

1988

The relations among students' performance on phonic tasks

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The relations among students' performance on phonic tasks

Abstract

This research paper describes a proposal for a substantial investigation in the area of phonics tasks. This paper contains an in-depth examination of the history of phonics instruction and assessment, plus six phonic tasks that are to be implemented with second graders.

THE RELATIONS AMONG STUDENTS'
PERFORMANCE ON PHONIC TASKS

A Research Paper

Submitted to

The Department of Curriculum and Instruction

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts in Education

University of Northern Iowa

by

Phyllis Dedrick

July 1988

This Research Paper by: Phyllis Detrick

Entitled: The Relations Among Students' Performance on Phonic Tasks

has been approved as meeting the research paper requirement for the Degree of Master of Arts in Education.

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CHAPTER I

INTRODUCTION

This research paper describes a proposal for a substantial investigation in the area of phonics tasks. This paper contains an in-depth examination of the history of phonics instruction and assessment, plus six phonic tasks that are to be implemented with second graders.

The Problem

Reading instruction in phonics typically reflects both the philosophy of the teacher and the materials that are to be used. This philosophy generally follows one of three theories. These theories are referred to as top-down, bottom-up, or interactive.

Proponents of the top-down theory of reading emphasize that readers begin with meaning and tend to use only minimal cues from the printed page. They view reading and language as parallel processes (Goodman, 1973, 1976; Smith, 1971, 1974).

In contrast, some theorists (Gough, 1972; LaBerge & Samuels, 1974) hypothesize that to construct meaning, the reader must progress through a step-by-step progress. This bottom-up approach of reading suggests that the reader must begin with the individual letters and sounds and progress through various sources of information. The emphasis here is on the printed page and what the reader extracts from the printed page.

The third theory, interactive, views reading as a process in which the reader simultaneously uses all levels of processing (visual,

phonological, lexical, syntactic, and semantic) to construct meaning. That is, as a reader perceives the graphic information, hypotheses will be made about the message using one or more knowledge sources in any order (Rumelhart, 1976; Stanovich, 1980).

Throughout the history of teaching reading, instructional emphases on word recognition have shifted. Most instruction has fallen between a code emphasis and a meaning emphasis program. Word recognition instruction generally has relied on one or more of the following skill areas: phonics, word families, structural word parts, sight words, and context clues. The 1980s have seen a trend toward the combined use of visual, auditory, tactile, and kinesthetic cues, plus the simultaneous development of word identification and comprehension.

Many educators support the idea that the child needs certain prerequisite abilities and skills as the foundation for the successful learning of reading. These prerequisites vary, depending on the method used for instruction. The prerequisite of understanding letter-sound relationships is one of the primary concerns for a bottom-up, synthetic approach to reading (Samuels, 1988; Chall, 1983). In contrast, a top-down, analytic approach to reading emphasizes that a child must have a sizable listening and speaking vocabulary, a knowledge of what reading is for, and an interest in reading before learning to read (Cunningham, Moore, Cunningham, & Moore, 1983).

In phonics instruction, a student learns sound-symbol relationships. When a child is taught from an explicit, synthetic approach, many rules are taught. The child uses these rules in a deductive, part-to-whole manner by learning letter sounds first and

later blending them into words (Johnson & Baumann, 1984). When a child is taught from an implicit, analytic approach, instruction is given in larger wholes and proceeds to the study of parts. Supporters of the analytic approach emphasize the need for meaningful reading and for immediate sight recognition of words and phrases (Harris & Sipay, 1975).

Many teachers believe that students learn to read by completing commercial materials, that the teacher is teaching when asking students to recite from these materials, and that an incorrect response calls only for impromptu cues which are brief enough to avoid disrupting the pace of the activity. On-going decision-making is not controlled by the teacher, but by the commercial publisher. The teacher merely presents the material instead of developing students' reading outcomes (Duffy & McIntyre, 1982).

Most modern basal reading series contain at least one workbook per student reader. Most series stress visual discrimination of letters and words, and auditory discrimination and sounds within words. According to Osborn (1983), workbooks require students to work independently. How students perform in their workbook activities supposedly gives a teacher information about the performance of each student on all parts of a task. Nevertheless, much criticism has been made toward workbook activities. They are often seen as having no relation to what is done in the rest of the lesson, consisting of tasks that are either too easy or too hard, and containing tasks that are out of sequence to the main line of instruction of the reading program.

Schell (1986) sums up the problem with workbook tasks with his observation that students frequently can satisfactorily complete a worksheet, but they often cannot reliably apply worksheet skills in functional reading situations. Students are able to handle individual subskills in isolation, but when faced with a situation in which they must respond to and manipulate several of these skills in a non-mechanical manner, they seem unable to perform equally well.

Most workbook tasks and phonic assessments focus on students' ability to list, match, and pick words that have particular sounds. These activities predominate at the expense of tasks which elicit distinctively production responses.

Various types of phonic assessments have been used in the process of determining students ability in reading. In general these include norm-referenced tests, criterion-referenced tests, informal reading inventories, and word recognition tests. Norm-referenced tests allow comparisons of a person taking it to the performance of others who have already taken the test. The individual's test performance is usually expressed in a specific numerical value such as grade equivalent score, a percentile rank, or a standard score. The Iowa Test of Basic Skills is one example. On the other hand, criterion-referenced tests are designed to compare an individual's performance to an absolute, pre-established standard rather than to the performance of a group of individuals. They are designed for group use with a multiple choice format. Most basal tests are of this nature.

In informal reading inventories (IRIs) the attempt is to deal with reading as holistically as possible. Students are asked to read from

real texts, while teachers note their performance. This type of production response allows a teacher to take into consideration the nature and quality of errors that a student makes while reading orally. Individual word recognition tests are commonly used with IRIs. Such tests are used to measure a child's ability to recognize words in isolation. Moreover, these tests focus on both the child's sight vocabulary and word analysis skills.

Most classroom tests that are conducted within a group require recognition responses and use real words within the child's speaking vocabulary. Nevertheless, according to educators such as Clay (1979), Allington (1980), Pilkulski and Shanahan (1980), and Moore (1983), assessments of phonic knowledge need to be administered individually, focus on production responses, and use natural materials containing both known and unknown words. Only in this way is it possible to adequately measure a child's ability to apply his knowledge of phonics skills in real settings.

Statement of the Problem

It is the goal of this study to answer the following question:
What are the relations among students' performance on phonic tasks?

Significance of the Study

This study should prove useful in that no comparison of the two types of phonic tasks in the reading field was located. Oral reading has been explored as a viable means of eliciting phonic understanding as well as spelling performance. However, students' performance with

worksheets such as those described here have not been compared with their performance with application tasks.

It is hoped that this study will add to the bank of knowledge regarding assessment of phonics understanding in children. This information should be valuable to both producers of instructional materials and to teachers involved in reading instruction. By taking a look at the tasks required of students in the area of reading, students' needs might be better met.

Assumptions

Fundamental to the understanding of this study are the following assumptions. First, the worksheets used in this study are representative of the type distributed by basal reader manufacturers and of the tasks required of second-grade level students by their teachers. Second, the words chosen for the spelling tasks are typically not found on second-grade spelling tests, but are similar in structure and length. Third, the oral reading of the class list is representative of the type of task used to assess phonic understanding by teachers who have students read from a word list. Fourth, the oral reading of invented names in the story is similar to students reading stories in which they must figure out the pronunciation of character's names.

Limitations

The generalizability of the study is limited by the sample size and heterogeneity available. Also, the study applied itself only to long and short vowel sounds of eight spelling patterns.

Definition of Terms

Non-Application Tasks

Non-Application Tasks -- Non-Application Tasks are presumed to be recognition tasks similar to those found in workbook activities. They are primarily practice tasks eliciting student performance with mechanical skills.

Oral-Print Match -- This task requires students to match pictorially-presented oral words with printed words that contain the same vowel sound and spelling pattern.

Print-Print Match -- This task calls for students to match printed words containing the same vowel sound.

L/S Identification -- This task requires students to identify the vowel sounds in printed words as being either long or short.

Application Tasks

Application Task -- Application tasks are those tasks which require a production response. This response may take the form of either an oral response or a spelling response.

Spelling -- This task asks students to write the spellings for a list of words.

Class List -- This task requires students to orally read from a class list of contrived names.

Story -- This task calls for students to orally read a story containing contrived names.

Other Terms

Vowels -- Vowels are speech sounds produced by moving the tongue to alter the size and shape of the cavities through which air passes.

Long Vowel Sound -- Long vowel sounds require some amount of shift in order to produce the sound. The long vowel sound says the name of the alphabet letter representing that sound.

Short Vowel Sound -- Short vowel sounds involve little or no shift in the tongue. They are heard at the beginning of at, Ed, if, ox, and up. A vowel has its short sound when there is one vowel in a word and that vowel does not come at the end of a word.

Phoneme -- A phoneme is the smallest unit of sound which distinguishes one word from another in a language.

Grapheme -- A grapheme is the written symbol used to represent a phoneme. It may be composed of one or more letters, and the same grapheme may represent more than one phoneme.

Grapheme-Phoneme Relationship -- This term refers to the relations between printed letters and the sounds they represent.

Spelling Pattern -- A spelling pattern is any letter group which has an invariant relationship with a phonemic pattern. It is also referred to as a word family or a phonogram within a word.

CHAPTER II

REVIEW OF THE LITERATURE

This chapter reviews the professional and research literature relative to phonic tasks. First, general theories of reading are explored in terms of their emphasis on phonics. Second, prerequisites for beginning reading/phonics instruction are viewed according to bottom-up and top-down approaches to reading. Third, the concept of word analysis is explored with a focus on phonics. Fourth, an historical perspective on reading instruction is presented. Fifth, a presentation is made of current instructional practices in reading with an emphasis placed on workbooks and the phonics tasks that they incorporate. Sixth, a review of various phonic assessments is presented. Finally, a review is made of the research that has dealt with the relations among phonic tasks.

Reading Theories

Since the early 1960s, many different models and theories of reading have been formulated in an attempt to better understand the reading process. Until that time, few attempts were made to conceptualize knowledge and theory about the reading process in the form of explicit models (Samuels & Kamil, 1984).

Recently, three conceptualizations of the reading process have received considerable attention by reading authorities (Stanovich, 1980). These views of reading are called top-down, bottom-up, and

interactive. All three models have two basic similarities: a reader and a written text. The differences among the three are based on how readers process the text when they read (Heilman, 1986).

Those theorists who expound a meaning-based or top-down model emphasize that readers begin with meaning and tend to use only minimal cues from the printed page. Readers rely predominantly on their prior knowledge of language and content in constructing meaning. The readers' knowledge of the world enables them to select only those parts of the text that they need to predict and confirm meaning.

Two of the strongest proponents of the top-down approach are Kenneth Goodman and Frank Smith. According to Goodman (1971), reading is a psycholinguistic guessing game. He believes that readers sample, predict, test, and then confirm or disconfirm as they process texts. Efficient reading results from skill in selecting the fewest, most productive cues necessary to produce guesses that approximate the author's meaning. Readers concentrate on the graphic input by drawing on experiences and concepts previously attained as well as on language competence (Ringler & Weber, 1984).

Frank Smith (1971, 1973), like Goodman, describes comprehension as a sampling process during which the reader selects from the written message those cues needed to test predictions and resolve uncertainty about underlying meaning. Both Goodman and Smith propose that people comprehend written language similarly to the way they comprehend speech. In other words, both view reading and language as parallel processes.

In contrast, some theorists hypothesize that to construct meaning the reader must progress through a step-by-step process. This "bottom-up" model of reading suggests that the reader must begin with the individual letters and the sounds of the language and move through progressively higher stages of processing in a set order. The emphasis here is on the printed page and what the reader extracts from the page rather than a focus on what the reader brings to the page (Ringler & Weber, 1984).

The advocates of this theory believe that reading is the process of going from visual surface structures to audible surface structures. The reader looks at the text, recodes it to oral or aural language, and then (perhaps) proceeds to meaning. When readers proceed from graphic symbols to their aural counterparts, they internally listen to the sounds represented by the graphic symbols (Burmeister, 1983).

Gough (1972) exemplifies those theorists associated with linear or "bottom-up" models. For Gough, visual perception initiates the input of printed material and processing proceeds step-by-step to higher stages moving from letter recognition to decoding, to word recognition, and to syntactic and semantic processing. Thus, according to Gough, the reader "plods through the sentence, letter by letter, word by word" (p. 354) moving in a left to right linear progression. His emphasis is on decoding prior to obtaining meaning. Thus, Gough sees skill in phonics as giving "the child a means of naming a word" (p. 350).

Similarly, LaBerge and Samuels (1974) view reading acquisition as a series of skills that for the fluent reader have become automatic. "When the decoding and comprehension processes are automatic, reading

appears to be easy. When they require attention to complete their operations, reading seems to be difficult" (p. 314).

Bottom-up advocates recognize the need for "automaticity of decoding." If decoding takes too much time, the first part of the clause or sentence will slip away because decoding activities at the end of the sentence or clause require the use of working memory. The less work needed in the decoding act, the more room is available for comprehension and enjoyment (Burmeister, 1983).

Recently, an interactive theory of the reading process has surfaced. This model views reading as a process in which the reader simultaneously uses all levels of processing (visual, phonological, lexical, syntactic, and semantic) to construct meaning. Proponents of this interactive theory say that reading is neither "top-down" or "bottom-up," but that the reader constructs meaning by the selective use of information from all the knowledge sources together (Ringler & Weber, 1984).

Research literature, as interpreted by Rumelhart (1976), lends support to the interactive model. He believes that readers need to allow for cueing systems to interact in order to read with accuracy and comprehension. The four cueing systems are syntactic, semantic, schematic, and graphophonic.

Syntax cues are those context hints provided by the order of the words in the sentence, or by the type of word (noun, verb, adverb, or adjective) expected in the sentence slots. Semantic cues are those context hints provided by the meaning of the surrounding words. Schematic cues are those prior-knowledge cues about the world that help

the reader understand. These cues are based on past experiences and on the language heard and spoken during those experiences. Graphophonic cues are single letters, or sets of letters, particularly their positions in words, and speech sound that they represent.

According to Rumelhart, the beginning reader must acquire the following closely-related skills in order to make reasonable progress. These skills include mastering and applying letter-sound relationships, enlarging sight vocabulary, and profiting from context cues while reading. Early instruction should help children develop the insight that these three skills complement each other in helping to crack the two codes of word identification and meaning. In cracking the code of word identification, learning to associate printed letters with the speech sound they represent is essential to reading. In cracking the code of word meanings, learning to associate words with their prior knowledge, and using that knowledge to derive meaning, is also essential for reading.

In sum, Rumelhart's interactive model of reading indicates that all the different information sources interact simultaneously. That is, readers construct meaning using one or more knowledge sources--feature, letter, letter cluster, lexical, syntactic, and semantic--reciprocally and in any order (Ringler & Weber, 1984).

The mere pronunciation of words seems to be a necessary prerequisite for reading, but it is not reading until this act of recognition evokes meaning(s) that the written words, in combination, carry in oral language usage. The meaning(s) that you acquire from reading is highly related to your experiential/conceptual background.

As you interact with the environment, your experiential/conceptual background broadens, thus, enhancing your comprehension capabilities (Heilman et al, 1986).

Prerequisites for Beginning Reading/Phonics Instruction

Many educators support the idea that the child needs certain prerequisite abilities and skills as the foundation for the successful learning of reading. In the field of reading, these prerequisites are often referred to as "reading readiness" skills (Durkin, 1970).

Prerequisites for phonic instruction vary, depending on the method used for instruction. Advocates of a bottom-up approach to reading usually emphasize a synthetic method for teaching phonics. The prerequisites needed for this method are typically mechanical in nature. That is, they are primarily concerned with letter-sound relationships.

Chall (1983), in her presentation of reading stages, notes that for children to move into stage one, the initial reading or decoding stage, they must acquire knowledge and skill in:

1. knowing that books are for reading;
 2. understanding that certain words begin with certain sounds;
 3. hearing rhyming in words;
 4. recognizing some common signs and labels;
 5. pretending to read by retelling stories while looking at the pages;
 6. playing with and knowing uses of books, pencils, and paper;
- and

7. possibly engaging in early writing (invented spelling).

The research of Stanovich, Cunningham, and Freeman (1984) supports the developmental view of reading offered by Chall (1983). They identified verbal comprehension, phonological awareness, and decoding speed as skills and abilities that contribute to reading progress in the first grade.

According to Samuels (1988), the following prerequisites are necessary for phonics instruction. They include knowledge of:

1. language of instruction--technical words (paragraph, period, question mark, alphabet, capital or upper case letter, consonant, vowel, read, word, and sentence), plus words dealing with size, shape, directionality, and position.
2. the conventions of print--how words are represented in printed materials: words (a letter or group of letters separated by spaces), capital letters (at the beginning of words, sentences, or proper names), periods, question marks, quotation marks, and new paragraphs.
3. directionality in processing print--(left to right, top down).
4. how to segment spoken words into smaller sound units matching the 47 phonemes (basic sounds) with the appropriate letters or letter combinations. In order to do this, the student must develop auditory perceptual skills to hear the separate sounds in a word. Evidence of student ability is shown by students telling you which words begin with the same sounds (ball--bat, boy, big), by their ability to rhyme words

(house, mouse, louse), and by their ability to delete a sound anywhere in a word (leave out the m sound in meat or the f sound in beef).

5. how to blend sounds to form words--(blend letter-sound correspondences).

Richek, List, and Lerner (1983), identified two main types of prerequisites for learning to read. The first prerequisite is visual. Visual skills include visual discrimination, visual sequencing, visual memory, and a related ability, naming alphabet letters.

Visual discrimination is the ability to see likenesses and differences in visual stimuli. An example is the ability to pick out two letters or words that look the same.

Visual sequencing involves the ability to perceive objects and letters in an appropriate order. Thus, "on" is one word, and "no" is another.

Visual memory refers to the ability to remember letters and words that are presented visually. This is very important for learning sight words.

Naming alphabet letters involves the ability to name letters, which has been found to be an excellent predictor of reading achievement. However, it is not an essential prerequisite skill for learning to read. Nevertheless, students often feel more comfortable if they can identify letters, which are the building blocks of reading. If students are taught alphabet recognition, the letters should be taught out of order. In addition, students should be taught to match uppercase letters to lowercase letters.

The other type of prerequisite skill identified by Richek, List, and Lerner (1983) is auditory. Auditory skills include auditory discrimination, rhyming, blending, auditory memory, sound segmentation, and knowledge of letter sounds.

Auditory discrimination refers to the ability to perceive differences in sounds. For example, can the student tell if two spoken words are the same or different?

Rhyming refers to the ability to be able to answer a question such as the following: "What word does "at" make you think of?"

Blending refers to the ability to combine isolated letter sounds into words. This ability is very important if a student is to learn to read through a synthetic phonics method, where letter sounds are blended together to form words. To use phonics effectively, students must be able to form words from isolated sounds.

Auditory memory refers to the ability to remember sounds, which is very important to learning phonics. When students are using a decoding process, they must store separate sounds in their memory long enough to blend them together into words.

Sound segmentation refers to the ability to recognize that words spoken orally can be divided into smaller units or sounds. An example would be the ability to separate the beginning phoneme of a word from the rest of the word by a pause, such as c--an.

Letter sounds must be learned if a student is to use phonics efficiently. Consonant sounds should be taught first because they are more stable and easier to learn. Vowel letter sounds should be taught

after the pupil has acquired some reading fluency because they are so variable and hard to learn (Richek et al, 1983).

Advocates of a top-down approach to reading emphasize a strong understanding of the reading process and a basic sight vocabulary before emphasizing the learning of phonics through an analytic approach. From this meaning-based approach, the prerequisites for phonic instruction will follow instruction in beginning reading.

Several recent investigations dealing with success in beginning reading offer support for the importance of the areas of language, concept of print, language of reading instruction, and phonological awareness. Clay (1979) identified four aspects that children must attend to if they are to become readers:

1. visual attention to print;
2. directional rules about position and movement;
3. talking like a book; and
4. hearing sounds in words.

In a review by Cunningham, Moore, Cunningham, and Moore (1983), the following prerequisites were felt to be important for a beginning reading program. The child must:

1. know what reading is for;
2. have an adequate background of information so that what they read makes sense;
3. have the expectation that what they read will make sense;
4. know the conventions and the jargon of print, such as a left-to-right, top-to-bottom orientation and an understanding of such terms as letter, word, and sentence;

5. auditorilly and visually discriminate letters and words;
6. have an interest in reading and a desire to learn how to read; and
7. have had experiences with both story and expository text structures.

Many educators such as Richek (1983) feel that young readers must understand such basic concepts as why people read, what people do when they read, and what is meant by sounds, words, and sentences. In other words, they need to know that reading is a meaningful process.

In investigating students' concepts about reading, Downing (1969) found that primary school children were unclear about the reading process and unable to describe the purposes and actions of readers. In another study, Downing (1970) found that most children did not understand the reading terms such as words, and sounds. His research suggests that these concepts are not automatically acquired and that teachers must provide instruction in them.

According to Smith (1978), "phonics needs to be an integral part of reading instruction, not isolated from reading. The reader usually meets words in context, and does not have to depend upon phonics alone to decode an unfamiliar word" (p.73). The reader finds it necessary to recognize words to understand and appreciate what is written. Recognizing words is more than just being able to pronounce them. Basically, a reader should spend no more time than is absolutely necessary in attacking a word.

In the analytic approach to teaching phonics, the child is taught a limited number of sight words and then the teacher instructs the

child to utilize these known words to infer letter-sound associations for unknown words.

According to Durkin (1970), skill in phonic analysis is dependent upon other learnings which can be considered its prerequisites. For phonics, one of the most basic of the prerequisites is a sizable listening and speaking vocabulary. Another is the ability of the child to pronounce words correctly and distinctly. Finally, children must be able to discriminate both auditorily and visually before they can be expected to make satisfactory progress in phonic analysis.

Word Analysis

According to Duffy and Roehler (1986), reading is defined as reconstructing the author's printed message. In order to do so, the reader must recognize the majority of the printed words. However, when a student does not instantly know a word, the student must attack or analyze it to figure it out. There are three major ways for figuring out unrecognized words.

First, teachers should teach students to use context to predict an unrecognized word. According to supporters of the both top-down and interactive views of reading, this strategy is the most efficient way to solve word identification problems. They claim that it is fast and emphasizes meaning-getting.

A second way to figure out an unrecognized word is to use structural analysis. This involves teaching students to examine an unknown word for structural meaning units and root words that, when broken apart, make it easier to figure out the word.

The third strategy for word analysis is to use phonics. Students are taught the sounds of each letter (or letter combinations) and how to blend these sounds together to pronounce an unknown word. However, phonic analysis normally requires more time and effort than either context or structural analysis. Consequently, according to top-down and interactive theorists, phonics is the least efficient of the strategies for attacking unknown words. Nevertheless, phonics is felt to be an important word-attack strategy because by using it, readers can come up with a close approximation of the pronunciation of almost all words. Consequently, when a sentence does not provide enough context clues to make an accurate prediction about a word, and the word does not contain meaning units for structural analysis, a reader can turn to phonics and expect that a reasonable facsimile of the word's pronunciation will result. For this reason, considerable time is spent teaching students to use phonics to attack and sound out unknown words (Duffy & Roehler, 1986).

Not many people today will question phonics as a part of word analysis. However, when the discussion turns to the particular elements to be taught, differences in viewpoints become evident. Reading programs differ in the sequencing of the skills and the amount of instructional time devoted to phonics. Materials differ also in terms of the method of instruction used.

Many different phonic methods have been evolved over the past 30 years. However, in general, they can be divided into two broad types: explicit phonics--those which involve sounding the separate parts of a

word and then blending them together--and implicit phonics--those which avoid the separate sounding of word parts.

Explicit phonics, typically called the synthetic approach to phonics, instructs students to first learn individual phonic elements such as "b," "ai," and "gr." The students are then taught to form the word by putting these sounds together.

A primary component of explicit phonics is the use of phonic rules. These rules, sometimes called phonic generalizations, have an inventory of 181 items. According to Anderson et. al (1985), these rules are taught with the intent of helping students get approximate pronunciations of written words. An example of one of these rules is "in ay the y is silent and the a is long." According to studies by Clymer (1963), Bailly (1967), Emans (1967), and Burmeister (1968), this rule is consistent and useful over 90 percent of the time. However, the rule "final e makes the preceding vowel long," one that is equally emphasized in an explicit phonics approach, is only useful and consistent approximately 56 percent of the time. Nevertheless, Groff (1983) and advocates of this type of approach, state that "a phonics rule has utility if this application produces for the reader an approximate speech sound, one close enough to an actual phoneme that children learning to read can then infer the true pronunciation" (p. 219-220). Instructional practitioners of this approach insist that beginning readers must have knowledge of many of these rules and the ability to apply them if they are to get a quick and efficient start to reading.

According to May (1986), a synthetic phonic lesson would typically be taught in the following way:

Teaching Steps

1. Write sh and a on the board. Point to each one and tell the students what sound they are to make when they see it. (Refer to the letters as the "short a sound" and the "sh sound.")
2. Have the students make the sh sound /sh/ and the short a sound /a/.
3. Review the sounds of other graphemes in the same way.
4. Have students write the sh and a and say the sounds.
5. Remind the students how to blend sounds together with a word they already know, such as the word sat. Write and say it slowly. Then say it fast.
6. Point to the isolated graphemes and blend them together.

The major advantage of the synthetic approach is that students are told what sound is associated with what letter or letter pair. Its main disadvantage is that many letters do not stand for sounds when they are all by themselves. They must be seen in a spelling pattern before being properly decoded.

In sum, a synthetic phonics approach is an instructional method in which early, intensive phonics rules are taught in a deductive, part-to-whole manner by teaching letter sounds in isolation, which are then blended into words (Johnson & Baumann, 1984).

The other type of phonics instruction, implicit phonics, avoids the separate sounding of word parts. This method, generally called the

analytic method, starts with a study of larger wholes and proceeds to the study of parts. Proponents of this method emphasize the need for meaningful reading and for immediate sight recognition of words and phrases (Harris & Sipay, 1975).

In the analytic method of teaching phonics, words are presented as whole units and not broken apart into separate letters or sounds. A teacher would present lists of words containing a similar spelling pattern and sound unit, such as ay or eat. By seeing these patterns over and over, students would become familiar with phonic generalizations. Rather than identifying individual component letters and phonic rules, students learn words by associating them with words already known. The basic principle is to help the child become aware of the contribution of letters and phonogram units to the sound of the word by comparing and contrasting whole words rather than separate sounding of the parts.

Supporters of the analytic method believe that it is best to teach the phoneme most commonly represented by a letter or letter combinations first, and to call attention to alternative phonemic values as they come up in reading material. Children should learn the strategy of trying one sound, checking to see if the word makes sense in the sentence, and if necessary, trying alternative sounds. This strategy makes the memorization and application of a large number of highly specific rules, as that found in a synthetic approach, unnecessary.

In a study by Glass and Burton (1973), evidence was found that second- and fifth-grade children made practically no use of phonic

rules; instead, they relied mainly on "a letter clustering approach associated with sounds" (p. 60-61). Considering the many exceptions to phonic rules and the lack of evidence that children find such rules very helpful, advocates of an analytic approach believe that a heavy emphasis on phonic rules does not seem to be justified (Harris & Sipay, 1975).

According to May (1986) an analytic phonic lesson may be taught in the following way:

Planning Steps

1. Make a list of easy words that include the element to be taught (i.g., cash, dash, etc.)
2. Write one sentence for each word used in the lesson. Make the sentences simple and meaningful to the students.
3. Find other sh words in the basal readers, and write down the pages on which the students can find them later.
4. Plan an auxiliary game or activity that will provide the students with more practice.
5. Make a list of words that you can read to the students for step 8 of your lesson.

Teaching Steps

1. Read the sentences out loud to the students.
2. Have the students echo-read each sentence after you.
3. Have the students say each target word after you.
4. Have each student say each target word after you, and use it in a sentence.

5. Say all the target words to them again. Then ask them what letters are the same in each word.
6. Ask the students what sound is the same in each word. Have them make the sound with you.
7. Ask the students what sound they should think of when they see the letters sh together.
8. Have them close their eyes and raise their hands whenever they hear a word that has the sh sound in it.
9. Return to the sentences and have the students first read them together, and then independently read them.
10. Use one of the other practice activities.

In sum, the analytic approach to teaching phonics is ideally taught and practiced in the context of actual reading experiences guided by the teacher. It starts with several target words imbedded in contextual sentences. It requires the student to analyze the target words to determine the common grapheme (such as sh), and the phoneme (such as /sh/), that the grapheme stands for. Through this guided discovery approach, students learn the grapheme-phoneme connection.

An Historical Perspective on Reading Instruction

Throughout the history of teaching reading, instructional emphasis has shifted from one word recognition strategy to another. Until the 1920s, phonics was heavily emphasized. Students were required to learn letters and the sounds they represented (Mathews, 1966).

By the end of the 1920s, emphasis had shifted to the teaching of sight words. Educators of this period considered the learning of whole

words more interesting for students than the learning of meaningless phonic elements. From 1930 to 1950, the standard basal reading program completely dominated the teaching of reading. The famous Dick and Jane series prevailed in which students were instructed to practice sight words (The Basic Readers, 1912-1962).

In 1937, a study by Dolch and Bloomster had a great effect on phonic instruction. They concluded that the ability to learn and apply phonic principles requires a higher type of mental maturity than is needed for learning sight words. They recommended that the major part of phonics instruction should be placed in the second and third grades. Dolch and Bloomster concluded that the majority of first-grade students are not ready to profit from phonic instruction. For roughly the next 15 years, the most widely used basals followed their recommendations and introduced relatively few phonic principles in the first grade.

By the early 1950s, however, educators became restless with this standard developmental program. They argued that it did not allow children to get a quick start to reading. In 1955, Rudolph Flesch published his well-known book, Why Johnny Can't Read. In it, Flesch reported that by turning printed symbols into the sounds that make up our language, students would be able to read. His idea of reading was that of getting meaning from certain combinations of letters. He believed that through teaching the mechanical skills of reading, such as learning all of the 26 letters and 44 sounds that these letters make up in the English language, students would learn to read fluently, and thereby become good readers.

Flesch's approach to reading endorsed a deductive style of teaching. In it, a teacher was to present rules which the children were expected to apply when confronted with unknown words. Children in this approach were taught to sound letters and letter combinations singularly, and then combine (or synthesize) these individual sounds to form a word. This code emphasis approach required systematic and intensive instruction for the beginning reader.

The 1960s were characterized as "the decade of the frantic search for a panacea" (Heilman, 1977). Schools were pressured into facing both the social and the political demands of ensuring that every child would learn how to read. Researchers, and others, responded by developing materials that they claimed would be the solution to schools' problem.

Many of new materials were strongly phonics-oriented. They followed the teachings of Flesch and stressed letter-sound relationships. Two such programs were the Initial Teaching Alphabet (ITA) and Programmed Reading. They were found in many schools until the early 1970s.

Another program that came out of this era was the Linguistic (Regular Spelling) Approach. It, like the ITA and the Programmed Reading Approach, had the goal of achieving a fast start in beginning reading. And, like the other approaches, it focused only on beginning reading.

The Linguistic Approach opposed the teaching of phonics and, instead, focused heavily on word families. However, this approach was viewed by experts as having a "code cracking emphasis." This was so

because linguists such as Leonard Bloomfield (1942) and Charles Fries (1963) felt that all words should be learned either by spelling the words or from their visual patterns. They believed in using materials that included much repetition in spelling patterns. This made for artificial sentences. This approach failed to endure past the early 1970s. Its over-reliance on the visual cue of the letter and the reciting of the letter name was problematic because this is not the sound that most letters represent.

The late 1960s and the 1970s brought about two more major approaches. One included the teaching of structural analysis. In this approach, students were encouraged to use word parts to help them identify unknown words in reading (N. Chomsky, 1970; Venezky, 1967; Chomsky & Halle, 1968).

The other approach emphasized the use of context clues. It is commonly known as the psycholinguistic perspective of reading. This approach underscores the richness of the language and experience that students bring to the reading situation. Research by Smith (1973) highlighted the importance of context clues in enabling students to make intelligent guesses of unknown words by utilizing the meaning of surrounding text and the students' language and experiences to formulate intelligent guesses.

The 1980s has seen a trend toward an eclectic approach to the teaching of reading. Teachers are encouraged to be familiar with a variety of approaches, and to use those which best suit their students' particular needs. Nevertheless, for most children, a balanced eclectic approach that uses visual, auditory, tactile, and kinesthetic cues in

combination, and develops word identification and comprehension simultaneously, is typically preferred by most educators. Educators feel that this type of approach is safer, and will less likely produce difficulties than any method that relies primarily on any one sensory avenue or stresses one important side of reading while neglecting another (Harris & Sipay, 1975).

Current Instructional Practices in Reading

Most educators today would agree that the main goal of reading instruction is to put students in control of the reading process to help them get meaning from written text. However, many classrooms fail to provide instruction in comprehension, and instead fill their instructional time with activities and procedures. The development of reading strategies and a positive attitude toward reading receive little attention (Duffy & Roehler, 1986).

According to a study by Howlett and Weintraub (1979), over 80 percent of second-grade teachers rate the following as major goals in teaching reading: phonic analysis, structural analysis, visual and auditory discrimination, and using context clues. In their study, 87 percent of the second-grade teachers reported that they spent a great deal of time on phonic/structural analysis, while only 45 percent reported that they spend a great deal of time promoting reading for enjoyment. Phonic and structural analysis skills were the first ranked activities at second grade, and were among the first three activities in fourth grade.

Teacher behavior is largely a reflection of the complexity of the environment of the workplace. Teachers must function under many constraints. Two of the major constraints under which they must work are (a) the complexity of classroom life, and (b) the dominance of the basal reading textbook (Duffy & Roehler, 1986).

The problems associated with the complexity of classroom life range from managing 25-30 students for five to six hours a day to being held accountable for student achievement. Rosenshine (1981) reported that as society becomes more concerned about the large numbers of students who fail to meet acceptable standards of reading achievement, policy makers continue to respond to pressure to reverse the failure cycle by establishing curriculum and instructional mandates to bring a uniform level of competence to reading instruction.

Rosenshine cited three kinds of master developers who play a role in establishing curriculum and instructional mandates. First, there are the test makers. They focus on measuring certain outcomes, determining what teachers are to be accountable for, and, therefore, what will be taught. Second are the curriculum developers. They are typically the authors of basal materials who specify the curricular sequence and the instructional technique. The final kind of master developer is the district administrator. This person establishes procedures designed to guarantee compliance with their program.

Because teachers know that they must teach to the tests and adhere to procedures established by superiors, teachers conclude that they are not supposed to be decision-makers. Instead, they come to understand that they are to follow directions. They begin to believe that their

students' increased test scores are important. However, increases in test scores may mean only that teachers are getting better at teaching relatively unimportant skills. Master developer programs may be effective in teaching students certain automatized skills, but are less effective in developing cognitive processing (Duffy, Roehler, & Putnam, 1987).

The second constraint under which teachers must work is the dominance of the basal reading textbook. Many teachers work in an environment where they are expected to implement a particular basal text program in accordance with centrally imposed directives. Basal readers are carefully structured reading books that typically contain a series of reading selections. Most elementary classrooms focus their reading instruction around them.

In a study by Duffy and McIntyre (1982), four of the six teachers that they observed followed the structure and sequence of instruction in their teacher's manuals. Instead of the teacher providing assistance, they found that teachers relied on basal materials to do this. These teachers operated within the guidelines of the basal text and its affiliated workbook, and, in effect, gave up instructional decision-making to these materials.

These teachers seemed to believe that students learn to read by completing commercial materials, that the teacher is teaching when he or she asks students to recite from these materials, and that an incorrect response calls only for impromptu cues which are brief enough to avoid disrupting the pace of the activity. Ongoing decision-making was not controlled by the teacher, but by the commercial publisher.

The teacher merely presented the materials, instead of developing students' reading outcomes. Instead of the teachers' reference point being diagnostic-driven and child-focused, these teachers favored maintenance of continuity of a materials-driven approach.

In a study by Woodward (1986) many of the teachers that were observed followed their basals almost word-for-word. He found that there were almost no lessons that did not closely follow the lesson plan that was found in the teacher's guide, nor were there activities that were not suggested by the guide. In the basal reading programs, there appeared to be a rigid adherence to a highly-managed series of teaching and learning activities presented in the teachers' guides. He found that teachers saw themselves as technicians who follow directions, rather than as professionals who adopt curricular materials to the particular needs of the individual students or groups of students.

Duffy et al. (1987) found that basal programs seldom provide a rationale for the skills to be taught. Teachers are directed to present skills that are either rarely used, inappropriate for the task of understanding text, or are fragmented. Often skills that are similar are not taught together. Regardless of the basal's supposed "Scope and Sequence Charts," skills, for all practical purposes, skills are sequenced randomly.

Durkin (1974) found teachers to be spending time on unnecessary, and even erroneous instruction and having an unquestioning use of basal readers. The teachers in the study stated that their students "needed to know it, in order to fill out the next two pages in their

workbooks," (p. 14) and that the manual said to do it. According to Durkin, many teachers are assistants to materials. They allow materials to dictate what is to be taught and how--all they do themselves is to carry out the dictates. This turns a professional person into little more than an educational clerk.

Durkin (1974) described the actions of one teacher who went beyond what is required for reading and into non-essential instruction. Accordingly, the teacher observed was providing a lesson on contractions. The teacher's goal was to help students identify and understand contractions. Her lesson included three steps. In the first step, the teacher listed eight contractions on the board. The students were to read the contractions and, if wrong, were corrected. With the second step, the teacher showed sentences printed on cards with contractions. The students were to read the contractions and to tell what it meant, in their own words. Finally, in the third step, the students were to name the words for each of the contractions substituted, and to name the letters that each apostrophe represented. The students did well with step two, but bogged down with step three and guessed wildly.

In step three, the teacher went beyond what is required for reading and frustrated her students with a step that is unnecessary. According to Durkin, what is required is the ability to identify a contraction and understand its meaning. Since contractions appear commonly in children's oral language, understanding their meaning is not a new demand. All that is new, in fact, is the need to recognize contractions in their written form. And the students were able to do

that. When the teacher was asked why she took them beyond what is required, and in the process caused frustration and discouragement, she replied, "that's what the workbook does with contractions" (p. 14-15). And it did. Nevertheless, this is not a sufficient reason either to assign those pages or to incorporate what they ask for into teacher-directed lessons.

In a recent study by Durkin (1984), sixteen classrooms were observed. In the basals that these teachers used, recommendations were given to introduce new vocabulary in context and provide sentences to use. Three of the teachers did this, and ten wrote them only in lists. They all said that writing the context sentence took too much time. Two first-grade teachers who used them in context used publisher-supplied charts. The other teacher used a duplicating master. All of the words in the context sentences needed to be familiar. However, the three teachers who did use the context sentences spent as much time on other words as they did on the new vocabulary.

Durkin further found that many teachers use oral reading to see if their students remember new words. However, none of the teachers in this study took notes on who missed which words, nor did they do anything with frequently-missed words after the oral reading.

Four of the five first-grade teachers in Durkin's study matched the phonic goals of their manuals but not the procedures. They all identified consonants and vowel sounds apart from words. They said that "children need to hear the sounds" and "that's how they hear it (speech sound) best" (p. 15). The other first-grade teacher taught phonics from a workbook that introduced sounds in isolation. All five

of the first-grade teachers used most of the basal workbook pages and worksheets that pertained to phonics.

From Durkin's observations of these sixteen teachers, no evidence was found of practice assignment being made on the basis of need. The two main criticisms of every practice sheet are (a) lack of relation between the topic of an assignment and the selection just read, and (b) lack of relation among assignments.

Fifteen of the sixteen teachers in Durkin's study:

1. never told their students why a particular assignment was being given.
2. never explained how the topic of an assignment and the ability to read were related.
3. seemed most concerned that students finish assignments and get right answers.
4. went over an assignment only if the written directions were unclear, or if the format was different from any used before (p. 17-18).

Considering the amount of time that practice assignments consume, such exercises may be of little value for advancing reading ability.

None of the sixteen teachers appeared to be diagnostically-oriented. None seemed to look for evidence of instructional needs, which they would then meet with appropriate instruction and practice. Classroom management and control were considered as important as what helped the students become better readers.

According to Allington (1980), most teachers assume that students who are doing poorly in reading need more time on structured decoding

activities. Therefore, they allow little time for sustained reading of any kind. Teachers seldom allow poor readers to puzzle over an unknown word--instead they (almost immediately) insert the cue, "What's the sound of the first letter?" In contrast, good readers are encouraged to guess the unknown word by thinking about what would make sense in that position.

Reading instruction for poor readers consist primarily of two activities: (a) seatwork activities involving skill worksheets, and (b) reading groups where teachers either listen to children read basal text selections, or listen to them respond to some kind of worksheet or workbook activity. In both cases, checking was for accurate word perception (Allington, 1980). By monitoring students through basals, the teacher maintains activity flow and makes the other complexities of classroom life manageable.

Workbooks

Most modern reading programs contain at least one workbook per basal text. These workbooks contain graded series of exercises for making comparisons, noting similarities and differences, and learning to observe in a left-to-right direction. Additionally, most tend to stress visual discrimination of letters and words and auditory discrimination of words and sounds within words, such as initial consonants, vowels, and phonograms. Letter names are also taught in some workbooks (Harris & Sipay, 1975).

Workbooks symbolize effort and accomplishment. Teachers feel obligated to use them. Parents expect children to bring them home.

Workbook tasks were originally intended to support reading lessons through follow-up practice and activities that students would enjoy while the teacher worked with small groups or individuals. What began as an aid to learning to read, has taken over as the principal source: "the tail is now wagging the dog" (Mason, 1983).

In this paper, the term workbook will be used generically, and will indicate a consumable material that is associated with a basal program that is to be used by individual students. Terms to be associated with the term workbook are as follows: practice book, skill sheets, mastery lessons, and ditto masters.

Given the fact that the tasks in workbooks are time-honored concomitants to learning, it seems that workbooks might be important to the kind of reading instruction that takes place in American classrooms. Little has been written about the relationship of workbooks to that of student readers. Hopefully, this research study will provide evidence that will show that the practice phonic tasks in workbooks either are related to students' reading performance or merely provide the student with practice in a skill that is not easily transformed to functional reading.

Most teacher training textbooks refer to workbooks as:

1. boringly factual;
2. emphasizing mechanics more often than comprehension;
3. often too hard for the lower third of the class, yet lacking in challenge for superior pupils; and
4. often lacking in clarity of directions and inadequate explanations of purpose (Spache & Spache, 1978).

Heilman (1977) cautions that the way teachers use workbooks determines the effectiveness of workbooks. A study of errors made by children "will suggest to the alert teacher where further instruction is needed," workbooks can have educational value, and that they can serve as diagnostic instruments.

Zintz (1977) lists criteria for the selection of workbooks. These include the need for workbook exercises to:

1. be related to the reading lesson of the day.
2. be matched to the reading levels of children using them.
3. be used discriminatingly.
4. be used for a small portion of the working day.
5. be used for appropriate reading skills.
6. be matched to the children's ability.

According to Osborn (1983), workbooks require students to work independently. How students perform in their workbook activities gives a teacher information about the performance of each student on all parts of a task. This knowledge permits the teacher to make decisions about whether or not additional instruction is needed for students, or whether they can move ahead. From this point, it follows that workbook tasks can be diagnostic and prescriptive tools that teachers can use to evaluate the performance of their students.

Well designed workbooks containing useful activities can be partners with teachers in the initial teaching of what is new, and in the maintenance of what has already been taught. However, few tasks have been found in workbooks that meet this criteria. Typically, these

types of activities are only found in custom-made tasks by a teacher after having diagnostically determined the exact needs of the pupils.

One of the criticisms that Osborn (1983) makes about workbook activities is that if a student has already mastered the goal of a workbook task, the practicing of it in a workbook is trivial and usually boring. Conversely, if a student does not know how to do a workbook task, the attempts at the task are non-productive, sometimes counterproductive, and almost always frustrating. This criticism is valid:

1. if the workbook task has no relation to what is done in the rest of the lesson;
2. when workbooks consist primarily of tasks that are assessments of what only some students already know; and
3. when workbooks consist of tasks that are out of sequence or peripheral to the main line of instruction of the reading program.

Application tasks, according to Osborn (1983), are either missing completely, or occur infrequently in workbooks. Application tasks would, for example, have students use a number of phonic skills in one task. Students would read a paragraph and underline a number of the letter combinations, base words, and affixes that occur in sentences they have just read. These tasks would be more like the challenges of figuring out how letters, sounds, and parts of words add up to meaning, then simply figuring out which ai word to fill in a blank.

Mason (1983) believes that teachers need to develop independent student work and practice activities, perhaps, having students work as

partners and in small groups, and offering learning situations that include a variety of reading, writing, and subject matter activities. Also, library reading, research projects, and writing activities could substitute for workbook tasks.

A study by Schell (1986) seems to sum up the whole idea of workbook tasks. He states that many readers in skill lessons seem to have satisfactory command of the phonic analysis subskill on which they are working. They can satisfactorily complete a worksheet, but they often cannot reliably apply these same skills in functional reading situations when they meet an unrecognized word. They are able to handle individual subskills in isolation, but when faced with a situation in which they must respond, and manipulate several of these skills in a non-mechanical manner--that is, where they must make decisions, they seem unable to perform equally well.

Phonic Assessments

Over the years, various phonic assessments have been used to measure students' knowledge of sound-symbol relations. Some have come in the form of norm-referenced tests and others as criterion-referenced tests. Phonic tests have also been part of informal reading inventories as well as individual word recognition tests.

Within each of these types of tests, characteristics of the analytic, synthetic, or holistic method of reading have been incorporated. In addition, they have each taken on the distinctive features of being either group- or individually-oriented, asking for

either recognition or production responses, and using either letters, known real words, unknown real words, or nonsense words.

Norm-referenced tests are designed to compare a student's performance with others who have taken it before. The scores are expressed in a specific numerical value, such as grade equivalent, percentile rank, or standard scores. Much criticism has been expressed, however, in regard to grade equivalent scores. Widespread misuse of the interpretation of the scores as reflecting the grade level at which an individual should receive instruction has been observed (Farr & Carey, 1986).

Norm-referenced tests are usually concerned with evaluating either analytic or synthetic tasks. Those that measure analytic tasks usually do so in a group setting. They claim to survey a wide range of skills including phonics understanding. The Iowa Test of Basic Skills (ITBS) (Hieronymous, Lindquist, & Hoover, 1982), is one good example of this type of test. Typical phonics tasks on the ITBS separate phonics skills into distinct parts and measure them as such. These tasks are presented in a multiple choice format with the child choosing an answer from one of three or four pictures or words.

There are four different vowel phonics tasks on the ITBS. The first one has students look at pictures and mark the one that has the same vowel sound as a word read by the teacher. The second task has the students mark the word that has the same vowel sound as another word read by the teacher. The third task requires students to mark a picture whose name has, for example, "the long a sound in it." The

final task requires students to mark the word whose name has, for example, "the short e in it."

Norm-referenced tests that are concerned with evaluating synthetic tasks usually do so with individual, diagnostic inventories. Tests that follow this format include the Durrell Analysis of Reading Difficulties (1980), Gates-McKillop Reading Diagnostic Test (1962), and the Woodcock Reading Mastery Test (1973). One subtest of the Durrell has the teacher point to a consonant cluster or a vowel letter, and ask "What does this say?" Students are expected to know sounds in isolation before knowing whole words.

One subtest of the Gates is entitled, "Auditory Blending." This task has the teacher pronounce phonemes, then has the student blend them together to pronounce a word. Another subtest of the Gates asks students to identify the vowel heard in the following words: yum, keb, hote, rad, and kine. Both subtests contain nonsense words which not only mirror synthetic phonics, but explicitly test knowledge of vowels and syllabication.

The second type of test is the criterion-referenced test (CRT). These, too, are typically administered in a multiple-choice format to large groups of students with the capability of surveying a wide range of skills in a relatively short period of time. They are designed to compare an individual's performance to an absolute, pre-established standard, rather than to the performance of a group of individuals.

Most CRTs have reflected attempts to break reading into many subskills and to judge adequacy of reading on the basis of performance of these separate subskills (Johnson, Kress, & Pikuiski, 1987).

According to Duffy (1982), the main problem with this approach to phonic assessment is that mastery of several parts of a task does not guarantee proficiency with the whole task. Students might be able to pass mastery tests over every phonic subskill that a system presented, yet those students might not necessarily be able to pronounce unknown words that utilized those phonic subskills. The danger of CRTs lies in assessing competent test takers, rather than competent readers (Moore, 1983).

Traditional CRT phonic assessments have characterized students' ability to identify whether or not certain words have the same vowel sound as another one they know. CRTs do not measure the phonic strategies that a student employs when meeting an unknown word. The traditional CRT approach meets its objective of testing students' knowledge about items such as long and short vowel sounds, but fails to consider how a student utilizes this knowledge while reading.

The non-application tasks used in this study are typical of basal reading series' CRT tasks. Their design was especially formulated to measure specific knowledge of vowel sounds and the terms associated with them. Two of the tasks used a multiple choice format, and the other a choice of writing in L (long) or S (short). All three required the students to produce written rather than oral responses.

The third device for assessing a student's phonic knowledge is the use of an informal reading inventory (IRI). In the use of IRIs, the attempt is to deal with reading as holistically as possible, in a form as close to natural reading as possible.

The use of IRI's dates back to the 1920s (Cunningham, et al, 1983). It was during this time that McCall (1920) began the formation of classroom tests that eventually evolved into IRIs. Later, in 1946, Betts set percentages for accuracy in word recognition while using IRIs. Since then, other educators have published many versions of the IRI.

Johnson, Kress, and Pikulski (1987) state that the approach used with IRIs can furnish better diagnostic and evaluation data than can be obtained through the use of standardized, norm-referenced tests. An IRI may use testing materials taken from pupil texts, thus, making testing and teaching materials comparable. In a sense, books are tried out to see if they fit instructional or independent reading. The teacher observes strengths and weaknesses as students read both orally and silently.

Besides seeing if a book fits, the teacher can analyze the miscues made by the reader. This analysis, largely developed by Goodman (1971), focuses on a comprehensive, detailed analysis of recordings of oral reading performances. It considers the reader's use of graphic, phonological, syntactic, and semantic information. Its major purpose is to analyze a reader's miscues in order to decide the reading strategies being used and the areas of strengths and weaknesses.

As stated earlier, some students know phonic principles and do well on isolated phonic tests, but they cannot apply their phonic skills when reading discourse. The following three studies support this assertion.

Sobkow and Moody (1979) found that the presentation of target words in a context significantly facilitated their identification by first graders. They question the validity of testing word recognition in isolation, that is, without housing the target word in an adequate context.

Allington and Flemington (1978) found that the misreading of visually similar words did not act as a distinct deficit to comprehension, however, failure to integrate semantic and syntactic clues did interfere. The inability to use context clues was a greater handicap for poorer readers than for better readers. Tests that measure word recognition within meaningful contexts involve the test taker, and are apt to reflect more closely the real reading activity.

In a study by Pikulski and Shanahan (1980) of 60 students, it was found that individually-administered production tests were much more effective in diagnosing a student's phonic ability than group recognition tests. Findings revealed that a serious over-estimation of ability to deal with "long" vowel sounds is likely to result when a group recognition test is employed. It was concluded that educators need to be cautious in interpreting individuals' abilities from group-administered tests.

In the same study by Pikulski and Shanahan (1980), it was also found that it is not unusual for a student to be able to pronounce the correct response for an individual grapheme, but to misidentify a word containing that element. Therefore, they concluded that word reading is generally more difficult. They found this to be especially true with vowel sounds, particularly long vowel sounds. To illustrate, 100%

of the subjects were able to give the correct long vowel sound for e when shown in isolation, but only 72% correctly represented the vowel sounds in words like cede and preen. Pikulski and Shanahan also found that the placement of a vowel in a word effects the sound it makes. This supports the finding that words are often harder to pronounce than single graphemes, or isolated clusters of graphemes.

In sum, decoding in the context of discourse reveals the phonic strategies that a student uses and understands. These phonic strategies can include behaviors such as the following:

1. knowledge of letter sounds;
2. prior knowledge of how other words with the same spelling pattern are pronounced; and
3. knowledge that there are exceptions to pronunciations of certain spelling patterns.

However, decoding in the context of discourse does not necessarily reflect the following behaviors:

1. knowledge of the terms long and short vowel sound;
2. ability to recite rules pertaining to various vowel spelling patterns; and
3. ability to list words by long and short vowel sounds.

The fourth, and final, type of phonic assessment to be discussed is that of the individual word recognition test. These tests typically measure a child's ability to recognize words in isolation; that is, words that do not appear in the context of a sentence or longer text. This test gives the examiner an opportunity to focus more specifically on students' abilities to immediately recognize word forms (sight

words), as well as to analyze phonic and structural aspects of words that cannot be immediately identified (word analysis).

The words in individual word recognition tests are usually presented in list form. Words on the list are first exposed in a timed (rapid) presentation. If a child responds correctly, the examiner continues onto the next word. However, if the child responds incorrectly, the word is exposed again, allowing the child to examine the word further. This portion of the administration is referred to as the untimed exposure, since the child has as much time as is needed to apply word analysis skills to identify the word.

Unlike the typical word recognition test, such as the one previously mentioned, others use nonsense words. Their use of nonsense words is an attempt to avoid the possibility that a reader has seen the word before. However, the use of nonsense words may confuse the reader. Cunningham (1975-76) reminds us that "it's the achieving of a match between his pronunciation and a word he knows which tells the reader that he has arrived at a reasonable pronunciation" (p. 248). Cunningham concludes that meaningful words that are not part of a reader's sight vocabulary are superior to any other type of stimulus for phonics tests. In addition, individual production measures are probably superior to group recognition tests.

Along with word recognition tests, Wallen (1981) has devised two similar tests. They are called the written-response strategy test and the oral-response strategy test. In the written-response strategy test, the student is shown a sight word as the teacher pronounces it. The teacher then pronounces an unknown word and asks the student to

write it in a designated space. Wallen states that this test has been shown to be effective in screening large groups of students in a quick and efficient way.

The oral-response strategy test has the teacher show an individual student a pair of written words, one known at sight and one unknown. The student then is asked to pronounce the unknown word in less than three seconds. Wallen sees this test as being useful in spot-checking individual students' oral production of unknown words. He states that some students who perform adequately on a written response test will not be able to perform adequately on oral response tests having the same objective.

In sum, individual word recognition tests, and others like them focus specifically on word recognition and word attack skills. They typically are presented in list form, and quickly give a teacher an idea of a student's decoding strategies. In addition, they also give information on what phonic skill a student already knows, and ones which he may not know.

Research on the Relations Among Phonic Tasks

In this final section, research into the relations among phonics tasks is discussed. It will be observed, as it is read, that there is a lack of relevant studies in this area. It is for this reason that this research is necessary.

Differences between the ability to decode nonsense words and to talk about individual letters was the focus of a study by Tovey (1980). Tovey administered two kinds of tests to students in grades 2 through

6, a test of phonic terms and a test of phonic application. In the phonics terms test, students were asked "What is a short vowel?" and "What are some examples of short vowels?" In the phonics application test, students were shown nonsense words such as bim, lat, and nom (which contain short vowels) and were asked to pronounce them. Tovey found that students' ability to pronounce nonsense words containing certain spelling-sound relations was far superior to their ability to talk about those relations. Students in the second grade were able to correctly pronounce 55% of the nonsense words, yet were able to correctly define only 7% of the terms. Tovey concluded that the disparity between the two kinds of student abilities suggest that:

1. it is easier for students to learn to decode whole nonsense words than it is for them to learn the abstract terms for the spelling-sound relations; and
2. learning to decode whole nonsense words containing the relations is not dependent on knowing the terms for those relations.

In a study by Moore and Litcher (1983), the need was stressed for emphasizing phonic application and de-emphasizing phonic terminology. In an effort to replicate Tovey's 1980 study, 40 fourth graders were administered the two tests developed by Tovey (the Phonics Definition Instrument and the Phonics Application Instrument). Children in this study applied more phonics terms than they defined. This corroborates the research by Tovey (1980) who found that children could use sound/symbol relations even when they could not define the terms

involved. Also, children were able to learn phonics relations without first learning phonics terms.

In a study of how thirteen five-year-olds think about reading, Downing (1969) found that young children cannot readily handle the abstract technical terms used by teachers in talking about written or spoken language. These young children could achieve much more with actual concrete objects than they could in abstract verbal situations. It was noted that actual understanding comes first, while ability to verbalize about it comes later. The children in this study displayed a great deal of confusion over the use of abstract technical terms such as word, number, letter, name, writing, and drawing. However, the concrete aids of actual books, models, and pictures stimulated motor and verbal responses. This indicates that these students were searching toward an understanding of the technical concepts of language, although they were very much less able to use them accurately in verbal responses.

A study by Tovey (1972) suggests that a major reason for gaps in students' phonic knowledge may be mismatches between the phonic instruction for which they are ready and the phonics instruction they receive. Near the end of the school year, 20 first-grade classes totalling 526 children were given a phonics mastery test. The results were compared with the phonics instruction the children were receiving. There was little relation between the phonics instructional patterns employed by teachers and the phonic knowledge of the children. In general, children in high academic schools were receiving phonic instruction that was too easy for them, and children in average and low

academic schools tended to receive phonic instruction that was too advanced for them. Only 8 percent of the children were receiving phonics instruction that matched their scores. Tovey believes that is desirable to find out, by preliminary testing and observation, which associations are known and which need to be taught.

In a study by Russo and Emans (1981), evidence was found for the relation between students' ability to use word recognition generalizations and their reading achievement, although students were not always able to verbalize those generalizations. Three basic tests were given to 132 fourth graders who had been exposed to many phonics rules. The first test was developed to measure knowledge of phonic rules. The second was the Stanford Diagnostic Reading Test to measure reading achievement. The third was designed to see if the students could verbalize the generalization that they used to identify unfamiliar words. Results showed that students in this study were able to use generalizations without being able to state them.

In a study by Hislop and King (1973), 30 students were asked to apply 18 phonic generalizations in reading nonsense words placed in list and sentence form. Results indicated that there were significant differences in performance on the eighteen generalizations when they were being applied after introduction in the basal reader. When students were asked to explain their correct responses, none were able to state the generalization, although they were able to refer to known words in unlocking the unknown words.

In a study of second graders, Cunningham (1976) found that students' ability to decode is predicted more by their ability to

decode real novel words than by their ability to decode nonsense words. Real novel words thus provide more valid indicators of word-attack ability, because reading involves real words, not nonsense words.

In 1981 Calfee and Pointkowski conducted a longitudinal study to gather information about students' decoding skills as they learned to read. Using the factors of task requirements, materials, and letter sound environment, three subtests were formed. Results of the study show that familiarity of materials, such as pictured words, real words, and nonsense words, does not have nearly the impact on student performance as variation in task requirements, such as identification, verbal production, and written production. In addition, students performed much better on the identification task than on the written production task, with the verbal production task falling in between.

In a case study, Morris (1982) presented a sequence of word-sort lessons to one third grade remedial reader. The inductive categorization strategy for helping children develop word recognition ability focused on a very specific use of the word sort process--i.e., the vowel pattern sorting of one-syllable words. Morris sees word-sorting not so much as a program, but as a flexible process that is open to several interpretations. He sees it as a way of helping some young readers who have significant problems in the area of word recognition. He believes that though these children need to read in context as much or even more than their classmates, they can also benefit from sensible instruction that helps them to discover and internalize the orthographic patterns in the English language.

According to Morris, word-sort is simply a categorization task in which children learn to recognize likenesses and differences among words. He states that for the teacher, a word-sort is a flexible framework for presenting a word study lesson; for the child, it is a useful, compare/contrast setting for making discoveries about the orthographic properties of words.

In a study of children's perceptions of their spelling strategies by Radebaugh (1985), 17 third and fourth graders explained the process that they use to spell unknown words. Results of the study show that some good spellers broke the difficult words into parts (not necessarily syllables), and then tried to spell each part correctly. A similar strategy, used by other good spellers, indicates that they too broke a word into parts, but then tried to think of small known words that corresponded to each part. They used visual images to associate known word parts to unknown words. Poor spellers, on the other hand, used phonetic strategies in spelling unknown words, letter by letter.

Beers and Beers (1980) conducted a study with 75 first graders and 71 second graders of average or above average intelligence. These students were asked to spell a list of 24 words--12 high and 12 low frequency words. Results of the study reveal that the first graders relied on the letter name to represent the vowel sound with unfamiliar words, even when they spelled the corresponding high frequency word correctly.

The second graders, on the other hand, demonstrated their awareness of the multi-dimensional characteristics of letters. They used higher-order strategies involving markers (riad for ride), which

indicate these children recognize that marking is another feature of letters. The fact that markers were used in second graders' spelling of low frequency words indicates their growing ability to apply information about familiar words to unfamiliar words. Such an ability reflects a strategy beyond the letter-name level (creke for creek, diek for dike, and seit for seat).

In sum, learning to spell is an avenue that children can take to recognize, not just words, but those components of words that distinguish one word from another. Spelling needs to be examined in light of what it can tell children about words in their writing and their reading.

In a research study by Duran and Waugh (1979), an investigation was made of the relation between three methods of testing phonics. Items measuring 24 phonic elements were responded to by 108 second graders. The first method of testing was the use of the Phonic Mastery Test (1961). In this test students were asked to write the letters associated with the sound (spell), and then write either short or long next to the word to denote the vowel sound that it made. The second test used was the El Paso Phonics Survey (1976). This test asked students to pronounce nonsense words with known consonants.

The final test used was from a basal reading series. It was a test to measure auditory discrimination. In it, the teacher pronounced a sound, and then directed students to circle the word containing the sound from the four choices available. The results of this study suggest that different methods of testing phonics produce different results, even when the elements tested are the same. They state that

"the mode of testing markedly influences the response to phonic tests"
(p. 284-285).

CHAPTER III

METHODS AND MATERIALS

The purpose of this study is to determine the relation among students' performance on phonic tasks. This chapter includes information on the following:

1. The procedures to be used in selecting subjects.
2. The instruments to be used in data-gathering.
3. The procedures to be used in data-gathering.
4. The procedures to be used for data analysis.

Subjects

Approximately 30 students from the middle reading groups of four rural public second-grade classrooms will participate in this study. All will have had one year and three months of formal reading instruction from one of the following basal reader publishers: Ginn Reading Program, Harcourt Brace Jovanovich, Heath, or Houghton Mifflin. Each of the reading series will have included practice worksheets that are similar to the non-application tasks in this study.

The Instruments To Be Used in Data Gathering

In order to compare students' performance with non-application tasks, instruments are needed to assess achievement in both areas. Three instruments are designed for the non-application tasks, and three instruments are designed for the application tasks.

Before developing these instruments, however, it was necessary to select vowels to be used in all of the instruments. Four vowels were selected to accompany the spelling patterns of consonant-vowel-consonant (CVC) and consonant-vowel-consonant-consonant (CVCC), both of which signal the short vowel sound. Through random selection, the vowels a and u were selected to accompany the CVC pattern, and the vowels a and e were selected to accompany the CVCC pattern.

In the selection of long vowel spelling patterns, consideration was given to three areas. First, for a spelling pattern to be included in the overall group, its vowel pattern had to produce a vowel sound consistently 70 percent of the time. Second, the spelling pattern had to appear in at least 20 monosyllabic words that were at a second-grade reading level. Third, the spelling pattern had to have been formally, and systematically, taught and practiced by the subjects during prior reading lessons.

With these three considerations in mind, the vowel pairs ai, ay, ee, and i-e were selected through random selection to represent spelling patterns that signal the long vowel sound.

Spelling Patterns

Short Vowel Sound

a/CVC

u/CVC

a/CVCC

e/CVCC

Long Vowel Sound

ai

ay

ee

i-e

Each task in this study includes a sample item immediately following its directions. Each sample item uses the short vowel sound

of o in either the spelling pattern of o/CVC or o/CVCC. The vowel o was selected because of its absence from the vowels that were picked to be analyzed in this study. The researcher felt that samples with the vowel o would help the students understand the directions, yet not give them any clues for the various spelling patterns analyzed.

Each of the eight spelling patterns will be presented four times, in a random order, within each of the instruments. Students will be considered proficient in utilizing a specific spelling pattern for each of the tasks if they correctly produce at least three out of four correct responses.

Only monosyllabic words will be used in this study to insure that the focus of the analysis is on students' understanding of vowel spelling patterns and not on students' understanding for multiple syllables. In addition, attempts will be made to produce comparable structural exposures within the choices of monosyllabic words. Besides the spelling patterns that are to be used, 46% of the words contained clusters of consonants, and 54% contained single consonants.

All of the words in this study, except for the six letter word street, contained three to five letters. Additionally, all of the words, regardless whether they included a key vowel spelling pattern or not, used letters whose sounds had been formally introduced in the basals.

Efforts were made to place the long vowel spelling patterns of ai and ee in the medial position of words. However, the vowel spelling pattern of ai was used once in the initial position for the word aim, and the vowel spelling pattern of ee was used twice in the final

position in the words tree and free. (This effort was made because research has shown that students improve their performance in pronouncing vowel sounds when there are consonants for the vowels to be attached to.)

With the exception of the use of an apostrophe with the contrived name Dray (in two items in the story task), the vowel spelling pattern of ay will be consistently used in the final position. The vowel spelling pattern of ay is seldom found in any other position.

Because of the confounding effects of the letter sound controllers l, w, and r, these letters will not be used in a position following any of the vowels. This is done for the purpose of clarity of analysis for this study.

Before these tasks are administered, pilot testing will be conducted with five second-graders who are currently placed in a middle reading group. The purpose of the pilot testing is to formulate a consistent method of scoring each task, and to determine the length of time required to administer the tasks.

The development of the tasks that utilized these vowels and spelling patterns is discussed in the following two sections. The first will focus on non-application tasks, and the second will focus on application tasks.

Development of Non-Application Tasks

In this study, three different tasks have been developed to measure students' ability with non-application tasks. Students will be asked to do the following:

1. Match printed words with the same vowel sound (Print-Print Match).
2. Match pictorially-presented oral words with printed words that contained the same vowel sounds and spelling patterns (Oral-Print Match).
3. Identify the vowel sounds and printed words as being either long or short (L/S Identification).

These three tasks were chosen for inclusion in this study for two reasons. First, all three of these tasks have been, and are, widely used in some fashion by the primary reading programs of the subjects in this study. These tasks may not have been explicitly used by the subjects in the activities in their skillpacks, workbooks, or blackline masters, but they have all been an integral part of the instructions in the teacher's manuals. Second, because of their prevalent use as practice tasks in reading instruction, it was presumed necessary to determine the type of relation among them.

Some of the basal readers referred to vowel sounds as being either long or short, while others referred to them as having the same vowel sound as in other words. Nevertheless, all exemplified the need for recognizing and labeling vowel sounds, and on focusing instructional time toward teaching them as such.

Efforts were made in the non-application tasks to include real words that were primarily at a second-grade reading level. However, in the event that some students may not recognize them as such, it was judged that all were within the listening level for a typical second grader.


On a preliminary basis for this study, these three tasks were grouped together as non-application tasks. The researcher felt that since two of them were matching tasks, and the other an identification task, it seemed plausible to assume that they were all practice-type activities that measure student performance in mechanical skills and not actual application skills. The following sub-sections describe the specific development of the non-application tasks.

Oral-Print Match

The term Oral-Print Match is used to describe the task of matching pictorially-presented oral words with printed words containing the same vowel sound and spelling pattern. This task will be presented in a group format with each student responding individually on an answer sheet.

This 32-item task is designed to measure students' ability in synthesizing the aural and visual recognition of vowel patterns from oral words to different printed words with the same vowel sound. Each item presents a key picture, along with three printed word choices. Both the oral words represented by the key pictures, and one of their three word choices, contains the same vowel sounds and spelling patterns. Students are to be instructed to "Circle the word that has the same vowel sound as the picture."

The following is an example of an item demonstrating this task from Appendix A.

1.		glue gum fuse
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Print-Print Match

The term Print-Print Match is used to describe the task of matching printed words with the same vowel sound and spelling pattern. Once directions are read to the group, and the sample item given, students will be asked to complete this assessment task silently, and independently, at their own desk and within ten minutes.

This 32-item task is designed to measure students' ability in matching either the aural and/or visual recognition of vowel patterns from printed words with the same vowel sounds. Each item first presents a key word with one of the eight vowel sounds and spelling patterns in this study. To the right of this word, there are three word choices, one of which contains the same vowel sound and spelling pattern as in the key word. Students are to be instructed to "Circle the word in which the vowel letter or letters stand for the same vowel sound as in the key word."

The following is an example of an item demonstrating this task from Appendix B.

1.	<u>has</u>	chase day bag
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L/S Identification

The term L/S Identification is used to describe the task of identifying the vowel sounds and/or spelling patterns in printed words as being either long (L) or short (S). In a group format, students are to be instructed to first listen to the directions and the sample given, and then to complete this assessment task silently, and independently, at their own desk and within five minutes.

This 32-item task is designed to measure students' ability in discriminating aurally and/or visually the long and short vowel sounds from a list of printed words. Each item presents a blank, underlined space with a single word following it. Students will be instructed to complete this task with the following directions: "Say each word to yourself. Put an S in front of each word that has a short vowel sound. Put an L in front of each word that has a long vowel sound."

The following is an example of an item demonstrating this task from Appendix C.

1. _____ ramp

Development of Application Tasks

Upon completion of developing the non-application tasks, the next step was to develop three different tasks to measure students' ability with application tasks. Students will be asked to do the following:

1. Write the spellings for a list of words (Spelling).

2. Orally read from a class list of contrived names (Class List).
3. Orally read a story containing contrived names (Story).

These three tasks were chosen for inclusion in this study for two reasons. First, all three of these tasks have been, and are, widely used in some fashion by students in primary reading and language arts classes. Most students, beginning at the late first grade, are assessed weekly in their spelling performance for a specific list of words. Students in many primary classes are also continually assessed in their ability to orally read unfamiliar words in a list form, and within the context of a story. Second, because of their prevalent use as assessment tasks in reading and language arts, it was presumed necessary to determine the type of relation among them.

On a preliminary basis for this study, these three tasks are grouped together as application tasks. The researcher feels that because two of them are oral reading tasks, and the other a spelling task, it seems plausible to assume that they are all assessment-type activities that measure student performance in producing responses, and not in practicing mechanical skills. The following sub-sections describe the specific development of the application tasks.

Spelling

The term Spelling is used to describe the task of spelling a list of words. In a group format, students are to be instructed to respond to the oral presentation of a list of words by writing their spellings.

This task is designed to measure students' ability to listen to a spoken word, associate this with a combination of letters with these sounds, and to use this knowledge to write the word. In this study, the researcher is only concerned with analyzing the students' performance in spelling the vowel sounds.

Credit will be given to the spellings of long vowel sounds in two ways. The spellings can either include two vowels together, with one being the targeted vowel sound, or have the inclusion of the (VCE) vowel-consonant-final e spelling pattern. Credit will be given only for short vowel sounds if the targeted vowel is included in either the spelling pattern of consonant-vowel-consonant (CVC) or consonant-vowel-consonant-consonant (CVCC). This task is composed of 32 items. Each item consists of the oral presentation of typically-unfamiliar spelling words for second graders. Students are to be instructed to listen to the spoken word, and to write its spelling the best way they know how.

The following is a spelling word on this task from Appendix D.

1. rag

Class List

The term Class List is used to describe the task of orally reading from a class list of contrived names. This task is to be administered to each student individually.

This task is designed to measure students' ability to look at letter combinations, associate them with speech sounds, and then to use

this knowledge to pronounce contrived names on a class list. The researcher was concerned about making the format of this relevant and recognizable, yet free from students' ability to recognize these names as sight words. The format of a class list was selected because of its routine use in classrooms, and because of the uniqueness of the pronunciations of many names that are often found on it, and is composed of 32 total items with each of 16 items representing a first and last name of students in a class.

Students will receive credit for only the correct pronunciation of the vowel sound for each first and last name on the list. Incorrect pronunciations of consonants, or consonant clusters, will not detract from their scores. Students are to be instructed to orally read the names on the class list. The sample word name Mod Clop is to be read to them before they begin.

The following is an example of an item demonstrating this task from Appendix E.

1. Kam Flut

Story

The term Story is used to describe the task of orally reading non-word names in the context of a story. This task is to be administered to each student individually.

This task is designed to measure students' ability to look at letter combinations, associate them with speech sounds, and then to use

this knowledge to pronounce contrived names in the context of a story. This task is constructed to represent the routine activity that students perform when they read from basals and library books, and is composed of 32 total items composed of eight items, each of which will be represented four times within the context of a 200-word story.

Students will receive credit for only the correct pronunciation of the vowel sounds for each of the contrived names. Incorrect pronunciations for anything else will not detract from their score.

Each student will be given the following directions: "Orally read the following story. If you have difficulty pronouncing the underlined names, the researcher will not be allowed to help you. Otherwise, the researcher will help you pronounce any of the real words that you can not pronounce." Before the students are asked to read, the researcher will read the following sample sentence, including both a contrived name and real words. "They decided to go to Glop Park." Then they will be told to read.

The following is the first sentence in that story. This task is found on Appendix F.

	One day <u>Cag</u> decided to	
	take his dog <u>Flack</u> to the	
	park.	

Procedures in Data Gathering

The data will be collected during the first two weeks in November, 1988. The six tasks are to be administered in a counter-balanced design.

The non-application tasks are to be presented in two different group formats. First, the Oral-Print Match task is to be orally read by the researcher, while the students follow along with their copies of the task. Second, students will be asked to complete the Print-Print Match task and the L/S Identification task, independently, at their seats.

The application tasks are to be presented in two different formats. First, the Spelling task is to be presented to the students as a group. As the researcher reads each word on the spelling list, the students are to respond by individually spelling the words on assigned response paper. The tasks of reading the Class List and reading the Story are to be administered to each student individually. In either a quiet corner of the classroom, or in the hall, each student will be asked to orally read to the researcher.

The tasks are to be presented in pairs to the students in a counter-balanced design. The pairs will consist of the following:

Task Pairs

Print-Print Match	--	Oral Print Match
L/S Identification	--	Spelling
Class List	--	Story

Before testing, sample items are to be used to insure students' understanding of the directions. In the four group tasks it is

important that each student know what to look or listen for, and know how to make their written responses. In the two individual tasks, it is important that the students know not only to pronounce the first letters of the contrived names, but rather, to pronounce all of the sounds that the letters make as a whole word.

Students are to be allowed five seconds to pronounce each of the non-word names on the Class List and in the Story, ten seconds to spell each of the words on the Spelling task, and ten seconds to respond to each of the items on the Oral-Print Match task. Students are to be informed that if they do not respond to an item on any one of these tasks in its allotted time, then the researcher will ask them to continue with the next item. Students will additionally told that they will only be given five minutes for the completion of the whole L/S Identification task, and ten minutes for the Print-Print Match task.

Correct answers, or reinforcement, will not be given by the researcher. However, if the researcher is asked to pronounce an unknown real word in the Story task, the researcher will be allowed to do so. The focus of the Story task is not on the pronunciation of the real words, but rather on the pronunciation of the contrived names.

The Procedures Used for Data Analysis

The data will be analyzed with appropriate descriptive and correlational statistics.

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APPENDICES

Non-Application
Oral-Print Match

Appendix A

Directions: Circle the word that has the same vowel sound as the picture.

Sample:



note

nut

not

1.



cap

case

clay

5.



fast

gain

plan

2.



glue

gum

fuse

6.



bleed

jet

peck

3.



day

rash

hat

7.



face

braid

rack

4.



beat

beet

best

8.



sit

ride

rich



bake
wag
bait

15.



sand
take
rain



rude
clue
cut

16.



spit
tide
crib



cap
stay
last

17.



made
pain
slap



press
sleep
least

18.



bus
fuel
room

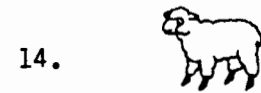


bass
pack
bait

19.



glass
back
may



deck
street
best

20.



clip
fresh
feed

21.  braid
pass
glad


27.  gay
has
past

22.  get
seed
vest

28.  feed
seat
less

23.  tape
face
grand

29.  trash
faint
van


24.  kite
spin
bit

30.  week
men
help

25.  brag
rain
cane

31.  train
base
cast

26.  blue
rug
hog

32.  miss
time
pin

Non-Choices for Non-Application

Appendix B

Print-Print Match

Directions: Circle the word in which the vowel letter stands for the same vowel sound as in the first word.

Sample: block vote
 soap
 spot

- | | | | | | |
|----|-------------|-------|----|--------------|-------|
| 1. | <u>has</u> | chase | 5. | <u>aim</u> | mad |
| | | day | | | laid |
| | | bag | | | him |
| 2. | <u>club</u> | rude | 6. | <u>sweet</u> | creek |
| | | slug | | | pet |
| | | glue | | | glad |
| 3. | <u>say</u> | lay | 7. | <u>fast</u> | date |
| | | dad | | | back |
| | | glue | | | maid |
| 4. | <u>left</u> | find | 8. | <u>crime</u> | pipe |
| | | leaf | | | mitt |
| | | vest | | | red |

- | | | | |
|------------------|-------|------------------|-------|
| | late | | plant |
| 9. <u>slam</u> | trap | 15. <u>brand</u> | late |
| | tray | | laid |
| | | | |
| | cub | | tip |
| 10. <u>bug</u> | huge | 16. <u>bite</u> | set |
| | use | | five |
| | | | |
| | cash | | nap |
| 11. <u>clay</u> | map | 17. <u>cat</u> | cape |
| | ray | | rain |
| | | | |
| | neat | | glue |
| 12. <u>blest</u> | wreck | 18. <u>gun</u> | goat |
| | green | | hum |
| | | | |
| | saint | | bad |
| 13. <u>drain</u> | fan | 19. <u>day</u> | bay |
| | drag | | fast |
| | | | |
| | deck | | neck |
| 14. <u>peek</u> | weed | 20. <u>mess</u> | meat |
| | best | | seed |

- | | | | |
|-----------------|-------|------------------|-------|
| | flag | | peek |
| 21. <u>paid</u> | sack | 27. <u>speck</u> | meat |
| | main | | crest |
| | neck | | bat |
| 22. <u>free</u> | sleep | 28. <u>trait</u> | stain |
| | sled | | grip |
| | bake | | meet |
| 23. <u>camp</u> | clay | 29. <u>need</u> | nest |
| | last | | left |
| | grape | | take |
| 24. <u>drag</u> | pain | 30. <u>stack</u> | blast |
| | flat | | play |
| | plate | | sick |
| 25. <u>plus</u> | bun | 31. <u>hide</u> | like |
| | blue | | did |
| | play | | trip |
| 26. <u>gray</u> | glad | 32. <u>tribe</u> | hid |
| | fast | | hike |

Non-Application
L/S Identification

Appendix C

Directions: Say each word to yourself. Put an "S" in front of each word that has a short vowel sound. Put an "L" in front of each word that has a long vowel sound.

Sample: S lost

- | | |
|-----------------|-----------------|
| 1. _____ ramp | 17. _____ past |
| 2. _____ hut | 18. _____ drug |
| 3. _____ maid | 19. _____ spray |
| 4. _____ pat | 20. _____ flap |
| 5. _____ hay | 21. _____ faint |
| 6. _____ speed | 22. _____ chess |
| 7. _____ bless | 23. _____ deep |
| 8. _____ rice | 24. _____ prime |
| 9. _____ black | 25. _____ tramp |
| 10. _____ glide | 26. _____ side |
| 11. _____ deck | 27. _____ plum |
| 12. _____ grain | 28. _____ wait |
| 13. _____ tray | 29. _____ feed |
| 14. _____ glad | 30. _____ tag |
| 15. _____ rub | 31. _____ way |
| 16. _____ greet | 32. _____ rest |

Application
Spelling

Appendix D

Sample: drop

- | | |
|-----------|-----------|
| 1. rag | 17. stay |
| 2. drum | 18. beef |
| 3. may | 19. clam |
| 4. rain | 20. bud |
| 5. sweep | 21. desk |
| 6. test | 22. slant |
| 7. flag | 23. sheet |
| 8. nut | 24. paint |
| 9. stamp | 25. map |
| 10. drive | 26. slide |
| 11. dress | 27. shut |
| 12. pay | 28. mice |
| 13. plain | 29. clay |
| 14. keep | 30. chest |
| 15. back | 31. bait |
| 16. dime | 32. land |

Application

Appendix E

Class List

Directions: Say the names on this class list.

Sample: Mod Clap

1. Kam Flut
2. Tay Gless
3. Jain Dreem
4. Dack Críde
5. Dap Blug
6. Beck Glay
7. Kait Speek
8. Jand Glíte
9. Rud Frat
10. Prest Spay
11. Leep Blaid
12. Ríke Pramp
13. Fus Clag
14. Dest Cay
15. Neet Clain
16. Bíbe Plast

Application

Appendix F

Story

Directions: Orally read the following story. If you have difficulty pronouncing the underlined names, the researcher will not be allowed to help you. Otherwise, the researcher will help you pronounce any of the real words that you can not pronounce.

Sample sentence: "They decided to go to Glop Park."

Three Bad Dogs and One Scared Cat

One day Cag decided to take his dog Flack to the park. On his way, he met his friend Reed. Reed was also taking his dog Wain to the park.

As they were walking, they met their friend Dray. He was out looking for his cat Bup.

Soon they saw Dray's cat Bup in a tree. Cag's dog Flack, and Reed's dog Wain ran to the tree. They started to bark. They barked so loud and so long that Mrs. Grine came out of her house. Mrs. Grine told Cag and Reed to take their dogs Flack and Wain home. She didn't want them to get her dog Gress to start barking, but she was too late. Gress saw Dray's cat Bup in the tree. He pulled his chain loose and ran over to bark with Flack and Wain. This scared Cag and Reed. They quickly got their dogs and left.

Now Dray and his cat Bup had to face Mrs. Grine and her mean dog Gress. With a mean look on her face, Mrs. Grine picked up Gress and put him in her house. Dray's cat Bup then came down from the tree and Dray took him back home.

Master Sheet for

Appendix G

u/CVC

Non-Application

1. Picture

MPW-SW

item #

2 sun - gun
10 tub - cut
18 drum* - bus
26 cup - rug

2. Word

MPW-SVS

item #

2 club - slug
10 bug - cub
18 gun - hum
25 plus - bun

3. L/S

item #

12 rub
15 hut
18 drug
27 plum

Application

4. Class List

item #

1B flut
5B Blug
9A Rud
13A Fus

5. Spelling

item #

2 drum*
8 nut
20 bud
27 shut

6. Story

Bup

* Indicates this word was used twice.

**Master Sheet for
a/CVC
Non-Application**

Appendix H

1. Picture

MPW-SW

item #

- 1 gas - cap
- 9 hat - wag
- 17 flag* - slap
- 25 clap - brag

2. Word

MPW-SVS

item #

- 1 has - bag
- 9 slam - trap
- 17 cat - nap
- 24 drag - flat

3. L/S

item #

- 4 pat
- 14 glad
- 20 flap
- 30 tag

Application

4. Class List

item #

- 1A Kam
- 5A Dap
- 9B Frat
- 13B Clag

5. Spelling

item #

- 1 rag
- 7 flag*
- 19 clam
- 25 map

6. Story

Cag

* Indicates this word was used twice.

Master Sheet for

Appendix I

a/CVCC

Non-Application

1. Picture

2. Word

3. L/S

MPW-SW

MPW-SVS

item #

item #

item #

7 lamp - rack

7 fast - back*

1 ramp

15 hand - sand

15 brand - plant

9 black

23 stamp*- grand

23 camp - last

17 past

31 crack - cast

30 stack - blast

25 tramp

Application

4. Class List

5. Spelling

6. Story

item #

item #

4A Cack

9 stamp*

Flack

8A Jand

12 back*

12B Pramp

22 slant

16B Plast

32 land

* Indicates this word was used twice.

**Master Sheet for
e/CVCC
Non-Application**

Appendix J

1. Picture
MPW-SW

2. Word
MPW-SVS

3. L/S

item #

4 neck - best
12 nest - press
20 dress* - flesh
28 desk* - less

item #

4 left - vest
12 blest - wreck
20 mess - neck
27 speck - crest

item #

7 bless
11 deck
22 chess
32 rest

Application

4. Class List

5. Spelling

6. Story

item #

2A Gless
6A Beck
10A Prest
14A Dest

item #

6 test
11 dress*
21 desk*
30 chest

Gress

* Indicates this word was used twice.

Master Sheet for

Appendix K

ay

Non-Application

1. Picture

MPW-SW

item #

3 pray - day
 11 tray - stay*
 19 pay* - may*
 27 hay - gay

2. Word

MPW-SVS

item #

3 say - lay
 11 clay* - ray
 19 day - bay
 26 gray - play*

3. L/S

item #

5 hay
 13 tray
 19 spray
 31 way

Application

4. Class List

item #

2B Tay
 6B Glay
 10B Spay
 14B Cay

5. Spelling

item #

3 may*
 12 pay*
 17 stay*
 29 clay*

6. Story

Dray

* Indicates this word was used twice.

Master Sheet for

Appendix L

ai

Non-Application

1. Picture

2. Word

3. L/S

MPW-SW

MPW-SVS

item #

item #

item #

5 paint* - gain

5 aim - laid

3 maid

13 rain* - bait*

13 drain - saint

12 grain

21 chain - braid

21 paid - main

21 faint*

29 train - faint*

28 trait - stain

28 wait

Application

4. Class List

5. Spelling

6. Story

item #

item #

3A Jain

4 rain*

Wain

7A Kait

13 plain

11B Blaid

24 paint*

15B Clain

31 bait*

* Indicates this word was used twice.

Master Sheet for

Appendix M

ee

Non-Application

1. Picture

MPW-SW

2. Word

MPW-SVS

3. L/S

item #

- 6 tree - bleed
- 14 sheep - street
- 22 feet - seed
- 30 jeep - week

item #

- 6 sweet - creek
- 14 peek - weed
- 22 free - sleep
- 29 need - meet

item #

- 6 speed
- 16 greet
- 23 deep
- 29 feed

Application

4. Class List

5. Spelling

6. Story

item #

- 3B Dreem
- 7B Speek
- 11A Leep
- 15A Peet

item #

- 5 sweep
- 14 keep
- 18 beef
- 23 sheet

Reed

* Indicated this word was used twice.

Master Sheet for

Appendix N

i-e

Non-Application

1. Picture

2. Word

3. L/S

MPW-SW

MPW-SVS

item #

item #

item #

8 bike - ride

8 crime - pipe

8 rice

16 drive* - tide

16 bite - five

10 glide

24 dice - kite

31 hide - like

24 prime

32 slide* - time

32 tribe - hike

26 side

Application

4. Class List

5. Spelling

6. Story

item #

item #

Grime

4B Cride

10 drive*

8B Glite

16 dime

12A Jike

26 slide*

16A Bibe

28 mice

* Indicates this word was used twice.

**Master Sheet for
Sample
a/CVC or CVCC
Non-Application**

Appendix 0

1. Picture
mop - not

2. Word
block - spot

3. L/S
lost

4. Class List
Mod Clap

5. Spelling
drop

6. Story
Glop

Application

Appendix P

Sample: Glop

These non-words were read as names in the context of the story Three Bad Dogs and One Scared Cat.

Names with Long vowel sounds:

Wain Reed Grime Dray

Names with Short vowel sounds:

Cag Bup Gress Flack

These names were only analyzed during the first four times that they were read:

<u>Characters</u>	<u>Names</u>	<u>Times Used</u>	<u>Pattern</u>
1st boy	Cag	4	a/CVC
2nd boy	Reed	5	ee
3rd boy	Dray	6	ay
1ady	Mrs. Grime	4	i-e
1st dog	Flack	4	a/CVCC
2nd dog	Wain	4	aI
cat	Bup	5	u/CVC
3rd dog	Gress	4	e/CVCC