principle, 10) contrastive principle, 11) space concept, 12) page and book arrangement, and 13) abbreviation principle. Clay believes that differences occur in development because of
different experiences and also because young children "...have chosen to devote their attention to different aspects of their environment. I doubt whether there is a sequence of learning through which all children must pass" (p. 7). The principles are only descriptions of some of the behaviors emergent writers exhibit.

Harste, Burke, and Woodward, (1981) acknowledge that long before the writing looks representational (or the reading response conventional) to our adult eyes, evidence of literacy learning as a contextually specific literacy event exists. Harste, Woodward, and Burke (1984) found that children responded to the type of instruments they considered appropriate and would not write if the "wrong" instruments were given to them. They identify "risk taking," "organization," "intentionality," and "generativeness" as critical components of children's literacy.

The work of Clay and Harste and his collaborators, suggests very strongly that most children, by the age of five, are demonstrating through their writing that they have observed and understood a wide range of features of print production.

According to Temple, Nathan, and Burris (1982), writing is a developmental process that follows much the same course as learning to talk. Similarities include: 1) Children take a great deal of the initiative in learning to talk and learning to write. 2) Children must be surrounded by
meaningful language if they are to learn to talk; the same is true if they are to learn to write (and read).

3) Children learning to talk make many mistakes, but gradually correct errors as they practice and become proficient language users. Children learning to write make errors in letter formation, spelling, and composition. As children gain greater knowledge of concepts (through reading, writing, and sharing), their writing becomes closer to correct form.

The writing of preschool children appears to progress through developmental stages: scribbling (with meaning), perceiving print and drawings as synonymous, representing things with individual letters, writing initial consonants to represent words beginning with particular sounds, spacing between words, representing sounds with letters, invented spellings, and producing mature conventions of spelling and writing (DeFord, 1980; Dyson, 1981; Ferreiro, 1986; Sulzby, 1986). Some children pass through the stages so quickly that stages are not apparent.

Pearce (1987) concludes that drawing provides children with a transition to writing. Pearce claims that scribbling and drawing are very necessary components in the child's progression to literacy. She obtained writing samples from 10 preschool children and concluded from an analysis of the data that "children produced and talked about drawing interchangeably which indicates that separate concepts are
not clearly defined at this time" (p. 66).

There have been very strong claims for the existence of a developmental sequence in the way children come to understand the alphabetic nature of written language (Ferreiro and Teberosky, 1983; Henderson and Beers, 1980; Read, 1970, 1975). Read was the first researcher to examine the highly regular developmental sequence children aged three, four, and five follow as they invent and modify a system of phonological rules that approximate the Standard English Orthography. According to Read "invented spelling" is a process of phonological development that all children go through.

Bissex (1980) found that her son Paul began using invented spelling at the age of 5:1-5:2. Bissex stated that "the knowledge of letter/sound correspondences that he was confirming, practicing, and developing through invented spellings was the beginning of his code-breaking as well" (p. 122).

Bissex demonstrated that her son Paul knew when and why people write. The first message, which he printed with a rubber stamp, was RUDF (Are you deaf?). Paul was a prolific writer and inventor of spellings, and he often wrote to some purpose. He made a sign: DO NOT DSTRB GNYS AT WK (Do not disturb. Genius at work). By age five he was clearly capable of understanding the ways of using writing.
Bisex claims that Paul's learning to read was a less visible process than his learning to write.

Ferreiro and Teberosky (1983) claim to have identified five stages through which children pass as they emerge as writers. The progression begins with a child's intention to create a message, characterized by interrelationships between drawing and writing and a correspondence between the size of the object and the number of characters used in writing. Children gradually progress to more conventional forms, eventually evolving into alphabetic writing.

Recently, it has been recognized that encoding (producing written language helps decoding (reading)) (Bisex, 1980; Clay, 1982; Ferriera and Teberosky, 1983). Writing can function to foster developing reading competence and vice versa. Ferriero and Teberosky's studies show how writing can foster development of written language knowledge. As cited by Teale (1986a) "Ferreiro's studies demonstrate that as children attempt to read their own writing, they may come face to face with contradictions between what they are attempting to write and what is actually on the page. The contradictions result in cognitive conflicts that promote learning" (p. 6).

A recent experimental group of urban kindergarten children exposed to an encoding or writing approach to reading, scored twenty percentile points higher than the
control group on a standardized reading test (Martin, 1984).

Dyson's studies provide many illustrations of how writing contributes to awareness of the nature of written language and serves to bring the reading and writing processes together (1981, 1982, 1984). The growing insight of recent years has been that reading and writing are inextricably linked in children's language development. Whereas it was emphasized that one learns to read by reading and to write by writing, it has been realized that one also learns to read by writing and to write by reading. There is a symbiotic link between reading and writing which is called literacy (Dillon, 1984).

Literacy is now the current topic of interest—writing as well as reading rather than reading by itself. The two processes develop in coordination with each other. As Teale and Sulzby (1986) state:

We now have evidence to indicate that there exists a dynamic relation between writing and reading, because each influences the other in the course of development (Ferreiro and Teberosky, 1982; Sulzby, 1983), and that reading comprehension is engaged in during writing (through reading one's own writing) (p. xix).

Reading and writing are both acts of composing. Butler and Turbill (1984) claim that what every reader needs, like every writer, is a first draft—an opportunity to "have a go" at working on the text without fear of being wrong.
Children's journal writing demonstrates the close interplay of reading and writing. Newman (1984) sums up the process:

In his first independent efforts we can see him reading to find words he wants to use and copying them. Later, as he becomes more of a risk-taker, his editing and self correction reveal how he functions as a reader in the process of writing. The way in which his spelling becomes more and more conventional over time is a further reflection of the influence of reading on his writing development (p. 66).

The language processes are essentially processes of meaning construction which support and extend each other. The first literary experiences should show students that writing represents language and meaning. In the early stages, the teacher's modeling of written language is a powerful influence on student's literacy development.

Graves' (1981) research has shown that all children can write at five to six years old, can enjoy doing so, and can make at this time "some of the most rapid and delightful growth in writing of their entire lives" (p. 9). Graves is against the belief that children must learn to read before being allowed to write. Graves claims that 90% of the children come to school believing they can write, whereas only 15% believe they can read.

Giacobbe (1981) found that during the first week of school the first grade children were writing even though they could not read. However, they were usually able to read what
they wrote.

Holdaway (1984) provides evidence from research which shows an extremely high correlation between knowledge of writing on entry to school and the ability to read at eight years old.

Gunderson and Shapiro (1988) observed two first grade classrooms involved in whole language instruction using a literature based reading program where the students wrote extensively. The students responded to what they read in a journal and the teacher responded in writing to what students wrote. In doing so the teacher provided many models of writing which the students would use in successive writing episodes. The students progressed from writing strings of letters to producing text with invented spellings and many conventional forms. It was found that the teacher's modeling of written language had a powerful influence on students' writing development. Another finding was that compared to the vocabulary they would have been exposed to in a basal reading series, they produced 18 times the number of words in their writings.

The recent interest in writing was accompanied by the use of more naturalistic observation of children which has resulted in demonstrations that nearly all young children are emergent writers. They all know something about the
nature and purpose of writing. Although their writing is
not conventional by our adult standards, the level of
knowledge which children acquire before formal instruction
must be recognized and acknowledged when entering school.
This knowledge was achieved by observation, interaction, and
experimentation, and should provide a good base for learning
to write conventionally. What is most important is the
environment teachers provide to assure that continued growth
can be facilitated at a rate near to that which occurred
before schooling.

Importance of Stories in Literacy Learning

In reviewing the literature, the importance of reading
stories has been emphasized (Holdaway, 1979; Taylor, 1983;
Wells, 1986). Huey (1908) discussed how young children
develop the ability to read and stated that "the secret of
it all lies in the parents reading aloud to and with the
child" (Tovey and Kerber, 1986, p. vii). A host of studies
have supported the importance of being read to for the
child's literacy development (Crago and Crago, 1983;
Durkin, 1966; Holdaway, 1979, 1984; Hoskisson, 1979; Taylor,
1983; Wells, 1986).

Taylor (1983) conducted a descriptive research study of
six families, each of which had a child who was successfully
learning to read and write. She concluded "the children of
this study learned of print through the socially significant
literate activities in which they engaged, and it was within
this context that their awareness of written language forms
developed" (p. 76). It was a whole language process in which listening, talking, reading, and writing grew as interrelated forms of a communicative system. Taylor noted that "in each of the families...reading stories was an integral part of their lives; both parents and children spoke of the stories they shared as important precursors of literacy" (p. 96).

Holdaway (1979) suggests a multifunctional literacy program with sharing of stories as the cornerstone. According to Holdaway (1984), research findings show an extremely high correlation between the quantity of material transacted in a beginning reading program and success or failure in later reading.

Smith (1979) believes reading stories to children has two general advantages: that print is meaningful, and that print is different from speech.

Huck (1987) states "We have quantities of research, from this country and overseas, which shows the impact of reading aloud on the child's ability to read" (p. 1). As children listen to stories, they actually construct schemas that help them become readers. She urges parents and teachers to read to children---not only to familiarize them to the patterns of literary language, but also to allow them to actively participate in discussions about what is being read to them and how the idea relates to their own lives. Reading to
children contributes to the development of story grammar and helps children think in the language of books. More importantly its purpose must be to develop enjoyment and the desire to read.

Many argue that young children learn that written language is different from speech by hearing written language read aloud (Holdaway, 1979; Smith, 1979, 1982; Teale, 1984; Wells, 1986). Pappas and Brown (1987), take this idea one step further. They studied a young kindergarten child as she developed an understanding of the registers of written language. By analyzing three "pretend" readings of a picture storybook previously read to the child, they concluded that in the context of learning to read by reading, the child learned about the characteristics of the written story language.

Researchers have investigated and documented the importance of book sharing and maternal speech patterns used to facilitate language acquisition (Clark, 1976; Ninio and Bruner, 1978; Snow, 1983; Soderbergh, 1977). Teale (1987) suggests that there is a need to study the activity to understand fully how such experiences influence children's development of literacy.

Studies have also been conducted on children's concept of story. Children learn that written stories are represented in books following a particular story format. This is referred
to as story grammar. Teachers need to pay close attention to children's questions and become aware of children's misunderstandings in their search for meaning in written language. Several studies suggest a reader's story concept comprises a set of expectations which help the reader predict and process stories. A concept of story involves knowledge of the elements of the structure of story, a mental representation of a story structure. Children bring a concept of story to the classroom which teachers can observe in story retelling and writing. It is important to find out what a child's concept of story is so that teachers can help children extend and refine their concepts.

When providing early reading experiences for children, it is important not to rely on artificially created print as a medium for instruction. Holdaway (1984) discusses the importance of "presenting language and experiences which stimulate the natural energies of thinking. Never teach from material which you yourself find boring, patronizing, or worthless" (p. 16). Holdaway believes that the quantity of print and language richness of the texts children encounter as they try to read is related to their reading progress.

Crago and Crago (1983) believe the intensity of their child's joint engagement with books and with adults in the preschool years had a tremendous effect on her learning.
It is evidenced by their child's flow of language and her ability to articulate the contents of her mind.

Hoskisson (1979) believes that the memorization aspect of children's knowledge of stories is a very important component and "should receive more attention than it has because all children seem to go through this phase of constructing their knowledge of written language...." (p. 492).

Wells (1986) conducted a longitudinal study (over 15 years) of preschool children, observing occurrences of four activities: 1) looking at a picture book and talking, 2) listening to a story, 3) drawing and coloring, and 4) writing or pretending to write. The final step was to compare the frequency scores for each activity with the children's scores on two later literacy measures: the knowledge of literacy test at age five (CAP), and the test of reading comprehension administered after two years at school (age seven).

The results of this comparison were absolutely clear cut. Of the three frequently occurring activities that had been considered as possibly helpful preparation for the acquisition of literacy, only one was significantly associated with both of them. That activity was listening to stories (p. 151).

Wells found that children's knowledge of literacy at age five and their rate of progress depended on parents reading stories to them in the early years and on talk between parent and child about what is read. This evidence supports other
studies of parents reading to their children (Taylor, 1983).

Wells (1986) provides two reasons why listening to stories is so beneficial as preparation for literacy:

In listening to stories read aloud children are already beginning to gain experience of the sustained meaning-building organization of written language and its characteristic rhythms and structures. Through stories, children extend the range of their experiences far beyond the limits of their immediate surroundings. In the process, they develop a much richer mental model of the world and a vocabulary with which to talk about it (pp. 151-52)...Through this experience, the child is beginning to discover the symbolic potential of language: its power to create possible or imaginary worlds through words (p. 156).

Wells' study confirms the connection between early experiences of listening to stories and later achievement. "Only the frequency of listening to stories significantly predicted the teachers' assessment of oral language ability" (p. 157).

Wells' (1986) study found that the major determinant of educational achievement is the extent of a child's mastery of literacy. What is surprising is the following:

What has become increasingly clear from our longitudinal study is just how early these crucial differences between children begin to be established. By the time they came to school, the rank order of the children in our study was already fairly firmly established ... In accounting for the differences between children, the major influence was that of the home, particularly during the preschool years and the first year or two at school (pp.193-94).

In light of much of the recent research on early
literacy and home environments favorable to the development of literacy, Wells' study clearly demonstrates that it is growing up in a literate family environment, in which reading and writing are naturally occurring, daily activities, that gives children a particular advantage when they start their formal education. And of all the activities that were characteristic of such homes, it was the sharing of stories that was found to be most important.

Wells (1986) suggests that stories have a role in education that goes far beyond their contribution to acquisition of literacy. "Constructing stories in the mind—or storying, as it has been called—is one of the most fundamental means of making meaning; as such it is an activity that pervades all aspects of learning" (p. 194).

Holdaway (1979) discusses the "emergent" reading behavior which occurs as children participate in shared reading of big books (enlarged texts). At one point the child is not really reading and at a later point is. The change from one stage to the other is sometimes not apparent.

Sulzby (1985) believes that children's early attempts at reading favorite storybooks are developmental and help children become literate.

Experiences with literature enable prereaders to become familiar with many different literary forms. Goodman's (1977) research suggests that familiarity with literary forms
increases a reader's effectiveness in predicting what comes next in text. The key to making reading easier for the beginning reader lies in finding materials for initial reading instruction that are easy and meaningful, thus predictable. According to Bridge (1979), the problem for the teacher becomes that of helping children use their syntactic and semantic knowledge to reduce their dependency on the graphic symbol. One way of accomplishing this is to use literature with many predictable features such as strong rhythm and rhyme, repeated patterns, refrains, logical sequences, supportive illustrations, and traditional story structures to provide the emergent readers support in gaining meaning from the text (Bridge, 1979; Goodman, 1986; Heald-Taylor, 1987; Holdaway, 1979). Another type of reading material which is appropriate for beginning readers is stories written by the children.

Graves (1983) believes that many children literally learned to read through poems they could recite.

Stories are an important factor in the emergence of literacy. However, both Durkin (1966) and Clark (1976) found early readers who had few or no stories read to them. Teale (1984) reports that he found a number of children who had not been read to during their preschool years who were above average in reading at school. Thus, it seems that
"although stories can have a powerful and valuable impact on emerging literacy, the combination of a whole range of written language experiences, of which stories should be a part, is more likely to optimize the emergence of literacy" (Hall, 1987, p. 40).

As mentioned earlier there has been a shift in focus recently in research and in education. Rather than concentrate on the end products of reading and writing, researchers and teachers have begun to observe and analyze the behaviors of children during the process of reading and writing. Much can be learned from the child while he is learning to read and write by being good observers and inferring from behaviors the strategies children are using in the process of reading and writing. Bissex (1980) believes that in writing errors are a piece of information, rather than something to be erased. They will tell as much about what the children know as about what they don't know. K. Goodman, a pioneer in the use of errors or "miscues" to diagnose a child's strengths and weaknesses in reading, has called errors "a window on the mind" (1986). Teachers need to be familiar with procedures that they can use to "get a window on the child's hypotheses and strengths as a guide to teaching" (Clay, 1982, p. 229).

Learning to read and write is a developmental process for young children. Cohn (1981) believes that the develop-
mental learning of reading and writing is a successful route to literacy. Children engage in reading like behavior which later develops into early reading attempts. They learn that print is meaningful, that print is different from speech, and the conventions of print. They learn the language of literature and at the same time begin to write. Cohn believes that if this developmental learning is successful in the home, it should be successful in school. Teachers need to recognize children's competence and help them to develop their literacy skills by responding appropriately to their needs. Children need to be given the opportunity to use their language competence in a rich learning environment with resourceful teachers.

Holdaway (1984) believes that if we regard literacy as a developmental task, there will be no "pre-reading" or "readiness" stage. The first experiences with print and written dialect will be regarded as the beginnings of literacy. "Every child should have a lengthy period of gradually refining approximation in reading and writing before any of the techniques which are associated with formal instruction begin" (p. 7).

Coon and Palmer (1986) provide case studies of four non-readers, bright children who were unable to conceptualize the process that would help them understand what reading is about. Each child had completed at least one year of instruction in a first grade classroom. None of the children had been considered to be significant "risks" on readiness tests that were administered prior to the beginning of reading instruction.
In fact, the readiness tests had shown each child to be ready to receive instruction in reading. "A common thread seen in many beginning readers is the lack of knowledge that the processes in which they are engaged are supposed to result in words that they know in thought units that make sense" (p. 55). In each case the diagnosis indicated that "at least part of the problem could be ascribed to an instructional methodology which seemed to be incomprehensible to the pupil" (p. 56).

K. Goodman (1986), claims that some traditional teaching practices may actually hinder language development by breaking whole (natural) language into bite-size but abstract little pieces.

Children learn best from whole to part, and not vice versa (Mooney, 1987). Early childhood literacy learning proceeds from whole to part rather than from part to whole. Children need to develop a firm foundation in understanding the purposes and uses of reading and writing. Children must first experience meaningful literacy activities and written language used in context in order to make sense of print.

Rasinski and DeFord (1985) explored first grade children's conceptions of reading and writing, and how those conceptions may be associated with and influenced by the type of reading instruction they receive. Results suggest that the type of instruction and the context for instruction significantly and quite powerfully affect the way that first grade children perceive literacy and
literacy activities. Among the various classroom types, the informal or literature based classroom (Shared Book Approach) had the highest or most meaning based conceptions of reading and writing.

Ribowsky (1985) conducted a year long study of the comparative effects of a whole language approach (meaning first) and a code emphasis approach (phonics first) upon the emergent literacy of 53 kindergarten children. Results indicated that the whole language approach had a significantly greater effect. This study corroborated Holdawqy's (1979) ethnographic research—which indicated a high level of success with the Shared Book Experiences program—through quantitative analysis of shared book experiences in comparison with a code emphasis approach. Another finding was that the group who received the whole language approach, which was never formally instructed in phonics, did significantly better on formal measures of phonetic knowledge than did the code emphasis group. "A persistent concern for educators is whether schools can or should foster literacy through the use of a natural developmental approach or whether a formal program of reading instruction is required" (p. 4). A naturalistic learning model was shown in this study to be structured and viable within a school instructional environment that was informal, relaxed, and supportive.

A whole language view of early literacy as an integrated, meaningful process maintains that children learn to read and write in the same manner and for similar reasons as
learn to speak and listen. They learn in a natural manner because they need to engage in social communication (Goodman and Goodman, 1979). Reading is seen as a conceptually driven, top-down, or inside-out information processing. Readers gain perspective of the whole before analysis of the component parts (stories, sentences, words, letters). Decoding skill is viewed as an outgrowth of making connections between print and meaning, and children can discover these connections if they are surrounded by an environment of print and given relevant literacy experiences (Bissex, 1981; Clark, 1983; Goodman, 1970, 1975; Holdaway, 1979; Smith, 1979). Literacy development is thus viewed as a whole language process occurring within a social language context (Taylor, 1983).

If the child speaks, reads, and writes language which retains the natural frequencies that occur in language, then some things which occur more often than others will come to the child's attention, and will continue to be confirmed until they are well and truly learned. This is one reason why one can say that a child learns to talk by talking, to read by reading, and to write by writing. Clay (1982) states:

It is because of the frequency principle in natural language sequences that it is possible for language programs to support and foster the child's own efforts to learn to read and write (p. 231)...

There is evidence that in a whole language program the responsiveness of the children increases as their learning in one area is facilitated by what is happening in another area. There can be a payoff for any language area of what is learned in another type of language performance (p. 232).
Lomax and McGee (1987) assessed the development of children's knowledge about written language and reading and concluded that, with age, children continue to increase in their awareness and understanding of each of the following print components: concepts about print, graphic awareness, phonemic awareness, grapheme-phoneme correspondence knowledge, and word reading.

Cairney (1988) found that children's perceptions of the purpose of basal reading activities indicate a focus on materials and procedures rather than on meaning. Young children believe that basals are used to improve their word recognition and accuracy of reading. Cairney suggests that it is highly likely that this reflects the tendency for basal programs (and teachers) to emphasize decoding and word recognition in the lower grades. The finding that many children place great emphasis upon decoding, vocabulary, and accuracy supports the findings of Johns and Ellis (1976). This research shows that the perceptions of reading associated with the basal readers are very negative. Cairney believes that at best these findings indicate that the use of basal materials can be improved. At worst, they suggest that the materials themselves and the related instructional procedures (workbooks) "need to be revised or discarded, due to the dysfunctional views of literacy they communicate" (p. 427).
In summary, research has shown that children's and adult's perceptions of and awareness of language and literacy differ. Too often, teachers assume that children understand the functions and features of literacy and the terminology used in literacy instruction. Teachers need to be aware of children's concepts of literacy and have many techniques available to continually assess and monitor the conceptualizations possessed. Teachers need to be good observers and be what Y. Goodman terms "kidwatchers" (1985). Cunningham (1982) simply calls it "diagnosis by observation."

It is important to value the knowledge that children have acquired before coming to school and the competencies they have in discovering for themselves what is important in making sense of literacy. The importance of providing an environment conducive to further literacy learning can not be stressed enough. Teachers need to continuously ask themselves whether the activities provided are teaching the children what was intended for them to learn.
The Emergent Literacy Perspective

The concept of emergent literacy has come to symbolize a new way of thinking about literacy development in early childhood. As stated by Teale and Sulzby (1986):

Current research overwhelmingly indicates the need to reconceptualize reading readiness, and indeed a new developmental perspective is in evidence. Developmental perspectives recognize children's thinking as being qualitatively different from, yet growing toward, adult modes and therefore attempts to provide instruction in accordance with a child's developing knowledges (p. xiv).

Sulzby (1986) believes that traditional programs need to be reanalyzed in light of what is known about children's emergent literacy development. Teale and Sulzby (1986) point out how earlier instructional practices were related to the earlier theory of reading readiness. Learning to read was explained in terms of maturational construct and then according to skill-based instructional principles.

Hillerich (1988) claims that emergent literacy includes writing as well as oral language and book handling. He defines emergent literacy as

...a continually developing ability to function in all aspects of language, from oral to printed form... Hence, its inception occurs long before schooling begins, and its fruition continues long after kindergarten ends (p. 24).

Emergent literacy deals with the whole of language as a communicative process.

Recently there have been attacks on the theory of
reading readiness. The older tests of reading readiness reflected the older theory and attempted to measure it indirectly through such subtests as letter-name knowledge and auditory discrimination. However, tests like the LARR and CAP are a more direct measure of readiness in that they test the child's comprehension of concepts and language that will be used in future learning.

Sulzby (1986) reviews research which shows that children's emergent literacy develops into conventional literacy. The new perspective stresses that legitimate, conceptual, developmental literacy learning is occurring during the first years of a child's life. Sulzby and Teale (1986) state that "children's early reading and writing behaviors are not pre-anything, but are integral parts of a language process which is in a state of becoming" (p. xx).

Research of the past decade has provided unprecedented insights into developmentally appropriate ways of fostering literacy growth in preschool and kindergarten children. As children approach learning to read, they face the task of developing certain fundamental concepts, all of which have implications for the teacher. Teachers must focus on the conceptual tasks faced by the learner.

Concepts of literacy develop gradually. Parents and a child's first teacher can do a great deal to move the child toward literacy before formal instruction begins (Mass, 1982).
Smith (1984) stresses the importance of children's "engagement with relevant demonstrations":

Children are capable of understanding any use of written language that is demonstrated to them, provided that they themselves understand and share the intention (behind the reading or the writing) of the particular manifestation of written language. What is critical is that which is demonstrated to the child, in terms of not only potential uses of written language, which give the child insights into function, but also the relationship of language and its uses, which provides the child with important insights about form (p. 146).

The challenge is to find developmentally appropriate ways to continue children's literacy growth when they enter school at the age of five. Kindergarten forms the bridge between the child-centered experiences of home and preschool and the more academic demands of elementary school.

The aim of teachers who are responsible for developing literacy in five year olds should be on providing the best environment for facilitating literacy development. Durkin (1987) investigated current practices regarding testing in kindergarten. She concluded that "practically no evidence was found that any test was given for the purpose of learning whether programs were suitable" (p. 769). What she found was that children had to adapt to programs. Kindergarten programs should adapt instruction to individual needs and teachers need to continually assess and monitor children to determine those needs.
Clay's (1979, 1982) research shows that young children who fail to learn are those who develop poor reading strategies at the very beginning. The longer they use those strategies, the harder remediation becomes. Recent work by Clay has shown that this situation can be changed for some children in school if intervention is provided in the early years of literacy development. The key is to intervene at the time that reading instruction begins. As cited by Pinnel (1985), Wells concluded from a longitudinal study that the single most important factor in accounting for the differences between children in their subsequent achievement was how much they understood about literacy on entry to school" (p. 70).

In effect, poor readers practice failure, which affects all future learning that relies on reading. This cycle of failure usually results in loss of confidence and poor self esteem (Pinnel, 1985).

"Reading Recovery" is a program of early intervention developed by New Zealand psychologist and educator Marie Clay (1985). The program targets children with the least reading skill in first grade and helps those children make accelerated progress to "catch up" with peers so that they will not need continuing intervention. Results to date, show that almost all children who enter the program "at risk"
(or on the verge of failure) reach average levels for their group within 15 to 20 weeks and are able to maintain their gains after the individualized help is withdrawn. Follow-up studies in New Zealand indicate that children continue to make average progress for the next three years during which they studied (Clay, 1985).

"Reading Recovery" has been shown to be successful in the United States through a pilot study conducted in Ohio. The Columbus Public Schools, The Ohio Department of Education, and the Ohio State University collaborated with co-investigators Charlotte S. Huck, Guy Su Pinnel, and Diane DeFord.

The approach is reflected in the following principles according to Clay (1987):

1) Teachers must learn to help the learner develop strategies for reading as children actually use them in reading and writing activities. 2) Teachers must learn to support the readers learning process by actively interacting moment-by-moment with the child as he/she actually reads (p. 71).

The goal of "Reading Recovery" is to help children develop independent self-generating systems for promoting their own literacy.

By observing the child's reading and writing behavior, the teacher can infer the strategies being used. For example, a child's substitutions of "down" for "brown" indicates that he used visual features as a source of information. When a child hesitates on a word and returns to the beginning of the line of print, he is aware that a word derives meaning in the
context in which it occurs (Clay, 1985).

According to Clay, children at risk of failure must develop the same broad range of reading strategies used by successful readers to build their knowledges of reading and writing processes. Knowledge is acquired through immersion in literacy acts themselves. Only while actually reading and writing can children develop strategies to unlock meaning.

Teachers need to support and extend children's emerging strategies for getting meaning from print. Pinnell (1987) believes, as does Clay, that rather than correcting errors, the teacher must try "to notice what is going on and to support children's own searching in ways that will extend it" (p. 56). For children who have difficulty, the teacher must attempt "to provide the same kind of scaffold that caregivers in the home gave to early language development" (p. 56).

Teachers need to become familiar with ways of assessing a child's knowledge and use of strategies. According to Pinnell (1987), "the running record provides the critical information necessary for gaining insight into each child's processes" (p. 53).

Mooney (1987) stressed the importance of good first teaching. She believes that the best cure for reading failure is good first teaching. It's important to get it right the first time so the children do not have to unlearn
things.

Mavrogenes (1986) believes that every reading teacher should be aware of what emergent literacy research has found. She stresses the importance of providing many varied and purposeful writing opportunities for children in kindergarten. This is important in light of Sulzby's research which indicates that many five year olds use different writing strategies to accomplish different tasks (Sulzby and Teale, 1985).

Clay (1986) believes that teachers need to develop in children the ability to construct responses to experiences, whether it takes the form of reading, talking, writing, art, or craft.

Martinez and Teale (1988) claim that a key goal in a kindergarten emergent literacy program "is to foster voluntary reading among the children so that they will develop positive attitudes and the inclination to engage in leisure reading" (p. 568). Recommended is ready access to books by providing a classroom center to promote voluntary reading. It is suggested that teachers include books authored and "published" by the children. Sulzby (1985a, 1986) has found that five year olds use language and intonation differently when asked to read their own writing than when asked to tell about it. Reading their writing actually promotes written language acquisition and helps them in developing sensitivity to the distinction
between oral and written language.

Also recommended for an emergent literacy kindergarten program is a read-aloud program to familiarize children with books. It is suggested that teachers do repeated readings of children's favorite books aloud and to make sure that these books are accessible to the children to read at their own leisure (Martinez and Teale, 1988). Being comfortable with written language in an oral context is an important first step in learning to read (Holdaway, 1979).

Combs (1987) suggests that teachers model the reading process for beginning readers with enlarged texts. She believes that familiarity with the structure of written language must be transferred to print itself. "The act of reading is a visual task and should be presented so that children can both see and hear written language used in a meaningful context" (p. 426). Examples of ways to use enlarged texts are as follows: 1) Begin by calling up prior knowledge of the topic or experience in the story. 2) During reading, ask children to predict what will happen and then discuss their ideas after the reading. 3) The teacher should model, through thinking out loud, how she knew certain aspects about the story. 4) Hesitate at predictable parts to allow the children to make decisions about what would make sense in the text and why. 5) Through tracking the print, the teacher models a variety of print concepts such as:
print carries the message, the direction in which print is read, and speech to print matching.

Yaden (1988) investigated the kinds of spontaneous questions that a kindergarten age child asked while being read to, and examined the effect of repeated readings on the emergence of higher level questions. He found that children's understandings of stories increases over several rereadings and that attempts to measure their comprehension after a single reading may not be accurate.

Children need to have power of choice in early literacy activities according to Rasinski (1988). He stresses the importance of providing literacy teaching and learning activities that are sensitive to the personal life of each child and allowing the child to have a say in what they are reading and writing. Rasinski cites Dewey who stated that "Real life purpose optimizes learning" (p. 397).

As Wells (1986) proposed, practice with pretend play episodes as a kind of shared storytelling may have significant consequences for reading and writing achievement, primarily because such activity may facilitate imaginative uses of language and story schema development. Roskos (1988) suggests that teachers can capitalize on young children's pretend play episodes as a medium for promoting literacy development. Children should be able to use various kinds of play centers such as: post office, the bank, the travel
agency, the office, the restaurant, and the store. Children should have access to paper and pencils and be encouraged to engage in writing and reading events as they pretend play. Teachers need to not only observe the visible products of the play sessions, but should also observe the process of literacy at work in the play sessions.

Teale (1987) discusses the importance of valuing the children's literacy processes and products. Initially, children's attempts to read and write need to be accepted, their efforts praised and encouraged. Ultimately the intrinsic satisfaction the child experiences will be enough reward to supply the needed motivation for the child to continue freely engaging in the reading and writing process. The pride that the children exhibit when they can "read" their piece of writing is exhilarating and even more so when someone else can do so.

The problem of teaching spelling is one of helping children to know what is standard. Wide reading provides models of standard spelling. Children learn spelling when they write for a purpose and audiences that demand it. In short children learn to spell when they have a reason for doing so.

In summary, the emergent literacy perspective provides many insights into how children learn to read and write.
K. Goodman (1986) believes that learners should be respected for who they are, the language development they have attained before they start school, and the experiences they have outside of school. That way there are no disadvantaged children as far as the school is concerned. There are only children who have unique backgrounds of language and experience, who have learned to learn from their own experiences, and who will continue to do so if schools recognize who and where they are (p. 10).

Summary

A review of the research on children's emergent literacy development, has provided much insight into how children learn. By looking at early readers and writers, it is clear that literacy learning begins long before children enter school. It is clear that the young child's reading and writing abilities mutually reinforce each other, developing concurrently and interrelatedly rather than sequentially. Thus literacy development is referred to rather than reading readiness. Young children's reading and writing concepts and behaviors are like those of adults in some ways and unlike those of adults in other ways. However, even what is "wrong" by adult conventions is both conceptual and developmental. Children learn by constructing their own knowledge. Literacy is most often embedded in meaningful daily activities. Social interaction, along with opportunities
for independent explorations of written language are crucial for early literacy development. Instruction facilitates children's development of literacy only if children are provided with an environment which stimulates, motivates, and encourages their efforts and allows them to interact with others as they use language in functional and meaningful ways.

A review of the literature has clearly indicated the importance of learning from the children how literacy learning occurs. The purpose of this study was to investigate kindergarten children's concepts of reading and how these concepts relate to success in learning to read.
Chapter III

Design of the study

**Purpose**

The study was designed to investigate children's concepts related to reading at the end of kindergarten. The secondary purpose of this study was to study the relationship between the children's concepts about print and reading ability as indicated by performance on a standardized reading achievement test.

**Questions**

In view of the past research on children's developing concepts of written language in emergent reading, the present study was designed to explore the following questions:

1. What concepts related to reading do children possess at the end of kindergarten?
2. Is there a significant relationship between the concepts related to reading and reading comprehension as measured by performance on a standardized achievement test?

**Methodology**

**Subjects**

The subjects of this study were 20 kindergarten
children attending a middle-class suburban elementary school. The subjects were randomly selected from six self-contained heterogenous classes totaling 122 students. Random selection was achieved by alphabetizing the students in all six classes and choosing every seventh student for the study.

**Instruments**

The instruments used in this study were:

1. Interview questions designed by the researcher which are listed in the procedure.
2. Clay's (1979) Concepts About Print (CAP) test entitled "Stones" which is described in detail in the procedure.
3. Tape recordings and observations during interviewing and testing.
4. California Achievement Test (CAT) reading comprehension subtest which was administered in May, 1987 (Form E, Level 10).

**Procedure**

Each of the 20 students was interviewed and tested individually for approximately 30 minutes. After a brief informal conversation to put the child at ease, a semi-structured interview was given to the child to determine the child's understanding of the purpose and process of reading. The following questions were used:
1. What is reading?
2. Can you read? When do you think you will learn?
3. Why do you read or want to learn to read?
4. How is reading done?
5. What must you do to learn to read?
6. Do you know what a word is?

The interviewer tried to gain further information by statements such as, "Tell me more," or "What else can you think of?" The interview session was tape recorded and observations of the child's reactions were recorded.

Following the interview, the child was administered the Concepts About Print test, "Stones." The test consists of a twenty page booklet which looks like a simple storybook. It has text on one page and an illustration on the opposite page. To use the test, the researcher tells the child that he/she is going to read the story but wants the help of the child. The child is asked a series of questions about the book as it is being read. There are twenty questions which examine the following areas:

1. Concepts about book orientation: Items related to these concepts provide insights into whether children know how to open books, and know when a book, pictures or print are correctly oriented.
2. Concepts about whether print or pictures carry the text message: These are observed by asking the child to point to where the researcher is reading as the researcher reads aloud.
3. Concepts about directionality of lines of
print, page sequences, and directionality of words: These are evaluated by asking the child to follow with a finger and point as the researcher reads and also by asking him to say what is wrong with a page that has lines of print, letters or words out of order.

4. Concepts about the relationship between written and oral language: The child is asked to follow with a finger as the researcher reads. This provides insight into their awareness of what is being read and how it relates to the words being spoken.

5. Concepts of words, letters, capitals, space, and punctuation: These are obtained by asking the child what the conventions are, or asking the child to point to such items.


Analysis of Data

The answers to question one were described using the responses that were elicited for each question asked the individual subjects. The responses were categorized based on the responses that were elicited.

The results of the CAP test were analyzed and tabulated on a grid designed by the researcher based on the concepts which were targeted on the test. Conclusions were drawn based on the numbers of responses that indicated concepts acquired.

The raw scores from the Concepts About Print test were recorded and tabulated. The raw scores from the Reading Comprehension subtest of the California Achievement Test were obtained. To measure the relationship between the scores on each test, a correlation analysis was calculated.
Summary

Twenty kindergarten children were individually interviewed and administered Clay's (1979) Concepts About Print test entitled "Stones." Reading comprehension scores were also obtained from the Reading Comprehension subtest of the California Achievement Test given in May, 1987. The interview was tape recorded and observations were recorded. The responses to the questions were recorded and described. The results of the CAP test and the CAT test were correlated to determine if a statistically significant relationship existed between children's Concepts About Print scores and reading comprehension scores.
Chapter IV

Analysis of Data

Purpose

The primary purpose of this study was to investigate the literacy concepts related to reading that children have acquired by the end of kindergarten. A secondary purpose was to study the relationship between these concepts and reading comprehension ability as indicated by performance on a standardized reading achievement test.

Analysis of the Interview Questions

This study was an attempt by the researcher to learn from the children what concepts related to reading they possessed at the end of kindergarten. Each child's responses were limited by the questions asked by the researcher, the child's level of cognitive development, the child's verbal ability, and the child's motivation to answer the questions to the best of his/her ability.

As each question was asked the researcher used elaboration questions to help elicit responses and to assist the child in understanding the question.

Responses to question one, "What is reading?", are shown in Table 1A.
Table 1A

Responses to Question One: What is reading? or Do you know what reading is?

1. Something that you have to learn to do
2. No. It's kinda fun, sometimes.
3. To read books
4. You open up a book and start reading the words.
5. It's like reading a book or something. It's words.
6. You read a story or something.
7. It's like when you read a book. You look at the words and read it to somebody else. Like read it to your dog.
8. Yes, pictures.
9. No.
10. Yes. Like you read a book and there is words in it.
11. When you read some words.
12. Reading books.
13. It's something you do when you're bored. If you're bored and have nothing to do and you feel like reading a book or something like that.
14. You have to look at the pictures and sound them out... sound out the words. If you don't know what they mean.
15. It's when you put words together and then you say something.
16. Yes, you look at words and you read.
17. Yes, you read a book. There's words and they help you to read.
18. I don't know how to read yet. My cousin knows. She's about five.

19. Look at the words, read them.

20. It's nice and you can hear a story.

The twenty responses to Question One were categorized among nine categories and are shown in Table 1B. Some responses fit more than one category and were counted in more than one category. For example, "It's like when you read a book, you look at the words and read it to somebody else" fits categories II and IV.

Table 1B

<table>
<thead>
<tr>
<th>Categories</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I No response, I don't know</td>
<td>2</td>
</tr>
<tr>
<td>II decoding words</td>
<td>10</td>
</tr>
<tr>
<td>III stories</td>
<td>3</td>
</tr>
<tr>
<td>IV books</td>
<td>9</td>
</tr>
<tr>
<td>V It's fun, nice</td>
<td>2</td>
</tr>
<tr>
<td>VI pictures</td>
<td>1</td>
</tr>
<tr>
<td>VII saying something</td>
<td>1</td>
</tr>
<tr>
<td>VIII meaning of words</td>
<td>1</td>
</tr>
<tr>
<td>IX something you must learn</td>
<td>1</td>
</tr>
</tbody>
</table>
Table 1B indicates that 10 of the children associate reading with decoding words. Three children associate reading with stories and only one child mentions meaning as having to do with reading.

Two responses were in category I. A response of "I don't know" or no response may be interpreted that the child did not wish to answer the question or he was not capable of verbalizing the concept when asked.

Children who associated reading with books and stories are aware that books are read and stories are in books but may not be able to verbalize what the process of reading is.

Two children described reading as fun which suggests that these children have enjoyed any experiences they've had with reading.

One child described reading as something you must learn which indicates the child knows that he is expected to learn to read.

- One child described reading as pictures which may indicate that there is confusion about what is the reader's focus in reading.

- One child described reading as putting words together and saying something which indicates an understanding of the communicative aspect of reading.

Question Two consisted of two parts and the responses are shown in Table 2A.
Table 2A

Responses to Question Two: Can you read? When do you think you will learn to read better?

<table>
<thead>
<tr>
<th>No.</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>No. Maybe when I'm 12.</td>
</tr>
<tr>
<td>2.</td>
<td>Yes. When I'm 12. My brother is eight and he doesn't know how to read. He has a problem talking that he was born with. (Does he go to school?) Yes. (What grade is he in?) He's not really graded. I think he is handicapped. (Do you read to him sometimes?) Sometimes he is over on the couch just sitting there and he'll listen to me. Then he starts jumping around and stuff.</td>
</tr>
<tr>
<td>3.</td>
<td>No. When I'm a little older like seven or six or something.</td>
</tr>
<tr>
<td>4.</td>
<td>No. I don't know.</td>
</tr>
<tr>
<td>5.</td>
<td>No. Probably when I'm seven years old.</td>
</tr>
<tr>
<td>6.</td>
<td>Yes. First grade.</td>
</tr>
<tr>
<td>7.</td>
<td>Yes, only two of my Christmas books. We put them away. I have to wait until next year. When I'm seven. I'm going to the cafeteria next year. I have to bring five dollars. I got change already too.</td>
</tr>
<tr>
<td>8.</td>
<td>Yes. When I'm eight years old.</td>
</tr>
<tr>
<td>9.</td>
<td>Yes. In first grade.</td>
</tr>
<tr>
<td>10.</td>
<td>No answer.</td>
</tr>
<tr>
<td>12.</td>
<td>Yes. I don't know.</td>
</tr>
<tr>
<td>13.</td>
<td>Yes. When I'm seven or eight.</td>
</tr>
<tr>
<td>15.</td>
<td>A little bit. When I'm maybe 10.</td>
</tr>
<tr>
<td>16.</td>
<td>Yes. When I'm nine years old, or eight.</td>
</tr>
<tr>
<td>17.</td>
<td>Yes. Probably when I'm six or eight or seven.</td>
</tr>
<tr>
<td>18.</td>
<td>Yes. When I'm eight.</td>
</tr>
<tr>
<td>20.</td>
<td>Yes. I don't know.</td>
</tr>
</tbody>
</table>

The first part of the question asked if the child knew how to read. Fifteen of the twenty children or 75%
responded that they could read. It should be pointed out that the researcher did not have the child read, therefore, whether or not the responses were accurate cannot be determined. However, the researcher believes that since 75% of the children believe they can read, this indicates that these children see themselves as readers whether or not they can read. This is a good indication that these children see reading as an activity that they can engage in and they don't see reading as an impossibility for them.

Responses to the second part of the question were examined and organized among six categories and are shown in Table 2B.

Table 2B

<table>
<thead>
<tr>
<th>Response Categories</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>I don't know</td>
<td>3</td>
</tr>
<tr>
<td>When I'm 7 or 8, 1st grade</td>
<td>8, 3</td>
</tr>
<tr>
<td>In school</td>
<td>2</td>
</tr>
<tr>
<td>When I'm 10</td>
<td>2</td>
</tr>
<tr>
<td>When I'm 12</td>
<td>2</td>
</tr>
</tbody>
</table>
The responses to the question of when they think they will learn to read or be able to read better ranged from "I don't know" to "When I'm twelve."

More than 50% of the children expected to be able to read better in first grade (age seven or eight). Since 75% of the children in this study believed that they could read at the end of kindergarten and over 50% felt they would be able to read better in first grade, it seems evident that the children don't perceive reading to be a difficult task. The majority of the children are confident that they will be able to read well soon.

The responses to Question Three are shown in Table 3A.

Table 3A

Responses to Question Three: "Why do you want to learn to read or Why do people (you) read?"

1. Because it's fun and I can read to myself in bed.
2. Because sometimes my Mom helps me write words and then I read them.
3. Because I get mixed up. Mom read to the children.
4. So you can read things when you get older.
5. You could be a illustrator and stuff.
6. Well, because someday you might grow up to be an artist and you might be an illustrator and you might want to write books or illustrate them.
7. So your mother doesn't have to tell stories to you.
8. Cuz it's fun.
9. To read stories.
10. Because you want to learn.
11. So I can read when I grow up.
12. So I can read books to people.
13. no response.
14. I don't know. (Why do other people read?) Sometimes you read to find things out if you don't know it. Sometimes books have them.
15. If you have books, if there's a bookstore or something, and you have kids and they want to listen to a story, you don't have to read them the story.
16. It's important.
17. So I can read to other kids that don't know how to. I can read to my Mom.
18. When you are in first or second grade, then you'll know how to read when you go to reading.
19. Because when I grow up I'll need to read because I'll be in third grade. My brother's in third grade.
20. Because I want to learn to read. (Why) Cuz my sister likes it.

Responses to Question Three were organized among six categories and are shown on Table 38. Some responses can be included in more than one category. For example, response #11 fits in category C and F.

Table 38

Number of Responses to Question Three

<table>
<thead>
<tr>
<th>Response Category</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. No answer, I don't know.</td>
<td>1</td>
</tr>
<tr>
<td>B. Fun, pleasure, want</td>
<td>6</td>
</tr>
<tr>
<td>C. useful, to learn, find things out</td>
<td>5</td>
</tr>
<tr>
<td>D. it's important, need</td>
<td>4</td>
</tr>
<tr>
<td>E. to be an illustrator</td>
<td>2</td>
</tr>
<tr>
<td>F. to read to others</td>
<td>8</td>
</tr>
</tbody>
</table>

One child was unable to answer the question. Perhaps she was not completely comfortable with the question and chose not to say anything.
Six children perceive reading to be an enjoyable activity and that is why they want to read. Perhaps these children have enjoyed being read to and enjoy any experiences they have had with reading.

Four children believe that it is important to learn how to read and five children believe that one should learn to read to be able to use reading to find things out or learn. These responses indicate that these children recognize the functional importance of reading. This is an important concept for children to acquire in their development of literacy.

Two children mentioned the necessity of reading for an illustrator. Perhaps they had been discussing this in their classrooms recently and they were able to relate the need to read in order to be able to illustrate books.

Eight children want to learn to read so they can read to others. These children recognize the importance of reading aloud, which suggests they have been enjoying stories read aloud and would like to do the same for others.

Categories B,C,D,E, and F all show that the children recognize the communicative purpose of reading. Nineteen of the twenty children (95%) were able to verbalize this through their various responses.

Responses to Question Four are shown in Table 4A.
Table 4A

Responses to Question Four: How is reading done? or What must you do to read?

<table>
<thead>
<tr>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. We read the words and look at the pictures.</td>
</tr>
<tr>
<td>2. No answer.</td>
</tr>
<tr>
<td>3. Look at the words and read them. (How?) By looking at the words.</td>
</tr>
<tr>
<td>4. Use the letters, and you put them together and they make a sound and it's a word.</td>
</tr>
<tr>
<td>5. You have to learn how to spell if you want to learn how to read.</td>
</tr>
<tr>
<td>6. You have to say the words that are in the book. Sometimes you can do it with your eyes and you just say it in your mind.</td>
</tr>
<tr>
<td>7. Read the words.</td>
</tr>
<tr>
<td>8. By trying your best. (What do you need to do?) Look at the words.</td>
</tr>
<tr>
<td>9. You just spell out the words and sound out the words and then you have it.</td>
</tr>
<tr>
<td>10. You figure out the words.</td>
</tr>
<tr>
<td>11. You have to know your sounds.</td>
</tr>
<tr>
<td>12. Look at the book. (At what?) The words.</td>
</tr>
<tr>
<td>13. Just read. (How?) Look at the words and then you read them.</td>
</tr>
<tr>
<td>14. Umm...you have to look at the words and pictures and figure out what it might mean and read it.</td>
</tr>
<tr>
<td>15. You look at the words and if you know what the word is then you can read it.</td>
</tr>
<tr>
<td>16. You look at the words. My mother said don't look at the pictures because the pictures aren't anything with the words.</td>
</tr>
<tr>
<td>17. That's a hard question. You take out a book like if you have a bookshelf that you put books on and you like sit on a chair or a couch or the rug or something like that or in a tent and you read the name to somebody else and you read the book. (Do you have to sit to read?) Yes. (But could you stand up and read?) Yes, but I'd be tired.</td>
</tr>
<tr>
<td>18. I don't know. (What do you look at?) The pictures if the book has any. (What else?) The words. Then you read the words.</td>
</tr>
<tr>
<td>19. You look at, I know how you could read. You could have sounds, and you look at the words or numbers, I mean letters that are in storybooks and listen to the sounds what they make and then you could read it.</td>
</tr>
<tr>
<td>20. I don't know.</td>
</tr>
</tbody>
</table>
Responses to Question Four were examined and organized among seven categories and are shown in Table 4B. Several responses fit more than one category. For example, response #1 fits category B and C.

**Table 4B**

<table>
<thead>
<tr>
<th>Response category</th>
<th>Number of responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>A No answer</td>
<td>2</td>
</tr>
<tr>
<td>B Read the words</td>
<td>16</td>
</tr>
<tr>
<td>C Look at the pictures</td>
<td>4</td>
</tr>
<tr>
<td>D Letters</td>
<td>2</td>
</tr>
<tr>
<td>E Figure out words, sound out words</td>
<td>4</td>
</tr>
<tr>
<td>F Spell out words, read them</td>
<td>2</td>
</tr>
<tr>
<td>G Thinking</td>
<td>1</td>
</tr>
</tbody>
</table>

Sixteen of the responses had to do with reading the words and four responses also referred to sounding out the words. Response #6 is very interesting because this child was able to give a very accurate description of the reading process. He was able to not only express the visual aspect, but also the thinking aspect.

Two responses indicated that these children knew that it is alright to use pictures to help one read or help one understand what is read. One child seemed confused about this aspect when she stated that her mother told her not to look at the pictures because the pictures don't have anything
to do with the words. This indicates that one child in this study was still confused.

Two responses had to do with spelling. Perhaps these children realized that if they could spell a word and write the word, they were also able to read the word.

One child's response suggests that he is using prediction as a strategy in learning to read which indicates that he is aware that he is taking an active part and has responsibility (#14).

The majority of the children's responses indicated that they are aware of how reading is done although they may not have acquired the strategies which can be used to help them in the process of reading. One child was still not sure of the role of pictures in reading.

Responses to Question Five are shown in Table 5A.

**Table 5A**

Responses to Question Five: How do you learn to read? or What helps you learn to read?

1. You have to learn, and if you just know how to read you don't have to learn. (If you know how to read, you had to learn how first, right?) Yes. (What helps you learn to read?) Because my Mom helps me write down the words and I'm making my own book and reading out of my own books.

2. I don't know. (How did you learn to read?) My Mom read to me.

3. You look at the words and you read, then if you think you know how to read them then you can learn all by
yourself. I think I know how to read one page of my Cinderella book.

4. By my Mom and Dad and the first book I read was my car one.
5. Practice.
6. From school. And your parents teach you.
7. Sound the words.
8. I don't know.
9. Someone will read you a story and if you like it you can try to do it by yourself.
10. From somebody reading to you.
11. Remember.
12. So you know how to read. (How do you learn to read?) No.
13. You have to listen. I listened to my sister read and then I just started.
14. When I read to my animals and stuffed animals or my toys, and I read a story, I have to remember the words that I'm going to read.
15. With an easy book and somebody helps you.
16. No answer.
17. You have to go to school to first grade and second grade and you learn to read.
18. No answer.
19. I've been practicing words that my mother has. She has these little cards and she writes t-a-p and I know what that spells. It spells tap.
20. I don't know.

Responses to Question Five were examined and organized among seven categories and are shown in Table 5B.

Table 5B

<table>
<thead>
<tr>
<th>Number of Responses to Question Five</th>
<th>Within Each Category</th>
</tr>
</thead>
</table>

Response Category | Responses in Each Category | How many? |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A I don't know</td>
<td>#8,#12,#16,#18,#20</td>
<td>5</td>
</tr>
<tr>
<td>vague or inaccurate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B listening to others read to me</td>
<td>#2, #9, #10,#13</td>
<td>4</td>
</tr>
</tbody>
</table>

No answer.
Only two children mentioned school as opposed to six who mentioned parents or others helping them learn to read. Four children referred to parents reading aloud to them as a help in learning to read.

Two children responded that they needed to remember in order to learn to read which indicates that they are aware that memory is important when reading. Perhaps they realize that they need to remember many words (sight words), remember what sounds letters stand for to decode words, and remember what they are reading as they read. Perhaps some children also know that they remember stories and this will help them in learning to read stories.

Two children responded that knowing how to spell helps in learning to read which indicates that these children know that if they can spell a word and/or write it, they also can read it. This is an important concept for children to acquire when learning to read.

Two children responded by saying that one must practice with easy books which suggests that these children realize that it helps make learning to read easier. This supports
the claim that it is important to provide beginning readers with material that they find easy and this should not be overlooked.

More than 50% of the children gave responses that indicated that they accepted much responsibility for learning to read. Listening, remembering, practicing, sounding out words, spelling, and writing show that the children are taking an active part in learning to read and have motivation to do so. Many children realize that they need help and can receive help when needed as they are learning to read.

Responses to Question Six are shown in Table 6A.

Table 6A
Responses to Question Six: What is a word?

1. It's like that (he points to a word). It's a big group of letters. I know how to spell l-p-v-e, l-o-v-e, and I know how to spell s-e-e. There is words in coloring books and I can read those.
2. I don't know.
3. It's letters.
4. It's a spelling word. You can read it, copy it, and do stuff with the letters.
5. I don't know. (What's a word made up of?) Letters.
6. It's something that you can try to read by yourself.
7. I think so. (What is it?) A word is, you speak.
8. Something like a little word like an alphabet word, with alphabet letters. Alphabet letters are inside that word.
9. Something you read.
10. A word's something that you read.
11. No.
12. It's something that you say and it's like a word.
13. It's a little, little in each book or on a page or on a piece of paper or in a coloring book. Sometimes they have coloring books with lots of words in it. I have some.

14. Something that's in the middle of the reading.

15. Something you read.

16. It's a thing that you read and look at and figure out what it is.

17. No answer.

18. No answer.

19. You need to make the sound out and then you put it all together and you know the word.

20. No answer.

Responses to Question Six were examined and organized among seven categories and are shown in Table 6B. Several responses fit more than one category. For example, response #1 fits category B, C, and F.

**Table 6B**

<table>
<thead>
<tr>
<th>Response category</th>
<th>Number of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>A I don't know</td>
<td>7</td>
</tr>
<tr>
<td>B letters</td>
<td>6</td>
</tr>
<tr>
<td>C something you sound out</td>
<td>1</td>
</tr>
<tr>
<td>D something you spell</td>
<td>3</td>
</tr>
<tr>
<td>E something you can copy</td>
<td>1</td>
</tr>
<tr>
<td>F something you can say</td>
<td>2</td>
</tr>
<tr>
<td>G something you read</td>
<td>8</td>
</tr>
</tbody>
</table>

The category with the most responses was "something that you read" which indicates that the children were unable to accurately verbalize the concept of a word. Six children responded that letters were in words and one child
pointed to a word that was on a book near him. Seven children said they didn't know what a word was. Six children said that one can copy, write, sound out, or say words.

In summary, the majority of children seemed to be unable to verbalize the concept of "word" although they were able to show that they partially understood the concept.

Analysis of the Results of the Concepts About Print Test "Stones"

The results of the Concepts About Print test were recorded on a score sheet for each child and examined. The number of responses for each item on the test was then recorded in the comment column of a score sheet and are shown in Table 7. Also shown are the percentage of the children who gave accurate responses for each item.
## Table 7
Summary of Responses to CAP Test

<table>
<thead>
<tr>
<th>Items Tested</th>
<th>Number of Responses Correct</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Front of book</td>
<td>19</td>
<td>95%</td>
</tr>
<tr>
<td>2. Print contains message</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>3. Where to start reading</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>4. Which way to go</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>5. Return sweep to left</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>6. Word by word matching</td>
<td>14</td>
<td>70%</td>
</tr>
<tr>
<td>7. First and last concept</td>
<td>17</td>
<td>85%</td>
</tr>
<tr>
<td>8. Bottom of picture</td>
<td>16</td>
<td>80%</td>
</tr>
<tr>
<td>9. Begin &quot;I&quot; bottom line, top or turn book</td>
<td>18</td>
<td>90%</td>
</tr>
<tr>
<td>*10. Line order altered</td>
<td>8</td>
<td>40%</td>
</tr>
<tr>
<td>11. Left page before right</td>
<td>19</td>
<td>95%</td>
</tr>
<tr>
<td>*12. One change in word order</td>
<td>5</td>
<td>25%</td>
</tr>
<tr>
<td>*13. One change in letter order</td>
<td>4</td>
<td>20%</td>
</tr>
<tr>
<td>*14. One change in letter order</td>
<td>3</td>
<td>15%</td>
</tr>
<tr>
<td>*15. Meaning of ?</td>
<td>6</td>
<td>30%</td>
</tr>
<tr>
<td>16. Meaning of full stop (.)</td>
<td>7</td>
<td>35%</td>
</tr>
<tr>
<td>*17. Meaning of comma (,)</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>*18. Meaning of quotation marks</td>
<td>1</td>
<td>5%</td>
</tr>
<tr>
<td>19. Locate T t B b</td>
<td>15</td>
<td>75%</td>
</tr>
<tr>
<td>*20. Reversible words was, no</td>
<td>9</td>
<td>45%</td>
</tr>
<tr>
<td>21. One letter; two letters</td>
<td>20</td>
<td>100%</td>
</tr>
<tr>
<td>22. One word; two words</td>
<td>17</td>
<td>85%</td>
</tr>
<tr>
<td>23. First and last letter of word</td>
<td>17</td>
<td>85%</td>
</tr>
<tr>
<td>24. Capital letter</td>
<td>16</td>
<td>80%</td>
</tr>
</tbody>
</table>

* Less than 50% of the children gave an accurate response
The items that are starred show that less than 50% of the children gave an accurate response for that item.

The individual responses of the children to the items of the CAP test provided additional insight into the children's concepts related to reading. The majority of the children (95%) were able to distinguish the front from the back of the book and understand that the print related to the message (100%). All of the children were able to show where to start reading, the direction to read, and the return sweep when reading. Word by word pointing was successful for 70% of the children. Therefore 30% of the children were unable to point to words as the researcher read the words orally.

Most of the children (85%) were able to locate the first and last part of a story, which indicates that 15% of the children still may be confused about this concept. For example, some of the children pointed to the picture and some pointed to the front or back of the book when asked to identify the first and last part of a story.

The results of the interview indicated that one child appeared confused about the role of pictures when reading. However, using a concrete object allowed the child to demonstrate his knowledge of the concept.

Many of the children had difficulty identifying punctuation marks and explaining their function. In fact,
none of the children correctly identified the comma, only six identified the question mark, seven identified the period, and only one child identified the meaning of quotation marks.

To test for capital and lower case letter knowledge, the children were asked to match capital and lower case letters. Most of the children were able to match capital letters correctly with the lower case counterparts (75%). Less than half of the children could identify the words "no" and "was" after a page of text had been read to them.

Most of the children were unable to point out or did not notice a change in letter order within a word or a change in word order in a sentence. Less than half of the children noticed when the line order was altered on a page (40%).

The children were asked to distinguish between one and two letters of a word. All of the children were successful in doing this task which indicated that the concept of letter was understood by all of them. However, when asked to point to the first and last letter of a word, 15% of the children were incorrect or were unable to perform the task. When asked to point to a capital letter, 20% of the children failed this task. When asked to "show me one word" or "show me two words", 85% of the children (17/20) were successful. Therefore, 15% were incorrect. These observations confirmed some of the kinds of problems
children encounter as they attempt to understand written language.

In summary, it can be concluded that each child's concept of reading was based on his experience and was unique. It is evident that even after a year of kindergarten, the children in this study have varied concepts about print.

Relationship Between CAP Test and Reading Comprehension Test Scores

Using Pearson Product Moment Correlation, the relationship of the Concepts About Print test scores to the California Achievement Test (CAT) score (reading comprehension subtest) was determined. The coefficient of correlation (r) was found to be .68 which indicates a moderately strong, positive association between the level of print awareness (CAP) and the level of reading comprehension ability (CAT). The results of the statistical calculations are shown on Table 8.

<table>
<thead>
<tr>
<th>N</th>
<th>R</th>
<th>Rsquare</th>
<th>t value at 95% confidence 18 degrees of freedom</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>.68</td>
<td>.47</td>
<td>2.101</td>
</tr>
</tbody>
</table>

Since the coefficient of determination (r squared) is .47, 47% of the variation in reading comprehension scores is
explained by knowing CAP scores. Therefore, 53% is unexplained or due to intervening variables. Perhaps these two tests are not testing the same knowledge, yet the knowledge they are testing is related. Results seem to suggest that because of the strength of the relationship, the CAP test may be able to pinpoint problems that children may be having in learning to read which may affect the children's ability to comprehend what is read.

Summary

The analysis of the data of this study was divided into three sections. The first section contained the responses to the interview questions and the interpretations of the responses. The second section consisted of an analysis of the results of the CAP test and a discussion about individual items on the test. The third section examined the relationship between children's CAP scores and CAT scores.

The primary purpose of this study was to investigate the literacy concepts related to reading that children have acquired by the end of kindergarten. Based on the results of the analysis of the responses to the interview questions and the analysis of the CAP test results, it was found that the children in this study have varied concepts of literacy related to reading at the end of kindergarten. Each child's concept of reading was based on his experience and was unique.
A secondary purpose of this study was to examine the relationship between children's concepts of reading (Concepts About Print test scores) and reading comprehension ability as indicated by performance on the California Achievement Test. Using Pearson Product Moment Correlation a moderately strong positive relationship was found in this study.
Chapter V

Conclusions and Implications

The primary purpose of this study was to investigate the literacy concepts related to reading that children have acquired by the end of kindergarten. A secondary purpose was to examine the relationship between these concepts and reading comprehension ability as indicated by performance on a standardized reading achievement test.

Conclusions

The results of this study substantiate much of the previous research into children's developing concepts of literacy in emergent reading. The results of this study provide some new insights and raise new questions to be answered.

The most important conclusion that can be drawn from this study is that children at the end of kindergarten have acquired many concepts related to reading. The study also indicated that many children have not yet acquired the concepts of reading that appear to be related closely to success in learning to read. The children's lack of understanding may cause many kinds of difficulties. First of all, children may be unaware that reading and writing are modes of communication, just as are speaking
and listening. Second, children may not understand the technical terms such as word and letter used by teachers. The findings of this study have suggested that confusion does exist among kindergarten children, and some of the children did not have a well-developed concept of letters or words. Even after a full year of kindergarten, most of the children in this study were unable to recognize the name of, or understand the function of punctuation marks.

Another finding of the present study was that a moderately strong, positive relationship exists between the children's concepts of print and reading comprehension ability. This does not indicate a cause-effect relationship, but suggests that an increase in the CAP score may possibly result in an increase in reading achievement.

This study confirms previous research which suggested that children have acquired many concepts that are related to reading before the child receives formal instruction in learning to read. In this study, children at the end of kindergarten have acquired the concept of directionality in reading, that print contains the message, the front and back of a book, where to begin reading on a page, and other basic concepts related to reading. These findings substantiate previous research by Brown and Briggs (1986), Clay (1972, 1979, 1983), Day and Day (1981), and Harlin (1984).
Implications for Research

The past decade has provided a wealth of research on children's developing concepts of literacy in emergent reading. This research substantiated many of these findings, but also raises suggestions for future research.

Continued research with a larger sample of students is suggested to confirm the findings of this study. This study could be duplicated using children from a variety of environments. The children in this study were from a middle-class, suburban school district. Results of a study of urban children might be very different from the results of this study.

A longitudinal study would be beneficial in understanding the developmental process involved in literacy learning. Such a study would reveal which concepts precede others and may also show that some are acquired after a child learns to read, for example, concepts of punctuation.

There is a need for further research into the role of the family in literacy learning. Taylor (1983) has demonstrated the importance of storybook reading, but there is a need for continued research in this area.

There is a need for further research into the effects of teacher feedback to children's errors in learning to read. Perhaps insight can be gained on how to encourage children to take risks when learning to read. Teachers can
gain insight into what their errors indicate through continued research in this area.

There is a need to conduct studies to determine the relative effectiveness and usefulness of the LARR test (Linguistic Awareness in Reading Readiness). Perhaps the test can be shown to help educators make appropriate decisions regarding how to provide the best instructional programs to facilitate literacy learning in young children.

There is a need to investigate children's concepts of writing and how they relate to learning to read.

Continued research needs to be undertaken to provide teachers with the best means of assessing children's developing concepts of literacy. In this study and in previous studies, the Concepts About Print test was shown to be an easily administered means of assessment. Both informal or observational methods and formal methods need to continue and new methods need to be developed.

Traditional instructional programs need to be reanalyzed in light of recent research on children's emergence of literacy. Educators need to continually monitor their own methods and programs to insure that children are learning to read and write and continue to do so throughout schooling.

There is a need to investigate the usefulness of giving children below grade three a battery of standardized achievement tests. Perhaps a more accurate and appropriate measure
can be used that will predict future achievement. This would eliminate or reduce the amount of formal testing that young children are subjected to in the early years of schooling. For example, a longitudinal study can be conducted using the results of the CAP test to predict reading achievement in grade three. If the predictive accuracy is found to be stronger than the measures presently used, a strong claim can be made for using the CAP test rather than a standardized achievement test.

**Implications for Classroom Practice**

This study and much of the research of the past decade have provided a wealth of information about the emergence of literacy. Literacy learning begins long before children come to school, and educators need to be able to accurately assess the knowledge children possess when entering school.

Recent literature indicates that effective assessment and monitoring of children's literacy development can never be done by a single instrument (Teale, Hiebert, and Chittenden, 1987). There is a need for a comprehensive assessment program using formal and informal measures along with performance samples and observation. The results would aid the teacher in designing the most appropriate instruction. Teachers of young children need to be aware of the research on emergent literacy and need to restructure programs to take the findings into consideration. Teachers
must be quite knowledgeable of the use of appropriate techniques to assess children's literacy development.

Teachers need to question their methods, lessons, and reasons for providing experiences for young children. How much time is actually spent on reading continuous text as opposed to isolated activities which may not transfer to the task of learning to read? How many opportunities are provided for young children to practice reading and writing in real life settings which emphasize meaning? Do teachers value the knowledge that children have acquired and their competence as active learners attempting to make sense of the world?

The results of this study demonstrated that even after a year of kindergarten, the children have varied concepts about print. Therefore teachers should not assume that all kindergarten children or beginning first graders are functioning at the same level. Although some of the more advanced concepts can and will be acquired after the child is reading, some of the children were still lacking knowledge of basic concepts such as the meaning of a "word" which could lead to misunderstandings when teachers use this term in teaching.

Results of this study and previous research recommends that teachers read regularly to children and provide many opportunities and encouragement for children to respond to
these stories. Teachers need to encourage and respond to children's first attempts at reading and writing. Teachers should act as reader/writer role-models for young children.

Children need to have power of choice in early literacy activities. Graves stresses the importance of choice when children write. Rasinski (1988) points out that children need to have a say in why and what they are reading.

What is most important is that the environment teachers provide must facilitate literacy growth at the same rate which occurred before schooling. Kindergarten programs should adapt instruction to individual needs based on the assessments made when children enter school.

Harlin (1984) has shown the CAP test to be an effective indicator of the child's knowledge and understanding of print concepts. The CAP test's ease of administration should recommend its use for teachers of primary grade children as well as reading clinicians.

In the classroom, as part of preventive strategy, the CAP test may be used to identify potential reading failure early in the school year, thus facilitating intervention strategies. Results should also aid in planning whole group instruction as well as small group remediation for specific children.
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