

IDENTIFICATION AND DESCRIPTION OF ESSENTIAL
AND NONESSENTIAL WORD IDENTIFICATION
SKILLS OF CAPABLE SECOND GRADE
READERS IN TWO BASAL READING
MANAGEMENT SYSTEMS

By

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Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF EDUCATION
July, 1987

Thesis
1987D
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ACKNOWLEDGMENTS

I wish to express appreciation to Dr. Bernard Belden, Dr. Katye Perry, and Dr. David Yellin for serving on my graduate committee. Their guidance and support throughout this study was helpful and encouraging.

A sincere thank you is extended to Dr. Martha Combs who was my dissertation director, my teacher, my counselor, my critic, my mentor, my inspiration, and, most of all, my friend. I will cherish the times we worked, learned, laughed, and cried together.

To Becky Swearingen, Diane Allen, Dorothy Douglas, and Maureen Siera I extend a heart felt thanks for all of the good times during such rough times. Thanks for the memories!

I want to thank the principal, teachers, and second grade students at Barnard Elementary School and Jefferson Second Grade Center for their cooperation during this project. Thanks also to David Jett, director of the Oklahoma Baptist University Computer Center for his help during the data analysis stage of this study.

All of my love and affection go out to my husband and children. I offer thanks to Russ who handled all of the responsibilities of home life without complaining and

apologies to Meredith and Jeremy who temporarily endured the trials and tribulations of life in a single parent family. It was through their love, support, understanding, and sacrifice that this project was completed.

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CHAPTER I

PRESENTATION OF THE PROBLEM

Controversy has continually raged over the most effective pedagogical means for teaching children how to read. There are those on one end of the spectrum who believe that reading is a unitary skill that should not be broken down into discrete isolated parts for instruction (Goodman, 1972; Smith, 1978) and those at the other end who contend that reading is composed of a series of separate skills that when combined will ultimately yield competence in the terminal act of reading connected discourse (LaBerge & Samuels, 1985; Singer, 1985).

Belief in the existence of separate skills that compose the reading act led to the development of detailed word identification hierarchies which delineate isolated skills that were presumed to be essential to competent reading (Barbe, 1961; Croft Inservice, 1971; Fountain Valley, 1971; Gross, Carr, Dornseif, & Rouse, 1974; Prescriptive Reading Inventory, 1972; Wisconsin Design, 1972). In addition, the notion of dividing the complex reading act into discrete isolated skills to be mastered appeared to be an effective quantitative means by which student progress in reading and teacher effectiveness

could be monitored (Mather, 1977). As a result of the accountability movement, attention to word identification skills in basal series has doubled (Forman, 1977), thus, more and more time is being spent in the classroom teaching isolated word identification skills, and less and less time is being devoted to reading natural text (Bussis, 1982).

This increase in the amount of instructional time devoted to word identification in basal series is significant since the basal reader is the prime source of reading material in 90 to 98% of classrooms (Durkin, 1983; Jenkins & Pany, 1978; Weisendanger & Birlem, 1981). The unfortunate fact is that although these hierarchies of isolated word identification skills are logically derived, they have no empirical basis and are, therefore, subject to question (McNeil, 1976; Smith, 1975; Spache & Spache, 1976; Thompson & Dzuiban, 1973).

The National Institute of Education assembled a panel to study the issues of essential skills and skill hierarchies in reading (Smith, 1975). The panel concluded that there was a need for research that would identify and validate essential reading skills and that would result in the construction of empirically validated instructional hierarchies. Moreover, the panel called for research conducted from existing lists of skills that would reveal behaviors that are either unnecessary, supportive, or essential to competency in the terminal act of reading

connected discourse. The panel also recommended that researchers use descriptive techniques with existing lists of skills rather than sophisticated statistical procedures as a starting point to begin to discover the relationship between the isolated skills and competent reading.

Purpose of the Study

The purpose of this study was to describe which isolated word identification skills in two basal reading management systems have been mastered by capable second grade readers. The word identification skills at and above the level for which instruction had been received were examined in this study in order to determine which word identification skills had been generalized without the benefit of instruction. This study was also designed to identify essential and nonessential isolated word identification skills as they relate to reading ability of capable readers. The basal reading management systems that were under examination in this study were The Riverside Reading Program (Fay, Balow, & Arnold, 1986a) and Scott Foresman Reading (Aaron, Jackson, Riggs, Smith, & Tierney, 1981a).

Statement of the Problem

Because hierarchies of isolated skills that are being taught and tested in many basal reading management systems

are based on logic rather than research, there is very little agreement in sequence or even inclusion of specific skills (Johnson & Pearson, 1978; Spache & Spache, 1976; Stennett, Smythe, Hardy, & Wilson, 1970; Stotsky, 1980). This lack of agreement was confirmed by Rude (1974) and Stallard (1977) who examined basal reading programs and found that the various management systems identified anywhere from 31 to 1,000 discrete skills. Downing (1982) lamented the fact that there is "...rampant abuse of the word 'skill'..." by developers of basal management systems and that "...these so-called reading 'skills' are largely mythical" (p. 534).

Even though there is no empirical basis for the word identification hierarchies and there is no agreement on the sequence or inclusion of isolated skills, many of the basal reading management systems suggest to the teachers who use the materials that the manual be closely followed so that no essential skills will be missed (Aaron et al., 1981c; Fay et al., 1986b). Moreover, most basal reading management systems have a group or individually administered placement test of reading comprehension that is used for determining students' instructional reading levels yet teachers are discouraged from placing students at their instructional reading level if that level is above their grade placement. For example, the test manual for the Scott, Foresman Reading Placement Test (Aaron et al.,

1981c) recommends that "...except in rare cases pupils do not enter Scott, Foresman Reading at a level higher than their grade level. If pupils were to enter the program at a higher level, they would miss a significant part of the carefully sequenced skills development program..." (p. 2). In addition, the manual for The Riverside Reading Program Group Placement Test (Fay et al., 1986b) discourages placement at levels above where the child has received instruction to insure "...that the child does not miss the important reading related skills that are introduced at each level of the program" (p. 8).

The practice of prohibiting capable readers from being placed in basal reading materials above their grade placement penalizes the capable readers because they are not allowed to progress to text that is within their ability to comprehend. In addition, capable readers are being given systematic instruction in isolated word identification skills that may not even be essential to competent reading or that they may have already learned without formal instruction. Therefore, two critical questions arise:

1. Have capable readers already acquired any of the skills that are taught in the materials above their grade placement even though they have not formally received instruction in the above grade level materials?

2. Are capable readers being held accountable for discrete isolated word identification skills that may not be essential to competency in the terminal act of reading naturally occurring text?

Research Questions

The research questions that were addressed in this study are divided into two sections: (1) research questions relating to Scott, Foresman Reading (Aaron et al., 1981a) and (2) research questions relating to The Riverside Reading Program (Fay et al., 1986a).

Scott, Foresman Reading

1a: Is knowledge of the isolated skill of consonants at levels 2.2, 3.1, 4, and 5 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above?

2a: Is knowledge of the isolated skill of vowels at levels 2.2, 3.1, and 3.2 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above?

3a: Is knowledge of mastery words in isolation at level 2.2 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above?

4a: Is knowledge of the isolated skill of syllables at levels 3.1, 3.2, and 4 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above?

5a: Is knowledge of the isolated skill of compound words at level 4 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above?

6a: Is knowledge of the isolated skill of contractions at level 4 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above?

7a: Is knowledge of the isolated skill of affixes at levels 2.2, 3.1, and 3.2 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above?

8a: Is knowledge of the isolated skill of root words at levels 3.1, 4 or 5 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above?

The Riverside Reading Program

1b: Is knowledge of the isolated skill of consonants at levels 2.2 and 3.1 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above.

2b: Is knowledge of the isolated skill of vowels at levels 2.2, 3.1, and 3.2 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above?

3b: Is knowledge of the isolated skill of contractions at level 2.2 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above?

4b: Is knowledge of the isolated skill of affixes at levels 3.1, 4, and 5 essential or nonessential for reading at level 3.1, 3.2, and/or 4 or above?

Definition of Terms

Following are definitions of terms as they were used throughout this report:

Basal reading management systems are reading skill management systems developed to correlate with a specific basal reading program to aid in individualizing the teaching of word identification and comprehension skills in reading. Basal reading management systems are based on a logically arranged hierarchy of isolated skills presumed to be essential for reading competence (Johnson & Pearson, 1978).

Capable readers are readers whose instructional reading levels exceed their school grade placement as measured by Scott Foresman Reading End-of-Book Test (Aaron et al., 1981b) and The Riverside Reading Program Group Placement Test (Fay et al., 1986c).

End-of-book mastery tests or level tests are the tests that accompany the basal reading management systems that are administered after each basal reader has been completed and all of the isolated skills that are included at that level have been taught. The tests are used to determine if specific comprehension, word identification, and study skills have been mastered. Only the word identification portions of The Riverside Reading Program Level Tests (Fay et al., 1986c) and the Scott, Foresman Reading End-of-Book

Tests (Aaron et al., 1981b) for levels 2.2, 3.1, 3.2, 4, and 5 were used for the purposes of this study.

Essential skills are the specific isolated word identification skills at a given level that were mastered by 75% of the capable readers (McNeil, 1976). Essential skills are necessary components but not the only components of the terminal objective of reading at a given level (Smith, 1975).

Mastery refers to the ability of a reader to perform an isolated reading skill with 80% accuracy. The criteria of 80% accuracy is an accepted mastery level in the field of education (Nitko, 1983) and is the criteria used to determine mastery by The Riverside Reading Program (Fay et al., 1986a) and Scott, Foresman Reading (Aaron et al., 1981a).

Nonessential skills are the isolated skills at a given level that were not mastered by 75% of the capable readers (McNeil, 1976). Nonessential skills are not necessary components for the terminal objective of reading at a given level (Smith, 1975).

Skill refers to a "...set of observable and measurable behaviors that are viewed within the context of some terminal objective" (Smith, 1975).

Word identification skills are the reading skills "...that aid the reader in pronouncing and/or gaining meaning from the printed page" (Olson & Dillner, 1982).

Assumption

This study assumed the following: The Riverside Reading Program Group Placement Test (Fay et al., 1986b) and the Scott, Foresman Reading Placement Test (Aaron et al., 1981c) are accurate measures of instructional reading levels within the series for which they were designed. They are, therefore, accurate means of identifying capable readers within Scott, Foresman Reading (Aaron et al., 1981a) and The Riverside Reading Program (Fay et al., 1986a).

Limitations

Limitations of this study were as follows:

1. The findings of this study can be generalized only to populations meeting the descriptive criteria of the sample used in this study, namely: second grade students from small midwestern towns consisting primarily of Caucasians and a small percentage of American Indians, Blacks, Hispanics, and Orientals.
2. This study is limited to those subjects who completed the group placement tests in thirty minutes or less.
3. All end-of-book mastery tests were administered in two long sittings rather than several shorter sittings as the manuals of instructions suggested.

4. The placement tests and end-of-book mastery tests were administered at the end of the school day when the subjects may not have been performing up to their potential.

5. Because of classroom scheduling problems the number of subjects tested at each session was not equal.

6. Because it was found that the end-of-book test was taking longer than the participating school district would allow, the sequence of instructions of the end-of-book tests was rearranged after one group had been tested. While the order of the instructions was rearranged, the content of the instructions was not altered.

7. This study is limited to those second graders from the population who were granted parental permission to participate in the research project.

8. This study is limited to those subjects who were present both days of testing and who were able to complete the end-of-book mastery tests in the two and a half hour time limit imposed by the participating school.

Summary

The evolution of the development of basal reading management systems has been presented in this chapter. The major disadvantage of these systems is that they are logically rather than empirically derived, and some of the skills that are included in the systems may not be

essential to comprehension. It was the purpose of this study to describe which isolated word identification skills capable second grade readers have mastered above the level for which they have been instructed and to identify essential and nonessential word identification skills in two basal reading management systems.

CHAPTER II

REVIEW OF THE LITERATURE

The review of the literature is divided into two sections. Section one presents a summary of the early research on word identification skills. A summary of the early literature will aid in developing an understanding of how the notion of essential skills and skill hierarchies developed over the last century. The second section presents the literature related to essential word identification skills and word identification hierarchies.

Early Research

The whole word method and phonics were the major instructional techniques in reading after the Revolutionary War (Smith, 1934). Up until that time the A-B-C method was utilized in reading instruction. Prior to 1900 there was no experimental research examining phonics or the whole word method as approaches to teaching reading. Phonics was utilized in the majority of schools, however, because teachers discovered that knowledge of the sounds of letters aided children in recognizing words in reading (Smith, 1955).

In the early 1900's researchers began examining the use of phonics in more scientific ways. The very early experimental research on word identification seems to fall into four categories: (1) how words are recognized, (2) the effectiveness of phonics instruction, (3) when phonics should be taught, and (4) the phonic elements that should be emphasized.

The earliest experimental studies in reading examined perception in an attempt to determine the exact nature of the word recognition process. Huey (1912), Hamilton (1907), and Vernon (1931), for example, all concluded that in the majority of cases the general characteristics of a word are the clues by which it is recognized. When words are difficult or when they are not known by the reader, however, additional distinctions within the word are required.

The effectiveness of phonics instruction was explored by many researchers in the early 1900's (Currier, 1923; Garrison & Heard, 1931; Gates & Russell, Hester, 1942; 1938; Sexton & Herron, 1928; Tate, 1937; Templin, 1954). The early research on the effectiveness of phonics instruction indicated that phonics instruction is a valuable aid in learning to read but that it is most valuable "...when it is closely related to children's needs and is given direct application to words which cause them trouble in their daily reading" (Smith, 1955).

Three early studies were designed to determine when phonics instruction should begin. These studies indicated that, for the average child, phonics instruction should not begin until second or third grade and that phonics readiness should begin in first grade (Dolch & Bloomster, 1937; Garrison & Heard, 1931; Sexton & Herron, 1928).

The first attempts to determine which word identification skills should be taught involved analyses of the vocabularies of primary readers or existing vocabulary lists (Black, 1952; Cordts & McBroom, 1927; Oaks, 1952; Vogel, Jaycox, & Washburne, 1923). The letter groupings or phonetic elements which occurred more often were then recommended as the phonics content for reading instruction.

From this early research base it appeared that phonics might be a useful tool in teaching children to read yet the questions of what skills were essential and in what order they would be taught was yet to be answered. Many reading experts, believing that a reading hierarchy does exist, developed detailed word identification hierarchies (Barbe, 1961; Croft Inservice, 1971; Fountain Valley, 1971; Gross, et al., 1974) that were based on logic rather than research (Johnson & Pearson, 1978; Mather, 1977; Stallard, 1977). Because these logically derived word identification hierarchies have not yet been empirically validated, they are subject to question (McNeil, 1976; Smith, 1975; Spache Spache, 1976; Thompson & Dzuiban, 1973).

Even though these word identification hierarchies are suspect, they have come into wide use in the schools (Forman, 1977; Weisendanger & Birlem, 1981). Their wide use in the schools necessitated an effort to identify the essential reading skills and construct an empirically validated instructional hierarchy (Smith, 1975). The following section is a review of research which attempted to identify essential word identification skills and/or establish a word identification hierarchy.

Word Identification Skills

Many contemporary reading theorists still believe that reading acquisition occurs in stages, and within the stages are clusters of subskills that are sequentially and hierarchically organized (Gibson, 1965; Laberge & Samuels, 1985; Powell, 1973; Samuels, 1985; Singer, 1985). The individual reading skills and the exact nature of the reading hierarchy, however, have not yet been firmly established. Following is a review of the literature that attempted to identify essential word identification skills and to establish a hierarchy of skills with regard to word identification.

Singer (1965) attempted to test the hypothesis that the general ability of reading has two interrelated components: speed and power of reading. In addition, he speculated that underlying each component is an organized hierarchy of

complex subsystems. To test his hypothesis a total of 927 pupils from schools throughout the United States in grades three through six were administered a battery of tests which explored the following domains: (1) reasoning, (2) listening comprehension, (3) linguistic meaning, (4) auditory word recognition, (5) visual word recognition, (6) visual perception, and (7) auditory perception. A substrata analysis, an analysis of correspondence, and a factor-analysis indicated a sequential development of a hierarchical organization of substrata-factors does accompany improvement in speed and power of reading.

In a study that was narrower in scope than the previous one, Samuels (1970) conducted two experimental studies to test the validity of the assumption that letter-naming knowledge facilitates learning to read. In experiment one, 100 first grade subjects were selected and assigned to one of four treatments. The letter discrimination group learned to discriminate one artificial letter from another, the letter-name group learned the names of the artificial letters, while control group one received training consisting of learning the names of dogs from pictures, and control group two received no instruction. After training, the four groups learned to read the same set of four words written with artificial letters using the same method. A t-test indicated no

significant differences among or between any of the experimental or control groups.

Experiment two involved 75 subjects mid-way through first grade. The same procedures were followed as in the earlier study except that only control group one was used. Planned comparisons among and between groups, again, indicated no significant differences. The results of the two experiments indicated that letter-name knowledge does not facilitate learning to read words made up of the same letters.

In an attempt to structure a hierarchy of eight grapheme-phoneme correspondences from simple to complex, Filp (1975) administered the Kennedy Institute Phonics Test to 19 normal and 19 slow readers. The ordered correlation matrices were tested for goodness of fit to the Quasi-Markov Simplex model, estimated by means of maximum likelihood confirmation. Filp concluded that six of the eight subtests seem to fit a hierarchical order with reliability coefficients ranging from .81 to .95. The analysis suggested that recognition skills were less complex than production skills with the exception of single letter production, which appeared to be the least complex skill. The hierarchy from least to most complex was single letter production, initial letter recognition, consonant-cluster recognition, nonsense word recognition, consonant-cluster production, and nonsense word production.

McNeil (1976), concerned about unvalidated skill hierarchies in many objective-based measures of word attack skills, succeeded in identifying what he termed "false prerequisites" in the teaching of reading. A false prerequisite was defined as a skill that was unattained by 75% of the competent readers. The subjects of this investigation were 150 children from seven to nine years of age. Each subject read aloud a variety of materials. Twenty-four subjects were then identified as competent readers and 24 subjects were unable to demonstrate reading competency. The 48 subjects completed 15 objective based measures that were designed to assess mastery of basic word attack and, in addition, were considered prerequisites for independence in recognizing and pronouncing words.

Three skills were unattained by 75% of the competent readers and, therefore, were found to be false prerequisites because a skill cannot be a prerequisite if a significant number of competent readers cannot perform it. The false prerequisites were: selecting words with affixes, distinguishing meaning of homographs, and selecting similar sounds of r-controlled vowels. In addition, a fourth skill, selecting pairs of consonant variables, was suspected to be false because 50% of the competent readers failed this task.

Four skills were identified as possibly necessary but not sufficient because they were mastered by nearly all of

the subjects. These marginal skills were: matching rhyming words, matching beginning sounds to written single letters, matching sounds of short vowels, and matching sounds of single consonant digraphs.

Finally, seven skills were achieved by nearly all competent and few incompetent readers, and, therefore, could be considered prerequisite to the task of reading passages aloud. These prerequisites were: matching CVCC letter combinations, matching vowel sounds in words with two consecutive vowels, differentiating long from short vowels, identifying base words, matching sounds of diphthongs, and recognizing compound words.

Borque (1979) attempted to determine if a hierarchy existed among selected low-level phonic and structural analysis skills. If a hierarchy did exist, Borque was interested in establishing the direction of the hierarchy and the strength of the relationship. In addition, a comparison was made of several empirical methodologies for establishing hierarchical relationships. Thirteen phonic and structural analysis skills were selected from The Reading Skills Inventory: A Criterion Referenced Assessment and administered to 14,500 subjects in grades one through six. Twenty-three experts were asked to respond to a pair-wise comparison task to establish an a priori hierarchy.

The hierarchies generated through expert opinion were compared to those produced empirically utilizing the Dayton and Macready model which is a maximum-likelihood solution. Then the White and Clark procedure, a pair-wise comparison method having a "test of inclusion" significance was applied.

There were some areas of agreement among the three procedures used to establish the hierarchy. With respect to phonics, beginning or ending digraphs were at the bottom of the hierarchy, but what came before that was debatable. It was determined, however, that beginning sounds preceded ending sounds. Position of vowel sounds in the hierarchy was undecided by the experts, but the vowel sounds were generally thought of as a branch of the primary hierarchy. The empirical models, however, placed it much higher. All three methods revealed that auditory discrimination was preceded by beginning consonant sounds.

The structural analysis skills were grouped into clusters, with one cluster consisting of inflected endings derived from root words, syllabication by vowel sound, prefixes and suffixes, and rootword + affix. Expert opinion and the Dayton and Macready procedure did not reveal significant relationships. The White and Clark procedure, however, revealed root word deviations were lower in the hierarchy than root words + affix. Two of the three methods revealed that prefixes/suffixes were the lowest

level skill. The lack of agreement among experts and statistical methods led Borque to conclude that there was not a true hierarchy in this cluster.

The second cluster of structural analysis skills tested were prefixes/suffixes, root word + affix, syllabication of nonsense words, suffixes and syntax (verbs), and suffix and syntax (nouns). Two of the three methods revealed that prefixes/suffixes is the lowest level skill of those considered with root word + affix right above it. Syllabication of nonsense words was in the mid-position with suffixes and syntax at the top of the list.

The purpose of a study by Knight and Nelson (1982) was to determine if hierarchical relationships existed among three developmental components of reading ability in grades one through three. The sample consisted of 120 first, second, and third graders. Each subject was asked to perform certain of the following seven tasks:

1. A word was presented orally and the child was asked to select a picture illustrating the meaning of the word.

2. The child was asked to produce a verbal definition or indicate the meaning of a word.

3. The child named the letters comprising a word.

4. The child selected from three orally presented words one which rhymed with a stimulus word.

5. The child verbally produced, without prompts, a word that rhymed with the stimulus word.

6. The child matched a printed word to an appropriate picture.

7. The child orally read a word without prompting. The testing began with task #7. If the subject was successful at orally reading a word, the examiner asked the subject to define the word and then give a rhyming word. If the subject was unsuccessful at task #7, he was then asked to perform task #6. If the child was still unsuccessful, he was asked to perform task #5, etc.

Order analysis revealed that most beginning readers acquired reading skills in a hierarchical order most of the time. The findings indicated the relevance of visual graphic and phonological skills to reading development. Those children who had the skills for letter naming and rhyming tasks tended to be functioning adequately in reading skills. In contrast, those children who failed the letter naming and rhyming tasks tended to experience difficulty in reading. These findings appear to contradict Samuels (1970) who found that letter naming knowledge does not significantly influence learning to read.

The literature concerning the skills involved in word identification revealed agreement that a hierarchical relationship does appear to exist. The different sets of skills that were investigated in each of the studies,

however, precluded any kind of definitive description of the exact nature of the hierarchy. Two studies (Samuels, 1970; McNeil, 1976) were able to demonstrate that some skills that have previously been considered prerequisite for word identification were, in fact, not necessary for comprehending naturally occurring text.

Summary

In order to establish an historical framework, a summary of the early literature relating to word identification in reading was presented in this chapter. A review of the literature related to the identification of essential and nonessential skills was presented next. While there was general agreement in the literature that a hierarchy of word identification skills does appear to exist, the exact nature of the hierarchy has yet to be determined. Each individual study supplied more pieces to the puzzle of the word identification hierarchy.

CHAPTER III

METHODOLOGY AND DESIGN

The National Institute of Education assembled a panel to examine the issues of essential skills and skill hierarchies in reading (Smith, 1975). The panel expressed a need for research that would examine existing lists of discrete reading skills in an attempt to discover which skills are either unnecessary (nonessential), supportive, or essential to competency in the terminal act of reading with comprehension. The purpose of this study, therefore, was to describe the isolated word identification skills in two basal reading management systems that have been mastered by capable second grade readers and to identify the essential and nonessential word identification skills as they relate to comprehension in The Riverside Reading Program (Fay et al., 1986a) and Scott, Foresman Reading (Aaron et al., 1981a).

These purposes were accomplished by identifying a sample of capable second grade readers using the Scott, Foresman Placement Test (Aaron et al., 1981c) and The Riverside Reading Program Group Placement Test (Fay et al., 1986b). Levels 2.2, 3.1, 3.2, 4, and 5 of the word identification subtests of the Riverside Reading Program

Level Test (Fay et al., 1986c) and Scott, Foresman End-of-Book Tests (Aaron et al., 1981b) were then administered to the capable readers. None of the subjects had been instructed in materials above level 2.2, so the results would indicate which word identification skills capable readers were able to generalize even though they had not received instruction.

This chapter presents an overview of the research study. It includes a description of the pilot study, the population and sample, the research procedures, instrumentation, and data analysis.

The Pilot Study

Gay (1981) suggests that whenever possible a pilot study should be performed. A pilot study was conducted, therefore, so that all possible weaknesses that related to the research project could be altered. The purpose of the pilot study was to answer the following questions:

1. Are the directions for the placement tests and the end-of-book tests sufficiently explicit for second graders to understand?

2. How much time is necessary for the subjects to complete the placement tests and the end-of-book mastery tests?

3. Is the arrangement of the subtests in the end-of-book tests logical and easily followed by second graders?

4. What is the best way to set up the Statistical Program for the Social Sciences (SPSS) (Nie, Hull, Jenkins, Steinbrenner, & Bent, 1975) on the computer to allow for the necessary data analyses?

5. What is the most efficient routine for scoring and recording the results of the instruments?

A pilot study was conducted three weeks prior to the research study. The pilot subjects were drawn from two second grade classrooms consisting of students who scored at the fiftieth percentile or above on the total reading subtest of the Metropolitan Achievement Test (1986). The pilot school district was matched with the experimental school district on socioeconomic status and class size. The Scott, Foresman Reading Placement Test (Aaron et al., 1981c) and The Riverside Reading Program Group Placement Test (Fay et al., 1986b) were administered to two second grade classes. Twenty-five subjects were randomly selected from those second graders who scored at level 3.1, 3.2 or 4 or above on both placement tests. The subjects were then administered the word identification subtests of The Riverside Reading Program Level Tests (Fay et al., 1986c) and the Scott, Foresman End-of-Book Test (Aaron et al., 1981b) for levels 2.2, 3.1, 3.2, 4, and 5. These tests

were scored and a computer program was set up using the SPSS (Nie et al., 1975) statistical package that would accommodate the pilot data.

Following are the alterations that were made as a result of the pilot study:

1. The group placement tests took 40 minutes for all pilot study subjects to complete. Because of the limited amount of time allowed for testing by the school district that participated in the research it was decided that the subjects would consist of those second graders who completed the placement test in 30 minutes or less. This 30 minute time limit would reduce the testing time for the end-of-book tests significantly since it would eliminate the second graders who read at slow rates.

2. Two and a half hours was determined to be sufficient time to complete the end-of-book mastery tests.

3. The end-of-book mastery test directions were altered to reduce redundancy from subtest to subtest.

4. The format of the sample questions for each subtest was improved to allow for greater clarity.

5. The cover sheets for the end-of-book tests were revised.

6. Using the pilot data an SPSS (Nie et al., 1975) computer program was set up and revised so that it would accommodate the research data and to allow for the necessary analyses.

The Population and Sample

The population for this study was 281 second grade students in a central Oklahoma town with a population of about 30,000. The town was located about 30 miles from a metropolitan area. The school district was predominately Caucasian (77%), with the remainder of the population being American Indian (16%), Black (4%), Spanish American (2%), and Oriental (1%). Approximately 36% of the second graders were on free lunch and 6% were on reduced lunch. Grade two was chosen for the purpose of this study because the focus of the study was on word identification skills and word identification skills, especially phonics skills, are more heavily emphasized in many basal reading management systems at this level (Aukerman, 1984).

The subjects in this study consisted of all of the capable readers in the population who scored at the fiftieth percentile or above on the Metropolitan Achievement Test (1986) and who scored at level 3.1, 3.2, or 4 or above on the Riverside Reading Program Group Placement Test (Fay et al., 1986b) and/or the Scott, Foresman Reading Placement Test (Aaron et al., 1981c) within a 30 minute time limit. In addition, the subjects for the study were those students who were present the days the placement tests and both end-of-book tests were administered.

Research Procedures

The preliminary stages of the research involved meeting with the district curriculum director and the principal of the district second grade center to explain the research project and obtain permission to collect the data using the second graders in that district. The next step was a meeting with the second grade teachers to explain the project and elicit their support.

The Metropolitan Achievement Test (1986) total reading subtest score was used for the initial screening of the second grade population. The parents of all of the second graders who scored at the fiftieth percentile or above on the total reading subtest of the Metropolitan Achievement Test (1986) were sent a letter explaining the proposed research project (see Appendix A), a cover letter from the principal encouraging cooperation by the parents (see Appendix A), and a form to be completed by the parent either granting or denying permission for the child to participate in the project (see Appendix A). Of the 124 letters sent to parents of second graders, 115 were returned with permission granted and 9 were either not returned or permission was not granted to participate in the research.

The second graders who scored at the fiftieth percentile on the Metropolitan Achievement Test (1986) and who had parental permission were divided into four equal

groups. These groups were administered levels 3.1, 3.2, and 4 of The Riverside Reading Program Group Placement Test (Fay et al., 1986b) and the Scott, Foresman Reading Placement Test (Aaron et al., 1981c) over a two day period. Before each testing session the researcher established rapport with the group and then gave directions for taking the placement tests (see Appendix B). The second graders who completed the placement tests in 30 minutes or less and who scored at levels 3.1, 3.2, or 4 or above on either one or both of the placement tests became the subjects for the study. A total of 110 second graders took the placement tests. Ninety-four second graders completed the test in 30 minutes or less while 10 did not complete the test in the 30 minute limit. Five eligible second graders were absent the days the placement tests were administered.

According to the results of The Riverside Reading Program Group Placement Test (Fay et al., 1986b) 82 second graders were identified as capable readers and became the subjects for the study involving The Riverside Reading Program (Fay et al., 1986a). Three subjects did not complete the level test for this series in the two and a half hour time limit imposed by the participating school and so were not included in the following totals. Of the 79 subjects who completed the test, 16 subjects had an instructional reading level of 3.1, 37 subjects had an

instructional reading level of 3.2, and 26 subjects had an instructional reading level of 4 or above.

According to the results of the Scott, Foresman Reading Placement Test (Aaron et al., 1981c) 85 second graders were identified as capable readers and became the subjects for the study involving Scott, Foresman Reading (Aaron et al., 1981a). Two subjects did not complete the end-of-book tests for this series in the two and a half hour time limit imposed by the participating school and so were not included in the following totals. Of the 83 subjects who completed the placement test and the end-of-book test, 17 subjects had an instructional reading level of 3.1, 16 subjects had an instructional reading level of 3.2, and 50 subjects had an instructional reading level of 4 or above.

Seventy-seven of the second graders were identified as capable readers by both of the placement tests. Six were identified as capable readers by only the Scott, Foresman Reading Placement Test (Aaron et al., 1981c), and two were identified as capable readers by only The Riverside Reading Program Group Placement Test (Fay et al., 1986b).

The subjects were then divided into three groups. Group one consisted of 36 subjects, group two consisted of 27 subjects, and group three consisted of 27 subjects. The uneven distribution of subjects in each group was

unavoidable due to scheduling conflicts of the participating school during testing times.

The researcher then administered The Riverside Reading Program Level Tests (Fay et al., 1986c) (see Appendix E) and the Scott, Foresman End-of-Book Tests (Aaron et al., 1981b) (see Appendix G) for levels 2.2, 3.1, 3.2, 4, and 5. The proposed procedure for testing was to establish rapport, give instructions for a subtest and then allow each subject to complete that subtest before continuing on to the next subtest. After testing group one, however, it was discovered that more time was required to administer the test than the participating school district would allow, so the procedure for giving instructions was altered.

Groups two and three were first administered the parts of the tests that required a stimulus word to be supplied by the researcher or that had particularly difficult instructions as judged by the researcher. After that, the remainder of the instructions were given and the subjects were allowed to complete the test at their own pace. The subjects were encouraged to request that the instructions be repeated if they came to a subtest and could not recall the instructions. While the order that the instructions for each subtest were given was altered, the actual wording of the instructions remained the same (see Appendix D & F).

Instrumentation

The instruments used in this study were the following: (1) levels 3.1, 3.2, and 4 of the Scott, Foresman Reading Placement Test (Aaron et al., 1981b); (2) levels 3.1, 3.2, and 4 of The Riverside Reading Program Group Placement Test (Fay et al., 1986b); (3) the word identification subtests at levels 2.2, 3.1, 3.2, 4, and 5 of the Scott, Foresman End-of-Book Tests (Fay et al., 1981b); and (4) the word identification subtests at levels 2.2, 3.1, 3.2, 4, and 5 of The Riverside Reading Program Level Tests (Fay et al., 1986c).

Scott, Foresman Reading Placement Test

This reading placement test was used to identify the capable readers according to Scott, Foresman Reading (Aaron et al., 1981a) and to determine at what instructional reading levels the capable readers would be placed in Scott, Foresman Reading (Aaron et al., 1981a). The Scott, Foresman Reading Placement Test (Aaron et al., 1981c) is a measure of the readers' silent reading comprehension. It includes a selection at each reading level to be read silently followed by a set of eight comprehension questions. The selections are narrative passages that were taken from a story that appears near the end of the pupil's book of the immediately preceding level. For example, a passage at level 3.2 on the placement test was taken from

near the end of the 3.1 level Scott, Foresman Reading (Aaron et al., 1981a) pupil's book. The student's instructional reading level is the highest level at which at least six out of eight questions are answered correctly (75%).

The Riverside Reading Program

Group Placement Test

This reading placement test was used to identify the capable readers according to The Riverside Reading Program (Fay et al., 1986a) and to determine at what instructional reading level the capable readers would be placed if they were in The Riverside Reading Program (Fay et al., 1986a) (see Appendix C). The Riverside Reading Program Group Placement Test (Fay et al., 1986b) is a measure of the reader's silent reading comprehension. It includes a selection of approximately 100 words to be read silently followed by a set of seven comprehension questions. The selections at levels 3.1 and 3.2 are narrative while the selection at level 4 is expository. The passages are taken from a story near the end of the pupil's book of the immediately preceding level.

While there is no reliability or validity data available for either of the placement tests, they are silent informal reading inventories and informal reading inventories are considered one of the most valuable tools

for placement purposes (Bader, 1980; Johns, 1977; Zintz, 1981). In addition, the placement tests that accompany The Riverside Reading Program (Fay et al., 1986a) and Scott, Foresman Reading (Aaron et al., 1981a) were chosen as the most appropriate measures of reading ability for the purposes of this study because these placement tests are made up of reading passages that are taken directly from books in which the students would be placed for instruction (Aaron et al., 1981c; Fay et al., 1986b). Because the placement tests are made up of material that would be used for instruction they are the most valid instruments for determining placement within the series for which they were designed (Gerke, 1980).

The Placement Test Booklet

Levels 3.1, 3.2, and 4 of the Scott, Foresman Reading Placement Test (Aaron et al., 1981c) and The Riverside Reading Program Group Placement Test (Fay et al., 1986b) were arranged in a placement test booklet (see Appendix C). Each level of the test consisted of two facing pages. The left side contained the passage to be read while the right side contained the comprehension questions over the passage. This format allowed the subjects to look back at the story to locate answers to any questions they were unsure of. The reading level of the passages and publisher

initials were typed in the left hand margin of each page for easy identification.

The booklet was assembled with a sample passage with comprehension questions first, then both level 3.1 stories were placed second, both level 3.2 stories were placed third and both level 4 stories came last. One half of the test booklets were assembled with each level of the Scott, Foresman Reading Placement Test (Aaron et al., 1981c) placed before each level of The Riverside Reading Program Group Placement Test (Fay et al., 1986b). The other half of the test booklets were assembled with each level of The Riverside Reading Program Group Placement Test (Fay et al., 1986b) placed before each level of the Scott, Foresman Reading Placement Test (Aaron et al., 1981c). When the test booklet was distributed every other student received an alternate arrangement of the test. The purpose for the counterbalancing was to ensure that "...fatigue, boredom, warm-up, retroactive or proactive inhibition were balanced out..." (Linton & Gallo, 1975).

Scott, Foresman End-of-Book Tests

The Scott, Foresman Reading End-of-Book Tests (Aaron et al., 1981b) are criterion-referenced measures of word identification, comprehension, and study skills. The word identification subtests of the Scott, Foresman End-of-Book Tests (Aaron et al., 1981b) were used to measure the

subjects' knowledge of word identification skills as defined by Scott, Foresman Reading (Aaron et al., 1981a).

To allow for ease of administration a test booklet was assembled in parts which combined different levels of similar word identification subtests with the same formats (see Appendix G). The level of each skill was typed in the left hand margin of each page. Following is a list of the test parts, the skill tested, and the levels at which the skill is tested.

Part 1 - Context and Consonants - Levels 2.2, 3.1, 4, and 5

Part 2 - Consonants and Combinations - Level 2.2

Part 3 - Vowels - Levels 2.2, 3.1, and 3.2

Part 4 - Suffixes - Level 2.2

Part 5 - Mastery Words - Level 2.2

Part 6 - Counting Syllables - Level 3.1

Part 7 - Accented Syllables - Level 3.1

Part 8 - Counting Syllables and Accented Syllables - Level 3.2

Part 9 - Dividing Words into Syllables - Level 4

Part 10 - Compound Words and Contractions - Level 4

Part 11 - Prefixes and Suffixes - Levels 3.1 and 3.2

Part 12 - Rootwords - Level 3.1

Part 13 - Rootwords - Level 4

Part 14 - Rootwords with Affixes - Level 5

Parts 1 and 2 of the Scott, Foresman booklet were combined to address research question 1a on consonants. Part 3 of the test booklet was used to address research question 2a on vowels. Part 5 was used to address research question 3a on mastery words. Parts 6, 7, and 8 were combined to address research question 4a on syllables. Items seven and eight of Part 10 were used to address research question 5a on compound words. Items nine and ten of Part 10 were used to address research question 6a on contractions. Parts 4 and 11 were used to address research questions 7a on affixes. Parts 12, 13, and 14 were used to address research question 8a on root words.

Tindal and others (1983) established a test-retest reliability coefficient of .93 for level 3.1 of the Scott, Foresman Reading End-of-Book Test (Aaron et al., 1981b). The Marketing Manager of Scott, Foresman Company was contacted concerning reliability and validity data, but the representative reported that no reliability data were available on any other levels of the end-of-book tests.

While knowledge of reliability of one level of the end-of-book tests is not sufficient to infer reliability of other levels, test-retest reliability coefficients were not considered critical for the purpose of this study. A more important issue was the consistency with which the test could distinguish between masters (ie. capable readers) and nonmasters of particular skills.

A test of reliability is a test of consistency, (Nitko, 1983) and through this study one could begin to learn how consistently the capable readers were identified as masters or nonmasters of the different skills. If 75% or more of the capable readers mastered the skill, then the test might be considered a reliable indicator of mastery of that skill for capable readers reading at levels 3.1, 3.2, or 4 or above. The 75% criterion, then, could become a measure of how consistently or reliably the end-of-book tests were able to classify capable readers as masters or nonmasters of a skill at a given level.

Tindal and others (1983) established criterion validity through a correlation analysis between the word identification portion of level 3.1 of the Scott, Foresman Reading End-of-Book Test (Aaron et al., 1981b) and two measures of reading ability: (1) the SRA Reading Achievement Test and (2) the Word Reading Test. The correlation analysis revealed correlations of .62 and .70 respectively. The moderate correlation between reading achievement and level 3.1 of the word identification portion of the Scott, Foresman Reading End-of-Book Test (Aaron et al., 1981b) brings sharply into focus the need for the present study. If these tests are not valid with relation to reading achievement and if 90 to 98% of classroom teachers utilize these systems (Durkin, 1983; Jenkins & Pany, 1978; Weisendanger & Birlem, 1981) then it

may not be sound practice to hold readers accountable for skills that are not related to reading at a given level.

The Riverside Reading Program

Level Tests

The Riverside Reading Program Level Tests (Fay et al., 1986c) are criterion-referenced measures of word identification, comprehension, and study skills. The word identification subtests for levels 2.2, 3.1, 3.2, 4, and 5 of The Riverside Reading Program Level Tests (Fay et al., 1986c) were used to measure the subjects' knowledge of word identification skills as defined by The Riverside Reading Program (Fay et al., 1986a). To allow for ease of administration a test booklet was assembled in parts which combined different levels of similar word identification subtests with the same format (see Appendix E). Following is a list of the parts, the skill tested, and the levels at which the skill is tested:

Part 1 - Vowels and Combinations - Level 2.2

Part 2 - Consonant Combinations - Level 2.2

Part 3 - Contractions - Level 2.2

Part 4 - Vowels and Combinations - Levels 3.1 and 3.2

Part 5 - Consonant Combinations - Level 3.1

Part 6 - Prefixes and Suffixes - Levels 3.1, 4, and 5

Parts 2 and 5 of the Riverside test booklet were combined to address research question 1b on consonants.

Parts 1 and 4 were combined to address research question 2b on vowels. Part 3 was used to address research question 3b on contractions. Part 6 was used to address research question 4b on affixes.

The Riverside Reading Program Level Test manual does not include reliability correlation coefficients because of the belief that they provide misleading information about criterion-referenced tests (Fay et al., 1986c). A limited amount of variability in scores could be expected from the mastery test, therefore, it was reported that a test-retest correlation coefficient would be an inappropriate measure of stability.

For the purpose of this study a more important issue than test-retest reliability was the consistency with which the test could distinguish between the masters (ie. capable readers) and nonmasters of the skills. See the discussion of reliability in the preceding section for a more complete explanation of this concept.

Content validity for The Riverside Reading Program Level Test Manual (Fay et al., 1986c) was established through an examination of the test items. The test item content reflected, as directly as possible, the word identification skills taught in the program. The test items were either samples of the instructional content or they were approximations of the actual instructional activity.

Data Analysis

A panel assembled by the National Institute of Education recommended that a descriptive approach rather than sophisticated research techniques be used as a beginning point for the investigation of essential skills included in existing lists of reading skills (Smith, 1975). Psychometric procedures such as criterion-referenced measures were suggested as means for identifying essential skills and revealing contingent relationships.

McNeil (1976) conducted a study to identify false prerequisites from 15 objective-based measures of highly valued skills in word attack. A review of the literature revealed that McNeil's study is the only research that has attempted to identify word identification skills that are essential to reading comprehension.

In this study the essential skills were identified as those skills that were mastered by 75% or more of the sample of capable readers because if a significant number of capable readers can perform the skill then it may be essential to comprehension. McNeil called the nonessential skills false prerequisites. The false prerequisites were identified as those skills that were mastered by fewer than 75% of the capable readers because if a significant number of capable readers cannot perform the skill then it may not be a prerequisite (or nonessential) to the ability to read and comprehend at that level. For the purposes of this

study, therefore, the nonessential skills were identified as the skills that were mastered by fewer than 75% of the capable readers and the essential skills were identified as those skills that were mastered by more than 75% of the capable readers.

Summary

Chapter III presented an overview of the design of the research. Included in this chapter are descriptions of the pilot study, the population and sample, the research procedures, instrumentation, and data analysis.

CHAPTER IV

PRESENTATION AND ANALYSIS OF THE DATA

The purpose of this study was to determine which isolated word identification skills have been mastered by capable readers in second grade and to identify the essential and nonessential word identification skills in two basal reading management systems. The study addressed the following questions:

1. Have capable readers already acquired any of the isolated word identification skills that are taught in the materials above their grade placement even though they have not formally worked through the above grade level materials?

2. Are capable readers being held accountable for isolated word identification skills that may not be essential to competence in the terminal act of reading connected discourse?

The subjects for the study were second graders whose instructional reading levels were 3.1, 3.2, or 4 or above according to the Scott, Foresman Placement Test (Aaron et al., 1981c) (N = 83) and/or The Riverside Reading Program Group Placement Test (Fay et al., 1986b) (N = 79). The

subjects were administered the Scott, Foresman End-of-Book Tests (Aaron et al., 1981b) and The Riverside Reading Program Level Tests (Fay et al., 1986c) for levels 2.2, 3.1, 3.2, 4, and 5. Word identification skills at levels 2.2 through 5 were chosen for this study in order to determine which word identification skills within each of those levels had been mastered by 75% of the sample of capable readers.

The skills that were mastered by 75% of the capable readers were identified as the essential skills because if 75% of the capable readers can perform the skill, then it may be essential to the ability to read and comprehend. The skills that were not mastered by 75% of the capable readers were identified as the nonessential skills because if 75% of the capable readers cannot perform the skill, then it may be nonessential to the ability to read and comprehend (McNeil, 1976).

This chapter includes the presentation and analysis of the data. The data is presented in three sections: (1) an overview of the data pertaining to both Scott, Foresman Reading (Aaron et al., 1981a) and The Riverside Reading Program (Fay et al., 1986a), (2) data pertaining to Scott, Foresman Reading (Aaron et al., 1981a), and (3) data pertaining to The Riverside Reading Program (Fay et al., 1986a).

A synthesis of the data pertaining to the two basal reading management systems will be presented in the overview section. The percentage of total subjects (regardless of instructional reading level) who mastered each skill level will be presented. Next, the percentage of subjects by instructional reading and by skill level will be presented. The overview will establish a framework for examining the data in more detail in the next two sections.

The data for each research question pertaining to each basal series will be presented, and then the analysis of the data will be discussed. For each research question the analysis of the data involved calculating the percentage of subjects at each instructional reading level who mastered or did not master an isolated skill. For those skills that were tested at more than one level, the above analysis was performed at each skill level. In addition, for each skill, the items that tapped knowledge of similar subskills were combined, and mastery or nonmastery of these subskills was determined. This further breakdown of the data revealed that in some cases the skill was not mastered while some of the subskills were mastered or that the skill was mastered while some of the subskills were not mastered. Only the data on subskills where this discrepancy existed are presented in this chapter.

Overview of the Data

In order to give an overview for the more detailed discussion in the following two sections, the data pertaining to the sample of capable second grade readers with instructional reading levels combined is presented first in this section (see Table 1). Next, the data is broken down by instructional reading level and discussed (see Table 2).

In Scott, Foresman, when the skill levels were combined (see Table 1), 75% or more of the subjects mastered all of the skills except syllables and accents and root words. In Riverside, when the skill levels were combined, the only skill that 75% or more of the subjects mastered was consonants. No other skills were mastered at any of the skill levels.

In Scott, Foresman, when the data were broken down according to skill levels as well as by instructional reading levels (see Table 2), all skill levels of consonants, vowels, mastery words, and compound words were mastered by 75% or more of the subjects regardless of instructional reading level. Skill levels 2.2 and 3.1 of affixes were mastered by 75% or more of the subjects regardless of instructional reading level. Contractions, syllables and accents at level 3.1, and root words at level 3.1 were mastered by 75% or more of the level 3.2 and 4 or above readers but not the level 3.1 readers. Finally, the

Table 1

Percentage of Capable Readers Mastering Skills

Skill	Scott, Foresman						Riverside					
	skill level tested (N=83)						skill level tested (N=79)					
	2.2	3.1	3.2	4	5	com	2.2	3.1	3.2	4	5	com
Consonants	91*	94*	nt	87*	87*	88*	100*	82*	nt	nt	nt	91*
Vowels	87*	83*	86*	nt	nt	85*	71	54	53	nt	nt	59
Mastery words	100*	nt	nt	nt	nt	100*	nt	nt	nt	nt	nt	nt
Compound words	nt	nt	nt	87*	nt	87*	nt	nt	nt	nt	nt	nt
Contractions	nt	nt	nt	82*	nt	82*	58	nt	nt	nt	nt	58
Syllables & accents	nt	80*	45	49	nt	57	nt	nt	nt	nt	nt	nt
Affixes	93*	86*	54	nt	nt	78*	nt	56	nt	18	4	26
Root words	nt	71	nt	39	37	49	nt	nt	nt	nt	nt	nt

*essential skills

nt = not tested; com = combined

Table 2

Percentage of Capable Readers Mastering Skillsby Reading Level and Skill Level

Skill	Skill level	Reading level in			Reading level in		
		Scott, Foresman			Riverside		
		3.1 (n=17)	3.2 (n=16)	4+ (n=50)	3.1 (n=16)	3.2 (n=27)	4+ (n=36)
Consonants	2.2	82*	97*	92*	100*	100*	100*
	3.1	94*	100*	92*	81*	78*	89*
	4	88*	87*	86*	nt	nt	nt
	5	76*	81*	92*	nt	nt	nt
Vowels	2.2	94*	81*	86*	69	60	89*
	3.1	77*	81*	86*	50	38	81*
	3.2	82*	88*	86*	38	38	85*
Mastery words	2.2	100*	100*	100*	nt	nt	nt
Contractions	2.2	nt	nt	nt	50	49	77*
	4	71	75*	88*	nt	nt	nt
Compound words	4	77*	88*	90*	nt	nt	nt
Syllables & Accents	3.1	71	75*	84*	nt	nt	nt
	3.2	41	50	44	nt	nt	nt
	4	41	44	52	nt	nt	nt
Affixes	2.2	100*	94*	90*	nt	nt	nt
	3.1	77*	94*	86*	31	43	89*
	3.2	41	38	64	nt	nt	nt
	4	nt	nt	nt	6	5	42
	5	nt	nt	nt	0	0	12
Root words	3.1	59	75*	75*	nt	nt	nt
	4	18	19	52	nt	nt	nt
	5	24	25	46	nt	nt	nt

*essential skills

nt = not tested

skills of syllables and accents at levels 3.2 and 4, affixes at levels 3.2, and root words at levels 4 and 5 were mastered by fewer than 75% of the subjects regardless of instructional reading level.

In Riverside, when the data were broken down according to skill levels as well as the subjects' instructional reading levels (see Table 2), consonants was the only skill that was mastered by 75% or more of the subjects regardless of skill level or instructional reading level. All levels of vowels, contractions and affixes were mastered by 75% of the level 4 or above readers only. Affixes at levels 4 and 5 were mastered by fewer than 75% of the subjects regardless of instructional reading level.

An examination of Scott, Foresman and Riverside with skill levels and instructional reading levels combined reveals that, with the exception of consonants, the skills that are in common with both series tend to be mastered by 75% or more of the subjects in Scott, Foresman but they are mastered by fewer than 75% of the subjects in Riverside (see Table 2). Possible reasons for discrepancies in the data will be discussed in Chapter 5.

Scott, Foresman Reading

Research Question 1a

Research question 1a stated: Is knowledge of the isolated skill of consonants at levels 2.2, 3.1, 4, and 5

essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above? The data that address this research question are presented in Table 2.

Mastery or nonmastery of consonants in context was determined in Part 1 of the test if the subject could read a cloze sentence that contained one or more consonants as clues to the missing word and indicate from three choices which word made sense in the blank. For example, in the sentence "Julie likes to walk in the r___," the choices were "raisin, rain, sun" (see Appendix F).

Mastery or nonmastery of silent letter digraphs and hard c was determined in Part 2 of the test if the subject could read the key word in a sentence and then indicate from three choices the sound the digraph made. For example, "Can you please talk to me now? The lk in walk stands for what sound?" tapped the reader's knowledge of the "lk" digraph (see appendix F).

Consonants all levels were mastered by 75% or more of the capable readers regardless of instructional reading level. These findings indicate that the skill of consonants up to level 5 tend to be generalized by a significant number of capable second grade readers even though formal instruction in the skill had not been received up to that level. This also indicates that knowledge of the isolated skill of consonants at levels 3.1, 3.2, 4, and 5 may be essential for comprehension at levels 3.1, 3.2, and 4 or

above because more than 75% of the capable readers could perform the skill in isolation.

A closer examination of Part 2 of the test revealed that silent letter digraphs and hard c at level 2.2 were mastered by more than 75% of the subjects with instructional reading levels of 3.2 and 4 or above, but not by the subjects with instructional reading levels of 3.1 (see Table 3). This indicates that knowledge of the isolated skill of silent letter digraphs and hard c may be essential for comprehension at levels 3.2 and 4 or above and nonessential for comprehension at level 3.1. This is because more than 75% of the level 3.2 and 4 or above readers and fewer than 75% of the level 3.1 readers could perform the skill in isolation.

Items on Part 2 of the test that tapped knowledge of similar subskills were combined, and mastery or nonmastery of these subskills was determined. This further breakdown revealed that knowledge of the digraph "mb" in isolation may be nonessential for comprehension at levels 3.1, 3.2, and 4 or above and that knowledge of the "lk" and "id" digraphs in isolation may be nonessential to comprehension at level 3.1.

Table 3

Percentage of Capable Readers Mastering
Digraph and Hard C at Level 2.2

Skill	# of items	Instructional Reading level		
		3.1 (n=17)	3.2 (n=16)	4+ (n=50)
Silent letter digraphs				
& hard c	12	70	93*	88*
mb (climb)	2	53	56	72
lk (walk) ld (would)	4	64	100*	82*
kn (knee) wr (wrist)	4	82*	93*	86*
hard c (can)	2	82*	93*	96*

*essential skills

Research Question 2a

Research question 2a stated: Is knowledge of the isolated skill of vowels at levels 2.2, 3.1, and 3.2 essential or nonessential for comprehension at levels 3.1, 3.2, and/or 4 or above? The data that address this research question are presented in Table 2.

Mastery or nonmastery of vowels was determined if the subject could read a key word and then choose from three words a word that had the same vowel sound as the key word. For example, if the key word was "toy" the subject would locate from the words "toe, point, bone" the word that had the same vowel sound as "toy" (see Appendix F).

Vowels at all levels were mastered by 75% or more of the subjects regardless of instructional reading level. These findings indicate that the skill of vowels in isolation up to level 3.2 tend to be generalized by a significant number of capable second grade readers even though formal instruction in the skill had not been received up to that level. This also indicates that knowledge of the isolated skill of vowels at levels 2.2, 3.1, and 3.2 may be essential for comprehension at levels 3.1, 3.2, and 4 or above because more than 75% of the subjects could perform the skill in isolation.

Research Question 3a

Research question 3a stated: Is knowledge of mastery words in isolation at level 2.2 essential or nonessential for comprehension at levels 3.1, 3.2, and/or 4 or above? The data that address this research question are presented in Table 2.

Mastery or nonmastery of mastery words was determined if the subject could locate from four choices the stimulus

word that was provided orally by the examiner. For example, if the stimulus word was "baby", the subject would find that word from among four choices such as "bedroom, baby, bowl, bag" (see Appendix F).

Mastery words at level 2.2 were mastered by 100% of the subjects regardless of instructional reading level. These findings indicate that the skill of mastery words in isolation at level 2.2 tend to be generalized by a significant number of capable second grade readers even though formal instruction in the skill had not been received up to that level. This also indicates that knowledge of isolated mastery words at level 2.2 may be essential to comprehension at levels 3.1, 3.2, and 4 or above because more than 75% of the subjects could perform the skill in isolation.

Research Question 4a

Research question 4a stated: Is knowledge of the isolated skills of syllables and accents at levels 3.1, 3.2, and 4 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above? The data that address this research question are presented in Table 2.

Mastery or nonmastery of syllables at level 3.1 was determined if the subject could say the key word and find a word from four choices that had the same number of syllables. Mastery or nonmastery of accented syllables at

level 3.1 was determined if the subject could say the key word and find a word from four choices that had the same number of syllables. At level 3.2 mastery or nonmastery of syllables and accented syllables was determined if the subject could say the key word and find a word from three choices that had the same number of syllables and was accented on the same syllable. For example, if the stimulus word was "jungle" and the choices were "chore, saddle, braid", the subject was asked to find a word with the same number of syllables and an accent on the same syllable. Mastery or nonmastery of syllables and accents at level 4 was determined if the subject could locate from two choices the key word divided into syllables correctly and indicate which syllable was accented (see Appendix F).

Syllables and accents at level 3.1 were mastered by 75% or more of the subjects who had instructional reading levels of 3.2 and 4 or above, but not by the subjects with instructional reading levels of 3.1 (see Table 2). These findings indicate that a significant number of the level 3.2 and 4 or above readers were able to generalize the skill of syllables and accents up to level 3.1 even though formal instruction in the skill had not been received up to that level. The level 3.1 readers, however, appear to be unable to generalize the skill without instruction. The results also indicate that knowledge of syllables and

accents at level 3.1 may be essential for comprehension at levels 3.2 and 4 or above but nonessential for comprehension at level 3.1. This is because more than 75% of the level 3.2 and 4 or above readers and fewer than 75% of the level 3.1 readers could perform the skill in isolation.

Syllables and accented syllables at level 3.2 were mastered by fewer than 75% of the subjects regardless of instructional reading level (see Table 2). These findings indicate that a significant number of the capable readers were unable to generalize the skill of syllables and accents at level 3.2 without formal instruction in the skill. This indicates that the ability to count syllables and locate accented syllables at level 3.2 may be nonessential for comprehension at levels 3.1, 3.2, and 4 or above because fewer than 75% of the subjects could perform the skill in isolation.

Syllables and accented syllables at level 4 was mastered by fewer than 75% of the subjects regardless of their instructional reading level. These findings indicate that a significant number of the capable readers were unable to generalize the skill of syllables and accents at level 4 without formal instruction in the skill. This also indicates that the ability to divide words into syllables and determine which syllable is accented at level 4 may be nonessential for comprehension at levels 3.1, 3.2, and 4 or

above because fewer than 75% of the subjects could perform the skill in isolation.

An examination of syllables and accents separately at level 3.1 indicated that syllables at level 3.1 were mastered by 75% or more of the subjects who had instructional reading levels of 4 or above, but not by the subjects with instructional reading levels of 3.1 or 3.2 (see Table 4). These findings indicate that a significant number of the level 4 or above readers were able to

Table 4

Percentage of Capable Readers Mastering
Syllables at Level 3.1

Skill	# of items	Instructional Reading level		
		3.1 (n=17)	3.2 (n=16)	4+ (n=50)
Syllables and accents	15	71	75*	84*
Counting syllables	10	64	68	94*
Accented syllables	5	77*	81*	86*

*essential skills

generalize the skill of syllables at level 3.1 even though formal instruction in the skill had not been received up to that level. The level 3.1 and 3.2 readers, however, appear to be unable to generalize the skill without instruction. This also indicates that the ability to count syllables at level 3.1 may be essential for comprehension at level 4 or above but may be nonessential for comprehension at levels 3.1 or 3.2. This is because more than 75% of the level 4 or above readers and fewer than 75% of the level 3.1 or 3.2 readers could perform the skill in isolation.

In addition, an examination of accents at level 3.1 revealed that 75% or more of the subjects regardless of instructional reading level had mastered the skill. These findings indicate that a significant number of the capable readers were able to generalize the skill of accents at level 3.1 without formal instruction in the skill. This also indicates that the ability to locate accented syllables at level 3.1 may be essential to comprehension at levels 3.1, 3.2, and 4 or above because more than 75% of the subjects could perform the skill in isolation.

Research Question 5a

Research question 5a stated: Is knowledge of the isolated skill of compound words at level 4 essential or nonessential for comprehension at levels 3.1, 3.2, or 4 or

above? The data that address this research question are presented in Table 2.

Mastery or nonmastery of compound words was determined if the subject could indicate which word out of three choices was a compound word. For example, if the choices were, "lightning, lighter, lighthouse," the subject indicated which word was a compound word (see Appendix F).

Compound words at level 4 were mastered by more than 75% of the subjects regardless of instructional reading level. These findings indicate that the isolated skill of compound words at level 4 tend to be generalized by a significant number of capable second grade readers even though formal instruction in the skill had not been received up to that level. This also indicates that compound words may be essential for comprehension at levels 3.1, 3.2, and 4 or above because more than 75% of the subjects could perform the skill in isolation.

Research Question 6a

Research question 6a stated: Is knowledge of the isolated skill of contractions at level 4 essential or nonessential for comprehension at levels 3.1, 3.2, or 4 or above? The data that address this research question are presented in Table 2.

Mastery or nonmastery of contractions was determined if the subject could indicate which word out of three

choices was a contraction. For example, if the choices were, "doctor, doesn't, downstream," the subject indicated which word was a contraction (see Appendix F).

Contractions at level 4 were mastered by more than 75% of the subjects who had instructional reading levels of 3.2 and 4 or above but not by the subjects with instructional reading levels of 3.1. These findings indicate that the isolated skill of contractions at level 4 tend to be generalized by a significant number of level 3.2 and 4 readers even though formal instruction in the skill had not been received up to that level. Contractions do not appear to be generalized by the level 3.1 readers. This also indicates that the isolated skill of contractions may be essential to comprehension at levels 3.2 and 4 or above, but they may be nonessential to comprehension at level 3.1. This is because more than 75% of the levels 3.2 and 4 or above readers and fewer than 75% of the level 3.1 readers could perform the skill in isolation.

Research Question 7a

Research question 7a stated: Is knowledge of the isolated skill of affixes at levels 2.2, 3.1, and 3.2 essential or nonessential for comprehension at level 3.1, 3.2, or 4 or above? The data that address this research question are presented in Table 2.

Mastery or nonmastery of affixes at level 2.2 was determined if the subject could indicate from four choices the word that contained a suffix. Mastery or nonmastery of affixes at levels 3.1 and 3.2 was determined if the subject could indicate from three choices the meaning of an underlined word containing a prefix or suffix when the underlined word was in the context of a sentence (see Appendix F).

Affixes at levels 2.2 and 3.1 were mastered by more than 75% of the subjects regardless of instructional reading level while affixes at level 3.2 were mastered by fewer than 75% of the subjects regardless of instructional reading level. These findings indicate that the isolated skill of affixes at levels 2.2 and 3.1 tend to be generalized by a significant number of capable readers even though formal instruction in the skill had not been received up to that level. Affixes at level 3.2, however, do not appear to be generalized without instruction. This also indicates that the isolated skill of affixes at levels 2.2 and 3.1 may be essential for comprehension at levels 3.1, 3.2, and 4 or above, but affixes at level 3.2 may be nonessential for comprehension at levels 3.1, 3.2, and 4 or above. This is because more than 75% of the subjects could perform the skill in isolation at levels 2.2 and 3.1, but fewer than 75% of the subjects could perform the skill in isolation at level 3.2.

Items on this test that tapped knowledge of similar subskills were combined, and mastery or nonmastery of these subskills was determined (see Table 5). This further breakdown revealed that for the subjects with instructional reading levels of 3.1, prefixes at level 3.1 were mastered by more than 75% of the subjects, but suffixes were not mastered by more than 75% of the subjects. These findings indicate that the isolated skill of prefixes at level 3.1 tend to be generalized by level 3.1 readers without formal instruction but suffixes tend not to be generalized without

Table 5

Percentage of Capable Readers MasteringAffixes at Level 3.1

Skill	# of items	Instructional Reading level		
		3.1 (n=17)	3.2 (n=16)	4+ (n=50)
Affixes	8	77*	94*	86*
Prefixes	4	94*	100*	96*
Suffixes	4	59	81*	76*

*essential skills

instruction. This would also indicate that the isolated skill of prefixes may be essential for comprehension at 3.1 level, but the isolated skill of suffixes may be nonessential to comprehension at level 3.1. This is because more than 75% of the 3.1 level readers and fewer than 75% of the level 3.2 and 4 or above readers could perform the skill in isolation.

Research Question 8a

Research question 8a stated: Is knowledge of the isolated skill of root words at levels 3.1, 4, and 5 essential or nonessential for comprehension at levels 3.1, 3.2, and/or 4 or above? The data that address this research question are presented in Table 2.

Mastery or nonmastery of root words at level 3.1 was determined if the subject could read a sentence with an underlined word containing an affix and indicate from three choices the root of the underlined word. Mastery or nonmastery of root words at level 4 was determined using two different types of questions. Mastery was determined on eight of the items if the subject could read a key word containing an affix and indicate from three choices the root of the underlined word. In addition, mastery at level 4 was determined with an additional eight items if the subject could read a key word which contained a suffix and then indicate what change was made to the root word before

the suffix was added. Finally, mastery or nonmastery of root words at level 5 was determined if the subject could indicate from three choices the root word with an affix (see Appendix F).

Root words at level 3.1 were mastered by 75% of the level 3.2 and 4 or above readers but were not mastered by 75% of the level 3.1 readers. Root words at levels 4 and 5 were mastered by fewer than 75% of the subjects regardless of their instructional reading level. These findings indicate that root words at level 3.1 tend to be generalized by a significant number of the level 3.1 and 4 or above readers without formal instruction but not by the level 3.1 readers. Root words at level 4 and 5, however, do not appear to be generalized by a significant number of capable readers. This also indicates that the isolated skill of root words at level 3.1 may be essential for comprehension at levels 3.2 and 4 or above but nonessential for comprehension at level 3.1. This is because more than 75% of the level 3.2 and 4 or above readers and fewer than 75% of the level 3.1 readers could perform the skill in isolation. In addition, rootwords at levels 4 and 5 may be nonessential for comprehension at any level because fewer than 75% of the subjects could perform the skill in isolation.

Items at level 3.1 that tapped knowledge of similar subskills were combined, and mastery or nonmastery of these

subskills was determined (see Table 6). This further breakdown revealed that while the overall skill of root words at level 3.1 may be essential for comprehension at level 3.2 and 4 or above, the ability to identify the correct rootword of a key word when the final "e" was dropped or the final "y" was changed to "i" before the suffix was added may not be essential for comprehension at level 3.2. In addition, the ability to identify the correct rootword of a key word when the final "y" was changed to "i" or the final "f" was changed to "v" before the suffix was added does not appear to be essential for comprehension at level 4 or above. Finally, at level 4 the ability to identify the correct rootword of a key word when there was no change to the root word or when the final "y" was changed to "i" may be essential for comprehension at level 4 or above.

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Research Question 1b

Research question 1b stated: Is knowledge of the isolated skill of initial consonants at levels 2.2 and 3.1 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above? The data that address this research question are presented in Table 2.

Mastery or nonmastery of consonants at level 2.2 was determined if the subject could listen to a key word

Table 6

Percentage of Capable Readers Mastering
Root Words at Levels 3.1 & 4

Skill	# of items	Instructional Reading level		
		3.1 (n=17)	3.2 (n=16)	4+ (n=50)
		Level 3.1		
Root words	12	59	75*	75*
no change	5	65	88*	76*
consonant doubled	1	65	94*	82*
e dropped	2	59	69	78*
y changed to i	2	71	56	72
f changed to v	2	47	75*	68
		Level 4		
Root words	16	18	19	52
no change	4	41	31	76*
consonant doubled	3	29	31	52
e dropped	3	24	31	36
y changed to i	2	18	25	22

*essential skills

provided by the examiner and indicate from three choices which letters the word began with. Mastery or nonmastery of consonants at level 3.1 was determined if the subject could listen to a key word provided by the examiner and indicate from three choices which letters spelled the sound that was heard either at the beginning, middle, or end of the key word (see Appendix D).

Consonants at level 2.2 were mastered by 100% of the subjects regardless of their instructional reading level. Consonants at level 3.1 were mastered by more than 75% of the subjects regardless of their instructional reading level. These findings indicate that a significant number of capable readers have generalized the isolated skill of consonants at levels 2.2 and 3.1. This also indicates that the isolated skill of consonants at levels 2.2 and 3.1 may be essential for comprehension at levels 3.1, 3.2, and 4 or above because more than 75% of the subjects could perform the skill in isolation.

Items on this test that tapped knowledge of similar subskills were combined, and mastery or nonmastery of these subskills was determined (see Table 7). This further breakdown revealed that digraphs with a silent letter were mastered by fewer than 75% of the level 3.1 and 3.2 readers but were mastered by more than 75% of the level 3.1 and 4 or above readers. These findings indicate that the isolated subskill of "kn" digraph at level 3.1 has been

Table 7

Percentage of Capable Readers Mastering
Consonants at Level 3.1

Skill	# of items	Instructional Reading level		
		3.1 (n=16)	3.2 (n=27)	4+ (n=36)
Consonants	19	81*	78*	89*
digraph/blend (sh)	4	100*	95*	100*
digraph/silent (kn)	9	74	60	89*
blend (str)	6	88*	92*	96*

*essential skills

generalized without instruction by the level 4 or above readers but not the level 3.1 or 3.2 readers. This also indicates that knowledge of silent letter digraphs may be essential for comprehension at level 4 or above but nonessential for comprehension at levels 3.1 and 3.2.

Research Question 2b

Research question 2b stated: Is knowledge of the isolated skill of vowels at levels 2.2, 3.1, and 3.2 essential or nonessential for comprehension at level 3.1, 3.2, and/or 4 or above? The data that address this research question are presented in Table 2.

Mastery or nonmastery of vowels at levels 2.2, 3.1, and 3.2 was determined if the subject could listen to a key word that was provided by the examiner. The subject then would indicate from four choices the word that had the same vowel sound as the key word.

Vowels at levels 2.2, 3.1, and 3.2 were mastered by the subjects with instructional reading levels of 4 or above but not by subjects with instructional reading levels of 3.1 or 3.2. These findings indicate that the isolated skill of vowels at levels 2.2, 3.1, and 3.2 have been generalized by a significant number of level 4 or above readers without formal instruction but not by the level 3.1 or 3.2 readers. This indicates that knowledge of vowels may be essential to comprehension at level 4 or above but nonessential at levels 3.1 or 3.2. This is because more than 75% of the level 4 or above readers and fewer than 75% of the level 3.1 and 3.2 readers could perform the skill in isolation.

Items on this test that tapped knowledge of similar subskills were combined, and mastery or nonmastery of these

subskills was determined (see Table 8). This further breakdown revealed that knowledge of the isolated skill of vowels at level 2.2 was not mastered by the level 3.1 readers but each of the subskills within the test were mastered. In addition, for the level 3.2 readers the isolated skill of vowels was not mastered but the subskills of two vowels with the long regular pronunciation (for example, tea), two vowels with an alternative irregular pronunciation (for example, sleigh), and r-controlled vowel were mastered. This would indicate that for level 3.1 readers the isolated skill of vowels at 2.2 level appears to be nonessential possibly because of random errors from the subjects. However, closer examination reveals that the individual subskills at 2.2 level are mastered. For level 3.2 readers the skill at 2.2 level appears to be nonessential, but the subskills of two vowels with regular pronunciation, two vowels with an alternative irregular pronunciation, and r-controlled vowels may be essential for comprehension.

In addition, vowels at 3.1 level were not mastered by the level 3.1 and 3.2 readers, but two vowels with long or short alternative but regular pronunciation (for example, shield) were mastered by the level 3.1 readers and one vowel with regular pronunciation (for example, math) were mastered by the level 3.2 readers. Two vowels with long or short alternative irregular pronunciation were not mastered

Table 8

Percentage of Capable Readers Mastering Vowels at Levels 2.2 & 3.1

Skill	# of items	Instructional reading level		
		3.1 (n=16)	3.2 (n=27)	4+ (n=36)
Vowels at level 2.2				
Vowels	14	69	60	89*
2 vow/long reg (tea)	5	94*	89*	100*
2 vow/long or short alt (shield)	2	81*	73	85*
2 vow/long or short irr (sleigh)	1	88*	87*	100*
2 vow/long nor short (soil)	2	75*	60	85*
r controlled vow	4	75*	76*	100*
Vowels at level 3.1				
Vowels	17	50	38	81*
2 vow/long reg (tea)	7	56	46	81*
2 vow/long or short alt (shield)	2	75*	49	81*
2 vow/long or short irr (sleigh)	1	44	27	46
2 vow/long nor short (soil)	4	69	73	100*
1 vow/reg (melt)	1	69	84*	92*
1 vow/alt (bull)	2	50	60	77*

*essential skills

vow = vowels; reg = regular pronunciation; alt =

alternative pronunciation; irr = irregular pronunciation

by the level 4 or above readers even though the overall skill was mastered. This indicates that for level 3.1 readers the skill at 3.1 level appears to be nonessential, but the subskill of two vowels with long or short alternative but regular pronunciation may be essential. For level 3.2 readers the skill at 3.1 level appears to be nonessential, but the subskill of one vowel with regular pronunciation may be essential. Finally, for level 4 or above readers the skill at 3.1 level appears to be essential, but the subskill of two vowels with long or short alternative irregular pronunciation may be nonessential for comprehension.

For vowels at level 3.2, the item breakdown revealed that for level 4 or above readers, the skill was mastered but the subskills of two vowels long or short with alternative but regular pronunciation, r controlled vowels, and one vowel with an alternative pronunciation (for example, jolt) were not mastered. This indicates that for vowels at level 3.2 knowledge of the subskills of two vowels long or short with alternative but regular pronunciation, r controlled vowels, and one vowel with an alternative pronunciation may be nonessential for comprehension at level 4 or above.

Research Question 3b

Research question 3b stated: Is knowledge of the isolated skill of contractions at level 2.2 essential or nonessential for comprehension at levels 3.1, 3.2, and/or 4 or above? The data that address this research question are presented in Table 2.

Mastery or nonmastery of contractions was determined if the subject could indicate which word out of four choices would make sense in the blank of a cloze sentence. For example, for the sentence "I think _____ make a good jet pilot." the choices were "I've, I'd, We've, I'll".

Contractions at level 2.2 were mastered by the subjects with instructional reading levels of 4 or above but not the subjects with instructional reading levels of 3.1 or 3.2 readers. These findings reveal that contractions at level 2.2 have been generalized by a significant number of the level 4 readers without formal instruction but not by the level 3.1 or 3.2 readers. This also indicates that knowledge of the isolated skill of contractions may be nonessential for comprehension at levels 3.1 and 3.2 but may be essential for comprehension at levels 4 or above. This is because more than 75% of the level 4 or above readers and fewer than 75% of the level 3.1 and 3.2 readers could perform the skill in isolation.

Items on this test that tapped knowledge of similar subskills were combined, and mastery or nonmastery of these

subskills was determined (see Table 9). This further breakdown revealed that knowledge of the skill of contractions at level 2.2 was mastered by the level 4 or above readers but the subskills of contractions with "are" and contractions with "will" were not mastered 75% of the level 4 or above readers. This indicates that knowledge of contractions may be essential to comprehension at level 4 or above but the subskills of "are" and "will" contractions may be nonessential to comprehension at level 4 or above.

Research Question 4b

Research question 4b stated: Is knowledge of the isolated skill of affixes at levels 3.1, 4, and 5 essential or nonessential for comprehension at levels 3.1, 3.2, or 4 or above? The data that address this research question are presented in Table 2.

Mastery or nonmastery of affixes was determined if the subject could indicate from four choices which affix made sense in a cloze sentence with a blank before or after a word with the affix missing. For example, for the sentence "The sun grew hot as we crossed the end____ desert." the choices for completing the word were "ness, en, less, ment."

Affixes at level 3.1 were mastered by subjects with instructional reading levels of 4 or above but not the subjects with instructional reading levels of 3.1 or 3.2.

Table 9

Percentage of Capable Readers MasteringContractions at Level 2.2

Skill	# of items	Instructional Reading level		
		3.1 (n=16)	3.2 (n=27)	4+ (n=36)
Contractions	14	50	49	77*
would	2	74	65	89*
is	3	44	54	77*
are	3	38	41	62
have	4	69	70	89*
will	3	63	41	62

*essential skills

Affixes at levels 4.0 or 5.0 were mastered by fewer than 75% of the subjects regardless of reading level. These findings indicate that affixes in isolation at level 3.1 have been generalized without instruction by level 4 or above readers but not by level 3.1 or 3.2 readers. In addition, affixes at levels 4 and 5 have not been generalized by a significant number of capable readers at

any reading level. This also indicates that the isolated skill of affixes at levels 3.1 and 4 may be essential to comprehension at level 4 or above but nonessential for comprehension at levels 3.1 or 3.2. In addition, affixes at level 5 may be nonessential for comprehension at any level.

Items on this test that tapped knowledge of similar subskills were combined, and mastery or nonmastery of these subskills was determined (see Table 10). This further breakdown revealed that the skill of affixes at level 3.2 was not mastered by the level 4 or above readers but the subskill of suffixes was mastered. These findings indicate that suffixes at level 3.2 appear to be generalized by a significant number of level 4 or above readers without instruction but prefixes have not been generalized. This also indicates that suffixes at level 3.2 may be essential for comprehension at level 4 or above.

Summary

The data were presented and the analysis of the data was reported in this chapter. For each skill that was tested at levels 2.2 through 5 in the Riverside and Scott Foresman reading management systems, the percentage of subjects at each instructional reading level who mastered the skill was reported. In addition, in cases when the

Table 10

Percentage of Capable Readers MasteringAffixes at Levels 3.1 & 4

Skill	# of items	Instructional Reading level		
		3.1 (n=16)	3.2 (n=27)	4+ (n=36)
Affixes at level 3.1				
Affixes	12	31	43	89*
Suffixes	9	44	65	89*
Prefixes	3	19	22	65
Affixes at level 4				
Affixes	24	6	5	42
Suffixes	15	38	49	89*
Prefixes	9	6	5	23

*essential skills

skill was mastered but component subskills were not mastered, the percentage of subjects mastering each subskill was included. The skills or subskills that were mastered by 75% or more of the subjects at each

instructional reading level were identified as essential. The skill or subskills that were mastered by fewer than 75% of the subjects at each instructional reading level were identified as nonessential.

The results indicated that, for the research questions relating to Scott, Foresman (see Table 2), the isolated skills of consonants, vowels, mastery words, and compound words at all levels and affixes at levels 2.2 and 3.1 may be essential for comprehension at levels 3.1, 3.2, and 4 or above because 75% of the capable readers could perform the skills in isolation. The isolated skills of contractions at level 4, syllables and accents at level 3.1 and root words at level 3.1 may be nonessential for comprehension at level 3.1 but essential for comprehension at levels 3.2 and 4. This is because fewer than 75% of the level 3.1 readers and more than 75% of the level 3.2 and 4 or above readers could perform the skill in isolation. Finally, the isolated skills of syllables and accents at levels 3.2 and 4, affixes at level 3.2, and root words at levels 4 and 5 may not be essential for comprehension at levels 3.1, 3.2 and 4 or above because fewer than 75% of the capable readers could perform the skill in isolation.

The results indicated that, for the research questions relating to Riverside, the isolated skill of consonants at all levels appears to be the only skill identified as essential for comprehension at all three instructional

reading levels because more than 75% of the capable readers could perform the skill in isolation. The isolated skills of vowels, contractions, and affixes may be essential for comprehension at level 4 or above but nonessential for comprehension at level 3.1 or 3.2 because more than 75% of the level 4 or above readers and fewer than 75% of the 3.1 and level 3.2 readers could perform the skill in isolation. Affixes at any level may be nonessential for comprehension at levels 3.1, 3.2, and 4 or above because fewer than 75% of the capable readers could perform the skill in isolation.

Finally, a combined examination of the data for Scott, Foresman and Riverside revealed that different skills are included in the two management systems (see Table 1). In addition, the skills that are common to both series are not always mastered by the capable readers in both series.

Chapter 5 contains a discussion of the results with interpretations of specific findings. These and other discrepancies in the data are discussed in Chapter 5. Chapter 5 also includes conclusions from the study and recommendations for further research.

CHAPTER V

DISCUSSION AND RECOMMENDATIONS

The majority of schools today are using basal reading management systems as the prime source of material for reading instruction (Durkin, 1983; Jenkins & Pany, 1978; Weisendanger & Birlem, 1981). Skill managements systems that are based on logically derived hierarchies of comprehension and word identification skills accompany the basal reading series (Smith 1975; Spache & Spache, 1976; Thompson & Dzuiban, 1973). The fact that these skill hierarchies are built on logic rather than empirical research suggests that they are questionable (Downing, 1982). Many of the basal series discourage placing students in material above their grade placement because there is a belief that some essential skills will be missed if a child is allowed to skip levels in the system (Aaron et al., 1981c; Fay et al., 1986b). The practice of not allowing the capable readers to progress to reading materials above their grade placement raises two questions:

1. Have capable readers already acquired any of the isolated word identification skills that are taught in the materials above their grade placement even though they have

not been formally instructed in above grade level materials?

2. Are capable readers being held accountable for isolated word identification skills that may not be essential to competency in the terminal act of reading naturally occurring text?

It was the purpose of this study, therefore, to describe the skills that have been acquired by capable second grade readers. A second purpose was to identify the essential and nonessential word identification skills in two basal reading management systems.

A sample of second graders with instructional reading levels of 3.1, 3.2 and 4 or above was identified using the group placement tests that accompany The Riverside Reading Program (Fay et al., 1986a) and Scott, Foresman Reading (Aaron et al., 1981a). The capable readers were then given the end-of-book tests that are components of The Riverside Reading Program (Fay et al., 1986a) and Scott, Foresman Reading (Aaron et al., 1981a) for levels 2.2 through 5. The percentage of capable readers who mastered each skill was calculated. The isolated skills that were mastered by 75% or more of the capable readers were identified as essential and the isolated skills that were mastered by fewer than 75% of the capable readers were identified as nonessential.

For Scott, Foresman Reading (Aaron et al., 1981a) the analysis of the data revealed that the isolated skills of consonants, vowels, mastery words, and compound words at all levels that were tested, and affixes at levels 2.2 and 3.1 may be essential for comprehension at levels 3.1, 3.2, and 4 or above (see Table 2). The isolated skills of contractions at level 4, syllables and accents at level 3.1 and root words at level 3.1 may be nonessential for comprehension at level 3.1 but essential at levels 3.2 and 4 or above. Syllables and accents at level 4, affixes at level 3.2 and root words at levels 4 and 5 may be nonessential at all three reading levels.

The analysis of the data for The Riverside Reading Program (Fay et al., 1986a) revealed that the isolated skills of consonants at levels 2.2 and 3.1 may be essential for comprehension at all three reading levels. The isolated skills of vowels, contractions, and affixes at level 3.1 may be essential for comprehension at level 4 or above but nonessential for levels 3.1 and 3.2. Finally, affixes at any level may not be essential for comprehension at any of the three reading levels.

A further breakdown of the skills into component subskills revealed that in some instances the skill was mastered but some of the subskills were not mastered. This was true in Scott, Foresman with syllables at level 3.1 and root words at level 4 for the level 4 readers. In other

instances the skill was not mastered but the component subskills were mastered. This was the case in Scott, Foresman with root words at level 3.1 for the level 3.2 and 4 or above readers and with affixes at level 3.1 for the level 3.1 readers. In Riverside the skill was mastered but some the subskills were not mastered with two skills: (1) contractions at level 2.2 for the level 4 or above readers and (2) consonants at levels 3.1 for the level 3.1 and 3.2 readers.

Discussion

The remainder of this chapter consists of a discussion of the findings from the study. The discussion includes possible explanations for apparent discrepancies in the data and implications for educators. The discussion is presented in two sections that address the two problem statements.

Problem Statement 1

Problem statement one posed the question: Have capable readers already acquired any of the isolated word identification skills that are taught in the materials above their grade placement even though they have not been formally instructed in above grade level materials? The findings related to problem statement one and their

implications are discussed in this section. The following findings are presented:

1. isolated skills that have been mastered without formal instruction.

2. isolated skills that were mastered while subskills were not mastered and skills that were not mastered while component subskills were mastered.

3. isolated skills that were mastered across all skill levels by capable readers.

4. isolated skills that were mastered in one series but not in the other.

5. isolated skills mastered above the instructional reading level and skills that were not mastered below the instructional reading level.

Finding #1

The findings from this study indicate that many of the skills that capable readers are being held accountable for in basal reading management systems may have already been mastered without the benefit of formal instruction. For example, in Scott, Foresman consonants, vowels, mastery words, compound words and contractions were mastered at all levels by 75% or more of the capable readers. Syllables and accents at level 3.1 and affixes at levels 3.1 and 3.2 were also mastered by 75% of the capable readers. In

Riverside consonants at levels 2.2 and 3.1 were mastered by the capable readers (see Table 1).

Many basal series provide placement tests that appear to be the most valid instruments for determining placement within the series for which they were designed (Gerke, 1980). The Riverside and Scott, Foresman placement tests, however, discourage placement in above grade level materials for fear that some essential skills will be missed (Aaron et al., 1981c; Fay et al., 1986b). The findings of this study did not support this practice because many of the skills in both management systems were mastered by 75% or more of the capable readers (see Table 2).

It appears, then, that instruction in certain skills may not be necessary for second grade capable readers. There may be many isolated skills that capable readers are able to generalize on their own without instruction. Therefore, pacing capable readers through every skill at every level of the management system may not be advisable.

Holding readers back in the system so that they can work through all levels of the system results in capable readers being instructed in isolated skills that may have already been learned before instruction was given. In addition, holding readers back in the literature component of the management system results in capable readers being instructed at their independent reading levels. Instruction

skill component of the management systems (McNeil, 1976; Smith, 1975; Spache and Spache, 1976; Thompson and Dzuiban, 1973).

An unavoidable ethical question arises when one considers the extensive use of unvalidated basal reading management systems that recommend that capable readers not be allowed to skip levels in the system for fear that some essential skills will be missed. Is this action a sincere effort on the part of the publisher to ensure success for all readers, or is recommending that every reader progress through all levels of the system a ploy to sell more books, workbooks, end-of-book tests, and skill sheets? Is it also possible that admitting that there is no word identification hierarchy and, therefore, separating the skill component and the literature component of the system would add confusion and uncertainty for potential buyers compared to what now appears to be a neat package of "...carefully sequenced skills..." (Aaron, 1981b, p. 2)? Questions such as these make it imperative that teachers and administrators realize the implications of operating a reading program under what may be false hierarchies.

Finding #2

The breakdown of each of the skills into component subskills revealed that some skills were mastered while some of the component subskills were not mastered. In

at the independent level may actually retard reading improvement because the reader is dealing with text that is already mastered. Reading growth is likely to be very slow or nonexistent because there are no new skills required to read and comprehend independent level reading material (Dechant, 1982; Powell, 1984).

One alternative to pacing readers through every level of the system might be to separate the literature and skill components of the management system. This would allow the capable readers to be placed in literature at a level that would allow for optimum reading growth. In addition, the end-of-book tests could be used as pretests to identify which skills have not been mastered so that instruction can be given in only those skills that are unknown.

A more appropriate alternative, however, might be to teach the word identification skills as they are needed in the context of the literature that is read. As readers encounter difficulty with natural text, the skills that allow them to read and understand the text could be taught at that time. The skills could then be assessed by noting whether or not the reader is able to apply the skill while reading natural text. Teaching reading skills as they are needed and assessing them in context may be a more desirable approach than teaching the word identification skills in isolation as they are presented in the management systems considering the apparent lack of validity of the

other cases the skills were not mastered while some of the component subskills were mastered.

A dramatic illustration of this phenomenon was with vowels at level 2.2 in Riverside (see Table 8). Seventy-five percent of the level 3.1 readers did not master vowels but all six of the vowel subskills were mastered. A less dramatic illustration was in Scott, Foresman. When consonants were broken down into subskills silent letter digraphs were mastered by 75% of the capable readers. A further breakdown, however, revealed that the "mb" subskill was not mastered. In contrast, the overall skill of consonants was mastered by 75% of the level 3.1 readers but identifying the sounds of "kn", "wr", and hard "c" were not mastered by 75% of the level 3.1 readers.

The situations where the skill was mastered while subskills were not mastered or where the subskills were mastered while the skill was not mastered occurred with several other skills (see Tables 3 through 10). The small number of items that tap any one subskill may preclude making any definitive conclusions regarding these findings. There do appear, however, to be some subskills that are mastered before other subskills.

For example, knowledge of the spelling of "kn" digraph was mastered by 75% of the capable second grade readers, but knowledge of the spelling of the "mb" digraph was not mastered. It is possible, then, that the ability to

indicate the spelling of the "mb" digraph comes after the ability to indicate the spelling of the "kn" digraph. In addition, prefixes were mastered by more than 75% of the level 3.1 readers but suffixes were not. The ability to find the meaning of a word containing a prefix, therefore, may be an easier task than finding the meaning of a word with a suffix. The findings do indicate that further research is needed with more subskill items to determine if significant differences do exist between mastery of a skill and nonmastery of component subskills or nonmastery of a skill and mastery of component subskills.

Finding #3

Another finding from the study indicates that once some of the skills were mastered at a lower level they were mastered at all skill levels by capable readers. This appears to be especially true with regard to the phonics skills. For example, all skill levels of consonants in Riverside and Scott, Foresman as well as vowels in Scott, Foresman were mastered by 75% of the capable readers in this study (see Table 2). The structural analysis skills, however, do not tend to be mastered by 75% of the capable readers without instruction. Skills such as affixes and syllables seem to be mastered at lower levels, but the ability to apply the skills at higher levels does not appear to occur without instruction. It may be that once

the phonic skills are mastered and the phonics code is broken, the capable readers are able to perform the task with more difficult words at higher levels without instruction. With the structural analysis skills, however, the structure of words becomes more difficult as readers move up to more challenging text and the second grade readers may be unable to generalize these skills without instruction.

The implication here is that if the phonics skills are consistently mastered across skill levels by a large number of capable readers then one would begin to question why the skill continues to be taught at the higher levels. It might be desirable to discontinue instruction in the phonic skills sooner since they seem to be consistently mastered at higher skill levels without instruction. The structural analysis skills, however, may warrant continued instruction since the capable readers were unable to master them across the higher levels.

Finding #4

A discrepancy appears to exist in the findings from this study because some skills were mastered in one series but the same skills were not mastered in the other series. For example, vowels and contractions were tested in both series, yet they were mastered in Scott, Foresman but not in Riverside. In addition, affixes were tested in both

series yet they were mastered at levels 2.2 and 3.1 in Scott, Foresman but they were not mastered at any level in Riverside.

Finding #5

Another apparent discrepancy exists in the findings because many of the capable readers were able to master some skills above their instructional reading levels while some skills below their instructional reading levels had not been mastered (see Table 2). In Scott, Foresman, for example, more than 75% of the level 3.1, 3.2 and 4 or above readers mastered consonants up to level 5, more than 75% of the level 3.1 readers mastered vowels up to level 3.2, and more than 75% of the level 3.1 and 3.2 readers mastered compound words at level 4. In contrast, fewer than 75% of the capable readers regardless of instructional reading level mastered contractions at level 2.2 in Riverside and fewer than 75% of the level 3.1 and 3.2 readers mastered vowels at levels 2.2 or 3.1.

A close examination of the way the skills were tested in each reading series may explain why some skills were mastered in one series but not in another (Finding #4) and why some skills were mastered above grade level while some were not mastered below grade level (Finding #5). In Scott, Foresman, for example, mastery of vowels was determined if the subject could read an isolated key word

and choose from two distractors a word with the same vowel sound as the key word (see Appendix G). In Riverside, mastery was assessed in a similar manner except the key word was given orally (see Appendix E).

These two ways of assessing vowels appear to be similar yet they place distinctly different demands on the reader. In Scott, Foresman the key word was visible and in some cases the visual clues from the key words may have been aids to finding the word with the same vowel sound. In Riverside no visual clues of the key word were available to the reader. The lack of visual clues could account for the difference in performance between Riverside and Scott, Foresman.

Another explanation might be that in Riverside the reader had to hold the key word in auditory memory long enough to find a word with the same vowel sound. It is possible that the key word was forgotten before a vowel sound match was found. In Scott, Foresman, however, the key word was there on paper for the reader to refer to as often as needed until a vowel sound match was made. With regard to assessing vowels, then, it appears that the ability to choose a word with the same vowel sound is easier when the key word is given visually than when the key word is given orally. When examining the two ways of assessing vowels, one must consider the mode of assessment that is most like reading. Reading is a visual skill.

Readers are not required in natural text to hold words in auditory memory while reading, so the assessment which gives the visual cue seems to be the more appropriate of the two means of assessing vowels.

A similar situation existed with the assessment of contractions in the two series. At a glance one would wonder why contractions were mastered by the capable readers at level 4 but were not mastered at level 2.2. Again, an examination of the different ways the skill was tested may explain the discrepancy.

In Scott, Foresman the reader simply had to identify the word that was a contraction from two distractors. Contractions assessed in this way tapped knowledge of the term contractions rather than the skill of reading and gaining meaning from contractions in text. In Riverside, however, the reader had to choose the contraction that would make sense in a cloze sentence (see Appendix G). The results indicate that capable second grade readers may know the term contraction but cannot supply the correct contraction from alternatives.

Affixes were also assessed differently in the two reading series. In Scott, Foresman mastery of affixes was determined if the reader could read a sentence with an underlined word. The underlined word contained an affix, and the reader was required to find the meaning of the underline word from two distractors (see Appendix E). In

Riverside, affixes were assessed in a sentence with an affix missing from one word. The reader had to choose the correct affix to complete the word from three distractors (see Appendix G).

The findings from this study indicate that choosing a definition of a word containing an affix may be an easier task than supplying the precise affix. The reason for this could be because in natural text readers are not required to supply the affixes to words in the text. Readers must, however, be able to figure out the meanings of words that contain affixes in order to comprehend natural text. Of the two modes of assessing affixes, the task of recognizing the definition of words containing affixes appears to be more closely related to the demands of reading natural text, and would, therefore, be a more appropriate means of assessing affixes.

Several conclusions can be drawn from the previous findings concerning different assessments for the same skill. First, a particular skill can be assessed in any number of different ways which yield different outcomes. Second, on two different tests it may appear that the same skill (for example vowels) is being tested when, in reality, two very different abilities are being assessed. Finally, one way of assessing a skill may place more difficult demands on the reader than an alternate way of assessing the same skill.

One implication from these findings is that it might be appropriate to be more descriptive when reporting which skills have been mastered. For example, in Scott, Foresman rather than saying "vowels" had been mastered, it might be more appropriate to say that the reader demonstrated the ability to look at a key word and find a word with the same vowel sound. In Riverside it might be more appropriate to say that the capable readers as a group were unable to listen to a key word and find a word with the same vowel sound rather than to say that "vowels" were not mastered. Similarly, with contractions in Scott, Foresman the capable readers were able to recognize contractions while in Riverside they were unable to supply the correct contraction to complete a cloze sentence. Finally, with affixes the capable readers were able to choose the correct definition of a key word containing an affix when the key word was contained in a sentence.

The differences in the results of the assessments by different basal series of what was supposed to be the same skill illustrates the importance of examining how skills are assessed. The demands that are placed on the reader in order to demonstrate mastery of a skill in isolation should be a strong consideration when deciding which assessment is most appropriate for indicating mastery of a particular skill. It would seem logical that the best way to assess a skill would be in a manner that most closely resembles

natural text. Assessing a skill within the context of natural text would insure that the skill, as it is utilized in reading, is being performed. This method of assessing skills would eliminate the possibility of assessing a skill in a way that is unrelated to the way it is actually used to read and comprehend.

In this section the findings from the study that dealt with problem statement one were presented and implications of these findings were discussed. The next section is presented in a similar manner with regard to problem statement two.

Problem Statement 2

Problem statement two posed the question: Are capable readers being held accountable for isolated word identification skills that may not be essential to competency in the terminal act of reading naturally occurring text?

The following findings that related to problem statement two as well as their implications and recommendations are discussed in this section:

1. isolated skills that may be essential
2. isolated skills that may be essential with component subskills that may not be essential or skills that may not be essential with component subskills that may be essential.

3. different isolated skills that were included in the two management systems.

4. isolated skills that were not assessed at consecutive levels.

5. isolated skills below the instructional reading level that may be nonessential.

6. isolated skills common to both series that may be essential in one series but not the other.

Finding #1

The findings from this study indicate that many of the isolated skills that were assessed in Scott, Foresman may be essential to comprehension at levels 3.1, 3.2 or 4 or above because more than 75% of the capable readers could perform the skills (see Table 1). The skills that may be essential are consonants, vowels, mastery words, contractions, syllables and accents at level 3.1 and affixes at levels 2.2 and 3.1. In Riverside, however, the only skill that may be essential in the form that it is tested is consonants.

All of the isolated word identification skills except consonants may be nonessential in Riverside. Root words at all levels, syllables and accents at levels 3.2 and 4, and affixes at level 3.2 may be nonessential for comprehension at levels 3.1, 3.2 and 4 or above in Scott, Foresman.

Finding #2

A breakdown of each of the skills into component subskills revealed that some skills may be essential while the component subskills may be nonessential. For other skills, the skill may be nonessential while the component subskills may be essential.

This phenomenon was illustrated most dramatically with vowels at level 2.2 in Riverside (see Table 8). It appeared that the overall skill of vowels might be nonessential, but each of the six subskills might be essential. Another illustration was in Scott, Foresman where consonants were broken down and the consonants digraphs appeared to be essential while the "mb" subskill was nonessential. At level 3.1 it appeared that consonants might be essential, but the silent letter digraphs "lk, "kn", "wr," and hard "c" might be nonessential. This situation existed with several other subskills and can be examined in Tables 3 through 10.

The small number of items that tap each subskill may preclude making any definitive conclusions regarding these findings. It does appear, however, that for comprehension at levels 3.1, 3.2, and 4 or above, some skills may be essential while the component subskills may be nonessential and vice versa. The findings indicate that more research needs to be conducted to determine if these findings are valid.

Both Scott, Foresman and Riverside imply that the skills in the respective management systems are hierarchically organized and are essential. This is implied because both series recommend that capable readers not be allowed to skip levels in the system. Scott, Foresman and Riverside both claim that the essential skills that are carefully sequenced may be missed if readers are allowed to skip levels in the system (Aaron et al., 1981c; Fay et al., 1986b).

Several discrepancies existed in the data within and between Riverside and Scott, Foresman, however, that refute the notion that the management systems consist of hierarchies of essential skills. For example, some of the skills that were assessed in Scott, Foresman were not included in Riverside (see Table 1). Also, in both series skills that were assessed at several levels were not always assessed at consecutive levels. In addition, some skills above the instructional reading level may be essential while some skills below the instructional reading level may be nonessential. Finally, some of the skills that were in common to both series may be essential in one series but not the other series.

Finding #3

These discrepancies raise serious questions with regard to essential skills and skill hierarchies. Each of the discrepancies, therefore, is discussed in detail below.

Several of the skills that were assessed in Scott, Foresman were not included in Riverside. Eight distinct skills were assessed in Scott, Foresman but only four skills were assessed in Riverside. Consonants, vowels, contractions, and affixes were common to both series while mastery words, compound words, syllables and accents, and root words were assessed only in Scott, Foresman. It is possible to assume from this lack of agreement that the word identification skills in at least one of the series may be built on a false hierarchy. If the two management systems were built on valid hierarchies, then the same skills would be included in each series.

Finding #4

Another discrepancy existed with skills that were tested at more than one skill level. Both series assessed skills at several skill levels. In several instances the skill levels that were assessed were not consecutive. In Riverside, for example, affixes were assessed at levels 3.1, 4 and 5, but not at level 3.2. In Scott, Foresman, consonants and root words were assessed at levels 3.1, 4 and 5 but not level 3.2. This situation suggests an

implied belief that consonants and root words are not essential at level 3.2 but are essential at levels 3.1, 4, and 5.

Finding #5

Another discrepancy appeared to exist in the data because some skills below the instructional reading level may be nonessential. If the word identification skills in Riverside and Scott, Foresman were arranged hierarchically, then it would be logical to assume that the skills below the instructional reading level would be essential for comprehension at that instructional reading level. The data, however did not support this logic.

Some skills below the instructional reading level may be nonessential (see Table 2). In Riverside, for example, contractions at level 2.2 may not be essential for comprehension at level 3.1, 3.2 or 4. In addition, vowels at level 2.2 or 3.1 may be nonessential for comprehension at level 3.1 and 3.2. If the Riverside or Scott, Foresman skills were built on a valid hierarchy, then the skills below the instructional reading level would be essential.

Finding #6

In some cases Scott, Foresman and Riverside assessed what appeared to be the same skills yet in one series the skills appeared to be essential while in the other series

they appeared to be nonessential. For example, vowels and contractions were tested in both series yet they appeared to be essential in Scott, Foresman but not in Riverside. In addition, affixes were tested in both series yet they were mastered at levels 2.2 and 3.1 in Scott, Foresman but they were not mastered at any level in Riverside.

A possible explanation for this discrepancy may lie in the way the skills were assessed. Different methods of assessing a skill result in different abilities related to the skill being measured. A description of the different ways the skills were assessed and the implications for assessing the same skills differently were discussed in detail in the previous section and will not be reiterated here.

If different abilities that relate to a skill are being measured, depending on the way the skill is assessed, then referral to a skill (for example vowels) as being essential may be misleading and inappropriate. The skill should be referred to in terms of the ability that is called upon by the reader to perform the skill as it is assessed. One must, therefore, be more specific when referring to certain skills as being essential or nonessential. For example, rather than saying that vowels were essential it would be more appropriate to say the ability to look at a key word and find a word with the same vowel sound may be essential while the ability to listen to

a key word and find a word with the same vowel sound may be nonessential.

In this section the findings from the study that were related to problem statement two were presented and the implications of these findings were discussed. The next section summarizes the findings and offers recommendations for future research.

Summary and Recommendations

Problem Statement 1

With regard to problem statement one it was found that many skills that capable readers are being held accountable for have already been mastered without the benefit of instruction. The practice of not allowing the capable readers to progress to higher level materials when they have not been instructed in the preceding levels may not be warranted. In addition, instructing capable readers in literature at their independent reading level may retard their reading growth because there is not much learning that can take place in independent level materials.

Educators should, therefore, consider alternative ways of dealing with the management systems rather than pacing all readers through every level of the system. For example, readers could be allowed to progress to material at their instructional reading level and use the end-of-book tests

as a pretest to identify isolated skills that may warrant formal instruction.

In some cases a skill was mastered while component subskills were not mastered. In other cases the skill was not mastered while the component subskills were mastered. While there were not enough items on the test to make conclusive generalizations, it may be important to be aware that some subskills may be easier to perform. For other skills the subskills may be more difficult to perform. The more difficult skills may require more specific instruction or may need to be placed elsewhere in the instructional sequence.

Several skills were mastered across all levels at which the skills were assessed. The skills that tended to be mastered above the instructional reading level were the phonic skills, while the structural analysis skills did not tend to be mastered by many of the capable readers. These findings suggest that instruction in the phonic skills may not be necessary past the primary levels while instruction in the structural analysis skills may need to continue at increasingly difficult levels.

The findings revealed that there were skills common to both series that were mastered in one series but not the other. In addition, some skills were mastered below the instructional reading level.

An examination of the different ways that the same skill was assessed explained these two apparent discrepancies. Different modes of assessing a skill places different demands on a reader. So, in reality, different abilities were being assessed. It might be appropriate, therefore, to be more descriptive when reporting a skill that appears to be mastered or not mastered. In addition, it would be advisable to examine very carefully the way skills are assessed and choose the mode that appears to make the same demands on the reader as the demands of reading natural text. It is possible that the best way that this might be accomplished is by assessing mastery of the skills within the context of natural text.

Problem Statement 2

With regard to problem statement two it was found that many isolated word identification skills may be essential to comprehension at levels 3.1, 3.2, and 4 or above. The findings also indicate that some essential subskills may not masked because the overall skill appeared to be nonessential while some of the component subskills did appear to be essential.

Several discrepancies existed in the data with regard to essential skills. The same skills were not included in the two series, and the skills that were in common were not assessed in the same way nor were they assessed at the same

levels. The skills that were in common to both series did not appear to be essential in both series.

It would be logical to assume that if a well defined set of essential word identification skills did, indeed, exist and if there was a true hierarchy of word identification skills then the discrepancies discussed in this section would not exist. If a validated word identification skill hierarchy did exist, then the same skills would be included in every reading management system and the skills would be assessed in identical ways. In addition, readers with the same instructional reading levels would have mastered the same skills and the skills assessed below the instructional reading level would be essential. These things, however, did not occur in the data. It is evident, therefore, that the skills assessed in Riverside and Scott, Foresman are not built on a valid hierarchy.

The various ways that skills can be assessed suggest three very important unresolved issues concerning essential skills and skill hierarchies. These issues revolve around the end-of-book tests that are being used in so many classrooms to assess what are supposed to be essential skills. One issue is the validity or lack of validity of the end-of-book tests. Another issue is that of identifying the essential skills. Finally, another unresolved issue is that of determining the best way to

teach and assess the word identification skills so that they are truly aids to reading and comprehension for capable readers..

Nitko (1983) points out that a criterion-referenced test may have a degree of validity for one purpose yet have a lesser degree of validity for another purpose. This may be the case with some of the skills that are assessed in Scott, Foresman and Riverside. The content and construct validity may be in question with regard to the way many of the word identification skills were assessed. Nitko stated that items on a test must be "...representative of the domain or universe they are supposed to represent" (p 458). The Scott, Foresman and Riverside end-of-book tests may be valid in that they assess the skill the way the skill was taught (Fay et al, 1986c), but they may be invalid in that the skills were taught in a way that is unrelated to the domain or universe of reading with comprehension.

The next questions become: (1) What are the essential skills, and (2) How can they best be taught so that their relationship to reading natural text with comprehension is not lost. A comparison of the way that the word identification skills in Scott, Foresman and Riverside are assessed and the skill of reading naturally occurring text reveals a disparity between the means of skill assessment and the terminal act for which the skills are supposed to be an essential part. Does the ability or

inability to perform a skill in isolation necessarily mean that the skill is essential in the holistic context of reading natural text?

For example, the ability to count the number of syllables in a word or determine if the "y" in a word was changed to "i" before the suffix was added are not abilities that overtly resemble the skill of reading natural text. In addition, being familiar enough with the terms contraction or compound word to be able to identify the contractions or compound words from distractors may not be skills that are necessary for reading natural text. More than 75% of the capable readers in this study could also probably perform the skill of adding two plus two, but is the ability to add two plus two essential to comprehension?

The point is that these isolated skills hardly resemble the ultimate goal in reading instruction which is to read and comprehend connected discourse. Just because a significant number of capable readers could perform the skill does not necessarily mean the skills are essential. It is possible that the phonic skills might be supportive, rather than essential to comprehension because knowing sound/symbol relationships does not automatically lead to comprehension. On the other hand, the structural analysis skills such as suffixes, prefixes and rootwords, may be essential because they are more related to comprehension.

With all of these unresolved issues one might question what has been learned from the present study.

What the present study has done is identify the skills that were mastered by a significant number of capable readers who had not received instruction above grade placement because if a significant number of capable readers could perform certain skills, the skills may be essential to comprehension. It was not possible through this kind of analysis to say with certainty which skills are essential. This study was a first step in beginning to determine which skills might warrant further experimental manipulation. The utility of the present study, however, lies in the fact that skills were identified which may warrant further investigation to determine more clearly the relationship that they have with comprehension. The following section, therefore, offers recommendations for future research.

Recommendations

The present study resulted in the following recommendations for further research:

1. This study should be replicated with a larger sample of subjects in a school district that would allow the researcher to collect the data without time constraints, in several short sessions over several days,

and at a time of day that the subjects might more likely perform at their potential.

2. It is recommended that this study be replicated with capable readers at grade levels other than second grade to determine if capable readers at other levels are able to generalize skills above the level at which instruction has been given.

3. This study should be replicated using less skilled readers at various grade levels to determine if there are isolated skills that disabled readers have generalized yet are unable to apply to reading naturally occurring text. A study comparing the word identification skills of capable and disabled readers might be a way to begin to determine which skills are truly essential and which skills are supportive to the terminal objective of comprehension.

4. This study should be replicated using the word identification skills assessed in reading management systems other than Scott, Foresman and Riverside to determine if there are essential and nonessential skills included in other management systems and to determine if there are other skills that have been generalized by readers without the benefit of instruction.

5. It is recommended that the design of this study be altered to include an oral as well as a silent reading comprehension component in the placement procedure to determine if the isolated skills that were mastered

according to the end-of-book tests could be applied to oral as well as silent reading comprehension.

6. A related study should be conducted which compares the way the word identification skills are taught and the way they are assessed in Scott, Foresman, Riverside, and other management systems to determine if there is congruence in instruction and assessment.

7. The present study explored only the word identification component of the Riverside and Scott, Foresman reading managements systems. A study should be conducted which examines the comprehension hierarchies that are also an integral part of the management systems to determine if there are comprehension skills that tend to be mastered without instruction and to determine which comprehension skills might be essential to reading natural text.

8. Additional research is needed to explore the skills that were mastered when component subskills were not mastered and vice versa to determine if breaking the skill down to minute subskills is advisable or if it further distroys the utility of the skills for improving comprehension.

9. A study utilizing a transfer-type experimental design needs to be conducted on pairs of skills that were identified from this study as possibly being essential to

determine the degree to which the skills are hierarchically organized (Stennett, Smythe, & Hardy, 1975).

10. A study needs to be conducted that attempts to determine the best way to teach and assess the isolated word identification skills so that they best facilitate reading naturally occurring text.

11. A study might be conducted which includes interviews of children to determine their metacognitive awareness of how they unlock words and how they perceive the isolated word identification skills as aids to them for reading improvement.

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APPENDIX A
LETTERS TO PARENTS



Jefferson Second Grade Center

800 North Louisa
Shawnee, Oklahoma 74801
273-1846

February 17, 1987

To Parents of Jefferson Second Grade Students:

Please take time to read the attached information, sign and return the paper to your child's teacher tomorrow.

I think this project will be of benefit to our students, as well as students in coming years.

I have worked with Mrs. Russell through her association with OBU before, and know that this project will be done on a professional level, and will cause as little disruption in our classrooms as possible.

Mr. Pounds



Education Department

February 24 , 1987

Shawnee, OK 74801
(405) 275-2850, Ext 2244

Dear Parents:

I am an assistant professor at Oklahoma Baptist University. In addition, I am working on my doctoral dissertation at Oklahoma Baptist University.

I have been granted permission by Mr. Pounds and your child's teacher to conduct my dissertation research at Jefferson Second Grade Center in your child's class.

The research will involve an examination of the October achievement test scores and a short group session to determine reading levels. Those children who are reading above grade level will be given a phonic assessment to determine which phonic skills have been mastered. The information gained from this study will help your child's teacher individualize reading instruction.

All information gathered on your child will remain confidential. The name of the school, children's names and individual results will not be reported. Only group data will be used.

If you are willing for your child to be a part of this important research, please complete the permission slip below and return it to your child's teacher as soon as possible.

If you have any questions or concerns regarding this project, please feel free to call me any evening at 273-6509.

Thank you very much for your consideration of this matter.

Sincerely,

Jimmie Russell
Assistant Professor of Education

Please check one and return to your child's teacher as soon as possible.

_____ I would like for _____ to participate in
(child's name)
this research project.

_____ I would not like for _____ to participate in
(child's name)
this research project.

(parent's signature)

APPENDIX B
INSTRUCTIONS FOR GROUP
PLACEMENT TEST

INSTRUCTIONS FOR GROUP
PLACEMENT TEST

This test will help me learn how well you can read. You will read the story on the left hand page and answer the questions on the right hand page. You may look back at the story in order to answer a question. If you are not sure about an answer, then mark the answer that you think is the right answer. If you come to a word you do not know, try to figure it out. If you cannot figure it out just skip it and go on. You need to work carefully and quickly. There is no time limit. You must work on your own, I will not be able to help you with any words that you do not know or help you with answers to any questions over the stories.

Let's work through the sample together. Open your booklet to the first page. Do not fold your booklet back. You need to keep it open so that you can look back at the story if you need to. Read the story silently and read the questions on the right side. (Pause) On this test there are two kinds of questions. There are questions in which a blank stands for a missing word or words as in the first question and there are ordinary questions ending with a question mark as in the second example. After reading each question put an X on the letter next to the correct answer.

Mark only one answer for each question. When you have finished these practice questions, raise your hand. (When all have finished, discuss the practice questions.)

Are there any questions over how to take the test? If there are no questions let's review what you are to do. Read the story carefully. Read the questions on the right side and put an X on the letter next to the correct answer. Mark only one answer for each question. If you are not sure of an answer, you need to mark the answer you think is correct. When you finish one story, turn to the next story. Continue reading until you finish the entire booklet. When you are finished, close the booklet and quietly draw a picture on the cover of the test booklet.

Are there any questions? You may begin. Remember to work through the whole booklet.

APPENDIX C
GROUP PLACEMENT TESTS

GROUP PLACEMENT TESTS

GRADES 3, 4

Name _____ School _____

Grade _____ Age _____

Date _____

SAMPLE

Read the story, then answer the questions.

Sue was playing ball at Bill's.
She threw the ball. It broke
Mr. Hill's window. Sue ran
home.

1. The best name for this story is _____.
 - a. "Time for School"
 - b. "The Broken Window"
 - c. "Bill's House"

2. Who threw the ball?
 - a. Sue
 - b. Bill
 - c. Mr. Hill

3. Right after Sue threw the ball _____.
 - a. Bill caught it
 - b. the window broke
 - c. Sue ran home

Jessie Yano wants a ring. But she doesn't want just any ring. Jessie Yano wants a ring like Nellie Sena's. Nellie Sena's ring is silver with a smooth, flat, polished black stone. In the center of the stone is a tiny silver dove. It is so tiny that almost no one notices. But Jessie Yano notices and she's jealous.

Jessie Yano knows something else about that ring. She knows it is a magic ring. When Nellie Sena wears that silver ring, she has good days.

Nellie Sena told Jessie how she had gotten the ring at the mission shop. The ring brings good days for her.

1. Nellie and Jessie are _____.
 - a. strangers
 - b. brothers
 - c. friends
 - d. brother and sister
2. Nellie Sena has a _____ ring.
 - a. gold
 - b. bell
 - c. class
 - d. silver
3. The ring is special because it is _____.
 - a. gold
 - b. magic
 - c. small
 - d. old
4. Nellie got her ring _____.
 - a. from a friend
 - b. by finding it
 - c. at a shop
 - d. from her brother
5. Jessie wants the ring because _____.
 - a. it is Nellie's
 - b. it brings good days
 - c. she lost her own ring
 - d. it is tiny
6. When Jessie sees the ring, she feels _____.
 - a. jealous
 - b. angry
 - c. happy
 - d. funny
7. Jessie Yano believes in _____.
 - a. collecting rings
 - b. friendship
 - c. taking other people's things
 - d. the power of magic

Mathew walked down the stairs and out into the street. Then he went up and down the avenue and in and out of alleys searching for a quiet place. But he found none. He wandered around till he came to the park. It was a sunny day, and many people were outside. He passed mothers with their babies, children playing in the playground, and big kids playing ball. He crossed a patch of green and kept on going until he saw a high hill near the back of the park. Growing on the hill were patches of grass and beautiful wild flowers.

Mathew climbed up to the top of the hill. There he saw a big tree with four smaller trees around it. The trunk of the big tree made a chair, and Mathew sat down on it. He could hardly believe how comfortable it was.

“I found it!” Mathew thought. “I found my special place.”

- SF 3.1
1. What was Mathew searching for?
 - a. the park
 - b. a quiet place
 - c. the playground
 2. Which word tells about the day?
 - a. cold
 - b. dark
 - c. sunny
 3. Where did Mathew look first for his special place?
 - a. up and down the avenue
 - b. in the park
 - c. on the top of a hill
 4. Where did Mathew find his special place?
 - a. on the avenue
 - b. in an alley
 - c. on a hill in the park
 5. What made a chair for Mathew?
 - a. four trees
 - b. the trunk of a tree
 - c. a patch of grass
 6. Mathew's special place had to be one of these. Which one?
 - a. quiet
 - b. scary
 - c. exciting
 7. Which would be the best name for the story?
 - a. A Patch of Grass
 - b. In the Park
 - c. Mathew's Special Place
 8. One of these tells about the story. Which one?
 - a. could not happen
 - b. could happen
 - c. is make-believe

On Thursday Elena got up early and began looking around in the refrigerator.

"What on earth are you doing?" Rita asked as she peeked around the refrigerator door.

"I'm putting some fresh broccoli in my lunchbox," Elena said. "I decided I need some last-minute magic for my muscles to run on."

After breakfast the two girls waved good-by to their parents. Later, while sitting at her desk in school, Elena kept thinking about the race and how the broccoli in her lunchbox would help her run fast.

After school Elena dashed to the track. Rita was already there waiting for her.

1. Elena and Rita are _____.
 - a. friends
 - b. sisters
 - c. neighbors
 - d. cousins
2. The story tells about _____.
 - a. a plan for Saturday
 - b. the weekend
 - c. a school day
 - d. a summer vacation
3. What was Elena getting ready to do?
 - a. play baseball
 - b. write a report
 - c. go swimming
 - d. run in a race
4. In school Elena thought about _____.
 - a. running in the race
 - b. her homework
 - c. a birthday party
 - d. Rita
5. Why did Elena eat the broccoli?
 - a. Her father put it in her lunchbox.
 - b. It was her favorite food.
 - c. She thought it was magic for her muscles.
 - d. Rita told her to eat it.
6. What was most important to Elena?
 - a. the refrigerator
 - b. the race
 - c. school
 - d. broccoli
7. Elena was somebody who _____.
 - a. wanted to win very much
 - b. was afraid to try
 - c. was sure she'd lose
 - d. didn't care if she won or lost

The doorbell rang, and Lisa galloped over to help Mother open the door. Heather, Lisa's favorite babysitter, walked in. Heather bent down and said, "Hi, Lis. You got a haircut. Now I can tickle you right here on the back of your neck."

"What do you have on?" asked Lisa. She opened Heather's coat. Heather had come right from hockey practice. Under her long coat she wore shorts. Purple and orange stripes chased each other around her knee socks.

Lisa always had a good time with Heather. Heather liked to read books aloud, and she laughed hard at the silly parts and made her voice spooky for the scary parts. She was good at drawing, and she called Lisa "Lis."

Mother left, and Lisa and Heather got to work on a collage. Lisa liked to paste bumpy and smooth and bright-colored things all together on paper to make a design. This time she got big macaroni and small macaroni and some white buttons and brown buttons and a big shiny gold one. Heather cut out pictures from a magazine.

It started raining while they were working on the collage. It was an angry, windy rain. It beat against the house and rattled the windows.

Suddenly the darkness outside got white with light. Then thunder began to rumble through the sky like loud firecrackers.

- SF 3.2
1. Who rang the doorbell?
 - a. Lisa
 - b. Heather
 - c. Mother
 2. Who is Heather?
 - a. Lisa's sister
 - b. Lisa's babysitter
 - c. Lisa's mother
 3. Where had Heather come from?
 - a. the school
 - b. the library
 - c. hockey practice
 4. What color were the knee socks that Heather was wearing?
 - a. purple and orange
 - b. white and brown
 - c. shiny gold
 5. What did Heather do with Lisa?
 - a. read a story
 - b. give her a haircut
 - c. make a collage
 6. Which of these happened last?
 - a. Lisa's mother left.
 - b. Heather came.
 - c. It started to rain.
 7. What does this sentence mean in the story: "The darkness outside got white with light"?
 - a. Lightning flashed.
 - b. The storm was over.
 - c. Heather turned on an outside light.
 8. What would be the best name for this story?
 - a. Lisa's New Haircut
 - b. Lisa's Favorite Babysitter
 - c. Lisa's Collage

Several years ago, the Chinese tried to predict earthquakes by asking people to watch animals. Chinese officials published a list of danger signs to watch for. The list was given to farmers and other people in the countryside. They were asked to report to the officials any cases of strange animal behavior described on the list. Aided by these reports, the Chinese say they have been able to predict at least ten earthquakes.

In December 1974, for example, people in one Chinese town began to report odd animal behavior. The reports came more and more often. Many reports described the behavior of farm animals. But the most surprising reports were about snakes in the area. In the north of China, snakes sleep through the winter. In mid-December 1974, though, the snakes began to crawl out of their holes. People found thousands of snakes that had left their dens and frozen on the winter ice.

1. This passage is about _____.
 - a. odd behavior in farm animals
 - b. farm reports in China
 - c. snakes in Northern China
 - d. trying to predict earthquakes
2. Why did the officials give their list to farmers?
 - a. Earthquakes bother farmers most.
 - b. Farmers see more animals.
 - c. The farmers could read Chinese.
 - d. Farmers have more free time than people in cities do.
3. The farmers were asked to report _____.
 - a. strange animal behavior
 - b. strange earth movements
 - c. unusual weather changes
 - d. unusual twisting winds
4. The Chinese say they have been able to _____.
 - a. prevent earthquakes
 - b. protect farmers from snakes
 - c. predict strange animal behavior
 - d. predict earthquakes
5. The most surprising reports were about _____.
 - a. earthquakes
 - b. snakes
 - c. farm animals
 - d. tornadoes
6. It was reported that _____.
 - a. farm animals wandered from their pens
 - b. small earth movements were felt
 - c. snakes left their holes in the winter
 - d. high winds hurt crops
7. These reports probably helped the Chinese _____.
 - a. predict a hard winter
 - b. control snakes
 - c. predict an earthquake
 - d. protect crops

Grandpa and I like summertime best. We like packing the car, squishing everything in. We come to the cottage at night, and the windows look yellow and warm. The cottage has a long, long porch, and it sits on a bluff by the lake.

But it's what we do there that's special for Grandpa and me.

In the morning we walk to the beach when there's no one there but us. The sun's just up and the sand's still cool between our toes. The lake's still calm.

There's a kind of quiet we like to hear—crying gulls and freighters' horns and waves along the beach. We listen and we walk.

We build castles, too, when the sun's up. We use shells for turrets and bark for towers and sticks to spike the walls. Our castles have winding roads and moats and secret tunnels, in case our kings must escape in the night.

Sometimes our castles last TWO days, because no one likes to step on a castle as grand as ours.

When the sun gets hot we sit on the porch and drink lemonade. We play games like checkers and ticktacktoe. And I win sometimes. But if it's not too hot, we hike the trails Grandpa's made in the woods.

- SF 4
1. Which of these is the best name for this story?
 - a. The Beach
 - b. Ticktacktoe
 - c. Grandpa and Me
 2. Who told the story?
 - a. a man
 - b. a child
 - c. a woman
 3. Where does this part of the story take place?
 - a. by a lake
 - b. by a river
 - c. by the sea
 4. When does the story take place?
 - a. in the spring
 - b. in the summer
 - c. in the winter
 5. What was used to build castles?
 - a. dirt
 - b. wood
 - c. sand
 6. What was used for turrets on the castles?
 - a. bark
 - b. shells
 - c. sticks
 7. Why did castles sometimes last two days?
 - a. No one likes to step on a grand castle.
 - b. No rain fell.
 - c. There were no people around.
 8. Where did Grandpa make trails?
 - a. in the woods
 - b. on the beach
 - c. in the lake

APPENDIX D
RIVERSIDE READING PROGRAM END-OF-BOOK
TEST INSTRUCTIONS

RIVERSIDE READING PROGRAM END-OF-BOOK

TEST INSTRUCTIONS

(Pass out booklets.)

Say: Please do not open the test booklets until you are told to do so. Put your name on the front of the test booklet. You will take this test in sections. (Hold up booklet for class to see.) When you see the words "GO ON TO THE NEXT PAGE" at the end of a page, you should continue to the next page. When you see the word "STOP" with a row of stars under it you put your pencil down and close your booklet until we are ready to continue. Open your booklets to page 1.

PART 1

This first part of the test is about vowel sounds in words. Put your finger on row S. (Make sure they are all pointing to row S.) Look at the picture at the beginning of the row. The name of this picture is dog. Next to the picture of the dog are four words. Beside each word is a letter. One of these words has the same vowel sound you hear in the word dog. Put an X on the letter beside the word with the same vowel sound you hear in dog. (Illustrate on the sample how to mark the answer.)

Be sure to put the X right on top of the letter beside the answer. You should have marked the word cost because

cost has the same vowel sound as dog. Are there any questions about how to do this part of the test? (pause)

Now we will do the rest of the rows together. You will put an X on one letter per row next to the word that has the same vowel sound you hear in the word I say.

1. Point to row 1. Look at the picture at the beginning of the row. This picture name is tie. Find the word with the same vowel sound. Mark your answer.

(Continue in the same manner with the rest of the items. Say each key word two times.)

- | | |
|-----------|---------|
| 2. hay | 3. corn |
| 4. leaf | 5. owl |
| 6. eight | 7. bird |
| 8. thread | 9. tree |

Turn your booklets to the next page.

- | | |
|-----------|-----------|
| 10. burst | 11. paint |
| 12. coat | 13. house |
| 14. worm | |

PART 2

Now you will do some pages that are about sounds letters stand for at the beginnings of words.

Put your finger on box A. (Make sure everyone is pointing to box A.) Look at the picture in the box. The name of this picture is clown. Under the clown are four sets of letters. Find the letters that stand for the sound

you hear at the beginning of the word clown. Mark your answer. (Pause)

You should have put an X under the letters cl because the letters cl stand for the sound you hear at the beginning of the word clown.

Are there any questions? Now we will do the rest of the boxes.

1. Point to box 1. The picture is a flag. Find the letters that stand for the beginning sound of flag. Mark your answer. (Continue in the same manner with the rest of the items. Say each key word two times.)

- | | |
|-----------|-----------|
| 2. knight | 3. thread |
| 4. wrist | 5. sled |

Turn to the next page.

- | | |
|------------|--------------|
| 6. plane | 7. throat |
| 8. fly | 9. clock |
| 10. knob | 11. three |
| 12. knot | 13. wreath |
| 14. plate | 15. wrench |
| 16. flower | 17. wrestle |
| 18. knee | 19. slippers |
| 20. throne | |

PART 3

Now you will do some pages about contractions. Put your finger on sentence S. (Make sure each child has found the sentence.) Read this sentence. (Pause)

The blank in the sentence stands for a contraction that is missing. Now look at the four contractions under the sentence. Find the contraction that makes sense in the blank. Mark your answer. (Pause) (Discuss the answer.)

Now you will do the rest of the sentences on this page and the next page by yourself. Read each sentence, decide which contraction correctly finishes the sentence, and mark your answer.

PART 4

The page you are now going to do is about the vowel sounds in words. Put your finger on row S. (Make sure each child has found the sentence.) Look at the words in the row. One of these words has the same vowel sound you hear in the word I will read. The word is slice. Which word has the same vowel sound you hear in the word slice? Mark your answer. (Pause) (Discuss the answer.)

Now we will do the next three pages just like the sample. Listen for the vowel sound in the word I say and find the word with the same vowel sound.

1. Point to row 1. Listen to the word grove. Find a word with the same vowel sound and mark your answer. grove

(Continue in the same manner with the rest of the items.

Say each key word two times.)

- | | |
|------------|-------------|
| 2. glee | 3. least |
| 4. mail | 5. keen |
| 6. proud | 7. gown |
| 8. pave | 9. grain |
| 10. stride | 11. troll |
| 12. baste | 13. mount |
| 14. wise | 15. flounce |
| 16. zeal | 17. shoal |

Turn to the next page.

- | | |
|----------|-------------|
| 1. crook | 2. cruise |
| 3. saws | 4. mowed |
| 5. skirt | 6. berth |
| 7. plush | 8. mare |
| 9. youth | 10. fears |
| 11. thaw | 12. earth |
| 13. tone | 14. squares |

Turn to the next page.

- | | |
|------------|------------|
| 15. soup | 16. stood |
| 17. veers | 18. flux |
| 19. bruise | 20. dues |
| 21. gourd | 22. flair |
| 23. girth | 24. moth |
| 25. barge | 26. strewn |
| 27. cords | 28. fawn |

29. seared

30. sword

PART 5

Now you will do a page that is about the sounds letters stand for in words. Put your finger on box S. Look at the four sets of letters in the box. One of these sets of letters stands for the sound you hear at the beginning of the word chop. Which set of letters stands for the beginning sound in chop? Mark your answer. (Pause) (Discuss the answers.)

Now we will do the rest of the boxes on this page.

1. Point to box 1. Listen to the end of the word laugh. Find the letters that stand for the sound at the end of laugh. Mark your answer. (Continue in the same manner with the rest of the items. Say each key word two times.)

2. beginning, twist
3. end, autograph
4. beginning, gnat
5. beginning, splash
6. beginning, school
7. beginning, shrug
8. beginning, squeak
9. beginning, phone
10. beginning, twine

11. middle, dolphin
12. end, design
13. beginning, splatter
14. beginning, schooner
15. beginning, shriek
16. beginning, squish
17. middle, microphone
18. end, cough
19. beginning, gnarled

PART 6

Now you will do some pages that are about prefixes and suffixes. Put your finger on sentence S. Read this sentence. (Pause) The blank at the end of the word comfort stands for a suffix or ending that is missing. Now look at the four suffixes or endings under the sentence. Which suffix finishes the word comfort and makes a word that correctly finishes the sentence? Mark your answer. (Pause) (Discuss the answer.)

Now you will do the rest of the sentences on this page and the next four pages on your own. Read each sentence and decide which prefix or suffix makes a word that correctly finishes the sentence.

APPENDIX E
END-OF-BOOK TESTS
RIVERSIDE

END-OF-BOOK-TESTS

RIVERSIDE

NAME _____

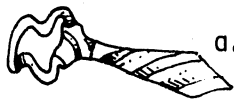
PART 1

S.



a. chew b. mouse c. join d. cost

1.



a. beach b. lies c. chair d. toe

2.



a. try b. float c. plays d. sleet

3.



a. storm b. first c. trail d. cook

4.



a. brave b. laid c. plans d. beach

R 2.2

5.



a. crown b. strong c. taught d. straight

6.



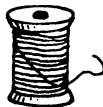
a. bought b. crack c. weigh d. piece

7.



a. start b. neat c. thirst d. spring

8.




a. groan b. breath c. train d. keep


9.





a. grew b. course c. dime d. seize


GO ON TO THE NEXT PAGE

10.  a. park b. curled c. stretch d. crunch

11.  a. chain b. trees c. pride d. count

12.  a. toast b. street c. stood d. flake


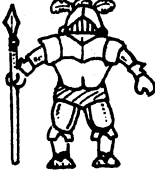
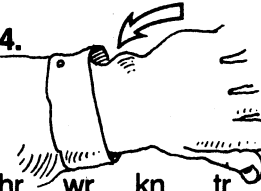
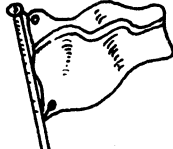
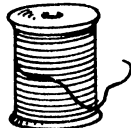
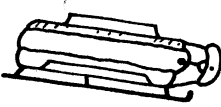
13.  a. food b. horse c. shone d. bounce

14.  a. round b. worst c. roof d. wrote













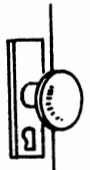
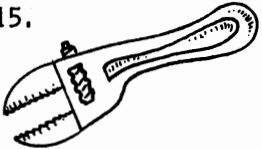

STOP

R 2.2

PART 2

<p>A. </p> <p>wr cl thr sl a. b. c. d.</p>	<p>2. </p> <p>wr wh fl kn a. b. c. d.</p>	<p>4. </p> <p>thr wr kn tr a. b. c. d.</p>
<p>1. </p> <p>kn wr fl cl a. b. c. d.</p>	<p>3. </p> <p>thr pl sl wr a. b. c. d.</p>	<p>5. </p> <p>'sl sw fl cl a. b. c. d.</p>

GO ON TO THE NEXT PAGE

<p>6. </p> <p>thr sl kn pl a. b. c. d.</p>	<p>11. </p> <p>wr cl thr tr a. b. c. d.</p>	<p>16. </p> <p>pl sl fl cl a. b. c. d.</p>
<p>7. </p> <p>sn wr st thr a. b. c. d.</p>	<p>12. </p> <p>wr kn thr tr a. b. c. d.</p>	<p>17. </p> <p>wh sl thr wr a. b. c. d.</p>
<p>8. </p> <p>pl cl fl sl a. b. c. d.</p>	<p>13. </p> <p>wr wh br thr a. b. c. d.</p>	<p>18. </p> <p>cl wr sl kn a. b. c. d.</p>
<p>9. </p> <p>st cl sc sl a. b. c. d.</p>	<p>14. </p> <p>pl cl sl pr a. b. c. d.</p>	<p>19. </p> <p>wr sl cl thr a. b. c. d.</p>
<p>10. </p> <p>kn wr sl cl a. b. c. d.</p>	<p>15. </p> <p>wr st thr wh a. b. c. d.</p>	<p>20. </p> <p>tr sl thr wr a. b. c. d.</p>

STOP

Part 3

8. _____ like to draw a picture.

- a. I'll b. We've c. I'd d. I've

1. I think _____ make a good jet pilot.

- a. I've b. I'd c. We've d. I'll

2. _____ the funniest animals at the zoo.

- a. They'd b. He's c. You'll d. They're

3. Tomorrow _____ got a lot of work to do.

- a. I've b. I'd c. I'll d. I'm

4. _____ going fishing in the morning.

- a. They've b. She'd c. He's d. He'll

5. That is the best movie _____ seen this year.

- a. we're b. they'll c. he'll d. I've

6. At night _____ tell ghost stories

- a. they've b. we'll c. she's d. I've

7. _____ make some biscuits for breakfast.

- a. I've b. She's c. He'll d. They're

8. _____ dirty after riding on the dusty trail.

- a. I'll b. They've c. You'd d. We're

9. Perhaps _____ like a glass of cold water.

- a. they've b. you'd c. you've d. I've

10. _____ taught in this school for years.

- a. She's b. I'll c. They're d. She'll

11. Next week _____ having the school play.

- a. they've b. we'll c. we'd d. we're

12. _____ want to ride the merry-go-round.

- a. They'll b. She's c. I've d. We've

GO ON TO THE NEXT PAGE

13. _____ playing softball this evening.

- a. He'll b. She'd c. She's d. We've

14. Now look at what _____ done!

- a. she'll b. you've c. they're d. I'll

STOP

PART 4

S.	(A) trees	(B) nails	(C) hill	(D) flies
----	-----------	-----------	----------	-----------

1.	(A) pool	(B) grand	(C) phone	(D) hooves
----	----------	-----------	-----------	------------

2.	(A) egg	(B) field	(C) faint	(D) girl
----	---------	-----------	-----------	----------

3.	(A) receive	(B) cellar	(C) listen	(D) circle
----	-------------	------------	------------	------------

4.	(A) leaves	(B) melt	(C) sleigh	(D) real
----	------------	----------	------------	----------

5.	(A) fell	(B) less	(C) king	(D) tea
----	----------	----------	----------	---------

6.	(A) glove	(B) ground	(C) frog	(D) close
----	-----------	------------	----------	-----------

7.	(A) coast	(B) lost	(C) owl	(D) book
----	-----------	----------	---------	----------

8.	(A) trail	(B) voice	(C) past	(D) far
----	-----------	-----------	----------	---------

9.	(A) tent	(B) goat	(C) hope	(D) pale
----	----------	----------	----------	----------

10.	(A) rays	(B) miss	(C) lies	(D) soil
-----	----------	----------	----------	----------

11.	(A) felt	(B) drill	(C) jolt	(D) cool
-----	----------	-----------	----------	----------

12.	(A) faint	(B) leaf	(C) magic	(D) coal
-----	-----------	----------	-----------	----------

13.	(A) loud	(B) load	(C) find	(D) moon
-----	----------	----------	----------	----------

14.	(A) else	(B) tied	(C) said	(D) win
-----	----------	----------	----------	---------

15.	(A) France	(B) over	(C) rode	(D) pound
-----	------------	----------	----------	-----------

16.	(A) held	(B) shield	(C) life	(D) wind
-----	----------	------------	----------	----------

17.	(A) bike	(B) pool	(C) does	(D) gold
-----	----------	----------	----------	----------

R-3.1

GO ON TO THE NEXT PAGE

R 3.2

-
18. (A) grown (B) push (C) threw (D) use
-
19. (A) suit (B) crowd (C) word (D) sweet
-
20. (A) fluff (B) grain (C) thought (D) flown
-
21. (A) hoot (B) shoulder (C) join (D) mind
-
22. (A) string (B) pride (C) field (D) third
-
23. (A) world (B) wrong (C) rich (D) price
-
24. (A) break (B) code (C) rough (D) tunes
-
25. (A) ranch (B) bird (C) card (D) scares
-
26. (A) group (B) lone (C) toast (D) spread
-
27. (A) dark (B) dear (C) frames (D) grew
-
28. (A) booths (B) caused (C) train (D) found
-
29. (A) farm (B) reefs (C) learned (D) porch
-
30. (A) paw (B) tooth (C) growl (D) boulder
-
31. (A) shared (B) roars (C) screen (D) brags

GO ON TO THE NEXT PAGE

32. (A) throws (B) groan (C) through (D) soared
-
33. (A) crop (B) coal (C) paid (D) bull
-
34. (A) dared (B) steer (C) chairs (D) grazed
-
35. (A) cute (B) bring (C) young (D) flocks
-
36. (A) stew (B) bears (C) throw (D) straws
-
37. (A) true (B) tray (C) cracks (D) brown
-
38. (A) moose (B) crown (C) front (D) course
-
39. (A) dress (B) frame (C) trust (D) stairs
-
40. (A) three (B) slurp (C) crush (D) grinned
-
41. (A) nurse (B) noose (C) cross (D) math
-
42. (A) force (B) sparks (C) branch (D) rage
-
43. (A) gown (B) straw (C) blew (D) fierce
-
44. (A) storm (B) burrs (C) crouch (D) spray
-
45. (A) found (B) bloom (C) crawl (D) wrote
-
46. (A) prize (B) stern (C) croak (D) gears
-
47. (A) graph (B) court (C) proud (D) starred
-

STOP

PART 5

R-3.1

5. <input type="radio"/> A ch <input type="radio"/> B ph	<input type="radio"/> C sch <input type="radio"/> D shr	10. <input type="radio"/> A str <input type="radio"/> B tw	<input type="radio"/> C lt <input type="radio"/> D tr
1. <input type="radio"/> A gh <input type="radio"/> B sh	<input type="radio"/> C sl <input type="radio"/> D gl	11. <input type="radio"/> A spl <input type="radio"/> B ph	<input type="radio"/> C sch <input type="radio"/> D squ
2. <input type="radio"/> A tr <input type="radio"/> B str	<input type="radio"/> C tw <input type="radio"/> D nt	12. <input type="radio"/> A ng <input type="radio"/> B gl	<input type="radio"/> C gn <input type="radio"/> D gr
3. <input type="radio"/> A ph <input type="radio"/> B gn	<input type="radio"/> C sh <input type="radio"/> D ch	13. <input type="radio"/> A str <input type="radio"/> B squ	<input type="radio"/> C spl <input type="radio"/> D sch
4. <input type="radio"/> A gh <input type="radio"/> B gr	<input type="radio"/> C gn <input type="radio"/> D nt	14. <input type="radio"/> A spl <input type="radio"/> B str	<input type="radio"/> C sch <input type="radio"/> D ch
5. <input type="radio"/> A pl <input type="radio"/> B sch	<input type="radio"/> C shr <input type="radio"/> D spl	15. <input type="radio"/> A shr <input type="radio"/> B squ	<input type="radio"/> C sch <input type="radio"/> D spl
6. <input type="radio"/> A spl <input type="radio"/> B ch	<input type="radio"/> C str <input type="radio"/> D sch	16. <input type="radio"/> A sch <input type="radio"/> B squ	<input type="radio"/> C gn <input type="radio"/> D shr
7. <input type="radio"/> A sl <input type="radio"/> B shr	<input type="radio"/> C str <input type="radio"/> D ch	17. <input type="radio"/> A gn <input type="radio"/> B gh	<input type="radio"/> C ch <input type="radio"/> D ph
8. <input type="radio"/> A squ <input type="radio"/> B shr	<input type="radio"/> C spl <input type="radio"/> D str	18. <input type="radio"/> A ch <input type="radio"/> B gn	<input type="radio"/> C spl <input type="radio"/> D gh
9. <input type="radio"/> A ch <input type="radio"/> B spl	<input type="radio"/> C gn <input type="radio"/> D ph	19. <input type="radio"/> A gh <input type="radio"/> B gn	<input type="radio"/> C ght <input type="radio"/> D ng

STOP

PART 6

S. An old chair always seems more comfort_____.

- (A) ment (B) ness (C) able (D) ish

1. The sun grew hot as we crossed the end_____ desert.

- (A) ness (B) en (C) less (D) ment

2. I bought this winter jacket for its thick_____.

- (A) ness (B) able (C) ment (D) less

3. The snow will _____appear by afternoon.

- (A) less (B) ment (C) dis (D) pre

4. This light bulb has a green_____ gleam.

- (A) ish (B) able (C) ness (D) en

5. Dad _____soaks the clothes before he washes them.

- (A) ment (B) pre (C) able (D) dis

6. Raul and Venessa put on a play for our amuse_____.

- (A) ness (B) pre (C) able (D) ment

7. If you are always cross, you will soon be friend_____.

- (A) able (B) less (C) ness (D) ment

8. You can count on Jim to tell some fool_____ jokes.

- (A) en (B) ment (C) ish (D) able

9. Our new puppy is funny and lov_____.

- (A) less (B) ish (C) en (D) able

10. Tina _____painted the shelves before hanging them.

- (A) dis (B) ish (C) less (D) pre

11. The crowd watched the air show with amaze_____.

- (A) ment (B) less (C) able (D) ish

12. I will never forget your kind_____.

- (A) able (B) dis (C) ness (D) less

GO ON TO THE NEXT PAGE

13. The meat was _____cooked, so we just warmed it up.
 (A) dis (B) pre (C) ir (D) mis

14. The thief hid the stolen jewel clever_____.
 (A) ly (B) able (C) ous (D) ish

15. The star of the show is a well-trained sing_____.
 (A) ful (B) able (C) ly (D) er

16. After cleaning the room, we _____arranged the furniture.
 (A) un (B) dis (C) ll (D) re

17. A birthday is usually a joy_____ occasion.
 (A) ful (B) er (C) tion (D) able

18. My dog knows he'll be punished if he _____behaves.
 (A) ll (B) un (C) mis (D) re

19. We couldn't see through the frost_____ window.
 (A) er (B) y (C) ish (D) ful

20. Your story is not believ_____.
 (A) ish (B) ous (C) able (D) er

21. Jim _____tied his shoes and kicked them off.
 (A) pre (B) un (C) re (D) dis

22. Pat was careful in his selec_____ of a baseball bat.
 (A) tion (B) able (C) en (D) ful

23. Three buses went by, but the four_____ one stopped.
 (A) tion (B) th (C) en (D) ous

GO ON TO THE NEXT PAGE

24. The name written in this old book is _____legible.
 (A) re (B) il (C) pre (D) mis
-
25. The flag flapping in the breeze was a glori_____ sight.
 (A) th (B) en (C) tion (D) ous
-
26. A coming storm will cause the sky to dark_____.
 (A) ous (B) tion (C) en (D) able
-
27. The students were _____attentive during the show.
 (A) pre (B) mis (C) in (D) re
-
28. In sports, fair_____ is as important as winning.
 (A) ness (B) ful (C) er (D) able
-
29. The sky last night had a purpl_____ glow.
 (A) ous (B) en (C) able (D) ish
-
30. This scarf pattern is knitted _____regularly.
 (A) re (B) pre (C) ir (D) mis
-
31. In wintertime it's good to have a depend_____ car.
 (A) ous (B) able (C) y (D) tion
-
32. The windows in our school have _____breakable glass.
 (A) mis (B) in (C) ll (D) non
-
33. Having teeth fixed is almost pain_____ nowadays.
 (A) less (B) ment (C) ness (D) y
-
34. Sid had a great attach_____ to the bears at the zoo.
 (A) able (B) ment (C) less (D) er
-
35. My cousin is an outstanding tuba play_____.
 (A) able (B) ish (C) ness (D) er
-
36. Dad _____approves of the way I spend my money.
 (A) dis (B) un (C) pre (D) ir
-

GO ON TO THE NEXT PAGE

37. The lonely boy grew up to be a brilliant scient_____.

- (A) ist (B) er (C) ian (D) or

38. She was appointed direct_____ of the opera company.

- (A) ian (B) ese (C) or (D) an

39. We had a party to celebrate the Chin_____ New Year.

- (A) er (B) ese (C) ian (D) or

40. A big drop of rain fell on her _____head.

- (A) pro (B) super (C) sub (D) fore

41. A Tex_____ might know something about oil.

- (A) ist (B) ese (C) ian (D) an

42. The cycl_____ wore sweat bands on her head and wrists.

- (A) ist (B) ese (C) an (D) ian

43. The store employees' lockers are in the _____basement.

- (A) fore (B) sub (C) pro (D) anti

44. The magic_____ creates amazing illusions.

- (A) ese (B) ian (C) er (D) .or

45. On the first chilly day, Dad put _____freeze in the car.

- (A) anti (B) super (C) fore (D) pro

46. The drill_____ can put a hole right through the rock.

- (A) an (B) ian (C) ist (D) er

47. The famous pian_____ played three encores.

- (A) ist (B) ian (C) ese (D) er

GO ON TO THE NEXT PAGE

48. The Japan _____ have learned to cope with typhoons.
 (A) er (B) an (C) ese (D) or
-
49. Alask _____ temperatures can be surprisingly mild.
 (A) ese (B) an (C) or (D) ist
-
50. You can find many kinds of merchandise in a _____ market.
 (A) pro (B) anti (C) fore (D) super
-
51. A professional danc _____ practices hard every day.
 (A) er (B) ist (C) ian (D) an
-
52. The electric _____ fixed the broken doorbell.
 (A) ist (B) ian (C) an (D) er
-
53. My grandmother thinks she can _____ tell the weather.
 (A) pro (B) fore (C) anti (D) super
-
54. The _____ gymnasium group insists our town needs a new one.
 (A) anti (B) super (C) pro (D) sub
-
55. A machine operat _____ is careful to avoid accidents.
 (A) ist (B) ian (C) or (D) ese
-
56. The old sailor had a large tattoo on his _____ arm.
 (A) super (B) pro (C) fore (D) anti
-
57. The sleek racing car had a _____ charged engine.
 (A) sub (B) fore (C) pro (D) super
-
58. Vote for our candidate because he is _____ business.
 (A) sub (B) super (C) fore (D) pro
-
59. The _____ plot of the story is about a boy and his horse.
 (A) pro (B) fore (C) sub (D) anti
-
60. The _____ noise committee argued for stronger laws.
 (A) anti (B) fore (C) super (D) sub
-

STOP

APPENDIX F
SCOTT, FORESMAN READING END-OF-BOOK
TEST INSTRUCTIONS

SCOTT, FORESMAN END-OF-BOOK
TEST INSTRUCTIONS

(Pass out the booklets.)

Say: Please do not open the test booklets until you are told to do so. Put your name on the front of the test booklet. You will take this test in sections. (Hold up the booklet for the class to see.) When you see the word "GO ON TO THE NEXT PAGE" at the end of a page, you should continue to the next page. When you see the word "STOP" with a row of stars under it you put your pencil down and close your booklet until we are ready to continue. Open your booklets to page 1.

PART 1

Look at the example on the board. You are to find the mystery word in each sentence. The mystery word is the word with letters missing. You will mark the correct answers by putting an X on the letter next to the correct word. What word would make sense and have the same letters as the mystery word? (Pause.) (Discuss the example.)

Are there any questions? You will work this page and the next 2 pages just like this.

PART 2

On this test you will read the key sentence and answer the questions after the sentence. The questions will ask you about sounds in the words. Read the sample on the board. (Discuss answers to the sample.)

Are there any questions?

PART 3

On this test you will read the first word on the left and find a word next to it that has the same vowel sound as the first word. Read the sample on the board. (Discuss answers to the sample.)

Are there any questions?

PART 4

On this part of the test you will look at all four words and find the word with an ending added to it. Read the sample on the board. (Discuss answer to the sample.)

Are there any questions?

PART 5

On this part of the test you will mark the word that I say.

1. baby: Our new baby is very sweet. Mark baby.
2. explain: Please explain the story to me. Mark explain.

3. dark: The room is too dark without the light.
Mark dark.

4. footstep: The cat's footstep was quiet. Mark
footstep.

5. heard: I heard music outside yesterday. Mark
heard.

6. rubber: That old rubber ball barely bounces.
Mark rubber.

7. artist: I love to paint and would like to be an
artist. Mark artist.

8. bus: Our school bus is yellow. Mark bus.

9. example: This example is easy to do. Mark
example.

10. printer: The printer made an extra copy of the
book. Mark printer.

11. shoulder: I hurt my shoulder when I was at bat.
Mark shoulder.

12. terrific: The soup tastes terrific. Mark
terrific.

PART 6

On this part of the test you will look at the first
word and decide which of the four words after it has the
same number of syllables. Look at the example on the
board. (Discuss answer to the example.)

Are there any questions?

PART 7

On this part of the test you will mark the word that has an accent on the same syllable as the first word. Look at the example on the board. (Discuss the answer to the example.)

Are there any questions?

PART 8

On this part of the test you will mark the word in each group that has the same number of syllables and is accented on the same syllable as the key word. Look at the example of the board. (Discuss the answer to the example.)

Are there any questions?

PART 9 and 10

On this part of the test you will read the question and mark the answer. The questions deal with dividing syllables and where words are accented. Look at the two examples on the board. (Discuss the answers to the examples.)

Are there any questions?

PART 11

On this part of the test you will read the sentence and then mark the meaning of the underlined word. Look at

the example on the board. (Discuss the answers to the examples.)

Are there any questions?

PART 12

On this part of the test you will mark the root word of the underlined word. Look at the example on the board. (Discuss the answer to the example.)

Are there any questions?

PART 13

On this part of the test you will find the root word or the base word of the first word in every row. Look at the example on the board. (Discuss the answer to the example.)

Are there any questions?

PART 14

On this part of the test you will decide which word in the row is a root word with an affix added to it. Look at the example on the board. (Discuss the answer to the example.)

Are there any questions?

APPENDIX G
END-OF-BOOK TESTS
SCOTT, FORESMAN

END-OF-BOOK-TESTS

SCOTT FORESMAN

NAME _____

PART 1

Find the word that belongs in each sentence. Mark your answer.

1. Julie likes to walk in the r_____.

- a. raisin b. rain c. sun
-

2. She likes the little, wet p_____ on the sidewalk.

- a. puddles b. popcorn c. stones.
-

3. Julie loves to l_____ to the rain fall.

- a. hear b. library c. listen
-

4. She h__p__ it rains every day.

- a. hopes b. wishes c. hopped
-

5. Jeffrey likes hot, s__n__ days.

- a. songs b. sunny c. snowy
-

6. Then he can go swimming in the l__k__.

- a. lake b. like c. pool
-

7. One day he went for a w__k by the lake.

- a. hike b. work c. walk
-

8. He saw two d__r and a rabbit.

- a. door b. deer c. raccoons
-

9. He w__d for four hours.

- a. walked b. wished c. ran
-

10. He ate a huge d__r that night

- a. doctor b. dinner c. supper
-

11. Where is the s__k of apples?

- a. sock b. sack c. bag
-

12. Traffic was stalled on the s__t.

- a. street b. highway c. suit
-

SF 2.2

SF 3.1

GO ON TO THE NEXT PAGE

SF 3.1

13. Did you r____r to bring the tickets?

- a. forget b. roar c. remember
-

14. Please help me change this light b____b.

- a. bulb b. bib c. fixture
-

15. The train made a s__dd__n stop.

- a. quick b. sadden c. sudden
-

16. Will you please pass the b__tt__r?

- a. bitter b. butter c. potatoes
-

17. Let's eat fish for s__pp__r.

- a. supper b. slipper c. dinner
-

18. Our class took a trip to the pine f__r__t.

- a. park b. forest c. first
-

19. The fl__m__ng torches burned brightly in the night.

- a. burning b. flaming c. flamingo
-

20. Rico has math h__m__w__rk to do tonight.

- a. housework b. problems c. homework
-

21. Marie's new sw__t__r is very warm.

- a. sweater b. sweeter c. coat
-

22. Bill sat in the rocking ch__r on the porch.

- a. horse b. chair c. cheer
-

SF 4

23. Doris watched a sp__d__r spin a web.

- a. speeder b. insect c. spider
-

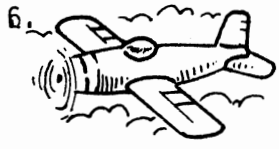
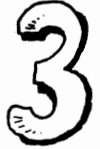







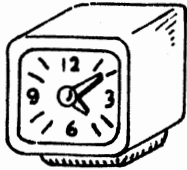


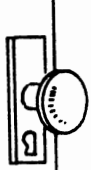
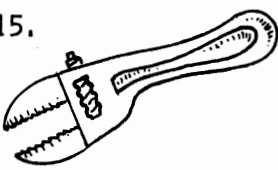

24. Charlie will be gone for a short p__r__d of time.

- a. period b. amount c. poured
-

25. Tiny blue v__l__ts grew on the lawn

- a. violins b. violets c. flowers
-

GO ON TO THE NEXT PAGE

<p>6. </p> <p>thr sl kn pl a. b. c. d.</p>	<p>11. </p> <p>wr cl thr tr a. b. c. d.</p>	<p>16. </p> <p>pl sl fl cl a. b. c. d.</p>
<p>7. </p> <p>sn wr st thr a. b. c. d.</p>	<p>12. </p> <p>wr kn thr tr a. b. c. d.</p>	<p>17. </p> <p>wh sl thr wr a. b. c. d.</p>
<p>8. </p> <p>pl cl fl sl a. b. c. d.</p>	<p>13. </p> <p>wr wh br thr a. b. c. d.</p>	<p>18. </p> <p>cl wr sl kn a. b. c. d.</p>
<p>9. </p> <p>st cl sc sl a. b. c. d.</p>	<p>14. </p> <p>pl cl sl pr a. b. c. d.</p>	<p>19. </p> <p>wr sl cl thr a. b. c. d.</p>
<p>10. </p> <p>kn wr sl cl a. b. c. d.</p>	<p>15. </p> <p>wr st thr wh a. b. c. d.</p>	<p>20. </p> <p>tr sl thr wr a. b. c. d.</p>

STOP

PART 2

Read each sentence. Then mark the correct answers.

Can you please talk to me now?

1. The c in can stands for the ____ sound.
 a s b k c s and k
2. The lk in talk stands for the ____ sound.
 a k b l c l and k

I hurt my thumb when I knocked.

7. The mb in thumb stands for the ____ sound.
 a m b b c m and b
8. The kn in knocked stands for the ____ sound.
 a k b n c k and n

Come for a walk with me.

3. The c in come stands for the ____ sound.
 a s b k c s and k
4. The lk in walk stands for the ____ sound.
 a l b k c l and k

Would you write to me?

9. The ld in would stands for the ____ sound.
 a l b d c l and d
10. The wr in write stands for the ____ sound.
 a w b r c w and r

I know you can climb that tree.

5. The kn in know stands for the ____ sound.
 a k b n c k and n
6. The mb in climb stands for the ____ sound.
 a m b b c m and b

Could you wrap this gift please?

11. The ld in could stands for the ____ sound.
 a l b d c l and d
12. The wr in wrap stands for the ____ sound.
 a w b r c w and r

STOP

PART 3

Mark the word which has the same vowel sound as the first word.

1. toy	a. toe	b. point	c. bone
2. choice	a. foal	b. note	c. boy
3. Joe	a. stop	b. boat	c. corn
4. blue	a. turn	b. crust	c. use
5. pie	a. time	b. third	c. bird
6. coil	a. toad	b. got	c. oil
7. boy	a. shone	b. boil	c. joe
8. oil	a. coal	b. joy	c. note
9. toe	a. born	b. shop	c. coat
10. true	a. rule	b. rust	c. hurt
11. boil	a. paid	b. soil	c. tone
12. tie	a. line	b. girl	c. sip
13. show	a. round	b. toad	c. top
14. grow	a. boat	b. flop	c. gown
15. town	a. nose	b. log	c. down
16. gown	a. hope	b. coat	c. how
17. food	a. fool	b. cup	c. rope
18. boom	a. fog	b. hoot	c. plot
19. wild	a. mild	b. milk	c. kick
20. child	a. sail	b. kid	c. ride
21. old	a. born	b. hope	c. boom
22. bold	a. cool	b. come	c. cold
23. night	a. drip	b. nail	c. file
24. fight	a. right	b. hid	c. mint

GO ON TO THE NEXT PAGE

SF 2.2

SF 3.1

SF 3.2

25. taught	a. loud	b. caught	c. count
26. caught	a. cough	b. crowd	c. laugh
27. child	a. risk	b. in	c. file
28. mild	a. sink	b. pit	c. pile
29. night	a. ride	b. pick	c. inch
30. light	a. trip	b. fright	c. first
31. old	a. how	b. so	c. torn
32. bold	a. corn	b. now	c. toe

STOP

SF 2.2

PART 4

Mark the word that has an ending added to it.

1. a. thankful	b. thank	c. full	d. bank
2. a. sharp	b. by	c. sharply	d. boy
3. a. slowly	b. hobby	c. honey	d. show
4. a. beauty	b. beautiful	c. hurry	d. full

STOP

SF 2.2

PART 5

Listen for the word your teacher says. Mark that word below.

1. a. bedroom	b. baby	c. bowl	d. bag
2. a. explain	b. extra	c. exercise	d. everywhere
3. a. deliver	b. distance	c. decode	d. dark
4. a. footstep	b. fact	c. frighten	d. figure
5. a. horse	b. heard	c. hurry	d. healthy
6. a. race	b. reply	c. rubber	d. reader

GO ON TO THE NEXT PAGE

PART 6

Mark the word that has the same number of syllables as the first word.

1. dragon

a. mouth b. dribble c. drag d. ring

2. meat

a. mountain b. feeble c. feet d. moment

3. underline

a. tablespoon b. balloon c. useful d. over

4. rocket

a. tickle b. rack c. pause d. reach

5. acorn

a. vest b. catch c. oven d. hug

6. zipper

a. sick b. zoo c. zebra d. soon

7. mouse

a. motor b. sandwich c. fifty d. barn

8. bumblebee

a. horsefly b. character c. angry d. rice

9. saddle

a. mitten b. match c. house d. out

10. iron

a. first b. oar c. even d. last

STOP

32. (A) throws (B) groan (C) through (D) soared

33. (A) crop (B) coal (C) paid (D) bull

34. (A) dared (B) steer (C) chairs (D) grazed

35. (A) cute (B) bring (C) young (D) flocks

36. (A) stew (B) bears (C) throw (D) straws

37. (A) true (B) tray (C) cracks (D) brown

38. (A) moose (B) crown (C) front (D) course

39. (A) dress (B) frame (C) trust (D) stairs

R-3.1.2 40. (A) three (B) slurp (C) crush (D) grinned

41. (A) nurse (B) noose (C) cross (D) math

42. (A) force (B) sparks (C) branch (D) rage

43. (A) gown (B) straw (C) blew (D) fierce

44. (A) storm (B) burrs (C) crouch (D) spray

45. (A) found (B) bloom (C) crawl (D) wrote

46. (A) prize (B) stern (C) croak (D) gears

47. (A) graph (B) court (C) proud (D) starred

STOP

PART 9

Read each question and mark the answer.

SF 4

1. Which shows the word *needle* divided into syllables correctly?

- a need le b nee dle

2. Which syllable in *needle* is accented?

- a first syllable b second syllable

3. Which shows the word *window* divided into syllables correctly?

- a win dow b wind ow

4. Which syllable in *window* is accented?

- a first syllable b second syllable

5. Which shows the word *reward* divided into syllables correctly?

- a rew ard b re ward

6. Which syllable in *reward* is accented?

- a first syllable b second syllable

STOP

SF 4

PART 10

Which word in each row is a compound word?

7. a lightning b lighter c lighthouse

8. a handshake b harness c haven't

Which word in each row is a contraction?

9. a doctor b doesn't c downstream

10. a yardstick b you're c yellowish

STOP

PART 7

Mark the word that has an accent on the same syllable as the first word.

1. si'lent

a. e nough' b. ze'ro c. camp

2. po si'tion

a. at'tic b. ex'er cise c. to geth'er

3. el'e phant

a. so lu'tion b. de ject'ed c. tri'an gle

4. en gin eer'

a. flow'er b. un hap'py c. kan ga roo'

5. gut'ter

a. fa'mous b. a sleep' c. tough

STOP

PART 8

Read each key word. Mark the word in each group that has the same number of syllables and is accented on the same syllable as the key word.

1. Jungle a. chore b. saddle c. braid

2. gutter a. enjoy b. grade c. dragon

3. enough a. awake b. camera c. zero

4. easy a. horse b. deer c. over

5. asleep a. arrow b. report c. web

6. college a. easily b. ladder c. which

7. famous a. alert b. own c. cannon

8. puddle a. sandwich b. energy c. couch

STOP

SF 3.1

SF 3.2

<p>9. I must <u>prepay</u> before the store will deliver my stove.</p> <p>Ⓐ pay late</p> <p>Ⓑ pay ahead of time</p> <p>Ⓒ pay during delivery</p>	<p>13. The <u>painter</u> made a beautiful picture of a lake.</p> <p>Ⓐ someone who never paints</p> <p>Ⓑ someone who can't paint</p> <p>Ⓒ someone who paints</p>
<p>10. I made a cake from this <u>premixed</u> package.</p> <p>Ⓐ mixed ahead of time</p> <p>Ⓑ mixed while cooking</p> <p>Ⓒ mixed by hand</p>	<p>14. The game was called after the <u>seventh</u> inning.</p> <p>Ⓐ at the end of the game</p> <p>Ⓑ one inning after the sixth</p> <p>Ⓒ an inning with seven players</p>
<p>SF 3.2 11. We stood in line to hear the famous <u>singer</u>.</p> <p>Ⓐ someone who can't sing</p> <p>Ⓑ someone who does not sing</p> <p>Ⓒ someone who sings</p>	<p>15. Today is Carla's <u>fifteenth</u> birthday.</p> <p>Ⓐ birthday with fifteen gifts</p> <p>Ⓑ birthday after the fourteenth</p> <p>Ⓒ birthday on April 15</p>
<p>12. We bought fresh berries from the <u>farmer</u>.</p> <p>Ⓐ someone who owns a store</p> <p>Ⓑ someone who farms</p> <p>Ⓒ someone who hates farming</p>	<p>16. Susan finished <u>eighth</u> in the state spelling contest.</p> <p>Ⓐ won by spelling the word eight</p> <p>Ⓑ ate a lot for dinner</p> <p>Ⓒ one after the seventh</p>

STOP

PART 12

Mark the root word of each underlined word.

1. Sue is always joking around.

- Ⓐ joked Ⓑ jokes Ⓒ joke
-

2. This soup is thicker than the other soup.

- Ⓐ thick Ⓑ thicker Ⓒ thickest
-

3. The squirrel always carries nuts past our window.

- Ⓐ carrying Ⓑ carried Ⓒ carry
-

4. The rabbit hopped through the hole in the fence.

- Ⓐ hop Ⓑ hops Ⓒ hopping
-

5. We cut the apple into halves.

- Ⓐ hall Ⓑ half Ⓒ halved
-

SF 3.1

6. This problem is harder than the last one.

- Ⓐ hardest Ⓑ hard Ⓒ harden
-

7. Tim's dog buried seven bones in the yard.

- Ⓐ buries Ⓑ burying Ⓒ bury
-

8. Does a cat really have nine lives?

- Ⓐ life Ⓑ living Ⓒ liver
-

9. Who has the softest pillow?

- Ⓐ soft Ⓑ softer Ⓒ soften
-

10. The cows were calmer after the storm.

- Ⓐ calmest Ⓑ calms Ⓒ calm
-

11. She sleeps eight hours a night.

- Ⓐ sleep Ⓑ sleeping Ⓒ sleepy
-

12. Are we facing west?

- Ⓐ faced Ⓑ faces Ⓒ face
-

STOP

PART 13

- | | | | |
|--------------|-----------|------------|------------|
| 1. merrily | (a) meri | (b) merry | (c) merril |
| 2. wolves | (a) wol | (b) wolve | (c) wolf |
| 3. handled | (a) hand | (b) handle | (c) han |
| 4. flapping | (a) flap | (b) flapp | (c) flappi |
| 5. gardens | (a) gar | (b) gard | (c) garden |
| 6. earlier | (a) earl | (b) early | (c) earli |
| 7. enjoyment | (a) enjoy | (b) enjo | (c) joy |
| 8. bony | (a) bone | (b) bon | (c) bo |

Decide what happened to the root word in each numbered word below.

SF 5

- A. There was no change in the root word.
 B. The final consonant was doubled.
 C. The final e was dropped.
 D. The final y was changed to i.
 E. The final f was changed to v.

- | | | | | | |
|--------------|-------|-------|-------|-------|-------|
| 1. madder | (a) A | (b) B | (c) C | (d) D | (e) E |
| 2. silliness | (a) A | (b) B | (c) C | (d) D | (e) E |
| 3. taking | (a) A | (b) B | (c) C | (d) D | (e) E |
| 4. elves | (a) A | (b) B | (c) C | (d) D | (e) E |
| 5. craziest | (a) A | (b) B | (c) C | (d) D | (e) E |
| 6. lion's | (a) A | (b) B | (c) C | (d) D | (e) E |
| 7. painless | (a) A | (b) B | (c) C | (d) D | (e) E |
| 8. slipped | (a) A | (b) B | (c) C | (d) D | (e) E |

STOP

PART 14

Which word in each numbered group is a root word with an affix?

1. Ⓐ publish Ⓑ warmish Ⓒ body
2. Ⓐ dove Ⓑ halves Ⓒ address
3. Ⓐ fried Ⓑ spring Ⓒ greed
4. Ⓐ guest Ⓑ father Ⓒ swimmer
5. Ⓐ practicing Ⓑ fable Ⓒ partner
6. Ⓐ medicine Ⓑ saddest Ⓒ radish
7. Ⓐ darken Ⓑ special Ⓒ wren
8. Ⓐ company Ⓑ valley Ⓒ busily
9. Ⓐ power Ⓑ greener Ⓒ answer
10. Ⓐ honey Ⓑ selves Ⓒ magazine
11. Ⓐ gather Ⓑ families Ⓒ identify
12. Ⓐ cutest Ⓑ interest Ⓒ picture
13. Ⓐ sunny Ⓑ sorry Ⓒ bury
14. Ⓐ bread Ⓑ forest Ⓒ whistled

SF 5

STOP

APPENDIX H
PUBLISHER PERMISSION



Scott, Foresman and Company 1900 East Lake Avenue Glenview, Illinois 60025 312/729-3000

Jill Dannemiller
Marketing Manager
Reading/Literature

Ms. Jimmie Russell
102 Meadows Lane
Shawnee, Oklahoma 74801

Dear Ms. Russell:

I have been unable to reach you by phone, so I hope this letter answers your questions.

Scott, Foresman Reading Tests were not validated. Our new series, Scott, Foresman Reading: An American Tradition, (c. 1987) is being validated.

To obtain permission to print our tests with the cutting and pasting you are doing, you must write a short letter of explanation to:

Ms. Barbara Barlolotta
Permissions Department
Scott, Foresman and Company
1900 East Lake Avenue
Glenview, IL 60025

Please call if you have further questions.

Sincerely,


Jill Dannemiller

JD/cz



May 27, 1987

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Education Department
Shawnee, OK 74801
(405) 275-2850, Ext 2244

Ms. Barbara Barlolotta
Permissions Department
Scott, Foresman and Company
1900 East Lake Avenue
Glenview, IL. 60025

Dear Ms. Barlolotta:

I am on the faculty at Oklahoma Baptist University and am a doctoral candidate at Oklahoma State University.

For my dissertation I am using Scott, Foresman Reading and The Riverside Reading Programs to determine which word identification skills in the two basal reading management systems have been mastered by capable second grade readers.

To identify the capable readers I used the Scott, Foresman and Riverside placement tests for levels 3.1, 3.2 and 4. In addition, I used the word identification portion of the Scott, Foresman End-of-Book Tests at levels 2.2 through 5 to determine which word identification skills had been mastered by the capable readers.

To make the testing situation easier I assembled two test booklets. One combines the Scott, Foresman and Riverside placement tests and the other combines the word identification portions of the Scott, Foresman End-of-Book Tests for levels 2.2 through 5. These booklets are enclosed for you to examine.

I would like permission to print these booklets in the appendix of my dissertation. They would be placed there in case someone would want to replicate the study. It is difficult to describe in words how I "cut and pasted" the tests together so I feel including the tests in the appendix is the best alternative.

I am looking at dissertation deadlines in June, so your prompt reply would be appreciated.

Thank you for your consideration.

Sincerely,

Jimmie Russell

Jimmie Russell
Assistant Professor of Education

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Acknowledge title, author and our
copyright notice.

by: Barbara Barlolotta

date: June 1, 1987

SCOTT, FORESMAN AND COMPANY



OKLAHOMA
BAPTIST
UNIVERSITY

Education Department

Shawnee, OK 74801
(405) 275-2850, Ext. 2244

May 27, 1987

Ms. Carole Palmer
The Riverside Publishing Company
8420 Bryn Mawr Avenue
Chicago, IL 60631

Dear Ms. Palmer:

We spoke at IRA and on the phone regarding reliability and validity data for The Riverside Reading Program placement test and level tests.

In addition, I requested permission to print levels 3.1, 3.2 and 4 of the placement test and the word identification portions of levels 2.2 through 5 of the level tests in the appendix of my dissertation. The parts that I would like to print are enclosed for you to examine.

I would like permission to print the tests in the appendix because it is difficult to describe in words the way I "cut and pasted" the tests together. I feel including the tests in the appendix is the best alternative. They would be placed there in case someone wanted to replicate the study.

I am looking at dissertation deadlines in June, so your prompt reply regarding these requests would be appreciated.

Thank you for your help.

Sincerely,

Jimmie Russell
Assistant Professor of Education

**The Riverside Publishing Company**

8420 Bryn Mawr Avenue · Chicago, Illinois 60631 · 1-800/323-9540 · 312/693-0040

May 27, 1987

Jimmie Russell
102 Meadows Lane
Shawnee, Oklahoma 74801

Dear Mr. Russell:

The attached sheets are the summary documents for the testing program. This information applies to the Level Tests as well as the Placement Tests. This is the only data that can be released since the test authors have undertaken a project to validate, modify, and update the materials. As with the development of any project, we spend a great deal of time and effort checking all aspects to ensure that the product is of the highest quality.

We can grant you permission to reproduce the sample test pages for your project. Such permission is limited to the use of these items solely for the purpose you described. If other uses are to be made of the material, further permission must be sought.

Sincerely,

Carole E. Palmer

Carole E. Palmer
Editorial Director
Language Arts

CEP:rls
Enclosure

VITA ²

Jimmie Louise Smith Russell

Candidate for the Degree of

Doctor of Education

Dissertation: IDENTIFICATION AND DESCRIPTION OF ESSENTIAL AND NONESSENTIAL WORD IDENTIFICATION SKILLS OF CAPABLE SECOND GRADE READERS IN TWO BASAL READING MANAGEMENT SYSTEMS

Major Field: Curriculum and Instruction

Biographical:

Personal Data: Born in Houston, Texas, November 13, 1949, the daughter of Malcolm A. and Lena Mae Smith.

Education: Graduated from Spring Woods High School, Houston, Texas in May, 1968; received Bachelor of Science Degree in Elementary Education from University of Houston, Houston, Texas in August, 1972; received the Master of Education Degree in Elementary Education from East Texas State University, Commerce, Texas in August, 1976; completed coursework at Oklahoma Baptist University, Shawnee, Oklahoma in fall, 1981; Oklahoma City University, Oklahoma City, Oklahoma in spring, 1982; Northern Arizona University, Flagstaff, Arizona in summer, 1983; Ball State University, Muncie Indiana in summer, 1984; completed requirements for the Doctor of Education Degree at Oklahoma State University in July, 1987.

Professional Experience: First grade teacher, Aldine Independent School District, Houston, Texas, September, 1972 to May, 1973; third grade teacher, Rains Comprehensive Schools, Emory, Texas September 1973 to May, 1976 and September 1977 to May 1979. Assistant Professor of Education, Oklahoma Baptist University,

September, 1981 to present; sabbatical granted from Oklahoma Baptist University to serve as Teaching Assistant, Department of Curriculum and Instruction, Oklahoma State University, September 1986 to May, 1987.

Professional Organizations: National Reading Conference; International Reading Association; Oklahoma Reading Council; Higher Education Reading Council; Pott County Reading Council.