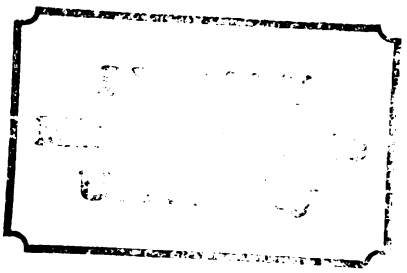

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DIFFERENCES IN THE ACQUISITION OF SELECTED READINESS ABILITIES BETWEEN READERS AND NONREADERS IN KINDERGARTEN

By

Carolyn Humphrey-Cummings

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ABSTRACT

DIFFERENCES IN THE ACQUISITION OF SELECTED READINESS ABILITIES BETWEEN READERS AND NONREADERS IN KINDERGARTEN

By

Carolyn Humphrey-Cummings

Many kindergarteners progress as a group through a readiness program regardless of the fact that some of the pupils have already acquired the abilities that the program proposes to teach. Teachers need to assess students' readiness abilities for the method of reading instruction that will follow. This study divided 123 kindergarteners enrolled in a traditional program into a group of nonreaders and four groups of beginning readers using different approaches to reading. These groups were administered five subtests that measured the readiness abilities of naming letters, hearing letter names, syntax matching, writing letters, and spelling. Data were collected six months into the school year. Significant differences were found among the four planned comparisons of nonreaders and the groups of beginning readers. A discriminate-function analysis provided the correlations to determine the combination of abilities that discriminated between groups. The readiness ability of syntax matching was a discriminating factor in all four comparisons. Syntax matching and spelling discriminated between readers using phonetic analysis and all other

readers. Syntax matching and naming letters discriminated between sight readers and context readers. These results, though subject to limitations, may be useful for teachers who need assessment measures to determine readiness for specific programs and methods of teaching reading.

Dedicated to my husband,

JOHN D. CUMMINGS,

whose encouragement, support,
and love make me believe
in myself and consider all
things possible.

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I extend a special thank-you to Dr. Lois Bader for her years of patience and encouragement and for sharing her professional expertise so freely.

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I want to express my gratitude to my husband and family for their understanding and patience (most of the time) about late meals, hours spent studying and writing, and my oftentimes less-than-sunny disposition during the past year.

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CHAPTER I

THE PROBLEM

Background

There is confusion in the literature about the abilities that determine a child's readiness for formal reading instruction. Readiness is not a specific point in time but a continuous, ever-evolving process resulting from both instruction in and exposure to language activities and skills.

The amount of research in the area of reading readiness is relatively sparse in comparison to the amount of research that has been done on beginning reading approaches and reading in general. The number of authorities in the field of reading readiness is limited. Because of these facts, it seems to be a universal practice to take all children through a readiness program. Teachers rely more on commercial programs than on the authorities' views of reading-readiness abilities.

Determining which readiness abilities children possess at any given time in their progression from prereading to beginning reading would assist the teacher in the selection of appropriate instructional materials and activities. Reading-readiness programs for the total group fail to recognize abilities individual children may have already acquired. Commercial readiness tests have questionable

predictive value because they are not predictive of the specific method of reading instruction that will follow.

Therefore, it would be helpful for teachers to know if nonreaders and beginning readers using different methods and approaches have acquired different readiness abilities or combinations of these abilities. This knowledge could help teachers better meet the needs of individual children as they progress in the acquisition of various reading abilities.

Dolores Durkin (1980) is a leading authority on readiness and beginning reading. She expressed concern over the current readiness practices of total-group instruction in a commercial program and assessment by a readiness test that does not consider the method of reading instruction that will be used. She suggested assessment of individual children's readiness abilities as they specifically relate to reading.

Most of the investigations in this field have dealt with published readiness tests as predictors of reading success. Fewer studies have dealt with identifying the nature of reading readiness or selecting the optimum combination of abilities to determine readiness. This study attempted to identify readiness abilities that kindergarten readers and nonreaders have acquired.

Purpose

The purpose of this study was to examine the acquisition of selected readiness abilities in kindergarten children. Specifically, the study

1. Compared the differences in the abilities of readers and nonreaders in their ability to name letters, hear letter names in words, match words syntactically, write letters of the alphabet, and spell words accurately.

2. Examined the differences in the acquisition of the same readiness abilities among readers using phonetic analysis and a combination of sight and context and those readers using other methods (i.e., sight, context, or a combination).

3. Examined the differences between readers using a combination of sight and context and readers using sight only or context only on the acquisition of five readiness abilities.

4. Examined the difference between the sight-word readers and context readers on the acquisition of five readiness abilities.

See the comparison groups in Figure 1.1.

Nonreaders	Readers

Decoders	Others
Phonetic Analysis + Sight + Context	Combination of Sight + Context or Sight or Context

Combination Sight & Context	Sight or Context

Sight	Context

Figure 1.1.--Planned comparisons groups of nonreaders and readers.

Readiness abilities to be measured are listed below:

1. Naming letters
2. Hearing letter names
3. Syntax matching
4. Writing letters
5. Spelling words

Finally, the study determined the readiness ability or combination of abilities that had been acquired by the specific comparison groups of kindergarten readers and nonreaders.

Research Questions

It was the purpose of this study to determine the acquisition of readiness abilities among nonreaders and readers using different approaches or methods. The major research questions to be explored were:

1. Is there a difference between kindergarten readers and nonreaders in their ability to succeed at selected readiness activities?

Nonreaders	Readers

2. Is there a difference between kindergarten readers who decode words with phonetic analysis, sight, and context and those readers who use a combination of sight and context or just sight or just context?

Decoders	Combination or Sight or Context

3. Is there a difference between kindergarten readers who use a combination of sight and context and kindergarten readers who use primarily sight or primarily context in their ability to succeed at selected readiness activities?

Combination of Sight & Context	Sight or Context

4. Is there a difference between kindergarten readers who use a sight-word approach to reading and those who use a context approach on selected readiness activities?

Sight	Context

Generalizability

The population was six kindergarten classes with a total of 123 children from one local school district located ten miles from a metropolitan area. Students were from homes of diverse educational and socioeconomic background but were of the same race. Teachers of the children were approximately the same age, had similar number of years experience working with young children, and conducted similar traditional kindergarten programs. It may be concluded that findings in this study can be generalized to populations in other school systems with similar kindergarten enrollments.

Limitations

The primary limitation of this study was that it was difficult to find readers who were using only one approach to reading, such as

the sight-word method only or context only. Rarely are these approaches discrete, but rather instead are found in combinations. Therefore, because of the size of the population, some cells had few participants. Because of the limited sample, the findings are not necessarily widely generalizable. However, there is no proof that they are not.

Definition of Terms

The reader may better understand this study if certain terms are initially clarified. These terms are defined for the purpose of this study.

Sight words--words known instantaneously by a child.

Cloze activity--a method used in testing to determine readability. Words are deleted in certain patterns. Students fill in the blanks with an appropriate word.

Decode--to translate written symbols into language.

Nonreaders--students who read with less than 50 percent accuracy on a selected preprimer paragraph, could elicit no memories, read fewer than four preprimer-level sight words, and were unable to decode more than four nonsense words.

Reader--a kindergartener using phonetic analysis, sight, or context, or any combination of the three approaches to reading.

Sight-word reader--a kindergartener who was able to read 10 of 12 preprimer-level sight words and who was observed while reading the preprimer paragraph to be using primarily a visual approach rather than a phonetic approach or context.

Context reader--a kindergartener who completed a sematic-cloze activity and was able to elicit two or more memories from the pre-primary paragraph or read the paragraph with greater than 50 percent accuracy or with two or more meaningful substitutions. This reader also demonstrated using the meaning of a paragraph and words within a sentence to complete a sentence or select an unknown word.

Decoder--a kindergartener who read the selected preprimer paragraph with 50 percent accuracy, read 10 of 12 common preprimer-level sight words, completed a semantic-cloze activity correctly, and decoded 50 percent or more of a list of three-letter nonsense words.

Selected readiness activities--

Letter naming: A child names the capital and lower-case letters of the alphabet when presented.

Hearing letter names in words: A child says the first letter name he hears in a word pronounced by the examiner (i.e., zebra--"z").

Syntax matching: A child is presented a written sentence. The sentence is read to the child. He repeats the sentence. The child is asked to point to a specific word in the sentence.

Writing letters: A child prints either the capital or lower-case letter that is dictated to him.

Spelling: A child writes the letters he hears in the words dictated by the examiner.

Organization of Subsequent Chapters

The content of Chapter I included the background, purpose, and major research questions of the study. Limitations of the study

and definitions of terms were also included. In Chapter II, pertinent research and literature related to this study are reviewed. A description of the design and methodology used in the study is discussed in Chapter III. In Chapter IV, presentation of the data collected and analyzed is reported and discussed. In Chapter V, a summary of the study, appropriate conclusions and recommendations for future research are presented.

CHAPTER II

RELATED LITERATURE

Introduction

The purpose of this study was to examine the acquisition of selected readiness abilities of nonreaders and beginning readers using different methods or approaches to reading in kindergarten. The review of the literature is organized under the three main headings of:

1. Overview of Current Practices in Reading Readiness
2. Assessment of Reading Readiness
3. Readiness Abilities as Predictors

The third heading is further organized under the five readiness abilities of: letter naming, hearing letter names in words, syntax matching, writing letters, and spelling.

Overview of Current Practices in Reading Readiness

There continues to be confusion in the literature about the abilities that determine a child's readiness for formal reading instruction. Sanacare (1973) in his checklist for reading readiness included galloping, skipping, jumping, hopping on one foot, and kicking a ball as abilities he recommended that children have acquired in order to be ready to read. Frostig (1964), Getman (1964), and Kephart (1960) believed that the ability to demonstrate competency in skills

described as visual-motor, perceptual-motor, and sensorimotor predicted readiness for reading. Others believed the ability to notice similarities and differences in pictures or the ability to identify rhyming words were abilities that determined the child's readiness for reading.

Harris (1976) believed that there are no research data to support the fact that a child's ability to perform the tasks listed above indicates his readiness for formal reading instruction.

Durkin (1980) supported this by suggesting that learning is specific and we should examine the readiness abilities directly related to reading, i.e., ability to discriminate letters and words rather than shapes or pictures.

While there seems to be little agreement about the abilities that determine a child's readiness, there does seem to be agreement about the need for teachers to attempt to diagnose each child's readiness abilities and to select the appropriate readiness activities that will help the child succeed in a particular instructional reading program.

Paradis and Peterson (1975) suggested that a limited number of teachers actually diagnose each child's readiness skills, and in many cases all pupils progress as a group through the readiness program regardless of the background brought to school or the fact that some of the pupils may have already acquired the abilities that constitute the readiness program. They cited a study done by Paradis (1974) in which the visual-discrimination skills of preschool and kindergarten children were examined. These children, of middle socioeconomic

status, had not received any formal readiness training. Visual-discrimination exercises requiring the discrimination of pictures, letters, and words were selected from prereading activities from seven widely used basal reading series. Results showed that 97 percent of kindergarten pupils and 69 percent of preschool children were successful on more than 80 percent of the items with no formal readiness training.

Another study done by Mitchell (1965) examined visual-discrimination skills of 118 lower socioeconomic kindergarten children who had received no formal readiness training. Twelve pages of visual-discrimination exercises such as seeing likenesses and differences of pictures, designs, letters, and words were selected from prereading exercises found in a popular basal series. He found that the majority of these untrained pupils who were assumed not to have basic readiness skills possessed most of the visual-discrimination skills that the readiness program intended to teach. His suggestion was that teachers assess abilities the students have acquired and be selective in determining the visual-discrimination training materials they will use.

Paradis and Peterson (1975) concluded by emphasizing the need for teachers to assess each individual child's readiness skills and to avoid having children work exercises to develop skills they already possess. They suggested that more advanced children or children who had acquired the readiness abilities be permitted and encouraged to proceed to the next stage of reading instruction.

Spache and Spache (1977) found evidence to support the suspicion that a limited number of teachers actually diagnose each child's

readiness abilities. They reported that 62 percent of a sample of teachers in six New England states used published readiness materials with all their pupils in addition to informal readiness activities. Most of these teachers expressed the belief that, whether they can read or not, all children need the formal readiness program. The authors further suggested that "apparently a readiness workbook is an absolute essential in the minds of some teachers." These teachers seemed to disregard the abilities and skills the children had acquired before coming to school.

Durkin (1980), a noted authority in the field of reading instruction as mentioned in Chapter I, concurred with the findings of Spache and Spache (1977). She found that in many cases all the children, ready or not, participate in readiness programs. When questioning why this was done, Durkin said a teacher told her that the principal bought the readiness workbooks so they all used them. Durkin further suggested that teachers may feel insecure about diagnosing readiness abilities and selecting appropriate activities to meet individual needs. Therefore, these readiness programs are greeted with enthusiasm and the decision is made that the same program is good for every child, regardless of his stage of readiness.

Durrell (1958), in his extensive First Grade Reading Success Study, stated one of the purposes of the study was to evaluate reading-readiness practices and concepts. One of his conclusions was that children with higher learning rates and superior readiness abilities of knowledge of letter names and hearing sounds in words made greater progress when conventional reading-readiness materials were omitted

from their program. Durrell found that elimination of needless reading-readiness practice for these pupils produced an unusual proportion of children reading above third-grade level at the end of first grade. This would seem to support the other writers' opinions and findings and make a stronger case for the need for teacher assessment for more individualized instruction rather than total-group instruction of readiness activities.

Assessment of Reading Readiness

Because readiness tests are limited in their predictive ability as reported by Rude (1973) and in a review of the literature by Barrett (1965) and others, teachers need to be aware of readiness abilities that could be assessed informally on a continuing basis to provide information on a child's acquisition of abilities.

MacGinitie (1969) concluded that readiness tests are so imperfect in their predictive ability because methods for teaching beginning reading vary considerably from program to program and teacher to teacher. Durkin (1982) supported that statement by suggesting that it is not enough to ask if a child is ready to read, but we must ask whether the child is ready to succeed *with this particular kind and quality of instruction*. She further stated that there is a relational aspect of readiness with equal significance for the child's abilities and the instruction that will be available. The idea that there was one set of abilities seemed to suggest that every type of reading instruction demanded the same abilities.

A study by Evanechko, Ollila, Downing, and Braun (1973) aimed to identify and develop indices of reading readiness in four general areas, determine the factorial nature of the domain of reading readiness, and determine the best combination of tests to predict reading achievement. Their concern had been that past research had dealt mainly with published readiness tests and their predictive abilities rather than identification of the nature of reading readiness or the optimum combination of tests for predicting reading success. Thirteen subtests were developed to measure the concept of the reading task, perceptual ability, linguistic competence, and cognitive functioning. The conclusions drawn from the study were many. One that particularly related to this section of the review of related literature was the finding that different kinds of reading behavior as indicated by the criterion measures required a different combination of readiness abilities. Their study found word-recognition behaviors were dependent on the reader's readiness in letter recognition, learning rate, listening, and semantics while comprehension of ideas was dependent on letter recognition, semantics, and morphology. Comprehension of instruction depended on letter recognition, word matching, syntax, orientation to literacy, and ending sounds.

Research by Pikulski (1975); Stauffer and Hammond (1969); Feldhusen, Lamb, and Feldhusen (1970); and Bruininks, Lucker, and Gropper (1970) further supported the conclusions of previous authors mentioned and demonstrated that methods used to teaching reading seriously affect the predictive efficiency of reading-readiness tests.

It was suggested that readiness tests should assess the objectives of the reading program by which the student will be taught.

Criterion-referenced tests have been proposed as being viable instruments for readiness assessment. Collins (1976) suggested that recent research has altered the purpose of readiness tests and placed new demands on readiness assessment. She stated that (1) readiness tests should assist in designing readiness and beginning reading instruction programs for individual pupils; (2) more accurately assess individual student strengths and learning modalities; (3) make provisions for repeated measurement of a student's changes in acquisition of readiness abilities; and (4) identify specific types of initial reading activities that could be used to eliminate individual students' needs. Ideally, she believed, readiness-assessment tools should provide a continual index of a student's increased yet inequitable dependence on comprehension techniques.

Rude (1973) also suggested the viability of criterion-referenced tests as they can assess individual students' present level of performance on specific measures of readiness abilities and can be readministered easily numerous times during the year.

Using this type of assessment tool could increase the amount of information that the teacher could use for prescriptive instruction over a period of time and could therefore be more meaningful to the teacher.

This study attempted to examine whether specific readiness abilities vary depending on the strategies the student is using to read. If there is a common core of abilities, readers using any

strategy will have acquired those abilities. However, if readers using a specific reading strategy differ in their readiness abilities, the combinations of abilities would be specific to certain methods, or programs, to teach reading. This information as well as the measurement tools used to assess acquisition of the readiness abilities could be helpful to teachers in the assessment of readiness and in planning instructional programs to meet individual needs and different methods of reading instruction.

Readiness Abilities as Predictors

Letter Naming

"Children who know letter names learn words more readily" (Durrell & Murphy, 1964). This was not an entirely new statement, as Wilson (1938) found that kindergarteners who knew most forms and sounds were among the first to learn to read and to be the best readers. Numerous other studies have found a high positive correlation between letter-name knowledge upon entry to first grade and reading achievement at the end of first grade. Barrett (1965); deHirsch, Jansky, and Langford (1966); Samuels (1972); and Venezsky (1975) found that of all readiness measures tested, letter-naming ability was most closely associated with scores on standardized tests of reading achievement. The addition of factors such as auditory and visual discrimination, mental age, and socioeconomic status to a letter-identification score contributed little to prediction of first-grade reading achievement. Silvaroli (1965), de Hirsch, Jansky, and Langford (1966); Durrell (1958); and Samuels (1972) found that letter recognition

had a higher correlation with reading achievement than mental age, IQ, or other tests of intellectual aptitude.

The First Grade Studies reported by Bond and Dykstra (1967) compiled the findings of studies involving several thousand children who were taught to read by six distinctive methods. At the end of first grade, reading achievement in both word recognition and in comprehension was correlated with readiness test scores. Results showed that, regardless of the manner of reading instruction, the best readiness predictor of reading success was the Letter Recognition subtest of the Murphy-Durrell Reading Readiness Analysis (1965). This finding suggests that letter-naming ability is not specific to a particular method of reading instruction but is a general readiness ability.

The purpose of a study conducted by Richek (1978) was to determine which readiness skills would predict performance on two short-term word-learning tasks. One used a sight-word method of instruction, and the other used a sound-symbol method. This study was different from the others in that other studies used tests at the end of one or two years to measure reading achievement. This study used performance on two word-learning tasks that were similar to the initial stages of learning to read. The children tested were kindergarteners enrolled in an inner-city school. The readiness measures used were letter identification, visual discrimination using a letter sequence, visual memory, letter sounds, digit span or auditory memory, sound blending, and auditory discrimination. Learning to read by a sound-symbol method may be predicted by letter naming,

letter sounds, and blending. The sight-word method was predicted by letter naming, visual discrimination, and the digit-span measure. Results further supported the general skill of letter naming as a predictor for both methods of instruction.

The purpose of a study conducted by Dermott, Pinzari, Roberts, and McIntyre (1979) was to investigate the relative contribution of number knowledge to the prediction of three areas of reading: phonics skills, specific reading skills involving meaning, and global reading achievement. Results showed that two variables were knowledge of alphabet-letter names and number knowledge. Knowledge of alphabet-letter names was the best predictor of phonics skills and reading abilities involving words in isolation.

In the study mentioned previously by Evanechko, Ollila, Downing, and Braun (1973) in an attempt at finding the optimum combination of tests to predict reading success found that the letter-recognition ability was an ability that predicted success in word recognition, comprehension of ideas, and comprehension of instruction. The total achievement in reading was predicted by letter recognition, semantics, and beginning sounds.

The findings in this section suggested that letter naming is an excellent but perhaps nonspecific measure of general reading aptitude. However, as indicated by Samuels (1972) and Venezsky (1975), it seems clear that teaching children to name letters will not improve subsequent reading achievement.

Durrell (1958), in the First Grade Reading Success Study, stated that "while a knowledge of letter names and sounds does not

assure success in a sight vocabulary, lack of that knowledge produces failure." That statement may be the answer for critics who question the value and true validity of the relationship of the letter-naming ability and learning to read.

Hearing Letter Names

Wilson (1938) found evidence that in trying to name and use words in the reading tests he administered, kindergarteners, and all other children as well, tended to use letters as clues to the words. The children were observed to be spelling out words and thus using the sound of letter names as clues to the word.

Venezsky (1975) reported that the alphabetic or ABC method of letter naming and sequencing was replaced as the standard method for teaching about 1840. However, whether it is taught as a primary method or as one possible strategy, other studies have supported the importance or value of the ability to hear letter names in both reading and spelling.

Fries (1962), in Linguistics and Reading, showed the phonetic spellings of the 22 letters whose names have useful relationships to sounds in words. He stated that the present names for the letters of our alphabet are not as hopelessly illogical as the reading specialists have claimed.

Durrell (1980) indicated that the developmental relationship of letter-name functions in learning to read has been confirmed by his every finding and observation during 50 years of continuing research direction, test construction, materials development and

evaluation, and classroom and clinical services. He further stated that among the earliest developmental abilities upon which reading is based is the awareness of letter names at the beginning of spoken words. He reported that while revising a prereading abilities test with Dr. Helen Murphy in 1979, he found that among the 63 children in the bottom tenth of the kindergarten population, the ability to identify the first letter in words like beaver, deep, veal, and zebra was easy. The ability to identify the first sound in words like ball, game, tent, and zoo was twice as hard. Note that the first syllable in the first group of words is the name of the letter, whereas in the second group the initial phoneme is followed by a vowel not in the letter name.

These findings were similar for words that had vowels in the initial position. It was about twice as easy for kindergarteners to identify the first letter in words such as apron, eagle, and open than in words beginning with short vowel sounds. Words beginning with "short e" names were identified by the kindergarteners as follows: effort begins with f, elephant with l, etc.

Durrell believed that there is a fairly ready transfer from name to phoneme. He further expressed his belief in the ability to hear letter names by stating that spelling a word is usually more effective than sounding it out. He believed that this may be because the actions of the speech organs in spelling the word often are similar to those used in saying the word. There is a phonemic reinforcement in the spelling because so many of the letter names contain their

phonemes. One of the subtests in the new edition of Durrell and Murphy's prereading phonics inventory is the awareness of letter names in spoken-words test.

In support of Durrell's findings, Bond and Dykstra (1967) in their Cooperative Research Program in First Grade Reading Instruction noted that the best single predictor of achievement on the Stanford Achievement battery was the Murphy-Durrell Letter Names Test and that the Murphy-Durrell Phonemes Test (hearing letter names in words) correlated substantially.

Gentry (1978) in discussing early spelling strategies found that at the phonetic level of spelling, children use the names of the letter that best represents the sound elements of the word as they are searching for a theory to help them understand the relationship between the alphabet and written language. Beers and Henderson (1977) in their longitudinal study of children's spelling errors labeled this level of spelling the "letter-name strategy." If transition to this level of spelling occurs during the beginning-to-read phase of a child as these authors suggested, hearing letter names in words would seem to be a predictor of future reading success.

The studies included in the previous two sections seemed to support the importance that knowing letter names and hearing letter names has in predicting reading (and possibly spelling) success.

Syntax-Matching Ability

Durrell (1980) defined syntax matching as a direct speech-to-reading approach that moves the semantic values of spoken words

directly into reading. A subtest on syntax matching is included in his prereading phonics inventory.

Studies by Briggs and Elkind (1973) and Sinclair-deZwart (1975) have been conducted on the child's ability to decenter or separate the meaningful unit of thought (a word or phrase) from its component parts. In the preoperational stage defined by Piaget, children are unable to release their perception from the one dominant feature of a problem in order to consider other features. The ability to decenter would be necessary to identify a dictated word from a total sentence as in a syntax-matching activity.

Richards (1949) stressed the importance of being able to see a word as a structural item within a meaningful whole, the sentence, in beginning reading. Ehri (1975) supported this in a study of word consciousness of kindergarten prereaders and kindergarten readers. Kindergarten readers were better able to segment sentences into words. Ehri further found that prereaders showed a lack of control over syntactic relations between words and sentences in comparison to kindergarten readers.

The need to identify a word in a syntax-matching activity also requires that the student have acquired the concept of what a word is as defined by printing conventions. Pick et al. (1978) conducted a study that attempted to identify the characteristics that young children use to define printed words. They concluded that children start off learning to read having acquired some specific knowledge of what printed words look like, what their components are, and how words are different from other two-dimensional representations.

They further stated that this knowledge may facilitate children's initial learning of some intraword patterns since they know what some of the important features of words are, and they can attend to these features. This would seem to indicate the importance of the concept of a word as a predictor of reading success.

There is some question as to how a child comes to recognize the correspondence between written and spoken words that would seem to be a further prerequisite of success on a syntax-matching activity. Biemiller (1970) believed that some children enter school with this concept, whereas others may arrive at it through direct instruction or on their own as a result of the inefficiency of their context-emphasizing approach. He further stated that the data in his study indicated that the child's first task in learning to read is possibly developing the understanding that one specific spoken word corresponds to one written word. Ehri (1975) concluded her study by stating that a number of studies are needed in this area. These include a study of the "relationship between a prereader's knowledge of print conventions and the segments which he perceives as speech" and a study of how rapidly the two converge.

The use of syntax in identifying the position of a word in a sentence may not be as directly related as the ability to decenter, the ability to identify a word by its printing conventions, and the ability to relate a specific spoken word to a written word. However, syntax is used by young children in their attempts at reading. Gibson, Osser, and Pick (1963) concluded that the learning of 54 symbols for letters is a large set of discrimination learning that might

be expected to proceed slowly over a long period of time. Therefore, they felt it seemed likely that some children will depend on their control of oral language for a period of time in their early attempts at reading.

Clay (1968) conducted a study using five year olds. The research explored the influence of a linguistic structure on children's word choices in reading. The results showed that there is a high incidence of syntactic equivalence between error substitutions and the text in beginning readers. A young child's guesses tended to be dominated by his control over the syntax of his language.

These studies and opinions suggested a role that syntax plays in beginning reading. The abilities required to complete a syntax-matching activity would seem to make the task a strong predictor of reading success.

Writing Letters of the Alphabet

Mason (1980), in a study of young children, showed how letter knowledge, printing, and sign reading serve as precursors to more skilled reading (a letter-sound analysis). These results supported Ehri's (1975) conclusions from a study done on word consciousness of readers and prereaders.

Durkin (1966) found that some children who arrived in kindergarten already reading had learned to read after they learned manuscript writing. She found that opportunities to print are more attractive to some children than any concern with reading. She stated that "almost without exception the starting point of curiosity

about written language was an interest in . . . copying . . . letters of the alphabet."

Chomsky (1971) claimed that forming letters (either using sets of letters or writing by hand) is the first step toward reading, and she suggested reversing the usual order of reading first, then writing. In his investigation of the spelling of preschool children, Read (1971) found that writing began before learning to read.

Hall, Moretz, and Statom (1976) conducted a study to examine factors in the home background of children who were early writers and to ascertain the sequence of learning to write in relation to learning to read. Early writers were defined as children who learned to write before formal instruction in kindergarten. The writing contained legible and distinct letter or word forms, and it had to be evident that the child was trying to communicate or represent specific letters, words, or ideas through writing. Parents reported that interest in writing preceded interest in reading in 17 out of 18 cases. In all cases except two, children learned to copy letters and words before learning to read. The two children who read before writing were two whose parents had initiated reading instruction.

Hildreth (1963) stated that learning to write acquaints beginners with the alphabet. Instead of merely looking at letters and naming them, a child in writing must construct the letters from memory and is therefore fixing the letter forms in his mind. She added that writing the alphabet has more bearing on reading than exercises such as marking a letter that is unlike the other two letters in a group of three letters.

Durrell (1958) concluded from the extensive study of reading achievements of first-grade children that the September tests that best predicted June reading achievement are writing letters dictated, naming letters, identifying letters named, and learning rates for words. He also stated that tests that measured association with name and form of letter showed the highest correlations with learning rate for words.

Spelling

Read (1971) and Beers and Henderson (1977) demonstrated in their studies that young children rely heavily on their understanding of English sounds when they begin to write. Chomsky (1970) also suggested that a child learns to spell by applying knowledge of English phonology to an underlying abstract form of words called lexical units. As the child's knowledge of the English sound system grows, these lexical units emerge as correctly spelled English words.

Venezsky (1970) believed that a child must learn the graphemic and morphophonemic features of English words. This places more emphasis on the surface features of words. This seems to be in opposition to Chomsky's theory.

A study by Beers and Beers (1980) attempted to determine whether knowledge about written words develops sequentially in beginning readers and writers and whether or not children were able to apply their knowledge about familiar words to the writing of unfamiliar words. The results confirmed the hypothesis that children's knowledge about words occurs sequentially and systematically over an extended

period of time and that children used both approaches (surface features and understanding of English phonology) to spell. However, the authors suggested that in order to transfer information from familiar to unfamiliar words, a child needed to be operating at the level of concrete operations--an observation noted earlier in the section on syntax matching.

Read (1971) documented the development of children's created spellings from first attempts to standard acceptable spelling. He stated that children do not know the set of lexical representations or the set of rules that account for standard spelling, but they use a system of phonetic relationships that they have not been taught. He suggested that adults have to learn the child's system of phonetic relations or relearn them in order to understand the children's spellings. Gentry and Henderson (1978) stated that if teachers would learn to understand this developmental spelling, they might be able to make some important judgments in assessing the child's knowledge of written language and reading readiness.

Observational studies of young children by Durkin (1966), Read (1970), Clay (1975), and Clark (1976) all confirmed that reading and spelling develop together, although not simultaneously.

Read (1970) stated that we can no longer assume that a child must approach reading and writing as an untrained animal approaches a maze. Evidently a child may come to school with a knowledge of some phonological categories and relations; without conscious awareness he may seek to relate English spelling to these in some generally systematic way.

Templeton (1979) further stated that research supports the conclusion that children first have the task of learning the ways in which spelling relates to their sound systems and that they are able to approach this task in a more sophisticated way than they have been given credit for.

Summary

The related literature in this chapter was concerned with current practices in readiness, assessment of readiness, and the specific readiness abilities of letter naming, hearing letter names in words, syntax matching, writing letters of the alphabet, and spelling.

On the basis of the current information, these readiness abilities were selected for this study as being important abilities for predicting readiness for reading instruction. The review of the literature suggested a need for informal measures that teachers can use periodically to assess a child's readiness abilities in order to determine an appropriate instructional program for the child.

Chapter III presents the methodology, population, and procedures for collecting and analyzing the data.

CHAPTER III

METHODOLOGY

Introduction

This section identifies and defines the population and describes and elaborates on the methodology used in conducting the study. The data-gathering procedures are outlined, and the research instrument employed is described. Finally, statistical treatment of the data and the methods of reporting are explained. The hypotheses are included.

Population and Sample

Six kindergarten classes with a total of 123 students in a local school district were used. This was the first year that any of the children had attended public-school kindergarten. The children were taught by one of three teachers. Three classes attended school in the morning and three attended in the afternoon.

The local school district is located ten miles from a large metropolitan area. It was originally a farming community but now has a number of subdivisions with middle-class and upper-middle-class families who commute to jobs in nearby cities.

This district was selected because of the homogeneity of the kindergarten classes. The teachers had similar backgrounds and teaching styles and used similar traditional programs and materials.

Procedures

One hundred twenty-three kindergarten students were assessed by a battery of five reading tasks from the Bader Reading and Language Inventory to determine if they were readers or nonreaders. The readers were further divided into four groups according to their approach to reading as evidenced by the interpretation of the results of the reading tasks.

Students were assigned a number, the teacher's initial, and time of day they attended school. Date of birth, sex, position in the family, and the number of children in the family were recorded on the student profile sheet (Appendix C).

Assurance was given that all information obtained would be held in confidence and that names of children, teachers, and schools would remain anonymous.

1. The students were asked to read a selected paragraph at a preprimer level with no preparation and elicit memories from the passage after the reading (Appendix A).

2. Students were asked to read a graded word list of 12 preprimer-level sight words (Appendix A).

3. Students were then asked to guess the missing word in a semantic-cloze test of ten sentences (Appendix A).

4. Finally, students were asked to read a list of three-letter nonsense words (Appendix A).

Students who read with less than 50 percent accuracy of the paragraph and could elicit no memories, read fewer than four preprimer-level sight words, and were unable to decode more than four nonsense

words were determined for the purposes of this study to be nonreaders. (See Table 3.1.)

All other students were determined, for the purposes of this study, to be readers. They were further classified according to the interpretation of their performance on the reading tasks into four groups: decoders, context readers, sight-word readers, and a combination of context and sight-word readers.

Readers who were able to read 10 of 12 preprimer-level sight words accurately and who indicated while reading the selected preprimer paragraph with greater than 50% accuracy that they were not using phonetic analysis or context clues as to the selection of unknown words were classified as those who primarily used a visual or sight-word approach to reading. (See Table 3.1.)

Readers who were able to complete a semantic-cloze activity correctly and were able to elicit two or more memories from the selected preprimer-level paragraph or read the paragraph with greater than 50% accuracy or with two or more meaningful substitutions and demonstrated, upon reading orally, the use of the meaning of the paragraph and words within a sentence to select an unknown word were classified as primarily context readers. (See Table 3.1.)

Readers who read the selected preprimer-level paragraph with greater than 50% accuracy, were able to elicit two or more memories, read 10 out of 12 preprimer-level sight words, completed a semantic-cloze activity correctly, and exhibited the use of both a sight-word approach and context were classified as readers using a combination of sight and context. (See Table 3.1.)

Table 3.1.--Criteria for classification of nonreaders and types of readers.

	Preprimer Paragraph	Memories From Preprimer Paragraph	Preprimer Sight Words	Semantic-Cloze Activity	Three-Letter Nonsense Words
NONREADERS	<50%	<2 memories			
SIGHT WORD	>50%	>2 memories	10/12		
CONTEXT	>50% with 2 or more meaningful substitutions	or >2 memories		10/10	
COMBINATION	>50% or with 2 or more meaningful substitutions	>2 memories	10/12	10/10	
DECODERS combination of sight, context and phonetic analysis	>50%	>2 memories	10/12	10/10	50% or >50%

Readers who read the selected preprimer-level paragraph with greater than 50% accuracy, read 10 out of 12 common preprimer-level sight words, completed a semantic-cloze activity correctly, and decoded 50% or more of a list of three-letter nonsense words were classified as decoders. Decoders used a combination of the sight-word approach, context, and a phonetic-analysis approach to reading. (See Table 3.1.)

After the students were classified into the five groups, each student was administered five subtests of readiness abilities: letter naming, hearing the names of letters in words, syntax matching, printing the letters of the alphabet, and writing a list of spelling words.

A random arrangement of capital letters followed by a random arrangement of lower-case letters was presented to each child (Appendix B). The examiner pointed at the first letter and said, "Tell me what these letters say. Go across." Students named the letters.

Next, the examiner said, "What letter name do you hear in the word zebra?" After the student answered, the examiner said, "I have a list of words to read to you. Tell me what letter name you hear in each word." A list of 12 words was read (Appendix B).

A card on which six sentences were written was shown to the student. Only one sentence at a time was visible to the student. The examiner said, "This sentence says, Close the Door. You say it." The student repeated it. "Say it again." The student repeated it. "Show me which word says close." The student pointed to a word. Five additional sentences were done using the same procedure and directions (Appendix B).

The students were given a sheet of paper divided into one-inch squares. The examiner said, "I am going to say the name of a letter. You write either the capital letter or the lower-case letter in the square." Twenty-six letters were named in random order (Appendix B).

Finally, the examiner said, "I want you to write some words. I'll say the word and you spell it. What letters do you hear in the word bean?" Eleven additional words were dictated (Appendix B).

Data-Gathering Instrument

The reading tasks are found in the Bader Reading and Language Inventory.

1. Graded Passage (preprimer level)
2. Graded Word List (preprimer level)
3. Semantic-Cloze Technique
4. Blending Sounds in Syllables (three-letter nonsense words)

These tasks are included in Appendix A. Scoring was done according to the directions in the Bader Reading and Language Inventory (Appendix A).

Four of the readiness measures are found in the Bader Reading and Language Inventory. They are:

1. Letter Naming
2. Hearing Letter Names in Words
3. Syntax Matching
4. Writing Letters

A fifth readiness ability, spelling, was assessed with a list of 12 words selected especially for this study. Interpretation of the spelling tests was made using the scoring system used in the Bader Reading and Language Inventory section on spelling tests.

The first four readiness abilities were scored according to the directions in the Bader Reading and Language Inventory. The tests and directions for scoring are included in Appendix B. The Bader Reading and Language Inventory is in press and will be published by Macmillan Publishing Company, Inc.

Method of Reporting Results

The information from each of the student profiles (Appendix C) was tabulated on a coding form. The coded data were then transferred by keypunch to IBM computer data cards.

Mean scores were computed for the four groups for the five readiness measures. The data were analyzed with univariate F-tests, multivariate tests of significance, and discriminant analysis.

The discriminant analysis was employed to distinguish statistically a readiness ability or combination of abilities from the five abilities measured for the four planned comparisons. The correlations between dependent and canonical variables contributed to the linear combinations of discriminating variables. The level of significance for all tests was set at .05.

Hypotheses

1.0 Kindergarten readers will differ from kindergarten nonreaders on selected readiness activities.

1.1 Kindergarten readers will correctly name more letters than nonreaders.

1.2 Kindergarten readers will hear more letter names in words and name them than nonreaders.

1.3 Kindergarten readers will correctly identify more words in the syntax-matching activity than nonreaders.

1.4 Kindergarten readers will write more letters of the alphabet correctly than nonreaders.

1.5 Kindergarten readers will spell more words with more accuracy than nonreaders.

2.0 Kindergarten readers using decoding skills of phonetic analysis with both a sight-word approach and context will differ from kindergarten readers using a combination of sight-word approach and a context approach.

2.1 There will be no differences between kindergarten readers using phonetic analysis and a combination of the sight method and context approach and readers using only a combination of the sight-word and context approach on naming letters.

2.2 Kindergarten readers using phonetic analysis and a combination of the sight-word and context approach will hear more letter names in words and name them than readers using only a combination of the sight-word and context approaches.

2.3 There will be no difference between kindergarten readers using phonetic analysis and a combination of the sight-word and context approach and readers using only a combination of the sight-word approach and context approach on identifying words in a syntax-matching activity.

2.4 There will be no difference between kindergarten readers using phonetic analysis and a combination of the sight-word method and context approach and readers using only a combination of the sight-word and context approach on writing letters of the alphabet.

2.5 Kindergarten readers using phonetic analysis and a combination of the sight-word and context approach will spell words with more accuracy than readers using only a combination of the sight-word and context approaches.

3.0 Kindergarten readers using a combination of the sight-word and context approaches will differ from readers using either the sight-word approach or the context approach on selected readiness activities.

3.1 Kindergarten readers using a combination of the sight-word approach and context will name more letters than readers using context only or sight only.

3.2 There will be no difference between kindergarten readers using a combination of the sight-word approach and context and readers using only a sight-word approach or only context on hearing letter names in words and naming them.

3.3 Kindergarten readers using a combination of the sight-word approach and context will identify more words in the syntax-matching activity than readers using only a sight-word approach or context only.

3.4 Kindergarten readers using a combination of the sight-word approach and context will write more letters of the alphabet than readers using only context or sight only.

3.5 Kindergarten readers using a combination of the sight-word approach and context will spell more words with greater accuracy than readers using context only or sight only.

4.0 Kindergarten readers who are using a sight-word approach will differ from kindergarten readers who are using primarily context on selected readiness activities.

4.1 Kindergarten readers using a sight-word approach will name more letters than readers using only context.

4.2 There will be no difference between kindergarten readers using a sight-word approach and readers using a context approach on hearing letter names in words.

4.3 Kindergarten readers using a context approach will identify more words correctly on a syntax-matching activity than readers using a sight-word approach.

4.4 Kindergarten readers using a sight-word approach will write more letters of the alphabet than readers using a context approach.

4.5 Kindergarten readers using a sight-word approach will spell more words correctly than readers using a context approach.

Testing these hypotheses provided evidence toward answering the original research questions posed in Chapter I.

Summary

In this chapter the population was identified and defined. A description of the methodology involved in conducting the study was included. The data-gathering instrument was discussed, and the procedure for obtaining data was explained. Methods of reporting the results were delineated, and the hypotheses were stated.

In Chapter IV, the data are presented, organized, and analyzed.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

Introduction

The purpose of this study was to examine the acquisition of readiness abilities among kindergarten children to determine if nonreaders and beginning readers using different approaches to reading had acquired different readiness abilities or combinations of abilities. In this chapter, the statistical analyses of data related to the major research questions are presented.

Statistical Analyses

Interaction Effects

Multivariate tests of significance were used to determine interaction effects between nonreaders and beginning readers using different approaches to reading and teachers.

There were four planned comparisons of groups. These comparisons are reported in Table 4.1 with the number of students in each group.

The planned comparisons of groups were:

1. Readers versus nonreaders
2. Readers using phonetic analysis versus all other readers
3. Readers using a combination of sight and context
4. Sight readers versus context readers

There were two planned comparisons for teachers:

1. Teachers E and F versus teacher H

2. Teacher E versus teacher F

Table 4.1.--Four planned comparisons of groups and number of students in each group.

Group (n =)	versus	Group (n =)	
Readers	n = 82	Nonreaders	n = 41
Readers using phonetic analysis	n = 22	All other readers	n = 60
Combination sight and context	n = 41	Sight or context readers	n = 19
Sight readers	n = 13	Context readers	n = 6

The significance of the interaction effects is reported in Table 4.2. There were seven interactions tested. The eighth interaction could not be tested because teacher H had no context readers. No teacher interactions were shown to be significant on the multivariate tests of significance.

Research Questions and Analysis

1.0 Is there a difference between readers and nonreaders in kindergarten in their ability to succeed at selected readiness activities?

Readers scored higher than nonreaders on all five readiness activities, as shown by mean scores in Table 4.4 and Figure 4.1. The differences for all five activities were significant, as shown in Table 4.3, according to the univariate and multivariate tests of

significance. The significance of F on the multivariate test of significance (Hotellings test) was .00001.

Table 4.2.--Multivariate tests of significance for interaction effects between nonreaders and beginning readers using different approaches and teachers.

Interaction Tested	Hotellings Multivariate Test of Significance Significance of F
Readers vs. nonreaders by teachers E & F vs. H	.3095
Readers vs. nonreaders by teacher E vs. F	.26506
Decoders vs. all other readers by teacher E vs. H	.08723
Decoders vs. all other readers by teacher E vs. F	.64246
Combination vs. sight or context by teachers E & F vs. H	.86187
Combination vs. sight or context by teacher E vs. F	.10877
Sight vs. context by teachers E & F vs. H	[a]
Sight vs. context by teacher E vs. F	.14654

[a]Not possible to report as teacher H had no context readers.

Table 4.3.--Test of main effects for readers versus nonreaders.

Multivariate Test of Significance (Hotellings) Sig. of F = .00001		
Readiness Abilities	Univariate F-Tests Sig. of F =	Correlations Between Dependent and Canonical Variables
Naming letters	.00006	.477
Hearing letter names	.00001	.546
Syntax matching	.00001	.769
Writing letters	.00001	.573
Spelling words	.00001	.745

Table 4.4.--Mean scores for readers and nonreaders.

	Naming Letters	Hearing Letter Names	Syntax Matching	Writing Letters	Spelling
Nonreaders	39.219	7.804	2.927	17.780	8.683
Readers	48.512	10.902	5.341	23.939	20.402

The secondary statements relating to the research questions and the specific readiness abilities were as follows:

1.1 Kindergarten readers will name more letters than nonreaders.

1.2 Kindergarten readers will hear more letter names in words than nonreaders.

1.3 Kindergarten readers will correctly identify more words in a syntax-matching activity than nonreaders.

1.4 Kindergarten readers will write more letters of the alphabet than nonreaders.

1.5 Kindergarten readers will spell words with greater accuracy than nonreaders.

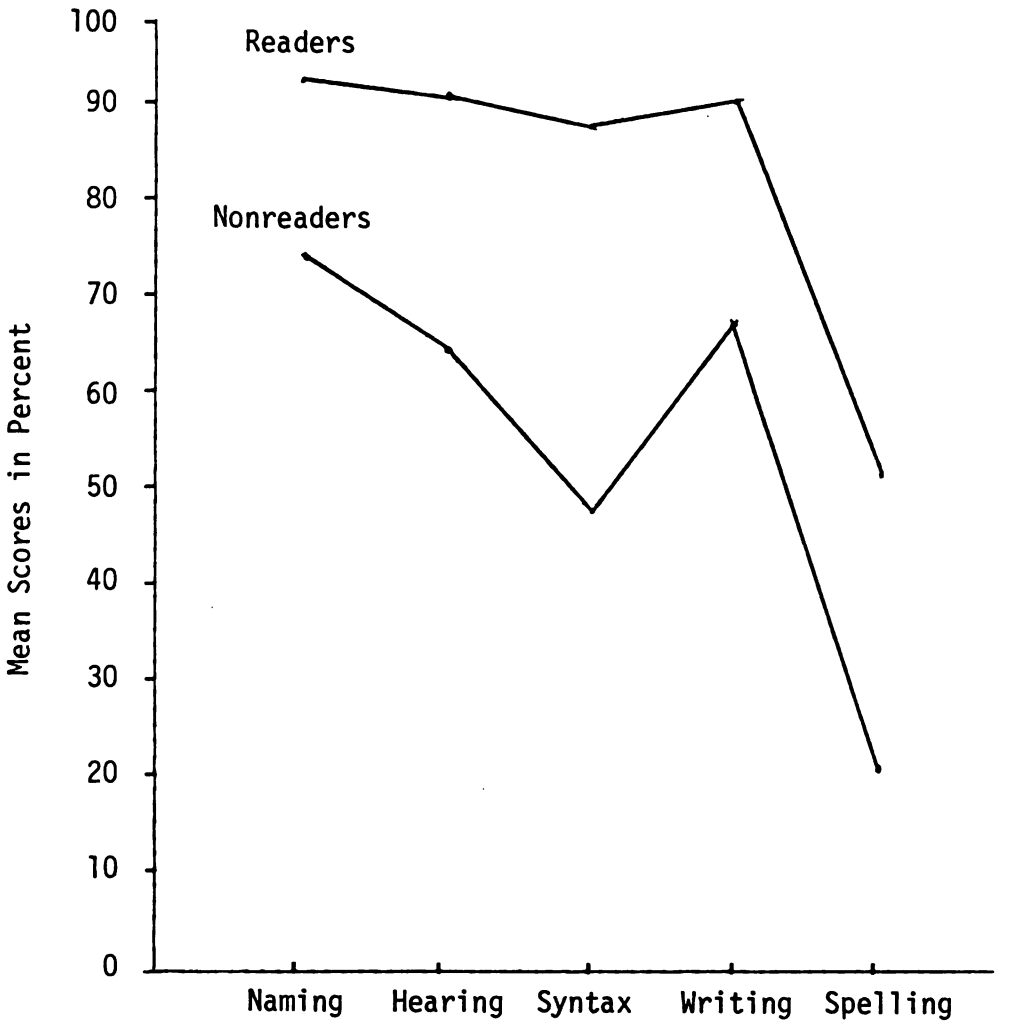

Figure 4.1.--Mean scores of readers and nonreaders.

The mean scores shown in Table 4.4 and Figure 4.1 and the results of the univariate F-tests shown in Table 4.3 indicate that these five secondary statements were true for this study.

All five readiness abilities were significantly different for readers versus nonreaders. However, the abilities of syntax matching and spelling showed the highest correlation between dependent and canonical variables (see Table 4.3) and contributed most to the linear combination that was used to determine the ability or combination of abilities that best discriminated between readers and nonreaders.

2.0 Is there a difference between kindergarten readers who use decoding skills of phonetic analysis with a sight approach and context and readers who use a combination of sight and context or sight only or context only?

Results showed a difference in the mean scores, as shown in Table 4.6 and Figure 4.2, with readers using phonetic analysis scoring higher on the readiness abilities than those readers who did not use phonetic analysis. The difference between the groups was significant, as indicated by the Hotellings Multivariate Test of Significance where the significance of F = .00001 and as shown on the univariate tests of F and the correlation between the dependent and canonical variables as shown in Table 4.5.

Each of the secondary statements related to the research question and the specific readiness abilities will be addressed individually. Related results of the study are reported in Tables 4.5 and 4.6 and Figure 4.2.

2.1 There will be no differences between kindergarten readers using phonetic analysis and sight and context and all other readers (combination of sight and context; context or sight) on naming letters.

The results showed that there was a difference between readers using phonetic skills and all other readers on naming letters.

Mean scores were 50.705 for phonetic readers and 47.4 for all other readers. The difference on a univariate F-test showed the significance of F to be .00096.

Table 4.5.--Test of main effects for readers using phonetic-analysis skills versus all other readers.

Multivariate Test of Significance (Hotellings) Sig. of F = .00001		
Readiness Abilities	Univariate F-Tests Sig. of F =	Correlations Between Dependent and Canonical Variables
Naming letters	.00096	.384
Hearing letter names	.00278	.346
Syntax matching	.00001	.670
Writing letters	.04242	.232
Spelling words	.00001	.917

Table 4.6.--Mean scores for readers using phonetic-analysis skills versus all other readers.

	Naming Letters	Hearing Letter Names	Syntax Matching	Writing Letters	Spelling
Readers using phonetic analysis	50.705	11.59	5.94	24.53	27.41
All other readers	47.400	10.54	5.04	24.00	17.33

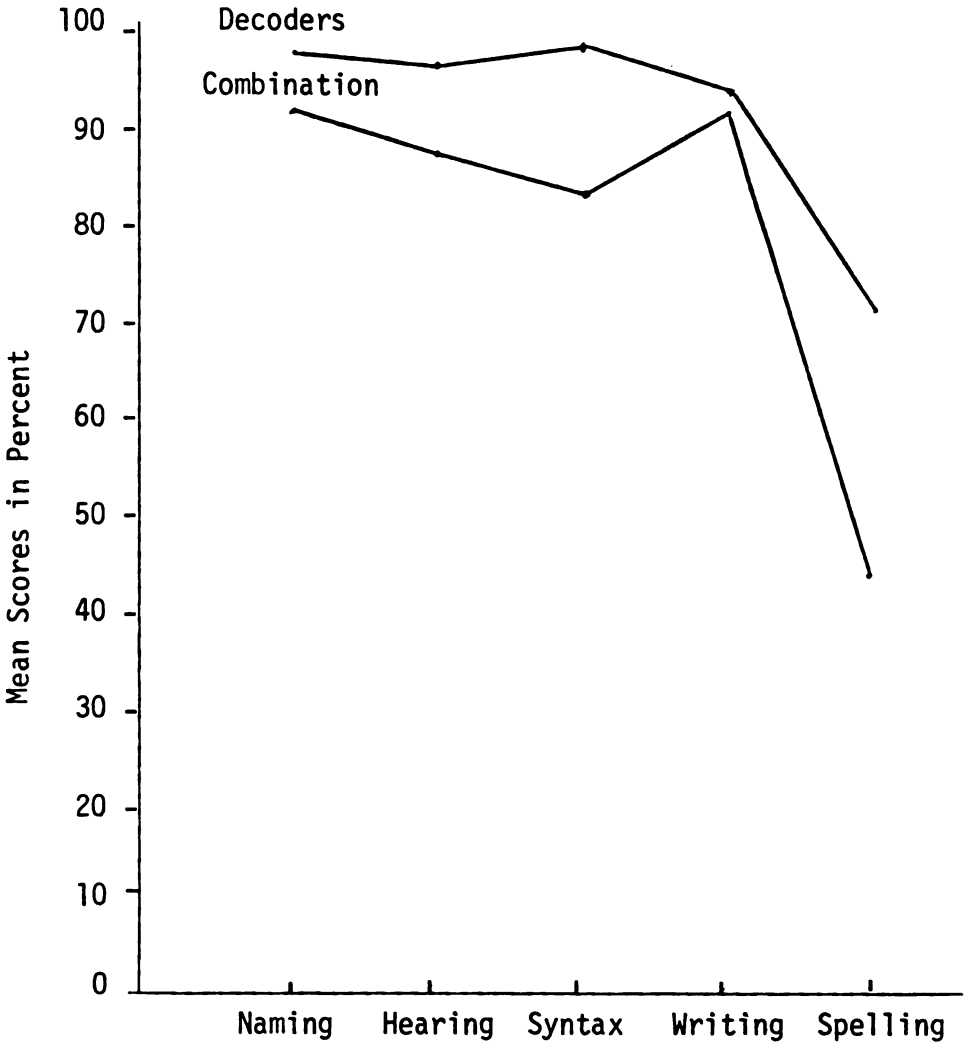

Figure 4.2.--Mean scores of decoders and all other readers.

2.2 Kindergarten readers using phonetic analysis and a combination of sight and context will hear more letter names in words and name them than readers using only a combination of the sight-word approach and context or sight only or context only.

Readers using phonetic analysis heard more letter names in words, with a mean score of 11.59, whereas readers who did not use phonetic analysis had a mean score of 10.54. The significance of F on the univariate F-test was .00278.

2.3 There will be no difference between kindergarten readers using phonetic analysis and a combination of sight and context and readers using a combination of sight and context or sight only or context only on identifying words in a syntax-matching activity.

The results showed that there was a difference between readers using phonetic skills and readers who did not on a syntax-matching activity. The mean score for readers using phonetic analysis was 5.94. The mean score for all other readers was 5.04. The difference on the univariate F-test was significant at .00001.

2.4 There will be no difference between kindergarten readers using phonetic analysis and a combination of the sight and context approach and readers using only the combination of sight and context or sight only or context only on writing letters of the alphabet.

Results of the study showed that there was a difference between readers using phonetic analysis and all other readers on writing letters of the alphabet. The univariate F-test showed the significance of F = .04242. The mean score for readers using phonetic analysis was 24.53. The mean score for all other readers was 24.00.

2.5 Kindergarten readers using phonetic analysis and a combination of sight and context will spell more words with greater accuracy than readers using a combination of sight and context or sight only or context only.

Readers using phonetic analysis spelled more words with greater accuracy than other readers. The mean score for readers using phonetic analysis was 27.41. The mean score for all other readers was 17.33. The univariate F-test showed the significance of F to be .00001.

Readers using phonetic analysis scored significantly higher on all five reading-readiness activities. The abilities of syntax matching and spelling showed the highest canonical correlations and

appeared to be the best discriminators among the five readiness abilities between readers using the phonetic approach and all other readers.

3.0 Is there a difference between kindergarten readers who use a combination of sight and context and kindergarten readers who use primarily sight or primarily context in their ability to succeed at selected readiness activities?

Readers using a combination of sight and context scored higher than readers using either sight or context on activities measuring all five readiness abilities, as shown in Figure 4.3. The differences were significant, as shown by the Hotellings multivariate test of significance with the significance of F = .00014. The mean scores for the readiness abilities are reported in Table 4.8, and results of the univariate F-tests are reported in Table 4.7.

Table 4.7.--Test of main effects for readers using a combination of sight and context versus readers using sight or context.

Multivariate Test of Significance (Hotellings) Sig. of F = .00014		
Readiness Abilities	Univariate F-Tests Sig. of F =	Correlations Between Dependent and Canonical Variables
Naming letters	.00639	.518
Hearing letter names	.02492	.424
Syntax matching	.00001	.917
Writing letters	.00648	.517
Spelling words	.00218	.585

Table 4.8.--Mean scores of readers using a combination of sight and context versus readers using sight or context.

	Naming Letters	Hearing Letter Names	Syntax Matching	Writing Letters	Spelling
Readers using combination	48.36	10.83	5.39	23.92	19.20
Sight or context	45.10	10.21	4.52	23.63	15.21

Each of the secondary statements related to the research question and the specific readiness abilities will be addressed individually. Related results of the study are reported in Tables 4.7 and 4.8 and Figure 4.3.

3.1 Kindergarten readers using a combination of the sight-word approach and context will name more letters than readers using context only or sight only.

Results of the study showed that those using a combination did name more letters than those using primarily one approach. The mean score for the readers using a combination was 48.36. The mean score for the readers using a combination was 48.36. The mean score for the others was 45.10. The univariate F-test showed the significance of F to be .00639.

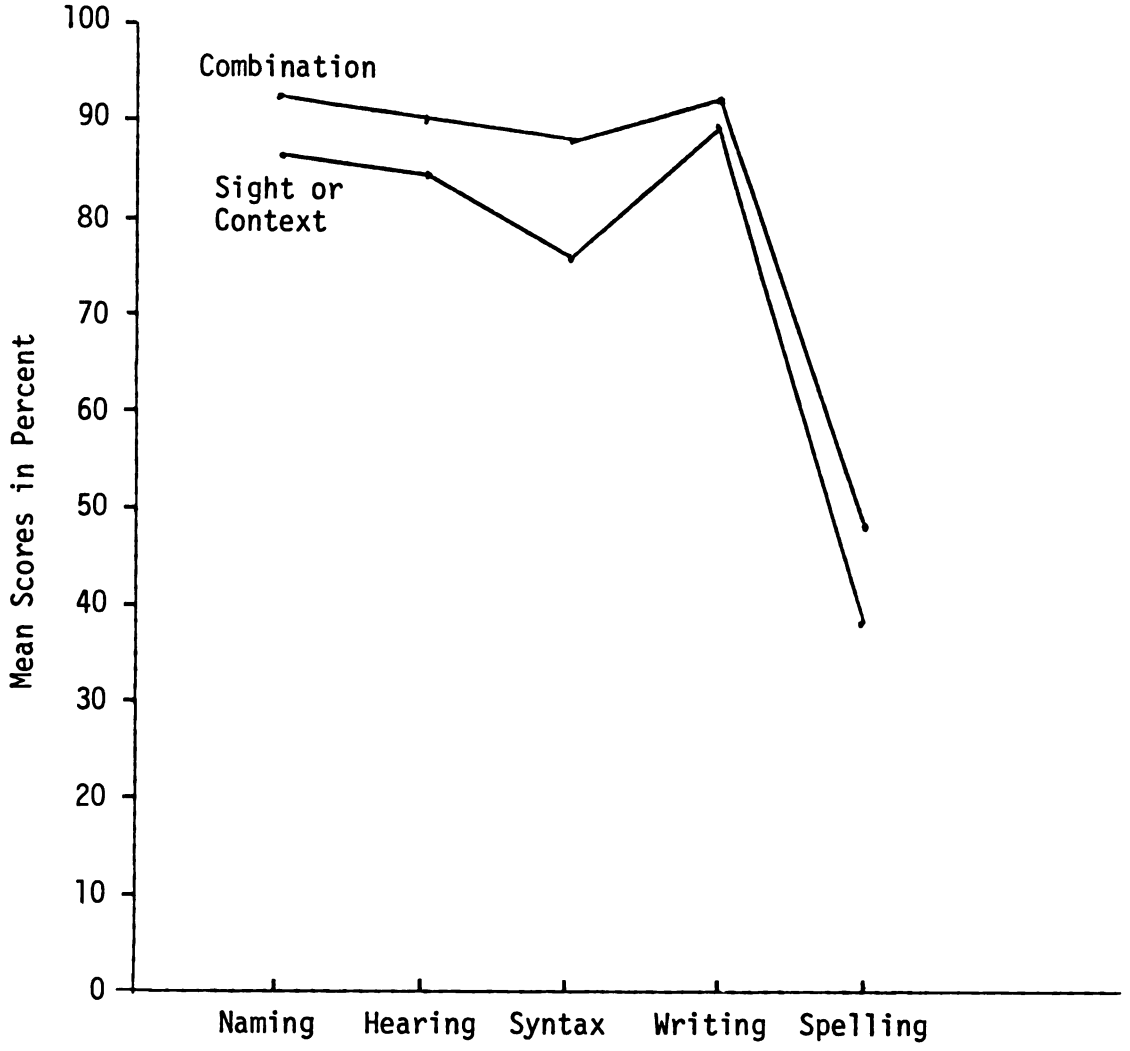

Figure 4.3.--Combination and sight or context mean scores.

3.2 There will be no difference between kindergarten readers using a combination of the sight-word approach and context and readers using only a sight-word approach or only context on hearing letter names in words.

There was a difference between readers using the combination and readers using primarily one approach on hearing letter names. The univariate F-test showed the significance of F = .0249. The mean score for the group using a combination was 10.83. The mean

score for the group using a combination was 10.83. The mean score for those using primarily one approach was 10.21.

3.3 Kindergarten readers using a combination of the sight-word approach and context will identify more words in the syntax-matching activity than readers using either a sight-word approach or context.

Results showed that readers using the combination of approaches identified more words in the syntax-matching activity. The mean score for those using a combination was 5.39, and the mean score for those using one approach was 4.52. The univariate F-test showed the significance of F = .00001. This readiness ability had the highest canonical correlation of all the abilities, which indicates it is a significant discriminator between these two groups of readers.

3.4 Kindergarten readers using a combination of the sight-word approach and context will write more letters of the alphabet than readers using either sight or context.

Results showed that readers using a combination wrote more letters of the alphabet than those using one approach. The mean score for the group using a combination was 23.92. Those using one approach had a mean score of 23.63. The univariate F-test showed the significance of F = .00648.

3.5 Kindergarten readers using a combination of the sight-word approach and context will spell more words with greater accuracy than readers using either the sight approach or context.

Readers using a combination of sight and context spelled significantly more words than those using one approach. The difference was shown by the univariate F-test with the significance of F as

.00218. The mean score for those using a combination was 19.20. The mean score for those using one approach was 15.21.

Readers using a combination of sight and context scored significantly higher on all five activities measuring the readiness abilities. However, the ability of syntax matching showed the highest canonical correlation and appeared to be the best discriminating factor among the readiness abilities of these two groups of readers.

4.0 Is there a difference between kindergarten readers who are using a sight-word approach and kindergarten readers who are using primarily context on selected activities measuring readiness abilities?

Results showed that readers using a sight-word approach scored significantly higher on all five activities measuring the readiness abilities. The differences are reported in Tables 4.9 and 4.10 and Figure 4.4. The Hotellings multivariate test of significance showed the significance of F = .04463.

Each of the secondary statements related to the research question and the specific readiness abilities will be addressed individually. Related results of the study are reported in Tables 4.9 and 4.10 and Figure 4.4.

4.1 Kindergarten readers using a sight-word approach will name more letters than readers using only context.

Kindergarten readers using a sight-word approach scored significantly higher on the letter-naming activity than those readers using primarily context. The mean score for the sight readers was 48.73, and the mean score for context readers was 40.33. The univariate F-test showed the difference to be the significance of F = .03885.

Table 4.9.--Test of main effects for readers using a sight approach versus readers using context.

Multivariate Test of Significance (Hotellings) Sig. of F = .04463		
Readiness Abilities	Univariate F-Tests Sig. of F =	Correlations Between Dependent and Canonical Variables
Naming letters	.03885	.597
Hearing letter names	.22687	.347
Syntax matching	.00225	.893
Writing letters	.23409	.341
Spelling words	.11145	.458

Table 4.10.--Mean scores of readers using a sight approach and readers using context.

	Naming Letters	Hearing Letter Names	Syntax Matching	Writing Letters	Spelling
Sight	48.73	10.45	5.09	24.18	16.09
Context	40.33	9.50	3.33	22.33	11.16

Figure 4.4.--Sight and context mean scores.

4.2 There will be no difference between kindergarten readers using a sight-word approach and readers using a context approach on hearing letter names in words.

There was a significant difference between kindergarten readers using a sight-word approach and readers using a context approach on hearing letter names. The mean score of the sight readers was 10.45. The mean score of the context readers was 9.50.

4.3 Kindergarten readers using a context approach will identify more words correctly on a syntax-matching activity than readers using a sight-word approach.

Kindergarten readers using a context approach scored significantly lower than readers using a sight-word approach on a syntax-matching activity. The mean score for context readers was 3.33, and the mean score for sight readers was 5.09. The univariate F-test showed the significance of F = .00225. The canonical correlation for syntax matching was higher than for any other readiness ability and with the ability for letters the combination of readiness abilities discriminates between sight-word readers and context readers.

4.4 Kindergarten readers using a sight-word approach will write more letters of the alphabet than readers using a context approach.

Readers using a sight-word approach scored significantly higher than readers using the context approach on writing letters of the alphabet. The mean score for sight readers was 24.18, and the mean score for context readers was 22.33.

4.5 Kindergarten readers using a sight-word approach will spell more words with greater accuracy than readers using a context approach.

The results showed that sight readers scored significantly higher than context readers on the activity measuring spelling ability. The mean score of sight readers was 16.09, and the mean score of context readers was 11.16.

The statistical method of discriminant analysis provided a list of correlations between the dependent and canonical variables, thus enabling the researcher to identify a readiness ability or combination of abilities that were the best discriminators between the

groups in the four planned comparisons. Results are as shown in Figure 4.5.

Readers vs. Nonreaders	Syntax Matching & Spelling
Decoders vs. All Other Readers	Syntax Matching & Spelling
Combination of Sight and Context vs. Sight or Context	Syntax Matching
Sight vs. Context	Syntax Matching & Naming Letters

Figure 4.5.--Readiness abilities that discriminate between groups.

The ability to identify words in a syntax-matching activity was significantly different from the other readiness abilities for all four groups. In combination with spelling, it discriminated readers using phonetic analysis from nonreaders and all other readers. Syntax-matching ability alone was significant in discriminating readers using a combination of sight and context from readers using either sight or context. The combination of the syntax-matching ability and the ability to name letters best discriminated between sight and context readers.

Summary

In this chapter the data were presented, organized, and analyzed. In Chapter V the major results of the study, implications, and recommendations for future research are presented.

CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

Introduction

The purpose of this study was to examine the acquisition of selected readiness abilities in nonreaders and beginning readers using different methods or approaches to reading at the kindergarten level. In this chapter, major results of the study, implications, and recommendations for further research are presented.

Major Results and Discussion

1. Readers scored significantly higher on the activities measuring readiness abilities than nonreaders at the kindergarten level. These results suggest that these activities do measure reading-readiness abilities and that readers have acquired these abilities and nonreaders have not.

These results support the research of Durrell and Murphy (1964) and Wilson (1938) cited in Chapter II, which stated that children who knew letter names learned words more readily and were among the first to learn to read.

2. Readers who used phonetic analysis as well as the sight approach and context scored significantly higher on the activities measuring the five readiness abilities than all other readers (i.e., sight readers, context readers, or readers using a combination of sight and context).

Readers who used phonetic analysis with the sight approach and context scored significantly higher on naming letters, hearing letter names in words, and writing letters of the alphabet and spelling. This supports the research by Mason (1980) cited in Chapter II, which stated that letter knowledge and printing serve as precursors to more skilled reading (a letter-sound analysis). The readers using phonetic analysis were more skilled readers in that they were able to read with greater accuracy than the other readers in the study.

3. Readers using a combination of context and the sight approach scored significantly higher on all five activities measuring reading-readiness abilities than readers using sight only or context only.

These results suggest that the use of both approaches requires a greater proficiency in these readiness abilities than readers using a single approach. It was observed during the study that readers using a combination were more fluent readers and able to read with more accuracy than readers using only one approach.

4. Readers using a sight-word approach scored significantly higher than readers using a context approach on all five activities measuring reading-readiness abilities. The combination of the abilities of syntax matching and letter naming discriminated between these two groups of readers. Richek (1978), as mentioned in Chapter II, found the ability to name letters as one general skill that predicted success in the sight-word method of instruction among a group of

inner-city kindergarteners. This study would suggest that it predicts success with rural kindergarteners as well.

5. The ability to identify words correctly in a syntax-matching exercise was a discriminating factor between readers and nonreaders, decoders and all other readers, readers using a combination of sight and context and readers using only one approach, and between sight-word readers and context readers.

These findings suggest that the ability to decenter or separate meaningful units of thought (a word or phrase) from its component parts is a prerequisite of reading. They also support Ehri's (1975) examination of word consciousness, which found that prereaders showed a lack of control over syntactic relations of words and sentences. Results of this study would further suggest that as readers acquire more abilities related to the reading process, word knowledge is even more advanced.

6. The combination of the ability to identify words in a syntax-matching exercise and the ability to spell words were discriminating factors between readers and nonreaders and between decoders and all other readers.

These findings support the studies by Durkin (1966), Read (1970), Clay (1975), and Clark (1976), which suggest that reading and spelling develop together although not simultaneously. The ability to use phonetic analysis or the decoding of symbols to sounds aids these readers in encoding sounds heard in words to symbols or letters, or perhaps the encoding ability aids the decoding ability.

Implications of the Findings

The implications of this study are many. At this point, the researcher will go beyond the data. The reader may accept or reject the comments.

The subtests used in this study to measure the readiness abilities would seem to be valid measures for the assessment of students' readiness for reading. The results indicate that as kindergarteners proceeded in the acquisition of abilities for reading, they scored higher on the five readiness measures. Readers using a sight method scored significantly higher than those using context. Readers using a combination of sight and context scored significantly higher than readers using one method only, and readers using phonetic-analysis skills scored significantly higher than readers using a combination of sight and context. All readers scored significantly higher than nonreaders on the five measures.

The subtests or measures of readiness abilities used in this study would seem to be more useful to teachers in the assessment of children's readiness abilities than a commercial readiness test that provides one composite score and determines only whether the child is deemed ready to read or not ready to read. These measures can be administered several times during the year to determine the children's progress in their acquisition of the readiness abilities and in the reading process and could be helpful in communicating their progress to first-grade teachers.

By the latter half of the year, two-thirds of the kindergarteners tested in this study were reading. Kindergarten teachers

in the study underestimated this figure by nearly half. Subtests used in the study, which could be administered periodically, would seem to provide more accurate information to teachers about students' progress in the acquisition of these abilities. This information about student progress could be useful to the teachers in planning for instruction that would better meet the needs of individual children. For example, students who are able to name and write the letters of the alphabet do not need to work exercises on visual discrimination of shapes and letters in a readiness workbook.

Implications for instruction from this study are numerous. The results support the use of a language-experience approach of using the children's spoken language, writing it for children to read, and encouraging children to manipulate letters to invent spelling and write the words of their language as suggested in Chapter II by Pick et al. (1978), Biemiller (1970), Clay (1968), Chomsky (1971), Read (1971), and Beers and Beers (1980).

The results show that the syntax-matching ability discriminated between each of the two groups in the four comparisons. This supports the idea that a child must have acquired the concept of a word as a bound-examinable figure before he is able to succeed at the task of discriminating phonemic elements of words such as the tasks required in a structured phonetic program.

The use of labels in the classroom environment, the act of writing a child's words, the writing of the child's language, and then the act of speaking to the print help the child make the match from the spoken to the written word. Finally, children begin to

understand the significance of the space as a pause and thus develop for the concept of a word. Syntax of the language is reinforced by using the child's language orally and in writing stories and by the teacher reading to the children.

The combination of syntax matching and spelling discriminated between readers and nonreaders and between readers using phonetic skills and readers using a combination of sight and context and sight only or context only.

The assessment of a child's spelling ability could be helpful to a teacher in making judgments about his reading readiness. It is doubtful that children who write only the initial phoneme of a word have the concept of what a word is. As children begin to develop the letter-name strategy of spelling, their concept of a word is beginning to stabilize. Once the concept of word is stabilized, children begin to acquire words on a sight basis and begin to spell those words correctly.

The implication of the importance of the spelling ability is the need for teachers to provide opportunities for experimentation with letters and words. Letters that can be manipulated and paper, pencils, and other writing instruments and chalk and the chalkboard should be made available for children. They should be encouraged to write their own words and stories or stories that are dictated to them. Children should be encouraged to invent spellings, and these efforts should be accepted as it is a myth that misspelling begets misspelling. Rather, it is part of the consistent systematic development toward correct spelling.

Young children employ a complex strategy of orthography that is incredibly accurate phonetically (Chomsky, 1970). This would support the use of a language-experience approach that uses that knowledge rather than a structured phonetic program that uses a picture of an object or an inflatable object to teach a sound-symbol relationship in an artificial way.

The results of this study show that a combination of syntax matching and naming letters discriminates between sight-word readers and context readers. These results support the results of the research cited in Chapter II and provide support for the need to teach letter names to young children. Children seem to rely on their oral-language abilities to guess at unknown words until they are able to name the letters and use the letter names in word recognition.

Further implications would seem to be the advisability of teaching children to use letter names as another approach to word recognition and spelling as suggested by Durrell and Murphy (1980).

In summary, the results of this study suggest a total-language program for instruction, using the abilities the child has already acquired and planning for individuals or small groups rather than whole-group instruction with a commercial readiness program.

Recommendations for Future Research

Recommendations for future research include studies that would provide information about the following questions:

1. Are there other readiness abilities such as the child's capacity to learn sight words (learning rate) that would be significant

in combination with the abilities measured in this study that would discriminate between kindergarten readers using different approaches to reading?

2. How do these subtests of syntax matching and spelling correlate with the widely used and highly predictive Metropolitan Readiness Test subtests of Number Knowledge and Knowledge of Alphabet Letter Names in predicting success in reading?

3. What is the effect on the first-grade reading achievement of two groups of kindergarteners who scored high on these readiness abilities when one group is taught by the language-experience approach to reading and the other group by a structured readiness program using letters and letter sounds?

4. Is there a difference between kindergarten readers using phonetic skills and other kindergarten readers in their ability to decenter, as evidenced by their ability to conserve on the Piagetian tasks of conservation?

It is further recommended that this study be replicated with kindergarteners with different racial, ethnic, and socioeconomic backgrounds from urban and suburban school districts to test the generalizability of these reading-readiness abilities and the subtests used.

APPENDICES

APPENDIX A

SUBTESTS TO CLASSIFY READERS AND NONREADERS

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SUBTESTS TO CLASSIFY READERS AND NONREADERS

A.1 Selected Preprimer Paragraph

The examiner says, "Here is a story about dogs. Read it aloud. If you come to a word you don't know, just do your best and continue reading. Try to remember what you read so that you might be able to tell me about it or answer questions."

THE DOG SHOW

I went to a dog show.
I saw big dogs.
I saw little dogs.
I saw dogs with long hair.
And dogs with short hair.
There were dogs everywhere. (29 words)

Please retell the story.

____ dog show
____ big dogs
____ little dogs
____ long hair
____ short hair
____ everywhere

Memories: Unprompted ____
Prompted ____

Oral reading

____ Substitutions
____ Additions
____ Omissions
____ Mispronunciations
____ Repetitions
____ Words pronounced by examiner

Scoring

The following code and guidelines were recommended:

BEHAVIOR	CODING	EXAMPLE	SCORING
1. Substitutions and mispronunciations that disrupt meaning	Write the responses above the word	she gazed (gagged) at it	(1)
2. Substitutions, mispronunciations, and inversions that do not disrupt meaning	Write the responses above the word. Draw curved line for inversions.	she gazed (looked) at it	(½)
		I saw him, "Mary said	(½)
3. Repeated substitutions or mispronunciations for same word	Write the response each time, but count one error	the dog (puppy) was	
		...then the dog (puppy) went	(1)
4. Insertions	Write the word with a caret	a (little) ∧ dog	(1)
5. Omissions and parted omissions	Draw a line through word or word part omitted	the ~~tall~~ girl	(1)
		walk~~ing~~ on	(1)
6. Words pronounced by the examiner	Wait at least five seconds; write "P" above aided word	(P) I thought	(1)
7. Repetitions of words or phrases	Write "R" above each repetition; draw a line to indicate number of words repeated. Score as (1) regardless of repetitions	R R the cat howled	(1)

A.2 Graded Word List

(A)

Preprimer level

the

am

get

is

and

here

see

not

can

will

come

you

Taken from the Bader Reading & Language Inventory, in press.

A.3 Semantic Cloze II Activity

Administration. Say "I'm going to read some sentences to you that have some words missing. Try to guess the missing word." If the student misses the first sentence, give the correct response and practice with similar constructions until the task is understood.

1. Please close the _____.
2. She has one sister and one _____.
3. I burned my tongue because the soup was _____.
4. He burned his leg and went to the emergency room at the _____.
5. I waited at the crosswalk for the light to _____.
6. Please wipe your feet on the _____.
7. Put your clothes in the _____.
8. She put on a coat because she was _____.
9. A loud noise made the baby _____.
10. The team was happy because they won the _____.

Scoring. Accept reasonable guesses such as door, or window, or drawer in sentence one. Do likewise with the others.

Taken from Bader Reading and Language Inventory, in press.

A.4 Blending Sounds in Syllables

Directions: Say "Here are some nonsense words. They really are not words at all, but I'd like to see if you can read them." The nonsense syllables are used to prevent the student's recalling words he knows by sight.

rud

cope

lim

mag

keam

nit

dat

rute

pame

dote

bot

hin

Adapted from Bader Reading and Language Inventory, in press.

APPENDIX B

ACTIVITIES TO MEASURE READINESS ABILITIES

APPENDIX B

ACTIVITIES TO MEASURE READINESS ABILITIES

B.1 Letter Names

Directions: Say "Name these letters in line one (two...)."

B	C	D	S	A	I	F	E	M	L	P	T	R
Z	J	W	X	G	U	H	Q	K	N	Y	V	O
m	y	n	l	r	o	t	p	z	v	k	i	a
j	u	g	w	b	c	s	h	d	f	x	q	e

Taken from Bader Reading and Language Inventory, in press.

B.2 Hearing Letter Names in Words

Those students who know the names of letters can be tested for the ability to hear letter names in words in order to assess a basic area of phonemic discrimination and segmentation useful in beginning reading.

Administration: Say "Listen to this word to see if you can hear letter names in words. Zebra. Say Zebra. What is the first letter heard in zebra?" Give the following list of words in the same way. Identification indicates ability to use letter names as a clue to word recognition.

1. open
2. beach
3. acorn
4. Jason
5. x-ray
6. peek
7. ice
8. deep
9. Kate
10. unicorn
11. team
12. each

Taken from Bader Reading and Language Inventory, in press.

B.3 Syntax Matching

This tests the ability to recognize words as separate speech entities which can be recorded in print.

Administration. Place the test in front of the child. Put another sheet of paper or card under the first example. Say, "This says, Go home. Say, Go home. Now point to the word that says Go." If necessary, point to each word separately and say, "Go....home. This word is go." Then do the next example. Say, "This says Look out. Say, Look out." Say it again. Point to the word that says out. Demonstrate as necessary. Use the following procedure with six test sentences.

This says:	You say it.	Say it again.	Point to:
Close the door.	"	"	close
Pet the dog.	"	"	dog
See his new hut.	"	"	new
Her puppy is barking.	"	"	barking
This horse can run fast.	"	"	run
You can go with me.	"	"	go

Taken from the Bader Reading and Language Inventory, in press.

B.4 Writing Letters

The Letter Names Subtest will be dictated to the student, who will write the spoken letter in manuscript. The student may write either the capital or lower-case letter.

B.5 Spelling

Give the student a sheet of paper. Say, "I want you to write some words for me, please. If there are some you don't know, just try to spell them as well as you can. I will say each word. Then you write the word."

Dictate the following words:

bean

own

ate

peel

jail

idle

deep

team

unite

eat

effort

elm

Writing Letters was taken from the Bader Reading and Language Inventory, in press.

B.5 Scoring

Spelling Scoring System

b	initial sound	= 1
bn	two sounds	= 2
ben	includes vowel	= 3
been	possible spelling	= 4
bean	correct spelling	= 5

o	initial sound	= 1
on	two sounds	= 2
one	possible spelling	= 4
own	correct spelling	= 5

If the student wrote only the ending sound, such as "p" for deep, he was given one-half point. If the student wrote only sound in a word, i.e., "d" for idle, he was given one-half point.

APPENDIX C

STUDENT PROFILE AND TEST RECORD

APPENDIX C

STUDENT PROFILE AND TEST RECORD

Birthdate _____ #_____/_____/_____
Student Teacher Time

Sex _____

Position/Number of Children in the family ____/____

A. Reading Tasks

Graded Paragraph _____

Memories _____

Sight Words ___/ 12

Cloze Passage ___/ 10

Three-letter Nonsense Words ___/ 12

Nonreader _____ Decoder _____ Combination _____

Sight _____ Context _____

B. Readiness Tasks

Letter Naming ___/ 52

Hearing Letter Names ___/ 12

Syntax Matching ___/ 6

Writing Letters of the Alphabet ___/ 26

Spelling _____

Oral Reading

#____/____/____

The Dog Show
I went to a dog show.
I saw big dogs
I saw little dogs.
I saw dogs with lone hair.
And dogs with short hair.
There were dogs everywhere.

Memories: Unprompted _____
Prompted _____

_____ Substitutions
_____ Additions
_____ Omissions
_____ Mispronunciations
_____ Repetitions
_____ Words pronounced by examiner.

Nonsense Words

rud
cope
lim
mag
keam
nit
dat
rute
pame
dote
bot
hin

Cloze Passage

1. Please close the _____.
2. She has one sister and one _____.
3. I burned my tongue because the soup was ____.
4. He burned his leg and went to the emergency room at the _____.
5. I waited at the crosswalk for the light to _____.
6. Please wipe your feet on the _____.
7. Put your clothes in the _____.
8. She put on a coat because she was _____.
9. A loud noise made the baby _____.
10. The team was happy because they won the ____.

Letter Names

B	C	D	S	A	I	F	E	M	L	P	T	R
Z	J	W	X	G	U	H	Q	K	N	Y	V	O
m	y	n	l	r	o	t	p	z	v	k	i	a
j	u	g	w	b	c	s	h	d	f	x	q	e

Common Sight Words

____ the	____ and	____ can
____ am	____ here	____ will
____ get	____ see	____ come
____ is	____ not	____ you

Hearing Letter Names

1.	open	7.	ice
2.	beach	8.	deep
3.	acorn	9.	Kate
4.	Jason	10.	unicorn
5.	x - ray	11.	team
6.	peek	12.	each

Syntax Matching

Point to:

close dog new
barking run

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