A STUDY OF THE VALUE OF PHONICS AS AN AID IN
TEACHING SECOND-GRADE READING

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A STUDY OF THE VALUE OF PHONICS AS AN AID IN
TEACHING SECOND-GRADE READING

THESIS

Presented to the Graduate Council of the North
Texas State Teachers College in Partial
Fulfillment of the Requirements

For the Degree of

MASTER OF SCIENCE

By

119375
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Denton, Texas

August, 1944
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF TABLES</td>
<td></td>
<td>v</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I.</td>
<td>INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Statement of the Problem</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Purpose of the Study</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Source of Data</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Method of Procedure</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Limitations</td>
<td></td>
</tr>
<tr>
<td>II.</td>
<td>SURVEY OF LITERATURE DEALING WITH THE STATUS OF PHONICS</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>Child's Vocabulary</td>
<td></td>
</tr>
<tr>
<td></td>
<td>In School</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Word Mastery</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Need for Word Analysis</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What Phonics Is</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Concepts of Phonics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phonics Readiness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Methods for Teaching Phonics</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Elements to Be Taught</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cautions to Be Observed</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phonics in the First Grade</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Phonics in the Second Grade</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Attitudes for and Against Experiments</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Conclusions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>General Conclusions on the Present Status of Phonics</td>
<td></td>
</tr>
<tr>
<td>III.</td>
<td>APPLICATION OF PHONICS IN A SPECIFIC SITUATION</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>Ear Training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Eye Training</td>
<td></td>
</tr>
</tbody>
</table>

iii
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procedure for Second-Year Work</td>
<td></td>
</tr>
<tr>
<td>Pick a Flower</td>
<td></td>
</tr>
<tr>
<td>The Old Women Who Lived in a Shoe</td>
<td></td>
</tr>
<tr>
<td>Build a Chimney for Santa Claus</td>
<td></td>
</tr>
<tr>
<td><strong>IV. RESULTS OF THE EXPERIMENT</strong></td>
<td>109</td>
</tr>
<tr>
<td><strong>V. CONCLUSIONS AND RECOMMENDATIONS</strong></td>
<td>115</td>
</tr>
<tr>
<td><strong>BIBLIOGRAPHY</strong></td>
<td>117</td>
</tr>
</tbody>
</table>
### LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Medial Mental and Chronological Ages, Intelligence and Reading Scores of the Phonetic and the Non-Phonetic Groups</td>
<td>109</td>
</tr>
<tr>
<td>2.</td>
<td>Comparison of Median Scores, Deviations, Arithmetic Means for the Detroit Word Recognition Test</td>
<td>111</td>
</tr>
<tr>
<td>3.</td>
<td>Median Scores, Deviations, and Arithmetic Means for Gates' Reading Tests</td>
<td>113</td>
</tr>
<tr>
<td>4.</td>
<td>Comparison of the Median Achievement of the Groups in the Haggerty Reading Tests, Sigma I, Before and After Instruction</td>
<td>114</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

Statement of the Problem

In the literature on the teaching of phonics there exists today much dispute and disagreement concerning the place phonetic training should occupy in primary reading. The fact that phonics has been overemphasized and treated as a science in itself instead of as a tool or aid in reading has, seemingly, caused the trouble. The advantages claimed are that training in phonics makes for independence in the recognition and the pronunciation of words, and it furnishes pupils with a method of attack on new words. The objections are overemphasis on phonics, which may result in slow stammering-reading, poor comprehension, and a slower rate of progress in the primary grades; and it may make children so word-conscious that they lose interest in reading. It was because of this disagreement and a desire to improve the reading instruction in a specific situation that the problem of this thesis, "A Study of the Value of Phonics as an Aid in Teaching Second Grade Reading," was selected.
Purpose of the Study

The purpose of this study was (1) to determine the need of phonics as a tool in word recognition; (2) to find out the opinions of outstanding educators concerning the value of phonics in primary reading; (3) to know present trends in the teaching of phonics in primary grades; and (4) to ascertain by actual experiment the results of phonetic training.

Source of Data

This study of the value of phonics was conducted by means of library research and an experiment in the application of phonics in a teaching situation in the second grade. The writer studied the professional material on the subject of phonics which was available at the library of the North Texas State Teachers College at Denton, the library of the Texas State College for Women at Denton, and from publishers. This material consisted of books, periodical articles, teachers' reading manuals, bulletins, and monographs.

Method of Procedure

The present investigation consists of, first, a study of literature both experimental and professional concerning past and present trends of teaching phonics in the primary grades; and second, of an experiment in the public school
of Clifton, Texas, to determine the value of phonetics as an aid in the teaching of reading in the second grade. The study was made of the opinions of reading specialists and authorities and the results of experimental investigations in an attempt (1) to find out the value of training primary-grade children in phonetic analysis, (2) to know what phonics should be presented, (3) to learn the most effective methods in phonetic instruction, (4) to determine the opportune time for this presentation, (5) to know how much phonetic instruction to incorporate in the primary reading program, and (6) to evaluate the results of the experiment in the second grade.

Limitations

In this study, an attempt was made to analyze the present opinions of many reading authorities as to the real value of phonics as an aid in making children independent in attacking new words. It was confined to the teaching of reading in the second grade of an elementary school. An attempt was made to use modern theories in the use of phonics as given by leading educators.

There is a comparative lack of scientific evidence in the field of phonetics; hence, much conclusive evidence is still lacking in regard to such questions as, When shall phonics be taught? What shall be its content and what procedure shall be followed?
All materials on the subject of phonics are not available; therefore, in this type of thesis, a representative survey of much material has been made.

This study is experimental as well as mathematical. Two groups of children are compared according to the arithmetical results of the Haggerty, Detroit, and Gates Reading Tests. From results obtained from procedures used in phonetic instruction and in the look-and-say method for word recognition, comparisons have been made. The conclusions drawn from the comparisons of the two groups are merely surmises in their nature.
CHAPTER II

SURVEY OF LITERATURE DEALING WITH

THE STATUS OF PHONICS

Reading has long been the basic subject in the elementary school; it is an absolutely necessary basis for other subjects in the curriculum. The child who reads efficiently possesses an essential tool with which he can attain much of his formal education. Reading opens the door to a wide variety of significant experiences otherwise often unobtainable; it provides convenient opportunity for one to become acquainted with his responsibilities as a citizen; and it affords a means of providing wholesome enjoyment of leisure time.

Reading is a highly complex performance in which vision, eye-movements, inner speech, memory, word-knowledge, inference, past experience, and intelligence all combine to produce the effects observed. This complex condition is the reason why it is essential that teachers should understand the nature of the reading process in order that they may give the greatest possible aid to children in the mastery of this fundamental educational tool -- the ability to read.
In order to teach the child to read, the school has made use of several methods. Most experienced teachers use combinations and modifications of two or more of the four basic methods of instruction; namely, the alphabetical-oral, the phonic, the look-and-say, and the phrase reading. All the techniques have some advantages, so teachers should know something about all of them.

Boykin says:

Reading is the only one of the three R's that still retains the prestige which it once had in the schools. The typewriter has supplanted the penman; the adding machine and the calculator are taking the place of the expert in figuring; but so far there is no machine for reading and interpreting the printed page.¹

The times, with the enormous amount of available reading material and the increasing need for wide reading, demand that the child read with fluency and comprehension. Since the foundation for efficient reading is laid in the primary grades, teachers of primary reading are always trying to find a better way to teach this important subject.

According to Durrell, there is no one best way to teach reading. He says:

Despite the large amount of publications on the teaching of reading — professional books, teachers' manuals, national committee reports, and research studies — we have not yet discovered a

definite series of steps which a teacher may follow with the assurance that all pupils will grow in reading ability in the most efficient way.

It is unlikely that research will ever discover a single method which will be the most efficient one for all pupils and all teachers. Differences among pupils' intelligence, in physical and mental background, and in immediate and future needs; variations in abilities and interests of teachers; and differences in instructional needs for various communities and at various times make highly unlikely the discovery of a single most effective method or course of study. The sole guide in deciding upon use of a certain method is, "Will it improve the reading of this child or this group of children?" Whether a method is old-fashioned or progressive or follows a "correct psychological principle" should be of little concern.

A teaching plan or procedure is by nature an experiment. To judge its success in the teaching of reading, two factors must be considered: its efficiency in improving reading abilities and its power to establish the desire for reading.\(^2\)

Regardless of the method or methods any teacher selects to use in primary reading instruction, there comes a time of guidance in independent word recognition. The child cannot always depend upon help from another person. There are various clues to be used in word recognition and one of them is phonetic analysis.

Since phonics has been frowned upon as an unnecessary method for teaching reading, many teachers wonder about its use.

Dolch says:

\[\text{In times past, the abuses in the teaching of phonics have called for sharp criticism and evaluation. It seems that the time has now come for}\]

\(^2\text{Donald D. Durrell, Improvement of Basic Reading Abilities, pp. 1-4.}\]
constructive studies and for answers to the ques-
tions: (1) What phonics should be taught? (2) When
should phonics be taught? and (3) How should such
phonics be taught?3

In answer to the often-asked question, "Is it really
necessary for the child to have a knowledge of phonics in
order to learn?" Dickson has this to say:

During the past decade there has come about a
recognition of the child's needs for some means of
making "an orderly analysis of words," and the extent
to which a knowledge of phonics may aid in meeting
that need. At first the values to be derived from
phonics were over emphasized, then the use of this
teaching device was questioned and in some instances
has come to be accepted at what appears to be more
nearly its true value, an aid to most pupils in pro-
viding a means of independent attack upon new words.4

Nila B. Smith believes that not enough study has been
given to phonics along with the experimentation in reading
which should be continued and encouraged. Her opinion is
this:

School people should direct their attention
toward more extensive study of phonetics with the
varying and heterogeneous groups of pupils in pub-
lic school systems; and that study be continued a
sufficient length of time so that the carry-over
effects may be measured in the intermediate grades.5

Child's Vocabulary

One of the most interesting periods of the child's in-
tellectual development is this independence in making his

3Edward W. Dolch, "Phonics and Polysyllables," Elementary
English Review, XV (April, 1938), 120.

4Belle L. Dickson, "Trends in the Teaching of Phonics,"

5Nila B. Smith, American Reading Instruction, p. 272.
wants known to others. In the home the child learns by imitating the speech of those older than he. He usually makes use of whole sentences to express single ideas. His mind is not filled with many perplexing questions and he is inclined to believe all that he sees and hears. His curiosity is very prominent. He is groping, searching, and reaching out for the unknown, and at the same time he is busy constructing imaginary situations. Naturally, the young child prefers to do those things for which he feels a need rather than to follow certain conditions set up for him by others.

The child is alive with curiosity about all the commonplace factors of his life. When he tries to investigate them, there is much for him to learn. Gradually widening experiences bring him new facts relating to these things. If the right kind of stories and poems are told or read to him, he sees that books also bring information. He enjoys pictures of all the everyday things with which he is familiar. He is beginning to sense the importance of reading.

The knowledge of how words, when put together in phrases and sentences, make new meanings is acquired to a very limited extent by nearly all children before they enter school by hearing others talk and talking themselves. They also acquire some ability to think or to use ideas to solve the problems they encounter as they pass from infancy to childhood.6

In civilized countries the world over, it seems to be the rule that children are now started to school at the age of six. At this age, it might be said that imitation and imagination are the distinctive characteristics of the child.

Wheat believes that the child of six has a command of oral language that is sufficient to enable him to learn to read. He makes the statement that the primary teacher has an opportunity to teach children to learn to read that is given to no other school teacher, because when the child is ready to enter school his habits of oral speech are not so fixed as to delay the process of acquiring a command of written speech, his out-of-school interests are not great enough to detract considerably from the process of learning to read, and he is actuated in all that he undertakes through motives of social imitation.⁷

In School

When the child enters school at the age of six, he is usually very teachable. He realizes his dependence, his lack of knowledge, and is willing and anxious to learn the various social arts which are taught in the school. Imitation and imagination characterize this age, and there is no better way to stimulate this power of mind than reading,

because there is so much imagination concentrated in good books. All the words in the child's vocabulary are connected with the meanings given by experience and are not associated with the printed symbol; therefore, from the very beginning in primary reading instruction use should be made of that material which is made up of the words which are already well established within the experience and oral vocabulary of the child. As to the method of teaching reading to the beginner, the manner of presentation is ever changing, but not so with respect to the content of the subject; actually most of the words of the English language we are expected to teach remain the same.

A great variety of material for attack is presented by many modern pre-primers and primers, and we must experiment with these different methods to find what is most beneficial for the class to be instructed. It is all a matter of using old and new methods in the most profitable presentations and proportions, and these proportions are never static.

As a result of taking part in word drills and of practice in oral reading, in a few weeks the child can recognize instantaneously any one of his stock of words without any serious difficulty. He has been taught to read by word, phrase, or sentence at sight. Thus he has acquired a number of sight words through their relation to meaningful
content, through recognition of likenesses and differences, and through much reading of interesting stories. As the child progresses, the fact is soon apparent that school books do not remain limited to the sight vocabulary of the first-grade pupil. Every day new words are encountered, and their number steadily increases while the amount of repetition of new words constantly decreases. Along with the increase of words, there is also a greater similarity in the appearance of words. Eventually, the child has much difficulty in remembering so many sight words and differentiating one from another, although he may have had some of the troublesome words in a certain amount of drill. Therefore, these conditions -- greater number, less repetition, and greater similarity of words -- demand something more than the sight method of learning for accurate word recognition. "They demand what is called 'independence in word recognition,' and that means some sort of phonic attack."8

If the child has to depend upon someone to pronounce the unknown words for him, he can never become a fluent reader because he is handicapped by the fact that he has no independent, sure way of pronouncing new words when he encounters them.

Cordts and McRroom give four ways in which the child

---

may get the pronunciation of words:

1. He may ask the teacher to pronounce the words for him. The impracticability of continuing this method too long is evident.

2. He may read the sentences containing the difficult word and try to get its pronunciation from the context. This is a profitable method and gets desired results in many cases, but of course it is not always an accurate method.

3. The child may work out some sort of scheme for himself whereby he gets the new word by analogy. Children who can make these analogies without any special help often need no training in word sounding. However, not all children are able to work out such a scheme for themselves.

4. The child may be taught a method for sounding new words so that he is independent of the teacher, does not need to guess from the context at the pronunciation of such words as may be worked out independently, and yet can be fairly accurate in pronouncing most words which he encounters.

It is this need, then, for some sort of tool which the child can use as a means of pronouncing new words which has been responsible for the introduction of phonics as it is used today. 9

Word Mastery

The purpose of all training in reading, a thing never to be lost sight of, is the interpretation of the printed page with accuracy and a reasonable degree of rapidity. In reading there are three important stages of growth. First, the purpose cannot be actualized without a mastery of the tools -- the means of interpretation; second, the ability to interpret demands constant cultivation; and third, increased skill in expressive utterance should accompany all reading.

Considerable attention must be given in the primary grades to learning how to read. But learning how to read is not reading. The drill or mechanical phases of reading should, in the main, be carried on apart from the reading lesson.\(^{10}\)

Mastery of words is necessary in teaching children to read. The reader must recognize words and must fit them into the meaning of his text.

Ernest Cobb has this to say:

The one great aim for the first grade, and for most of the second grade, is to gain mastery of printed words. It is only when we recognize this aim that reading power will develop in the upper grades.

Never despise words. Never look askance at the skill that enables pupils to know them and to speak them clearly. Words are the symbols that link the world of nature into which we are born to that spiritual world of aspirations and ideas into which we must be born again.\(^{11}\)

During the past half century there have been many debates on the problem of whether main emphasis should be placed upon word mastery or thought getting in the work of the primary child. In the hope of securing some suggestions for the improvement of methods of teaching primary reading which include the development of word mastery and of thought getting, some of our outstanding educators have carried out a number of experimental studies and observations.

\(^{10}\)Thomas H. Briggs and Lotus Coffman, *Reading in Public Schools*, p. 36.

over a period of several years.

According to Gates, there are five main convictions pertaining to reading that need to be justified. They are:

1. Accuracy, fluency, and fullness of comprehension and enjoyment of reading for the thought are the main objectives of teaching reading.
2. Comprehension is not a single, unitary skill; it embraces a variety of more or less specific skills.
3. Certain skills in reacting to word-forms are the necessary prerequisites of accuracy, fluency, and fullness of comprehension.
4. The development of the various comprehension skills and the several types of word-form mastery should not be left to fortuity but should be definitely provided for in the course of instruction.
5. The training for comprehension and for word mastery should not be separated into two projects but should be unified.¹²

In order to learn to read, one must learn to interpret the letters or symbols which are used to represent our spoken language when printed or written. Primary teachers are now agreed that the sentence method of teaching reading is the most effective first approach to this subject, both from the standpoint of interest, and because reading as "thought-getting" should deal with complete thoughts rather than with individual words or groups of sounds. Exercises in word recognition soon follow these introductory sentences. Words are recognized by their appearance, but they often change in appearance by certain additions.

Kerr makes the accusation that both the sentence and

the word method of teaching primary reading have the same
defect; that is, they do not develop power to master new and
different words independently. She says, "To develop this
power we introduce the pupil to a study of the analysis and
synthesis of words, i.e., phonics."13

Need for Word Analysis

The fact that word mastery depends upon word analysis
is shown by studies made by some outstanding educators who
seem to be agreed that word analysis is a valuable tool
which will enable the child to become an independent and ef-
cient reader.

Judd says: "If a child is going to be distracted by
his effort to recognize words we may as well anticipate the
difficulty and distract him to some purpose while we teach
him how to master distractions."14

Judd also has this to say:

Analysis of words cannot be omitted from any
complete training of pupils. The experience of
schools in this matter is unequivocal. A child can
read without analysis so long as his vocabulary is
small and the words are short, but sooner or later he
must make analyses, and then he will be greatly helped
if he has been trained in systematic methods. As to
the time when this analysis should be introduced, it
seems to be suggested by the dominance of oral lan-
guage at the beginning of a school life that the word
unit be accepted to keep the word units clear.15

13Lilla Muriel Kerr, "Phonics to the Forefront," The
School, XXVI (February, 1938), 513.
14C. H. Judd, Reading: Its Nature and Development,
15Ibid., p. 144.
There is plenty of evidence that children give their attention to the basic symbols of letters in the beginning stages of reading, if they are allowed to follow their natural interests. They are early aware of letters as the keys to reading, and there is a direct relationship between their advance in reading ability and their progress in learning letter forms and sounds.

There are those who argue that because expert readers perceive words as wholes, beginners should learn words as wholes, without attention to the letters that make them. There are three objections to this argument. First, it is doubtful if expert readers disregard the letters of most of the words they read. They correctly perceive "bed" and not "bad," "pale" and not "pall," "there" and not "their," because of the letter differences in the words, not because of "configuration" or length. Neither do they perceive words largely by context, which is often a very tricky and misleading recognition cue, as every careful reader knows. Second, it is obviously impracticable for children to memorize in this way the several thousands of words they will eventually have to recognize instantly and accurately. Third, children, even when trained in the method of perceiving words as wholes, probably do depend much of the time upon beginning, ending, or other letters for their cues.  

During the past decade there has come about a recognition of the child's needs for some means of making "an orderly analysis of words." Donald Durrell makes this statement: "But lack of attention to word analysis produces its characteristic erroneous guessing at words without regard to word form or to the context of the story."  

"Why do we need analysis?" Because it seems to be a natural way for children to learn words. They seize upon

16Frank T. Wilson and Agnes Burke, "Beginning to Read," Parents Magazine, XVIII (October, 1943), 27.

17Durrell, op. cit., p. 197.
varied characteristics of a word. Children use analysis spontaneously when they meet difficulties.

The following examples given by Mary L. Dougherty show a form of analysis:

The child who told another that she could remember "high" because of the two high letters in it was analyzing. She also knew "oak" because it says "o" and "k" (sounds) without regard to the silent "a." A child frequently confused "bough" and "branch" until she finally looked for "an" and gave the word correctly according to its presence or absence. . . . Even cruder forms of analysis than these are frequently found in the early reading word before any analysis has been suggested to the children. Children often confuse "boy" and "dog" because of their similar appearance when printed. Here analysis is necessary. Children make mistakes which a small amount of analysis would prevent. The following instances of miscalling words where the connection is one of thought without regard to sight or sound elements, will illustrate this:

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<th>word seen</th>
<th>word given</th>
<th>word seen</th>
<th>word given</th>
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<tbody>
<tr>
<td>barn</td>
<td>shed</td>
<td>man</td>
<td>papa</td>
</tr>
<tr>
<td>mittens</td>
<td>gloves</td>
<td>cat</td>
<td>kitty</td>
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Gates makes the following comments:

In studies of the methods adopted by children in their first lessons in learning to recognize words, it was found that a large proportion examine the various parts of the word-form until some minor character strikes their attention. For example, different children remembered "monkey" by means of the "hole," i. e., the "o"; the "funny chair," i. e., the "k"; and the "low end," i. e., the "y." 

Such a method for word recognition is limited because many words contain the same characteristics. Soon the children realize that this kind of method is inadequate and

18Mary L. Dougherty, How to Teach Phonics, p. 6.
begin to search for another.

Gates further states:

Readers who rely upon the configuration type of word-study confuse such words as "ball," "bell," "hall," "hell," "nave," "home," "bear," "bare," "base," etc., which are similar as total shapes. Though perception of words based entirely on apprehension of the general configuration is inadequate, the development of a keen and quick eye for gross word-forms is highly desirable.\(^{20}\)

The need of analysis for word mastery is favored by Frances Jenkins in her discussion of primary reading. She says:

The familiar elements in a word aid in getting the whole. This is where need for analysis arises. All work with phonics, phonograms, spelling and syllabication must find justification here. These need to be recognized that no one method of analysis is a universal short cut to word mastery. New methods of analysis may yet be developed and a new sense of values may be discovered in those now in use. It is very possible that one phonogram or one syllable may have one hundred or one thousand times the value of another, and may be learned in a correspondingly shorter time. The larger the known unit recognized in a new word, the greater the economy. It is better to see "nurse-ry" than "nur-ser-y."\(^{21}\)

Hester considers a child to be severely handicapped without the skill in word analysis which comes only with specific training. She says that ability to use configuration clues and context in unlocking new words is essential for good reading, but, unless the child has some concept of letter sounds, he will be unable to attack new words


\(^{21}\) Frances Jenkins, Reading in the Primary Grades, p. 50.
independently when the other methods fail. 22

In an attempt to find out the natural methods of attacking new words an investigation was carried on with four hundred Detroit children who had finished reading a basic primer and were reading supplementary primers without having had any training at all in word analysis.

As a child read orally the teacher carefully observed his behavior when attacking a new word, and after he had solved it she questioned him minutely to ascertain his exact method of attack. Then she recorded the method on a blank provided for the purpose. The result of this investigation revealed the following methods of attack and their frequencies:

Pupils solved the new words by

1. Fitting them into the context of sentences  . . . 68
2. Looking at an accompanying picture  . . . . . . . . 67
3. Analysing or synthesizing compound words  . . . 43
4. Analyzing a known word to get a smaller unknown word within  . . . . . . . . . . . . . . . . . . . . . . . . . . . 40
5. Comparing the new word with the rhyme word  . . 39
6. Combining a generalized consonant with a letter group  . . . . . . . . . . . . . . . . . . . . . 24
7. Applying a vowel sound after generalizing it from a familiar word  . . . . . . . . . . . . . . . . . . . . . . . . 19

8. Sounding syllables .......................... 7
9. Spelling words .................................. 3
10. Sounding letters ................................. 2

The methods of sounding syllables, spelling, and sounding letters occurred with such a small frequency that the children who used these methods were investigated further, and it was found that they were "repeaters" who had had phonetic training the previous term, so these cannot be counted as natural methods of attack.

In the light of this investigation it is obvious that we have not been putting sufficient emphasis upon methods of attack other than learning the sounds of letters and letter groups. To be sure, good teachers have always called attention to these other methods of attack incidentally, but the findings of this study justify us in the belief that the most effective method of developing power in the word-getting processes is one in which all these methods of attack are taught systematically and thoroughly as needed. \(^{23}\)

What Phonics Is

Phonics is the science of sounds, especially those of the human voice. By its use, the child is given a means of sounding out a word so as to relate the printed word with his experience in spoken language.

\(^{23}\)Grace Storm and Nila B. Smith, Reading Activities in the Primary Grades, pp. 220-221.
Bond and Bond say:

Phonetic analysis depends on a knowledge of the sound accompaniments of individual letters and groups of letters. Through this knowledge the child is supposed to identify the sound of the elements (either single letters or phonetic groups) in the proper order, then to recombine them through blending into a complete sounding of the word. In this way he works out the pronunciation of the word.24

In order to understand more clearly what phonics is, it is necessary to know the meanings of the different terms used in phonics. The following definitions of terms are given according to Cordts and McBroom:

A **Phonetic Word** is a word in which every letter in the word represents the particular sound which was assigned to that letter, and in which every sound is represented by that letter and that letter only. Examples: "let," "hop," "fan."

A **Sight Word** is a word which the pupil learns to recognize as a whole, regardless of the letters or sounds which compose it. A sight word may be either phonetic or unphonetic.

A **Digraph** consists of two letters representing only one sound; the letters "ea" in "meat" illustrate a vowel digraph; the letters "ng" in "sing" illustrate a consonant digraph.

A **Diphthong** consists of two sounds which are so closely blended together that they give the impression of one sound. Examples: the vowel sounds in "ice," "few," "boy," "oil," "cow," represented by "i," "ew," "oy," "oi," "ow."

A **Blend** is a close union or fusion of two or more sounds in a word without loss of identity of any of the sounds.

A blend may be formed by means of the initial consonant sound and its following vowel as the blend "ha" in "hat"; or by means of the final consonant and its preceding vowel as "at" in "hat."

A blend may also be formed by means of two or more consonant sounds as "st" in "stick"; "spl" in "splash"; "nd" in "hand"; "lp" in "help."25

24 Guy L. Bond and Eva Bond, Teaching the Child to Read, p. 161.

Klapper gives these definitions of terms:

A phonogram is merely the written representation of a sound. The symbols "o," "d," "k," "f" are therefore simple phonograms. A compound phonogram contains a number of letters like "ing," "ight," "at," "ar."

Consonants are the result of "audible friction, or stopping of the breath, in some part of the mouth or throat." All consonants can therefore be whispered, while no vowel can. Consonants are usually more important in oral speech than vowels, for their careless utterance does more to produce lack of clearness than wrong vowel values.

A vowel is nothing more than voice "breath murmured in the throat," modified by the shape of the mouth which is a resonant chamber and changes the quality of a vowel with its change in shape. Vowels can all be sung.

Phonics and Phonetics — Most writers make no distinction between them beyond diacritical marks that characterize phonetics. Some authors apply phonics to refer to the study of sound, and phonetics to include sound and its representation by symbols.

Concepts of Phonics

Past. — For the greater part of two centuries the American educator gave phonics too much emphasis which subordinated thought content in favor of the development and use of phonetic elements. This condition rightly caused phonics to be discredited.

The former belief among teachers of primary reading was that a mastery of word-forms should be first sought because of the assumption that until the pupil had acquired facility in recognizing word-forms, emphasis in comprehension would be useless and disturbing. Therefore, reading instruction was usually begun by teaching some form or forms

26 Paul Klapper, Teaching Children to Read, pp. 103-107.
of word elements -- letter, letter-sounds, phonograms, syllables. The child was then trained to utilize these elements in attempting to work out the recognition and pronunciation of new words. It was thought that children had to acquire considerable skill of this type before they could profitably attempt to read sentences and paragraphs for the meaning.27

This overemphasis of phonics took place when oral reading was the principal objective, the child's ear was trained to discriminate sounds and his articulation was clear and precise. Even though the results were evident, the teachers of the phonic method were drill masters and formalists. Their primary concerns and sought ends were to get the word mastered and pronounced correctly.

Present. -- Today we find that word mastery and thought getting remain to be thought of as separate tasks, but the emphasis has been changing. Many teachers now emphasize comprehension from the beginning, while the word-mastery training is given later or reduced in amount, or both. In many cases, training in word mastery is dispensed with entirely, because of the assumption that the child will "incidentally" or naturally acquire a sufficient degree of skill in word perception when proper provision is made for comprehension.28

In our schools of today, various methods are used for teaching the young children to read, and every practice has its staunch defenders.

Contrary to the former belief that phonics was a reading method, the concept now is that phonics is merely a tool to help the child to independence in word-attack. It is used in connection with other methods that are, to the teacher's judgment, the most effective means for reading instruction in the present situation.

If phonics is considered as a tool subject, it is helpful to know what the subject matter of phonics consists in.

Pennell and Cusack give their opinion in the following outline:

1. Sounds and symbols of consonants.
   (a) Consonants made with breath; f, h, k, p, s, t, wh, th (as in thin).
   (b) Consonants made with voice; b, d, g, j, l, m, n, r, v, w, y, z, th (as in them).

2. Phonograms consisting of vowels and consonants.

3. Rules governing the sounds of vowels and consonants.29

In his final estimate of the use of phonics, Klapper says that when reading is thought of as a process of thought acquisition, it is very obvious that phonic synthesis is not a reading method. It is merely a systematized attempt to give the child a mastery of technical elements in the

29 Mary E. Pennell and Alice M. Cusack, How to Teach Reading, p. 79.
reading process. As such, it is not to be considered as a reading method itself, but as a necessary part of a method in reading. The skillful teacher uses it merely as a preparatory drill, "a gymnastic which is aimed to sharpen the perception for words and sounds."30

Phonic Readiness

There is much debate as to the psychological moment at which the teacher should attempt to present phonic training to primary children. Most educators agree that phonics should not be attempted until the children have acquired a sight vocabulary of approximately seventy-five to one hundred or one hundred twenty-five words and should of their own accord have begun to notice freely similarities and differences in forms and sounds of words.

Much has been written and experiments have been made pertaining to phonic readiness. One author, Annie E. Moore, expresses her opinion thus:

All work in phonics should be deferred until children have a clear conception of the function of printed words and sentences. They should be able to use this new skill in really getting thought from blackboard lessons, charts, cards, signs, and the first half of primers, before any step is taken to attract attention to more minute elements.31

30Klapper, op. cit., p. 41.
31Annie E. Moore, The Primary School, p. 213.
A warning against the beginning of phonic training too early is given by Frances Jenkins:

The analysis of words into their elements is a great help in mastering new words, but it should not be depended upon too much during the first half-year. During the second and third years it should become an effective tool. Phonic work should be used for its values in voice training and ear training as well as for word analysis. 32

Annie Workman states her belief as follows:

After the child has a good stock of sight words, he should be helped through ear training and eye training to discover that spoken and printed words, despite their apparent unity, are composed of distinctive sound elements or syllables. 33

A curriculum consultant, W. B. Townsend, gives a belief that phonics should be taught after the child possesses a sight vocabulary of sufficient sight words. He states:

Instruction in phonetic analysis should not be begun until children are able to read simple material, have a sight vocabulary of approximately two hundred words, have had training in hearing and seeing likenesses and differences in words, and see a need for a new aid. 34

Stone is an advocate of the idea that phonic instruction should not be based upon the idea of placing phonics in certain grades, but should be based upon the child's felt need of independence in word recognition. He states his

32 Jenkins, op. cit., p. 66.

33 Annie Workman, "Relation of Phonics to Reading and Spelling," Texas Outlook, XXV (October, 1941), 31.

34 W. B. Townsend, "Phonics in the Reading Program," Instructor, XLV (January, 1936), 22.
opinion that:

The stage or level in reading of the group of
children rather than grade placement should deter-
mine the skill and habit objectives and the phonetic
knowledge taught.35

In his late book, Improvement of Basic Reading Abili-
ties, Durrell uses the term, "word analysis," instead of
the term, "phonics." He thinks that before the child is
ready for instruction in "word analysis," he should have ac-
quired a sight vocabulary of seventy-five to one hundred
words. He further states that the child's sight vocabulary
will also provide a basis for much of the ear training in
visual discrimination of word forms. According to Durrell,
a child should attain certain levels of proficiency in dif-
ferent grades as he makes progress in his reading ability
and discovers new needs for "word analysis."36

One of the most important experiments was conducted
by Dolch and Bloomster in the first two grades of a school
to measure, first, the children's mental development, and,
second, their phonic attainment, and to see whether one was
in any way related to the other. To answer, "When should
phonics be taught?" they say:

The general agreement is that it (phonic attack)
must follow some certain amount of sight recogni-
tion. . .
To learn phonic analysis of words and to use
the results of such analysis surely required more

35 Clarence R. Stone, Better Primary Reading, pp. 399-
402.

mental ability than that used in sight recognition or, at least, a different type of mental ability. . . .

Phonic readiness comes at some time later than sight reading. . . .

It has always been known that some first-grade pupils learned to use phonics, but it is also known that many children reach a mental age of seven years before the end of Grade I. Most of the others, though not all, reach the mental age of seven years in Grade II. . . . Ear-training, which is the basis of phonics, may begin early. Children may be taught to notice the similarities between sounds some time before they are expected actually to use sounding generalization.37

These two investigators found in their experiment that

Children of high mental age sometimes fail to acquire phonic ability but that children with low mental ability are certain to fail. Children with mental ages below seven years made only chance scores. As far as this experiment indicates, a mental age of seven years seems to be the lowest at which a child can be expected to use phonics, even in simple situations. The study suggests that the schools are expecting results from phonic-teaching far too soon.38

Paul McKee is one of many authors who believe that phonics should not be taught to children until they have the ability to read in terms of whole words, simple phrases, and simple sentences, and reading has become a thought-getting process to them. He also thinks that they should feel a "need for a key to unlock strange words" before phonics is introduced. McKee further believes that these provisions will help prevent the training of "word callers" only and prevent the probable idea that reading consists mainly of analyzing words.39

37Polch and Bloomster, op. cit., pp. 201-202, 204-205.

38Ibid., pp. 204-205.

39Paul McKee, Reading and Literature in the Elementary School, p. 201.
As to the most opportune time to present phonics in primary reading, Lorena B. Stretch says:

The teaching of phonics should not be begun until the pupils have developed a reading vocabulary and are able to read phrases, sentences, and stories. After the pupil has developed a reading vocabulary varying from one hundred to two hundred words, he begins to notice likenesses and differences in words. He begins to feel the need of an instrument of some kind which will assist him in recognizing strange or new words. This is the time to begin phonics teaching.\(^4^0\)

Lida M. Williams is one of the educators who advocate the principle that phonetic analysis may begin after the fundamental reading attitudes and habits are well started. After the familiar words of the vocabulary used in the beginning reading lessons are replaced with longer and less familiar words, the so-called "word method" breaks down. Williams believes that during the "word conscious" stage similarities and differences in word forms will be recognized. She favors phonic instruction at this time because "analysis of the word is made without losing consciousness of its relation to the sentence or to the whole thought unit."\(^4^1\)

Methods for Teaching Phonics

In the past, much uncertainty, criticism, and conflict of opinion prevailed concerning the elaborate and conflicting

\(^{4^0}\)Lorena B. Stretch, *The Curriculum and the Child*, p. 195.

\(^{4^1}\)Lida M. Williams, *How to Teach Phonics*, p. 5.
systems of teaching phonics. Few modern systems of reading include enough systematic and progressive instruction in word recognition to give children effective means of word attack and a sense of power and satisfaction.

An examination of teachers' manuals accompanying various series of readers now in use reveals conflicting, meager, and somewhat fragmentary treatment of phonics. The confusion of many divergent methods is baffling. The merit of any method must be measured by the achievement of the pupils.42

Early methods. -- The phonic method is not a modern inspiration. In 1534, Ickelsamer made the first effort at relieving the drudgery of the alphabetic method by phonics. His method was as follows:

He separated the letters of the alphabet into classes distinguished by the position of the vocal organs, and taught first those that, like "o" and "a," were simple and distinctive. The mnemonic associations used were unique. For instance, "b" was represented by the serpent; "z," a buzzing insect; and "w" resembled a crawling worm. In mastering a word a child was expected not only to image the written or printed letter and its appropriate sound, but the animal which suggested the sound. "For example, if the word März (March) was to be learned, the pupil first analyzed the word into its sounds: 'm,' that of a cow beginning to low, 'a,' the sound made by the goose, 'r,' the snarling dog, and 'z,' the twittering of sparrows."43

The phonic method was early introduced in the larger cities -- St. Louis, Washington, New York, Boston, Fall

42 Ibid., p. 3. 43 Briggs and Coffman, op. cit., p. 32.
River, Massachusetts, and Burlington, Iowa.

At that time, probably the leading advocate was Dr. Edwin Leigh, who, in 1864, published his scheme, which involved the following steps:

Represent the object by printed form and through conversational exercises, spell the word by sound, associate the sound word with the printed word, note that each character of the printed word stands for a particular sound of the spoken word, teach the name of each letter of the printed word, note the distinction between the letter-name and the letter sound, review and have word spelled both by name and by sound, as soon as enough words have been learned arrange them to represent a thought.\textsuperscript{44}

When first introduced into American reading instruction, phonics was usually taught by having the child sound each letter separately by imitating an exaggerated enunciation by the teacher. In this formalistic method the knowledge of a graded system of essential phonetic elements was considered necessary before reading was attempted. This method, known as the synthetic, is illustrated in the Pollard, Ward, and Beacon systems which were artificial and uninteresting. The synthetic method advocated the memorization of long lists of families, each family embracing a list of words containing a similar phonogram. The sound of each consonant was to be drilled upon and memorized as an isolated element.

Another distinguishing feature is that the vowel is

\textsuperscript{44}\textit{Ibid.}, p. 34.
connected with the preceding consonant, as: "sa-t," "ra-t."

Dougherty says that the old phonetic methods were logical and synthetic, but dull, mechanical, and formal, wearying the child with too much preliminary travail. The defect was a certain tardiness in giving directly the already familiar pronunciation of the word or phrase. The methods began with letters and their combinations and built up only an approximately correct sound, which might or might not identify the word with a familiar spoken word and its meaning.\[45\]

Present methods.--Today phonics is finding its way back into the classroom, but radically modified in the light of scientific research and the needs of children. Numerous studies and experiments carried on within recent years reveal certain guiding principles that justify a body of content and a basis of procedure now generally accepted by authorities in reading.

The present-day phonetic methods stress the presentation of the phonetic elements when the child has a felt need for such aids in word recognition. Thus, the drill is less vital in the acquired knowledge which is immediately applied to the mastery of word difficulties.

All systems advocate ear training as an approach to phonics. Phonetic instruction usually begins with word rhyming early in the year. Later the child gains the ability

\[45\] Dougherty, op. cit., p. viii.
to detect similarities and differences in the initial sounds of words that are in his own oral vocabulary.\textsuperscript{46}

Of the three phases of phonic word, ear, voice, and eye training, the question has been asked, "Which first?" Harris and others agree with the above statement in these words:

Ear and voice training should precede that of the eye because of the more minute adjustments required. Ear and voice training may begin very early in the course — almost immediately on entrance in school.\textsuperscript{47}

Miss Dougherty suggests Mother Goose rhymes for this work. She says:

"Sing a Song of Sixpence" will suggest words of similar sound: "see," "say," "some," "sit." "Jack and Jill went up the hill" may suggest "jump," "just," "jelly," "jam." Such work designed primarily for correction of speech defects should be given incidentally in the form of games and to small groups as it is needed.\textsuperscript{48}

Two main types of phonics are taught at the present time. First, the letter method which is teaching the sound of single letters, and sounds of consonant and vowel digraphs, which, although combinations of letters, have a single sound. Second, the variation of the phonogram method which is advocated by Cordts, laying emphasis on beginning sounds (candy, cat, can, etc.). These beginning sounds are called the helpers in pronouncing the words.

\textsuperscript{46}Mary Pennell and Alice Cusack, \textit{The Teaching of Reading for Better Living}, p. 207.

\textsuperscript{47}Julia M. Harris, H. I. Donovan, and Thomas Alexander, \textit{Supervision and Teaching of Reading}, p. 163.

\textsuperscript{48}Dougherty, op. cit., pp. 18-19.
Wheeler favors the game technique rather than formal methods of drill. As the result of an experiment involving two hundred twenty-seven children in six schools in Johnson City, Tennessee, in 1936, the data, according to Wheeler in the same article, indicate that a free type method "when closely integrated with the curriculum and constructed so as to conform to the psychological principles of economic learning, definitely increases rate of learning."\textsuperscript{49}

Again quoting from Miss Dougherty, we find the present method of teaching phonics to be, in her opinion, very acceptable. She says:

The new method, glorying in significant meanings, goes direct to sight words, phrases, and sentences, and identifies them as wholes with known speech and experience. With these the child could begin to read the simple and familiar things with a quickened confidence.\textsuperscript{50}

In regard to the basic method of phonic instruction, the analytic-synthetic method is the one generally accepted as shown among the manuals. In the method of teaching phonics, it is generally conceded that there are three important steps. Cordts and McBroom give these:

\textbf{Step I:} The child is led to hear sounds in words and to recognize oral similarities between words.

\textbf{Step II:} He is taught to see similarities and differences in words.

\textbf{Step III:} He is taught to analyze words to the degree that he is able to make out new words unaided.\textsuperscript{51}

\textsuperscript{49}Louise G. Turrentine, "Trends in the Field of Phonics," \textit{Texas Outlook}, XXIII (January, 1939), 50.

\textsuperscript{50}Dougherty, op. cit., p. ix.

\textsuperscript{51}Cordts and McBroom, op. cit., p. 395.
Today the best method for the teaching of phonics is thought to be the analytic, which always begins with a whole word. In this method the child analyzes such a word as "cat" into "c-at" or into the separate sounds, as "c-a-t." By the synthetic method, the child starts with each letter in the word, as "c" and "a" and "t," as separate sounds. Then, later, with other sounds, he builds them into words.

Words may be taught analytically by one or two methods; first, by the initial blend method in which the vowel is joined to the preceding consonant, as in "hand" the word is broken up into the sounds "ha-nd." Second, by the final blend method which is the opposite of the initial blend. By the second method the vowel is joined with the consonant or consonants which follow; as, in the analysis of the word "hand" the child breaks up the word into the sounds "h-and."

As to which is the better method, at present there is little experimental evidence to prove that either one is. Theoretically, the final blend has the following disadvantages: (1) With this blend it is almost impossible to avoid vocalizing the voiceless stops "p," "t," "b," into "puh," "tuh," "buh." Even the voiced consonants "b," "g," "d" tend to become "buh," "duh," "guh." (2) In the pronunciation of words it is the beginning of words and not endings that one hears and stresses.\(^\text{52}\)

\(^{52}\)Ibid.
After making an experiment in reading in the Scarborough School, Scarborough, New York, with backward pupils, Gates became convinced that poor reading is due to inadequate training and too much phonetic analysis.

As a result, Gates formulated the intrinsic method to supplant phonics. The method must be simple, not readily to be over-used, not wasteful, providing early acquaintance with many small words as wholes, and a clear insight into familiar and simple parts in a word. The intrinsic method does away with isolated exercises in phonics; it does away with the story method of initiating reading.

The materials for this method consist of word-picture cards, word-picture dictionary, workbook with exercises for words and other items leading to word, phrase, sentence, and paragraph comprehension and for developing skill in word mastery. These are accompanied by a reading book with stories, poems, and other materials for free reading. Gates believes that this intrinsic method is more adjustable to individual differences. He is also apparently convinced that the habit of looking at and perceiving the word as a construction of clearly perceived parts may be early acquired, releasing the child from mechanical difficulties.

The following summary may serve to bring out more clearly the essential points of differences in theory of phonics instruction toward which we are moving:
1. To place phonetic training in a group of methods for securing word mastery, which include
   a. Incorporation of training in word perception with reading interesting material for its content.
   b. Encouragement of children to use many methods of detecting similarities and differences in word forms, such as single letters, special peculiarities, general conformation, nonsyllabic groups, words within words.

2. To select phonetic elements for teaching by their utility in assisting the children to decipher words of their vocabulary as determined by investigation.

3. To arrange the order of symbols to be taught, not by the classifications of phonetics, but by
   b. Difficulties encountered by the children.

4. To postpone introduction of distinctively phonetic training.

5. To feature oral phonics in the early stages of instruction.

6. To decrease the amount of training in analysis of sounds.

7. To vary the amount of training as well as the methods of approach according to diagnosed reading needs of the children.

8. To dispense with phonetic training altogether where it does not appear to function profitably.\(^{53}\)

No one method of teaching phonics should ever be stressed in any system because of the limitations and difficulties of any particular method. Some words lend themselves best to the recognition of beginning phonograms, others to end or medial phonograms. Another disadvantage of too much enthusiasm for any one "system" of teaching phonics is its failure to take into consideration the problem of individual differences. Not all children need the same amount or kind of instruction. Hence, a flexible

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program should be adapted to the varied abilities of different groups.

There is no authority as to what system of the teaching of phonics is preferable. Results obtained in different schools using different methods have proved that effective results may be secured with almost any system. More scientific investigation is necessary before definite information can be had. Gray, however, offers two cautions in the selection of a system:

1. The sounds of the successive elements into which a word is divided should result in a natural and accurate pronunciation of the word when the sounds of these elements are combined.

2. The system of analysis which is used should be so organized that the habits developed in the analysis of short words in the lower grades will aid rather than interfere with the accurate analysis of longer words when they are encountered.

Elements to Be Taught

When children have gained some skill in using initial word-sounds as an aid in word-recognition, they may be taught to find familiar words or phonograms in old or new words. Care should be taken that words are taken from context and that the phonetic elements should be as large as possible.

The purpose of phonic training, according to Anne Workman, is to aid the child in hearing sounds in words and in

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54 Harris, Donovan, and Alexander, op. cit., p. 160.
seeing their printed equivalents. It develops keener sensitivity of both eye and ear. 55

When phonics is used, the question arises, "Which elements should be taught?"

At present there is a distinct tendency toward uniformity even though reading manuals do not agree as to what phonetic elements should be taught. Most of the manuals now emphasize those phonetic elements which appear most frequently.

Scientific studies with respect to the phonetic elements taught have greatly influenced the contents of manuals. Cordts found facts relating to the relative frequency of phonetic elements which occurred in 2,716 words appearing ten or more times in any one or all of forty-two primary readers and five or more times in four published studies of vocabularies of primary readers. She says that every teachers of phonics must know:

a. The position in which a given sound is most frequently found in the different words. For example, the consonant "b" is found before the vowel, in more than ten times as many different words as after the vowel; the consonant "n" on the other hand is many times more important after the vowel than before it.

b. What the sounds are which most frequently precede and follow a given sound in the different words. To illustrate: the consonant combination "mp" as in "jump" and least frequently following "l" as in "elm." It is followed by the vowel "a" as in "man" two and one half times as often as it is

55 Workman, op. cit., p. 31.
preceded by the same vowel as in "swam." "N" is relatively unimportant in the combinations "im," as in "him"; "mu" as in "mud." 56

Another study which seems to have influenced present practice is an analysis by Ducker of the phonetic elements represented in eighteen well-known, widely used reading manuals published since 1900. The summary of the comprehensive study is as follows:

I. Phonics aim principally to train in the mechanics of reading. By mechanics of reading we mean independent power over word problems gained through automatic association of sound and symbol and used for the purpose of interpreting the meaning of the printed page.

II. Only a few systems give no preliminary training before beginning formal phonics.

III. A large majority of phonics systems postpone the time for beginning formal phonics. The time varied widely from a few days to a month, or until the children have acquired a fifty or sixty sight-word vocabulary.

IV. A large majority of phonics systems employ the analytic-synthetic method. They start with analysis of familiar words taken from sight vocabularies. Most of the manuals do not introduce diacritical marks until the third or fourth grade is reached where the children are taught to use the dictionary.

V. The elements common in two-thirds of the phonics systems are:

1. The single consonants: b, f, l, h, m, s, t, hard g, p, d, w, hard c, k, j, n, and r, which are introduced in the primer work;
y and v, introduced in the primer or first-reader work.

2. The compound consonants: sh, wh, ch, which are introduced in the primer work.

3. The long and short vowel sounds are introduced either in primer or first-reader words. The following common vowel combinations tend to be introduced during first-reader phonics: ea, ee, ay, ai, oo, aw, ir, oy, ou, oo. There is a tendency to teach vowel sounds in phonogram word endings rather than as separate phonic elements.

4. Silent letters tend to be introduced farther along in the work rather than in beginning phonic work.

5. The phonograms or monosyllabic word endings used in word series are:
   A. Introduced in primer work: at, ill, ack, all, an, en, and, ell, in, og, un.
   B. Introduced in first or second reader phonics: ed, ent, ig, ind, ing, op, ut, ail, ike, ear, es, et, ick, old, ow, uck, um, ad, air, op, ate, eed, ine, ide, ite, one, ust, ight, ish, con, ade.57

To obtain a list of phonograms that would be most helpful to children in sounding out new words in the first and second grades, a necessary investigation was made for two years by Vogel, Jaycox, and Washburne in the Winnetka, Illinois, public schools. An analysis was made of phonetic elements in the Gates word list. Every phonogram (i. e., every group of letters beginning with a vowel) occurring in the yearbook list was tabulated according to the number of "book-words" in which it occurred. (The word-list of fifty

phonograms is too long for copying.) To the ranking of phonograms has been added a rank of initial consonant combinations. These consonant combinations are, in order of importance, st, th, sh, gr, br, dr, wh, pl, fl, sp, ch, bl, sw, tr, cr, cl, sl, sn, sm, tw. The basic first-grade phonics list is the following: All short vowel sounds; all simple consonant sounds; rule for lengthening vowel before final "e." The phonic elements recommended for use in the second grade contained all consonant sounds, final "y" (country), "and," "all," "ent," "ide," "in," "un," "br," "cl," "dr," "sp," "wh," The following phonograms and letter groups have a high frequency: "ee," "ed" (ending -- looked), "ing," "er" (ending), "ea," as in "eat," "dn," "ou" (our), "en," "ay," "oo" (good), "oo" (moon), "ar," "ow" (cow), "ow" (show), "ill," "st," "th," "gr"; optional, "at," "it," "in," "y" (cry), "ai." 58

The most common practice in the selection of phonetic elements to be taught is usually based upon the children's needs and according to the word lists in the manuals accompanying a basic series of readers.

Gates says:

In selecting the word elements and conducting practice the following suggestions should be followed: (1) select the elements most commonly found in children's words; (2) use the larger phonograms when

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possible, other things being equal; (3) use different types of phonograms instead of restricting the study to one type such as those beginning with a consonant, etc; (4) teach no more particular phonograms than may be necessary to give the pupil skill enough to learn the remainder by himself. As soon as the child makes a start in phonetic skill, give up the special training but encourage the phonetic attack, within limits, when difficulties are observed in oral or silent reading. It is only a habit of using the phonetic attack that is needed; if this habit is acquired mastery of important phonetic elements will then develop in proper time. (5) Be careful not to overemphasize the phonetic attack, especially the sounding of small phonetic units. This method is but one among many. Overemphasis of phonetics often has unfortunate effects. 59

Cautions to Be Observed

For the greater part of two centuries too much stress was placed on phonics, and not enough on thought content in primary reading. As a result, phonics has been too much ignored in the past. At present it seems as if phonics occupies a subordinate though important position which it should have in the teaching of reading to children in the first two or three years of their school life. Care must be taken that the right emphasis be placed upon the use of phonics so that we do not cause the pendulum to again swing the other way, and discard a tool which when wisely used is an asset in teaching reading.

The successful teaching of phonics lies in the clear perception of the word to be accomplished, and a steadfastness

of purpose until that thing has been accomplished. Therefore, no teacher should instruct in phonics unless she has a thorough knowledge of the subject which may be acquired if she is energetic.

Parker reports:

The effective mastery of phonetic tools and analysis cannot be left to the haphazard effort of inexperienced, unskilled teachers. Just as in the teaching of handwriting and spelling, we need ready-made scientifically constructed systems.  

Gates warns teachers of the danger of the assumption that the phonetic attack in word recognition is sufficient. He says:

The great mistake in American teaching has been the assumption that phonetic skill was all important and sufficient, that the other types of training could be neglected, and that the more phonics the pupils get the better. These mistakes have resulted not only in waste but frequently in the production of a special type of reading. So excessive has phonetic drill often been that pupils have become not only "word-form conscious" at the expense of interest in meaning but, even worse, they have also become word-detail conscious. . . . Reading and word study become slow, laborious, mechanical, performances. . . . These pupils, overtrained in phonics, may become not only poor in sentence and paragraph composition but slow in acquiring a reading vocabulary.  

In planning to give definite instruction in phonics, according to English and Alexander, the teacher should observe the following cautions:

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60 Samuel C. Parker, Types of Elementary Teaching and Learning, p. 119.

1. In order that the right idea of what constitutes reading may be established, give practice in developing skill in phonetic analysis in a period separate from the regular reading period, though phonics and other clues for getting new words should be applied as needed in the regular reading period.

2. Practice exercises must originate in words that pupils have met in their reading and have had difficulty in recognizing. Only words that can be studied phonetically should be used for such practice.

3. Give practice exercises in phonics to small groups of children and only to such as can profit by the experience.

4. Avoid dwelling on phonics in a detailed way. The largest phonetics element should always be the unit of comparison. The whole word is a good basis and should be used whenever possible.

5. Do not distort words by separating them into component elements. To compare similarities and differences, cover or underline similarities to show differences and cover differences to show similarities. Emphasize the pronunciation of the phonetic element to which attention is being directed.

6. An overemphasis on the analysis of words which breaks them into separate elements that must be blended into wholes again should be avoided.

7. Guide the children in synthesizing the elements of a word and seeing it as a whole.

8. In all this work take account of the purpose or objectives of phonetic training.62

Recent literature on phonics warns of the danger of teaching verbatim of a great number of phonograms. There is a tendency to bring phonic work into close relation with the reading program and to limit drill to the child's discovery of the knack of recognizing and blending sounds and phonograms into words.63


63 Better Reading Instruction, Research Bulletin of the National Education Association, XIII, No. 5 (1935), 285.
Phonics in the First Grade

There has been much dispute and disagreement about the question concerning the teaching of phonics in primary reading. The trouble was caused, seemingly, by the overemphasis upon phonics and its having been treated as a science in itself instead of as a tool or aid in reading. It should be kept in mind in these days when much scientific research is being carried on, that the opinion of no one person can be taken as final.

A study of different educators' opinions concerning phonics in the first grade brings about the conclusion that phonics is useful, to a certain degree, in the first grade as an aid in word recognition.

Basing her conclusions on seven years' experience in primary teaching and upon a year's study of research, Doyle says:

The old rule of beginning ear training the first week of school is quite sound. Many speech defects can be cured, and better enunciation developed, through teaching children to listen. This ear training can be given in simple singing lessons, in what is called "choral reading," and in games imitating the sounds of farm animals, etc. Later, games should be played that will help the child to associate sounds with single words.64

As to the time, in years, to spend on phonics, Dougherty says:

64Joyce Boyle, "Phonics in Grade I and II," The School, XXIV (March, 1935), 590.
Many capable classes will acquire during the first grade all the knowledge of phonics necessary for independent phonic analysis, and their work in the second grade should involve application of their knowledge in material for both oral and silent reading, and some analysis of more difficult words for the sake of keeping up the habit of analysis in the presence of difficulty. . . . On the other hand, there are classes which will not be able to complete satisfactorily even the work that is suggested for the first grade and will have to carry over some of it into the second grade. The teacher must make adjustments to the needs of her class.65

In teaching phonics to primary children, the teacher should select a system, learn its principles and follow it closely until the children become independent in its use, or adapt a system suitable to her own needs based on the principles underlying the teaching of reading and phonics.

A system of reading and phonics by Lida M. Williams gives the suggestive procedure for the first year:

The work for the first half-year should be limited to ear training and the recognition of a few of the easier initial consonant sounds. These should be gradually increased in number during the second half. Noting the general form of words, recognizing similarities and differences, especially in beginnings and endings of words, and comparing new words with known will constitute the first year's work for the average class.66

Authorities agree that first-grade children do need a moderate amount of phonetic skill, together with the ability to use other clues. However, versatility in the use of all word clues is advised, and not a detailed use of phonetics. There is no scientific data to prove that there is any preferable system of the teaching of phonics, exactly what

65Dougherty, op. cit., p. 38.
66Williams, op. cit., p. 9.
elements should be taught, or when they should be developed. All systems advocate that ear training should precede eye training. Early in the first grade the teacher may begin calling attention to how words sound alike. This fact is usually noticed in nonsense rhymes and jingles. Children learn mainly by imitation and repetition. So the teacher should place good models of enunciation and pronunciation before her pupils when she talks or reads to them.

The first step in word analysis is the recognition of the sound element of the spoken word. Williams says, "On the foundation of auditory language, visual language is built."67

The Twenty-fourth Yearbook of the National Society for the Study of Education gives a suggested program of instruction for developing a meaning vocabulary and independence in word recognition for the first grade. It is given here in full, as it might be helpful to some primary teacher. It is as follows:

I. Steps in Developing a Meaningful Vocabulary.
   1. Wide extension of experience, with care that new words are learned which fit these experiences.
   2. Opportunity for repetition, of new words in connection with additional interesting experiences.
   3. Special care to use early the vocabulary of the primer in connection with discussions of pictures, games, and other activities.

4. Observations by the teacher to determine vague expressions for which definite vocabulary should be substituted.
5. The elimination of difficulties as children attempt to use new words.

II. Steps in Developing Accuracy in Word Recognition.
1. Teaching as sight words a preliminary list of words already in the speaking vocabulary of the children.
2. Noting the gross similarities and differences in the form and sound of the words in the preliminary list to which children give spontaneous attention.
3. Introducing the use of a book when pupils have learned to think of reading as thought getting and have a sufficient reading vocabulary to attack simple stories with confidence.
4. Beginning work in phonics when children notice freely gross similarities and differences in the form and sounds of words. This usually occurs a few weeks after books are introduced.
5. Introducing definite work in phonetics with special attention to individual needs as early as these can be discovered. Through this work pupils should master the phonetic assignment of the grade.
6. Attending early to words with which children encounter difficulty in pronunciation and enunciation and to other inaccurate speech habits.
7. Discovering early the pupils who need to work more slowly or more rapidly than others.

1. Train the child to attack the lesson with questions in mind after looking at the pictures.
2. Limit attention at first to a single line or sentence by use of marker.
3. Learn the different ways in which children may attack each word.
4. Tell at once the word or words which you do not expect the child to get, "The first word in this line is now. The last word in this line is under."
5. Train children to work across the page, getting words independently if possible, asking for help only if necessary.
6. Be sure that they get the words from context or from phonetic elements when possible without interrupting the thought.

7. Secure responses by action, drawing or oral reading to see that pupils subordain the words to the thought.

8. Occasionally emphasize a few of the more important words by having pupils find them on the page in response to thought-questions: "Find the boy's name. Find the words which tell where he is taking the cows."

9. At a separate time give needed drill—phonetic elements, words, and groups of words being selected on the basis of (a) frequency with which they are needed and (b) specific needs of individual children. No phonetic elements are to be used in isolation; they are always to be given in well-known words.68

Phonics in the Second Grade

Previous Attainment in Word Recognition:

By the time the child approaches the second grade he should know several hundred sight words and have formed the habit of noticing picture and contextual clues, similarities to known words, and familiar elements. He should have developed the ability to combine any of these clues to recognition. He should also have acquired the ability to recognize frequently recurring phonetic elements such as the following:

- All the initial consonants except "g, v, x, and z."
- The combinations "gr, pl, sh, st, ck, ch, ee, er, th, tr, wh."
- The analogous endings "all, old, oun, ing, at, an, ay, er, ow (show), un, et, ow (now)."
- The short sound of the vowels as they occur in phonograms.
- The long sound of the vowels.
- Word variants formed by adding "ing, ed, er, est"; possessives; compound words formed of two familiar words; "cannot, upon, into."

Phonetic Elements for Second-Year Period:

At the beginning of the second-year period there is a thorough review of all the phonetic elements outlined for the first-year program, and then opportunities...
are provided for specific experiences with the following new phonetic elements:

The initial consonants "v and g (gu)," also "x and y" as final consonants.
"y" as a long vowel as in "my," and as a short vowel as in "busy."
The following combinations: "gu, cl, br, cr, sw, ea, ai, ea, or, bl, nk, fl, ch, dr, oo (as in foot), oo (as in too), ew, ar."
Analogous endings: "ight, ske, eat, in, ate, ell, all, ill."
The recognition of variants of familiar words made by adding "es, y, ly, ied, is, ier, in," and by changing "f" to "ves" and "y" to "ily."
The recognition of a compound word formed by two familiar words as: "milkman" and "blackbird."

Phonics is still kept apart from reading, though there is often phonetic practice on the new words of the day's reading lesson. The danger of reading words rather than ideas is especially great in this year, and to prevent this, Huey says, "A child must be fairly sure of the words and the thought in a paragraph before attempting to read it aloud."

In the reading material for second grade, words of two or more syllables will be met frequently. Since the majority of syllables begin with consonants, the initial blend phonograms will be more helpful than the final blends in the syllabication of such words as "in-vi-ta-tion, va-ca-tion." Avoid pronouncing for the pupil a word made up of familiar elements. Encourage him to use his phonetic

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knowledge to help pronounce words that are new to him which contain them. The analytic-synthetic method should increase skill in the sounding and blending of word-parts for independent recognition of new words. This silent, fluent blending of the word as a whole should be carried on with increasing speed and accuracy.

The Twenty-fourth Yearbook also gives a suggested program for developing the vocabulary and independent word recognition for the second grade. It is given below:

I. Steps in Extending a Meaning Vocabulary.
   1. Wide extension of vocabulary through experiences, with care that appropriate new words are learned to fit into experience. Arouses curiosity concerning new words and idioms significant in beginning number and geography.
   2. Growth in expecting words met in context to fit into context and to be words which children themselves use or hear others use.
   3. Growing knowledge of when to ask for help in interpreting the meaning of a word met in context.
   4. Utilizing knowledge of synonyms in clarifying text difficulties. Children give words or groups of words which mean the same as those in the text. For example, the book uses "a haughty maiden"; the child supplies "a proud girl."
   5. Exercises in classifying words under general headings to call attention to certain elements of meaning: e.g., from a given list of words children arrange two lists, one containing the names of workers, the second containing the name of the work each does.
   6. Informal and standard vocabulary tests to make certain that steady growth is being attained.

II. Steps in Developing Accuracy in Word Recognition.
   1. Care that all children know common sight words, e.g., "when, because, among." Needed drills to be given preferably with groups of words on the basis of individual needs.
2. Emphasis on training in phonetics according to a definite system, with sensible standards for measuring results. This work to be intensive and given to small groups selected on the basis of need.
3. Care that phonetics are used when needed in unlocking new words in context.
4. Exercises in arranging short lists of words alphabetically as to initial letters or in groups according to common phonetic elements.
5. Constant attention to specific words on which children need careful training in pronunciation and enunciation, and to special children whose speech habits indicate need of remedial treatment.
6. Early discovery of pupils whose classification needs to be changed in order to provide help in harmony with individual needs.

1. Train the children to attack the lessons with questions in mind after looking at the pictures. This arouses ideas which may recall many words to be met in the context.
2. Limit attention to a short unit, i.e., a sentence or short paragraph.
3. Know the different ways in which children may attack each word.
4. Know the different values of each word in relation both to context and to pupils' habits of recognition.
5. Train children to work rapidly through the unit assigned, getting words independently if possible, asking for help only if necessary.
6. Tell promptly, even anticipating difficulty, unimportant words which children cannot be expected to know.
7. Help children to use knowledge of context or phonetics skills if they ask for help with words which they might work out independently.
8. Secure final responses by action, drawing or oral reading to see that pupils integrate the thought as conveyed in the assigned unit.
9. Have children to point to specific words or groups of words on page in response to questions regarding meaning, e.g., "Who is this man? Why is he lifting the stone?" 71

Attitudes for and Against

Favorable attitudes. -- While it is true that the actual value of phonics has not been determined, many educators acknowledge that the child will be helped in both reading and speaking if phonics is taught in a reasonable amount and if the selected material bears a close relationship to the reading situation.

Pennell and Cusack verify the values of phonics when taught properly by stating that it helps the child:

1. In the identification of new words.
   The ability to attack new words enables the child to get the thought more rapidly and makes him independent of the teacher's help. Some children seem unconsciously to associate certain sounds with the symbols that represent them. Others must be taught how to do this; that is, they must learn phonics.

2. In enunciation and pronunciation.
   The ability to recognize the sound of certain symbols as "et" in "get," "atch" in "catch," "ing" in "doing," makes the child better able to pronounce correctly and enunciate clearly these words.

3. In the development of speech coordinations.
   Many children seem to be unable to give certain sounds correctly. This may be due to physical reasons or bad habit formation. These bad habits, caused by the child being allowed to continue baby talk, imitating the incorrect sounds which he hears others use, or hearing inaccurately, may be corrected by means of phonics.72

Phonics receives a favorable decree when Barrows and Cordts assert that it is very obvious that the teaching of phonics aids the children in independent word recognition.

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72 Mary E. Pennell and Alice M. Cusack, How to Teach Reading, pp. 78-79.
to the degree to which right associations are made between
the printed symbols and spoken sounds. They further
state:

Teachers recognize its value to little children
in their efforts to master the new words on the printed
page. Leading men and women in the field of experi-
mentation in reading advise the teaching of phonics.
Although we have as yet few experimental data on
the teaching of phonics, we have available the best
practices of the schoolroom.

Cordts believes that when phonics is properly pre-
sented, it provides one of the most satisfying experiences
the child can have. She says:

It presents a real challenge to his intellect;
it makes him dependent on himself and rewards him
with the satisfaction of self-expression, personal
growth and power.

Anderson and Davidson are of the opinion that phonetic
drill should be given to those who need definite work which
will help them to become more sensitive to sound elements.
Children having the power of concentration, discrimination,
and judgment which enable them to master words without
phonetic drill should be given some other form of word
study. They say:

There is abundant evidence that phonetic train-
ing has some value in the independence given to the
pupil who is mastering new words. The point that is
still unsettled is just how much is needed.

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73 Sarah T. Barrows and Anna D. Cordts, The Teacher's
Book of Phonetics, p. ix.
74 Ibid., p. 1.
75 Anna D. Cordts, "What About Phonics?" Grade Teacher,
LXI (September, 1943), 24.
76 Charles J. Anderson and Isobel Davidson, Reading
Objectives, p. 76.
English and Alexander, in *Wheels and Wings Manual*, state that from observation and study it has been found that when children have to depend upon themselves for word recognition, they acquire, eventually, a knowledge of phonetic elements to aid in analyzing unfamiliar words. Authorities agree that phonetic instruction should be an intrinsic part of the reading process to help the child develop a knowledge of phonics more economically in time and effort.\(^77\)

The knowledge of phonics is valuable in the primary grades according to Cole in this statement:

> Phonics is helpful in the first grade in teaching words having a common element; it is useful in the third and fourth grades in teaching children how to break words into syllables; it is valuable in furnishing pupils with a method of attack on new words.\(^78\)

Parker believes in the necessity of phonics for accuracy in reading. He states:

> Pupils who have not had training in independent word analysis prove to be, on the average, much more inaccurate in their reading than pupils who have had this training.\(^79\)

The fact that phonetic training is necessary in the accurate recognition of words appeared most clearly in the Gray survey of the results of teaching reading in one of the Middle West cities that maintains an excellent school system. Like many other progressive schools of recent years this system tended to neglect the so-called "formal" drill in word recognition. In speaking of the situation in this particular city, Gray says: "The results of the oral reading tests showed that the pupils . . . ranked low in accuracy

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\(^78\)Luella Cole, *The Improvement of Reading*, p. 9.

\(^79\)Parker, *op. cit.*, p. 117.
of pronunciation and in ability to attack new words. Classroom observations revealed similar weaknesses. . . . Many teachers had no phonetic devices for helping pupils and some were almost helpless, if not inaccurate, in their attempts to aid the pupil. Uniform methods of developing independence and accuracy in pronunciation should be considered, and the teachers should be trained to make effective use of the adopted methods."

Dolch defends the need of phonics when he states that some ability of sounding is unquestionably a part of a child's equipment if he is to be a good reader because words are composed of sounds. Part of the purpose of sounding is to identify new words and progress in the reading of new material. The greater purpose of sounding is to build a sight vocabulary. Sounding, Dolch believes, is the chief means by which a child can independently build up his sight vocabulary.

He also justifies phonics to the extent that he suggests it be called a natural method. He says:

All sounding is based upon one principle, that parts of words which look alike sound alike. Many children discover this principle for themselves and develop their own methods of sounding. . . . It is this sounding of word parts that is the essential characteristic of any phonic system. Therefore, the use of some kind of phonics may well be called a natural method.

Dolch favors phonetic instruction for its value in later

81Edward W. Dolch, Teaching Primary Reading, p. 216.
82Ibid., p. 220.
years as well as for its immediate value. He says:

Without phonics in the early years, how will the child acquire the sounding methods that he ought to have later on? There are two possible alternatives, neither of which should be permitted: First, he may never learn to sound new words. Second, he discovers some method of his own of comparing parts of words with parts of others or seeing small words in large ones.

In addition to the benefits of phonics in later years, such training gives children "independence in word recognition" which enables the child to do many kinds of seat work with ease and pleasure, since he can work out by himself those words he has forgotten. It may enable him to have confidence enough in himself to attack reading matter outside of school and then get a new sense of value and pleasure in reading.83

Storm and Smith advocate the teaching of phonics in primary reading because of its values. They make the statements that phonetic training enables the child to develop independence in the recognition of new and unfamiliar words so that he will become a more efficient reader. Good habits of enunciation and pronunciation are other valuable results from the teaching of phonics. They state:

A few children develop this ability naturally, but there are many others who have to be taught how to associate letter sounds with symbols. . . . The study of phonics enables the child to see clearly the different parts of words and to give them their correct sounds, thus aiding him to overcome slovenly and incorrect habits of speech.84

What is considered as "good" reading is more than a series of mere word-callings. It includes accurate and

84Storm and Smith, op. cit., pp. 221-222.
speedy pronunciation, clear enunciation and correct interpretation. In agreement with this idea, E. D. Burbank is quoted as to the possible values in public instruction.

The values are:

1. In word recognition, making possible the recognition of words at sight.
2. In pronunciation, making correct sounds possible without reference to the dictionary.
3. In articulation and enunciation, giving distinctness and clearness of speech.
4. In spelling, making it unnecessary to learn all words as sight words.
5. It prevents provincialisms and dialects, tends toward standardized English, and helps in the study of foreign languages.
6. It may lead to spelling reform. 85

One of the most recently stated conclusions in favor of the use of phonics in remedial reading instruction is that given by Krise. He compares the child's progress in the three most effective methods of teaching remedial reading; namely, the Visual, Kinaesthetic, and Phonetic. Under the Visual method the basic learning is to be able to visualize words distinctly and to attend to the visualization. The basic learning under the Kinaesthetic method is to be able to trace words as prescribed and to attend to the muscular movements involved. Krise makes the accusation that with both of these methods it will always be necessary for the child to ask the pronunciation of each new reading word.

There will not always be someone handy, willing, and

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85 E. D. Burbank, in the Velta Review, XXII (June, 1920), quoted by S. C. Parker, Types of Elementary Reading and Learning, p. 113.
sufficiently well informed to render this service, and at best this is an unfortunate state of dependence. Krise describes the basic learning under the phonetic method as the mastery of phonetic sounds and rules which enable the pupil to work out for himself the pronunciation of between seventy and eighty per cent of the reading words he does not recognize immediately. Hence, he is given the tools by which he is enabled to acquire further knowledge independently. His conclusion is: "It is obvious then that on the basis of criterion the Phonetic method is far more scientific than either the Visual or the Kinaesthetic."

Bond and Bond say that the phonetic method of recognizing words is slow but sometimes very helpful and has a contribution to make to the total hierarchy of word-recognition techniques. It is apparent that phonetic analysis is simply one means that may be used, but that unassisted it cannot meet all the problems of word recognition.

**Negative attitudes toward phonics.** -- Objections to the teaching of phonics are based on poor teaching methods, and the failure to perceive that phonetic training is merely an aid to independent reading rather than an end in itself. Failure to relate phonetic training to actual reading

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87Bond and Bond, op. cit., pp. 161-162.
situations is a serious fault.

The observation that children carefully trained in phonetic analysis and synthesis are often not more successful in deciphering words in a reading situation than children not so trained, and that even when more successful in this way, they are often inferior in quick and accurate grasp of meaning and in reading interest, has been reinforced by investigations.

Arthur I. Gates, the leader of the attack upon phonetic training in the early grades, gives his two main objections to phonics as follows:

1. Wastefulness. Phonics forces attention unnaturally to facts not needed or not needed at the time, on the other hand limiting the field of observation by prescribing only a few ways of analysis.

2. Lack of harmony with the established laws of learning. Phonics is a "supplementary" device, as opposed to the "intrinsic" device, one which is "an integral part of the natural process of reading." Separated from the situation in which it is supposed to function, the phonics lesson must rely upon the carry-over of phonetic knowledge to the reading -- a clumsy and wasteful process, with no certainty as to results. Like some other supplementary devices sometimes useful, its type if inferior to that of the intrinsic, and worth using only if use of the superior type is not feasible. 88

The really fundamental difficulty in the phonetic method of teaching reading is the nature of the English language, which unfortunately is not phonetic. Cole says that although the consonants keep the same values, each vowel has numerous

sounds -- and there is usually no indication in any given word which sound is to be used. A language cannot be taught by exclusively phonetic methods unless the sounds and the spelling have a fixed and invariable relationship. Furthermore, in most polysyllables only the vowel in the accented syllables retains its characteristic sound, while all other vowels are elided, or become blurred, or change into short "u's."

Cole asserts also that primary children who have had phonics strongly emphasized usually progress slower than those without such training due in part to the generous use of oral reading that usually accompanies the phonetic drill. 89

The 1935 Teacher's Guide for Wheels and Wings states that scientific proofs are available to show that children do learn to read rapidly and well without the aid of phonics and that too much drill on phonetic analysis as the chief means of getting new words has caused certain types of difficulty in reading. Through excessive use of phonetic analysis children have become word-conscious. They have often lost the ability to see the word as a whole as a result of the stress placed on separating it into its parts. Such emphasis often results in loss of interest in the meaning of words.

Other undesirable results of overemphasis on phonics are slow comprehension, narrow eye-span, word calling, unnatural enunciation of words, not to mention the valuable time wasted on barren drills which do not transfer to reading situations. 90

Another argument against the use of phonics when children are first learning to read is that many meaningless drill words that are given for the sole purpose of picking them to pieces prevent an early extensive acquaintance with word-wholes encountered in meaningful context. It is generally conceded by those who have made searching investigations that consciousness of the mechanics involved actually interferes with the reading process.

A further accusation is that incorrect and exaggerated sounding of words, and drill out of proportion to use in thoughtful reading, tend to cause useless and abnormal reactions of speech organs in both oral and silent reading. Also, lip-reading is often practiced by children who are overtrained or badly trained in phonics.

In a recent investigation of reading disability, Gates sums up some undesirable results:

Inappropriate forms of phonics, phonetic, or other types of analytical training result frequently in unfavorable types of perception and in other effective habits. For example:

a. Super-sufficient reaction to details of words, resulting in slow, laborious reading, in a variety of errors, in inability to grasp sufficiently large units of words, and in inability to attack long words effectively.

b. Placement of emphasis on wrong characteristics of words, or dividing words in ways ineffective for ready recognition.

c. Progressing by too small units which may lead to inappropriate habits of eye movements.

d. Habits of too explicit articulation which may lead to an inhibition of the development of speed in silent reading.

e. Habits of reacting primarily by efforts to pronounce accurately which may lead to inadequacy of comprehension.

f. Habits of not looking ahead in reading, i.e., too narrow eye-voice span.91

Bond and Bond oppose too much emphasis upon the phonic method because of these limitations:

First, the initial instruction is much in the fashion of nonsense learning which is much more difficult than meaningful learning.

Second, this method tends to limit reading ability later on.

Third, the meaningful reading act is delayed for some time, and thereby other important learnings arrived at through reading are not achieved.

Fourth, when reading is introduced in this fashion, it is tedious and uninteresting to children.92

Experiments

Under the present-day circumstances when teachers are wondering about the status of phonics, they should appreciate and, at the same time, profit by a very definite study made by Donald C. Agnew. His series of studies involved large numbers of school children of Raleigh and Durham, North

91Arthur I. Gates, The Psychology of Reading and Spelling with Special Reference to Disability, p. 90.

92Bond and Bond, op. cit., pp. 99-100.
Carolina. The problem studied may be considered in two
categories: studies of the phonetic content of vocabularies
and studies of the value of phonetic training. Agnew states
various inferences that have been drawn from the analysis
of elementary vocabularies for their phonetic elements.

The following arguments may be said to sum up the case
in favor of phonetic training:

1. Phonetic training has had a long history; during
this period of years until quite recently, it has been pro-
vided in increasingly large amounts.

2. Phonetic training gives the pupil independence in
recognizing words previously learned. This ability becomes
steadily more important in connection with silent reading.

3. Phonetic training aids in "unlocking" new words
by giving the pupil a method of sound analysis.

4. Phonetic training encourages correct pronunciation
and enunciation.

5. Phonetic training gives valuable "ear-training"
in recognizing and differentiating sounds.

6. Phonetic training improves the quality of oral read-
ing; for instance, in breath control and in speech co-
ordination.

7. Phonetic training improves spelling.

8. Phonetic training is a valuable background for
shorthand.
9. Many cases of reading disability may be traced to deficiencies in word recognition and sound analysis. These disabilities are often overcome by remedial procedures involving phonetic training.

The disadvantages attributed to phonetic training may be summarized as follows: 

1. Phonetic training tends to isolate words from their meaningful functions by emphasizing sound. 

2. Phonetic training tends to lead to the neglect of context clues. 

3. Phonetic training tends to sacrifice interest in the content of reading. 

4. Phonetic training leads to unnecessarily laborious recognition of familiar words. 

5. Phonetic training is impractical because of the non-phonetic character of the English language. 

6. Phonetic training is unnecessary for many pupils since its advantages can be obtained without formal training. 

7. Phonetic training encourages the breaking of words into unnecessary small units. 

8. Phonetic training narrows the eye-voice span. 

9. Phonetic training tends to emphasize too explicit articulation. 

(These claims are based largely on a priori consideration. As such they are at best tentative rather than final.)
Does phonetic training result in these outcomes? Agnew's studies were undertaken in an effort to help solve some of the problems in the foregoing paragraphs.93

Agnew's investigations have tended to support four of the arguments in favor of phonetic training. These arguments are that phonetic training when given consistently in large amounts (as in Durham, N. C., schools): (1) increases independence in recognizing words previously learned; (2) aids in "unlocking" new words by giving the pupil a method of sound analysis; (3) encourages correct pronunciation; and (4) improves the quality of oral reading. The investigations provided no evidence on the other arguments in favor of phonetic training.

The study tends to show that a number of the objections to phonetic training have been exaggerated. In other words, although the investigation offered opportunity for evidence in support of these objections, such evidence did not appear. There was no evidence that large consistent amounts of phonetic training tend (1) to sacrifice interest in the content of reading; (2) to result in the neglect of context clues; (3) to result in unnecessarily laborious recognition of unfamiliar words; and (4) to be unnecessary because the advantage attributed to phonetic training might

93Donald C. Agnew, The Effect of Varied Amounts of Phonetic Training on Primary Reading, pp. 3-8.
be obtained without formal training. Some positive evidence indicated, too, that (5) phonetic training does not narrow the eye-voice span.

On the other hand, there are some data to show that large amounts of phonetic training tend to slow up oral reading. This is, in a sense, counteracted by greater accuracy in oral reading. The investigations did not reveal striking differences in silent reading ability as between groups having large differences in amounts of phonetic training. There was no evidence that phonetic training decreases efficiency in silent reading. This may be due to the fact that speed in silent reading is largely acquired in the grades above the primary level.

The results from Agnew's investigations, as actual schoolroom experiences, yield data which tend to support favorable arguments for the use of phonetic training, and to strengthen certain former voiced opinions of unfavorable nature.

One of the earliest experiments to determine the true value of phonetic drills in teaching reading was made by Currier and Duguid in the first and the second grades of the public schools of Tilton, New Hampshire. The classes were equal in number and ability. One class of each received phonetic drill and phonetic development of all words. The other class was given instruction in word recognition by "sense content" and "quick perception" methods. From time
to time unfamiliar stories were given them to read silently and reproduce. No help was given on the words. As a final test the superintendent gave new books from which stories were chosen, and were read and reproduced. At that time the observations showed: (1) the phonetically trained classes read generally with less speed, less interest, greater fatigue, more confusion of ideas, but with greater accuracy than did the classes not having phonetic drills; (2) the differently trained classes differed very little in average ability when attacking sight work; (3) slow readers were greatly helped by quick perception and sense-content methods; and (4) foreign children, those with speech impediments and children with bad habits of pronunciation were much helped by phonetic drills.\textsuperscript{94}

Later the experiment was repeated by Currier in the second, the third, and the fourth grades in the same city schools — Tilton, New Hampshire. There were two groups in each grade. One class was given thorough phonetic training and the other no such training. At the close of the year, when the differently trained classes were given the same sight reading, their average ability was about the same. For at least one fourth of the pupils phonetic drills were an absolute waste of time. Some pupils used a seemingly natural "phonic sense" from the very beginning of their

reading. To these pupils, phonic drills were wholly without value.

The following year the same experiment was tried. In 1923, after five years' experimentation and observation, Currier concluded that phonic drills have a very real value but are not essential to every child in the daily reading program. Phonetic drills should always be used with discretion and adapted to the needs of the child or group. She also concluded that word-pronunciation drills may prove to be of much value, that silent reading should be conscientiously done and then accounted for, so that in order to arouse, hold, strengthen, and develop the interest of pupils, the teacher should study the needs of the different pupils and then experiment to find the best methods for the particular problem encountered.95

Garrison and Heard began an experimental study of the value of phonetics in September, 1929, with the children who were entering school for the first time and continued through the first, the second, and the third grades to May, 1930, in the public school system of Nashville, Tennessee. The children were divided according to results from the Pintner-Cunningham Primary Mental Test into two groups, bright and dull. Those whose intelligence quotients were one hundred or more were called bright; those whose intelligence quotients

were less than one hundred were called dull. The children were placed in four classrooms. The children in two of the classrooms received instruction in phonetics during the first and second years. The children in the other two classrooms during the same period received no instruction in phonetics. There were both dull and bright children in each group. All groups remained equivalent in average number during the three years.

Methods of teaching were made similar during the experiment by means of supervision, teachers' meetings, conferences, inter-visitations of teachers, and the amount and kind of reading, as far as possible. The teachers of the phonics group followed rather closely The Teaching of Phonetics by Dougherty. The teachers of the non-phonetic group used the intrinsic method which consisted of easy and familiar readings, dramatizations, drills and exercises of various kinds. At the close of each grade a battery of tests was given. From the data collected in this study, Garrison and Heard concluded that training in phonetics makes children more independent in the pronunciation of words, but that children with no phonetic training make smoother and better readers in the lower grades. Bright children in the early part of the primary grades seem to be helped more by training in phonetics than those who are dull. It seems probable that much of the phonetic training
in reading should be deferred till the second and third grades. Meaningful exercises to increase comprehension and to teach discrimination of words appear to be more important than phonetics. Phonetically trained children excel in the ability to spell.\(^{96}\)

After reviewing many of the outstanding studies in the field, Witty and Kopel, in 1937, concluded:

The skillful teacher, will, therefore, be reluctant to use any phonetic method with all children. . . . In the case of children experiencing failure or great difficulty . . . he will use judiciously those devices -- including phonics -- which seem appropriate in their rehabilitation.\(^{97}\)

Tiffin and McKinnis made a study to determine whether, and to what extent, phonetic ability, as measured by a reliable instrument, is related to reading ability as measured by certain standardized reading tests. One hundred fifty-five pupils from the fifth, sixth, seventh, and eighth grades were involved in the study. The instrument was an individual phonetic ability test, modified for the investigation from a group test of phonetic ability. Each child was asked to pronounce a list of nonsense words from Rogers’ Test, Part II. Each of the nonsense words is followed by four different diacritical spellings. The person tested is asked to choose the diacritical spelling which represents the correct pronunciation of the word. The Iowa Silent


Reading Test, Elementary, Form A, and the New Stanford Reading Test, Form V were also given to all the children. The authors have this to say after a careful computation of the correlations between the results of the phonics and the two reading tests:

Though the present investigation shows that a functional mastery of the isolated principles of phonics is significantly related to reading ability, the authors do not conclude that reading should be taught by drill in the isolated principles of phonics or that such drill should necessarily be given in all cases of retarded reading. But it is felt that a program of reading instruction which does not, by direct or indirect instruction, yield a mastery of the principles of phonics is not accomplishing its full purpose. . . . It seems highly probable that cases found to be markedly deficient in phonic ability and not markedly deficient in other important characteristics, may be profitably treated by instruction and drill in the specific principles of phonics. [Several cases in which such a procedure has been followed indicate the validity of this approach. (One such case cited.)] . . . It is not often that the source of the difficulty in a retarded reader can be traced so directly to a single causative factor. Yet the existence of even a few such cases, coupled with the evidence of the present study that phonic ability is related to reading ability, points to the conclusion that the pendulum may have swung too far and that we have been to much neglecting this phase of reading.98

An intensive co-operative study known as "The Newark Phonics Experiment," in which nearly one thousand children participated, was conducted to determine the value of phonics. The experiment consisted of control groups, phonic and non-phonics, in each of eight schools of various

types in different sections of Newark, New Jersey. Conditions and methods of teaching were kept similar in the groups as they progressed during the experiment from September, 1924, to February, 1927. Uniform and regular testing was administered by the same person in all eight schools. Teachers of phonic and non-phonic groups were exchanged at term intervals. The work was begun in the first grade and continued through the first half of the second grade. Test results varied during the experiment -- sometimes in favor of the phonic groups, and then in favor of the non-phonic.

The final conclusions drawn were that the teaching of phonics functions very little or not at all with beginners in reading during the first half of school. It begins to be of some value during the second half of the school term but is of greater value in the second grade.

Although the outcome of the experiment tends to favor some phonetic instruction, beginning in the second half of the first year, just how much and what type of phonics instruction remain to be problems for experimentation. 99

Tate made a study in an effort to determine the influence of formal phonic drill on silent reading. The investigation was made in the Eli Whitney School in Chicago, where phonics had not been used as a definite subject for

several years. The first grade was divided into two equal
groups, according to mental and chronological age. The ex-
perimential group was given formal instruction and drill in
phonics, while the look-and-say method was used in the con-
trol group. After eight weeks of work with these groups,
three forms of Gates Primary Reading Tests showed the re-
sults that phonetic instruction and drill are far superior
to the look-and-say method in word recognition, but the look-
and-say method is superior in providing the ability to com-
prehend sentences, paragraphs, and directions. Too much
phonics leads to unbalanced development of abilities. A
further conclusion was that phonics should not be taught in
a separate period from the reading lesson. ¹⁰⁰

This study tends to show that the thirty minutes al-
lotted to the two groups is not desirable because, al-
though there was increased ability in word recognition,
there was a decrease in ability of comprehension.

Later, Tate, Herbert, and Zeman made another investi-
gation in the Eli Whitney School to determine the effect on
primary reading of the total nonuse of phonics as compared
with the results that the incidental and formal methods in
phonics had upon reading. Two first-grade classes were in-
volved. The class was divided into Divisions A, B, and C

¹⁰⁰ Harry L. Tate, "The Influence of Phonics on Silent
Reading in Grade I," Elementary School Journal, XXXVII
(June, 1937), 752-763.
on the basis of ability. In none of these groups during the entire two years was there ever an attempt on the part of the teacher or the pupils to sound letters. Several devices, all non-phonetic in character, were used for instruction in word recognition. The control group began and continued its work according to the method that is customary in the Whitney School:

Formal instruction was abandoned in the school several years ago; however, the first-grade teachers have been accustomed to imparting an incidental knowledge of the more essential elements of the subject. In other words, the criterion of "felt need" had been set up and followed.

The inferences from the experiment as shown by the Gates Primary Tests, Form I, were: (1) Of the three methods investigated, formal phonics is the least efficient in developing comprehension of thought getting; (2) the main value of formal phonics lies in the field of word recognition; (3) the incidental-phonetic method is superior to the non-phonetic method in developing the ability to recognize words; (4) the non-phonetic method is superior to the formal-phonetic method in developing comprehension; (5) the incidental-phonetic method is superior to both the formal-phonetic and the non-phonetic methods in developing comprehension. 101

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101 Harry L. Tate, Theresa M. Herbert, and Josephine K. Zeman, "Non-Phonetic Primary Reading," Elementary School Journal, XL (March, 1940), 529-537.
The results of these two experiments appear to stress the superiority of the look-and-say method of teaching reading.

Conclusions

From the foregoing experiments by educators in regard to the present status of phonics, the following conclusions may be drawn:

1. Training in phonics contributes to fluency and accuracy in word recognition, improves the quality of oral reading, and increases the ability of comprehension.

2. Phonics is most effective when adapted to the needs of individual pupils, then only in a functional and moderate manner as a part of a well-balanced reading program. Since there is a variety of approved ways of attacking new words, and the results of experiments show that phonics should be only one of these means of identifying new words, then phonics should have its rightful place in the versatile use of word clues.

3. There is a tendency to keep phonics subordinate to the meaning in all reading but at the same time to recognize the need for phonetic analysis and the value to be derived from wisely conducted phonic instruction.

4. Phonetic training is more effective after a longer period of preliminary preparation in which time a larger vocabulary of sight words is gained. It would seem that
phonics is of more value during the last half of the first grade, but is of the most value in the second and third grades when children are seven and eight years of age.

5. Phonics, as such, should not be equally stressed for all children, for some seem to possess to a very marked degree a natural sense of phonics. Others need much instruction to grasp the meaning of phonics.

6. So far the results indicate that the quality of pupil achievement is influenced by the specific method used in teaching phonics, as well as other factors such as the individual ability of pupils and the skill of the teacher. There is need for further study to determine which methods are superior under varying conditions.

General Conclusions on the Present Status of Phonics

1. A reading method in its final efficiency should develop power for independent reading by forming a habit of recognition and interpretation of symbols.

2. Phonics, as such, should not be equally stressed for all children, but the amount and kind must be adapted to individual needs.

3. Those authorities who have found phonics helpful advocate the postponement of the special training in phonics until after the middle of the first grade. The ability to recognize words independently is the chief stronghold of these advocates of phonetic training. It is apparent that
those who oppose the use of phonics in the reading program have never satisfactorily answered the question of how the non-phonetically trained child is to approach new words when he has no one to help him.

4. To be effective, phonetic elements must be closely related to the reading situation, but must be taught at a separate period.

5. Phonics must be used as a tool and not as a method in reading, and should be recognized as only a part of a well-balanced program which also makes provision for the development of comprehension, interpretation, speed, and good habits of eye-movement.

6. The use of phonics is limited in application because of the erratic characteristics of the English language. However, it is known that children may be guided to see that certain sounds are associated with certain symbols. Most present-day educators agree that phonics is of value if taught moderately along with the use of other clues.
CHAPTER III

APPLICATION OF PHONICS IN A
SPECIFIC SITUATION

An experiment to determine the value of phonics in teaching second-grade children to read was conducted in the public schools of Clifton, Texas, for a period of eight months, from September, 1943, to May, 1944. The experiment began with the children who entered the second grade in September. In order that the results might be reliable, so far as was possible in a public school system, the equivalent group technique, in regard to children and teaching conditions, was used.

The forty-two children enrolled in the second grade were given the Haggerty Intelligence Examination, Delta I. The scores were arranged in order from highest to lowest and were numbered from one to forty-two. The children whose names had the even numbers were selected for the group that was to receive instruction in phonics during the year. The unevenly numbered children constituted the non-phonetic group and during the same period of time it was to receive no instruction in phonics.
To instruct the children in the second grade, it was necessary to alternate the phonetic group and the non-phonetic group the last twenty minutes of each school day. In this way one group was not in the room when the other group was being instructed in the particular method of word recognition.

The amount and kind of reading and seatwork done by the two groups were practically the same. The order of taking up and of using basal texts was the same. The number of supplementary books varied with the individuals comprising the groups.

While an attempt was made to keep all conditions alike in the phonetic and the non-phonetic groups, there was the separate twenty-minute period on alternate days at which time the phonetic group was instructed in phonics according to the plan given by Lida M. Williams. Games and workbook pages were also used very often at opportune times. The non-phonetic group was instructed by the use of easy reading, dramatization, workbook exercises, and various kinds of drills and exercises. Many of the exercises were based largely on the reading that the children had done and were arranged to teach children to distinguish words accurately and to stimulate thought.

The work of the phonetic group in the beginning of the second year began with a thorough review of all the phonetic
elements outlined for the first-year program which was limited to ear training and the recognition of a few of the easier initial consonant sounds.

To sharpen auditory perception and develop speech coordination various devices were suggested. They were used, not as formal, intensive drills but as enjoyable sound games, prolonged for the less apt pupils.

Ear Training

1. The sounds of familiar animals, objects, and activities were given, such as:
   
   Dogs say, "Bow, wow."
   Pigeons call, "Coo, coo."
   Clocks say, "Tick, tock."
   Wind says, "Wo-o-o-o-o-o-o."
   Airplane says, "Whir-r-r-r-r-r."
   Man pounds, "Boom, boom."

2. Pupils detected common phonic elements (words that sound alike) in Mother Goose rhymes, games and poems:

   Little Boy Blue
   Come blow your horn,
   The sheep's in the meadow,
   The cow's in the corn.

Ring game:

   Ring around o'rosies
   Pocket full o'posies.
   All squat down.
Poem:

O wind, where have you been,
That you blow so sweet?
Among the violets
Which blossom at your feet.

3. Suggested words that sound like rhyming words were taken from Mother Goose rhymes or other verses:

Rumpty Dumpty sat on a wall
Rumpty Dumpty had a great fall.
The gingham dog and the calico cat
Side by side on the table sat.

ball
call
tall
hell
hat
fat
bat
mat
pat

4. Some Mother Goose rhymes were said, all but the last word. Stop. Children said the word that rhymed:

Little Bo Peep
Has lost her ______.
Hippety Hop
To the baker's ______.

Simple Simon
Met a ______.

5. Pupils made rhyming couplets based on lines from Mother Goose:

Jack and Jill went up the hill
And on their way they passed a mill.

6. Identified single sounds as s, r, ch, in words and suggested other words that contained the same sounds.
7. Words that began with the different consonants b, d, g, k, and hard c were given:

8. Prolonged ng sound:
   Ding, dong! Ding, dong!
   Cling, clang, cling!

9. Pupils heard the initial sounds of words:
   Sing a song of sixpence.
   Peter, Peter, pumpkin eater.

10. Pupils named words with similar initial sounds:
    (a). A word that rhymes with a child's name:
        May -- play.
        Roy -- boy.
    (b). Children's names and other words that began with the same sound.
        Ned's name. Harry's hand.

11. Pupils distinguished between rhyming and non-rhyming words:
    Flopsy, Mopsy, Cotton-Tail, Peter.
    play, way, day, go.
    my, by, me.
    bug, rug, top.

12. Matched pictures whose names rhymed were shown:
    man -- pan
    dog -- frog
    house -- mouse
    cat -- rat
13. Matched pictures whose names began with the same sound were shown:

ducks -- doll -- dress
hat -- hand

14. Heard short words in longer words:

teakettle, carpenter, grasshopper

15. Pupils made original verses with rhyme:

Robin, robin in the tree,
Singing a song just for me.
Sitting on the nest and see
You'll have babies, one, two, three.

16. Pupils made a story that contained words of one family, as:

There was a rat. And he was fat. He ran pitter-pat, away from the cat. He jumped in Daddy's hat that was lying on the mat.
Daddy tried to hit him with a bat. But he couldn't do that. So down he sat.¹

Eye Training

1. Initial consonants.

The consonant to be taught was selected, such as /f/. The teacher asked the children to find father in their books, then found other words that

¹The Place and Value of Phonetics, Amsterdam Public Schools, Amsterdam, N. Y., 1936, Bulletin No. 3, pp. 6-10.
began like father. Lists were made of several f words. These were used in simple sentences. The teacher wrote them on the board. The same plan was used with other consonants, except g, v, and w.

2. Final consonants.
A suggestive lesson is here given with the final p. The children read the following lines, found the rhyming words, and noticed the sound of the last part in each:

When the mice were invited to tea
They drank it all up
And danced in the cup.

A list of many other words that end with p was written.

Word games. -- Each card was held up from a pack in which words having final p were scattered. As the children called the words that ended with p, the cards were removed from the pack and were placed on the blackboard ledge. Again, only words beginning or ending with p were used. A designated row of children pronounced the words beginning with p and another row, those ending with p. If a mistake was made, the word was returned to the pack. The cards were placed in the pocket chart.

3. Medial consonants.
The children heard the medial p in the following
words: happy, pepper, supper, kept. The words were used in sentences that were written on the board, then read. Word games were used.

4. In teaching the remaining consonant sounds, proceedings similar to those already suggested were used. The type of exercise was varied to insure maximum interest and effort, but with major emphasis on initial sounds throughout the first-year program. A frequently-held review of consonants was made by pronouncing the lists of words originally used in identifying them. Also matching games and sentences were used.

The study of phonograms was developed in the following manner:

1. Initial blend phonograms.

The following list of words was placed on the board:

- pet
- pig
- peg
- big
- bell
- beg
- paint
- cage
- red
- man
- bed
- better
- pan
- pen
- best
- cave

The children heard and found _be_ in the keyword, _bed_, then found and pronounced all the words that began like _bed_. The _d_ was covered and the initial sound of _bed_ was given. In the same way attention was directed to _pe_ in the keyword _pet_. Initial
blend word cards were mixed. The children arranged them in groups on their desks according to initial phonograms. The pupils were directed to write the word which completed each sentence and made sense:

I have a _____ rabbit.

pen  pet  beg

Little pigs live in a _____.

bed  pet  pen

2. Final blend phonograms.

(a). Children found and sounded the part of the pair of rhymes on the board; as, ock in dock and clock, orn in horn and corn.

(b). Keywords were found in a list of words. The rhyming words were found and placed under them.

(c). Phonograms such as un, en, ill, op, etc., were written on the board. Under each were written the rhyming words that the children gave.

(d). The teacher provided practice in reading sentences containing final blend words. Also the children completed sentences by writing in the right words.

The phonogram "er." -- The work began with the phonogram er in familiar words like
mother, father, her, and over. Other words were written on the board. Many sentences containing er words were used. Next, children changed the meanings and forms of words by adding er, as long, short, near. They wrote sentences containing such words on the board. The visual examples were used to impress the meaning.

Phonograms "ing" and "old." -- The children built words by putting letters before these elements. They wrote the rhyming words on the board and headed each list with its keyword. They made sentences which contained the ing and old phonograms. Other phonograms such as ow, ay, ill, ell were similarly taught.

3. Medial phonograms.

The children heard and found the like element in keywords such as cart, bark, farm. Then they built on either side of the phonogram. A chart of medial ar words was made. The children had much practice in reading sentences containing the ar words. Other important medial phonograms taught were ou as in found, oo as in soon.


In this group, some important blends are gr, st,
br, dr, and pl. To teach these blends, well-known words containing them were placed on the board. The children found and underscored the part that was alike. New words were made from others; as grin from in, grain from rain. Sentences which contain the new words were written. The children recognized them with as little help as possible.

5. Inflectional endings, er, est, ing, ed.
The teacher explained the use of er and est to indicate comparison and introduced at different periods the comparative and superlative forms. She wrote the words on the board and illustrated the use of the variants. In some sentences, the children were asked to supply the missing word. Mention was made about the use of ing as an inflectional ending with words that express action, as play, playing; ride, riding; go, going.

When the children questioned dropping final e in such words as ride, hide, etc., they were simply told that e at the end of most words is dropped before adding ing.

Ed (t) and ed (d). -- Familiar words were written under each sound on the board and the children discovered the difference in the word endings as the words were pronounced to emphasize sound
distinctions. As each suffix was taught, the children read sentences containing words with the various endings.2

Procedure for Second-Year Work

After a thorough review of all the previous outlined phonetic elements for the first-year program, the second year's work was the phonetic elements selected on the basis of the difficulties the child would meet in his reading. Phonetic elements were considered of no value except as parts of words. They were not taught as separate elements, but were discovered in words by the children.

In the reading material for second grade, words of two or more syllables were met frequently. The final blend phonograms were known to be of less aid in pronouncing longer words than in pronouncing monosyllables. The initial blend phonograms were more helpful because the majority of syllables begin with consonants. The left-to-right attack upon words and syllables was practiced. The pupil was encouraged to use his phonetic knowledge to help pronounce new words containing familiar elements. By using the analytic-synthetic process he could see which word parts he could sound and blend in order to recognize the new word.

The following plan, given in a brief outline, was used during the experiment and may be useful and suggestive:

2Lida M. Williams, How to Teach Phonics, pp. 9-37.
Ear training. -- The following method was utilized for ear training:

1. Animal sounds.
   
   Giving the sounds made by animals that appear in a story.
   
   (a). The fox barked, "R-row! R-row!"
   
   (b). Rover said, "Bow-wow! Bow-wow!"
   
   (c). The bear growled, "Gr-r-r-r."
   
   (d). The crow called, "Caw! Caw!"
   
   Recalling sounds made by animals after visiting the farm.
   
   (a). The cow said, "Moo-oo, moo-oo."
   
   (b). The little chickens said, "Peep, peep."
   
   (c). The ducks said, "Quack! Quack!"
   
   (d). The pigs said, "Ugh, ugh."
   
   (e). The sheep said, "Baa-aa! Baa-aa!"

2. Original rhymes and stories.
   
   (a). Making original rhymes which combined the names of children with health habits, as:
   
   **My name is Frank,**
   
   **Lots of milk I drank.**
   
   **My name is Jean,**
   
   **I like to be clean.**
   
   **My name is Keith,**
   
   **I care for my teeth.**
(b). Making original stories to emphasize the sounds of letters as: When you blow a feather, you say, "Wh." Wh is the first sound of when. When Mother wants us to be quiet, she says, "Sh-sh." Sh is the first sound of she, ship, and the last sound of wish, wash.

(c). Under this type of study the writing of "word families" was taught. The children wrote such words as required various initial or final consonants to complete the phonograms, as pan, pat, pad, pal, past, run, rub, rug, tap. They wrote the rhyme words on cards or on the board. All but the last words on the first line of the jingle were recited, as:

Grandma was taking her afternoon ____.
Her hands were folded in her ____.
She was awakened by the rap-tap-____
Of a drummer who wore a bright red ____.

tap cap nap lap

Man was written on the board; the children changed it to pan, tan, can, Dan. Wrote all; the children wrote ball, call, fall, tall, and wall. From an they wrote and, band, stand, sand, etc.
(d). The children filled blanks in an original paragraph or a series of original sentences with words of a given family: He ___ me go and ___ my ball. On the way I ___ my pet dog. He was ___.

The tree dweller lives ___ a stream. He ___ in a tree for ___ of wild animals. He listens to ___ a noise.

Eye training. -- Eye training was developed in the following manner:

1. Application.

To be most effective the phonetic analysis of new word forms was carried on in connection with the reading of meaningful content. For this purpose "application" exercises (sentences to be read by pupils) were provided, as it was through application that children became conscious of the value of the phonetic facts developed. As the children read the sentences, the new words were studied and pronounced independently. In all the different phases of phonetic elements that were given in the outline, word lists and sentences were used in the method of instruction.
2. Consonants.

Initial, medial, and final positions:
Sentences were written on the board, each designed to review a particular consonant sound. Individual pupils read the sentences aloud, emphasizing the consonant to show he had recognized it. He underscored it to point out its position in each word.

For example:

Put tulips in the large bowl.
A dear little fairy sat on a rose.
Put a napkin under baby's cup.

By similar procedure consonant blendings were taught, using examples like the following:

Snowflakes were flying.
The hungry worms killed the green grass.
Stanley, stand still.

(a). Identifying new consonants.

Initial, medial, and final v: The children said these words slowly and listened for the v sound: Very, five, eleven, vine, over, give. Others were written on the board. Used words in sentences that were written on the board. x and k: Children identified the like-sounds in each pair of words: fox, books, mix, cooks; six, ducks;
children gave many similar words. Application made of words in sentences. 

/z/ voiced s: In these words the children learned to hear that s and z have the same sound: busy, lazy, visit, zoo, daisy, has, zebra. The words were used in sentences. Children read and listened for the like sounds, as:

The busy bee said, "Buzz, buzz."

I picked a daisy.

/qu/ sounded like kw: Such words as quack, quart, queer, etc., were written on the board. Children pronounced them. They wrote sentences containing such words. Children read and blocked off the qu (kw) sound in the words.

(b). Consonant blends.

There were many consonant blends to be taught. The procedure for each element or blend taught was to follow the same procedure as that given for the first grade. A list was made of many sight words that contained the element to be recognized. They found and underscored the part. They changed the keyword to a new word. Application was made of such
words in sentences. The consonant blends taught were sw, cr, sl, pr, sp, spr, fr, fl, bl, sm, tr, sk, squ.

(c). Consonant digraphs.

Wh as in why: On the board were written familiar words beginning with wh in which the sound of h precedes that of w; such as why, which, when, and where. The pupils used familiar words such as eat, ale, and put wh before them. They got whirl from girl, wheel from feel. They compared words like these:

we, when wind, while
way, white with, wheel

(Who, whose, whom, and whole were avoided because of different initial sounds.)

Application was made in making and reading sentences which contained wh words.

Th (voiced): Children pronounced familiar sight words such as they, the, them, those; they placed th before an, before at; changed men to then.

Th (unvoiced): The teacher wrote think, thank, three, bath, tooth on the board. Children pronounced them and thought of more words. They compared lists of the
voiced and unvoiced words using th. They placed hands close to their mouths to feel the difference in the force of the breath. 

Gh: The instructor had the children see and pronounce many familiar gh words such as truck, trick, stick, duck, chick, black. She reviewed the first-grade kh-words and initial c-words. The children compared and discovered the like sounds.

(d). New Phonograms.

In sentences and lists of words such phonograms as ick, ock, uck, and ask were discovered. The phonogram aw: On the board several familiar words were written, such as saw, draw, caw, and the children identified them. New words were made by substituting other letters for the initial ones. Initial and final consonants were added to build other words, as lawn from law, crawl from raw. Words were used in simple sentences: Au -- aw -- ou. Columns of words which contained each sound were written, the children pronounced them, then pointed out the parts that sounded alike but did not look alike.

Ight: The teacher wrote words containing
ight on the board as the children gave them. They noticed the silent letters gh, discovered the initial blends and the final consonants, si-t, and that the i said its name. They made application of ight words in sentences.

3. Short and long vowels.

Few rules were developed in the second grade, and those only after pupils had learned as sight words a number of words to which the rule applied. The recognition of the vowel element and a knowledge of the effect of its position in the word upon the sound, provided children with another phonic aid in word mastery.

Vowel and consonant: The letters a, e, i, o, and u were written on the board and the children were told that these are called "vowels," and that all the other letters are called "consonants." The children found the vowels in various words on the board, in their books, or on charts. Attention was called to the two sounds of y. When it has the sound of i, in such words as fly, cry, my, by, and toy, it is called a vowel; but when it begins a word, such as you, yes, yet, and yellow, then it is a consonant. Long and short i: The teacher wrote words containing each sound of i on the
board, such as it, in, hit, is, and fine, nine, white, and kite. Pupils pronounced each list carefully, covered the initial and last letters, and listened to the i. They built many words, wrote several sentences which contained words with both sounds, and found all the words that contained the sounds and wrote them in columns.

Long and short y; long and short a; short o; short e; long e and ee. Teaching proceeded as for long and short i.

4. The effect of final e upon the preceding vowel.

The teacher wrote several sentences which contained the short and long vowel sounds of a:

We ate our lunch at twelve o'clock.

Sam and Tom saw the same show.

The pairs of words were written on the board and the children pronounced them. They told what was different about them. The long and short sounds of other letters were used the same way. The children were helped to arrive at a simple generalization which would serve as a general rule, as, "When silent e is at the end of the word, the vowel says its name."

5. Er, ir, and ur equivalents.

The equivalent sounds of er, ir, and ur were taught by the use of many words which contained each sound.
Application was made of the use of the words in sentences. Pupils listened for the like sounds, and the teacher pointed out to children the need to observe closely which combination was used. For example: supper, third, fur; never, girl, turn; serve, bird, hurry.

6. Diphthongs and digraphs.

Diphthongs oy and oi.

Pupils noted the sameness of the sound in the above diphthongs illustrated in words contained in sentences that were written on the board. A list was made of other words which contained those words and the children pronounced them repeatedly; as boy, joy, voice, cil, point.

The diphthong ow as in cow was compared with the digraph ow as in show.

The teacher wrote two columns of sight words on the board, one column for each sound. The children pronounced the words in each column and noticed the differences in sound. The ow words that have the sound of long o were indicated. The words were used in sentences and the fact was impressed upon the children that they have to be guided by the pronunciation which makes the ow word sound right. The distinction is subtle.

The digraph oo as in wood.

Many words were listed which contained the short
oo sound, as book, look, took, and good. Children pronounced them and listened for the vowel sound. The teacher covered the final consonants, then the initial consonants, and had the children sound the parts that were seen. Other words were made by changing the initial consonants or blends. The sounds of the short and long oo were contrasted, as took and too, wool and cool, stood and spool. Sentences which contained words of both oo sounds were written. The fact was stressed that when there is a doubt as to the pronunciation of a word containing the digraph oo, both long and short sounds should be tried to see which one sounds right, and gives meaning to the sentence.

7. Syllables.

A syllable may consist of a single vowel, a diphthong, a vowel with one or more consonants or a whole word. Easy steps in identifying syllables were (1) little words in long words: yesterday, tomorrow; (2) root words in derivations: playing, wooden; (3) familiar words in compound words: within, upon, birthday.

8. Suffixes.

Ly, es, ful. A list was made of many root words and the new words formed by adding these suffixes; such as:
104

slow neat dress cup care
slowly neatly dresses cupful careful
Illustrated the two forms of each word by using
them in sentences to be read by the children.3

The following uses were made of phonetic cards and
charts:

Phonetic charts and cards containing initial and final
consonants, phonograms, digraphs, diphthongs, phonic
lists, and a few suffixes were invaluable aids. The
new element in combination with other elements was ex-
pressed at frequent intervals and under various condi-
tions -- as, on the blackboard in the context from
which it was taken. These devices were effective for
individual, group and class drills as needed.4 Cards
containing phonograms and phonogram family words were
used in the chart-pockets.

Other aids utilized in the process were:

1. Work books.

The phonetic and non-phonetic groups used the
work books, Puzzle Pages, Book III, by Shelton and
Tate. The work included use of words in sentence-
completion, finding little words in long words,
ryhming words, word-endings, story and picture

3Ibid., pp. 39-62.

4Chloe C. Baldridge, "Emphasizing Phonics," Grade
Teacher, LVIII (October, 1940), 24, 71.
matching. Both groups received identical instruction in the use of these books. The scores of each group were averaged separately. Another work book for word analysis used by both groups was Ear and Eye Fun, Book II, by Clarence R. Stone. These exercises included matching words, phrases, and sentences with pictures, choosing the right words to complete sentences, words containing short and long vowel sounds, finding two words in one, uses of er, est, and ful; n, en, and ly; and words with ar, ur, ir, er, ter, and ther.

2. Better speech text.

The book, This Way to Better Speech by Abnew and Miniace, was used by the pupils for separate group instruction in word study and reading. However, very often a poem would be studied and read by both groups in joint instruction.

3. Games.

The learning process in phonics requires as much drill and memorization as arithmetic. Games and devices were used successfully to stimulate the child's interest and to make the phonetic lessons more pleasant and profitable. Many of the games used during the experiment were varied and diversified and of purposeful intent and were chosen from
Primary Games to Teach Phonetics by A. E. Sample.
The games are arranged according to months and most of them contain all the elements of play: dramatization, competition, skill, activity, singing, speed, and sight recognition. Three games are here given for examples:

Pick a Flower

Draw a garden on the blackboard, using flowers in simple outline. On each flower write a word that is to be drilled. Choose a gardener.

A group of children go to visit the garden. One asks, "Gardener, may I pick a flower?"

Gardener says, "Yes, if you will tell me their names."

The child points to each flower and sounds the word written there. These need not be the names of flowers, but any difficult words needing drill. If the child sounds and pronounces all the words correctly, the gardener tells him to "pick a flower." He chooses the flower and picks -- erases -- it.

Another child goes to the gardener and asks the same question. The game is continued until all the flowers are picked.
The Old Woman Who Lived in a Shoe

Draw a picture of the "shoe" for a house. Draw children running into the shoe. Give each one a name as Gr, Sh, Br, etc. Choose some one for the Old Woman. Give her a phonogram for a name, as Ave. Now the Old Woman wants her children to come into the house, so she calls brave and "Brave" comes running in. She then erases the figure with Br. Next she calls save and "Save" runs in. This time she erases the child having S on it. Then she calls grave and "Grave" runs in. She now erases the child having Gr written on it.

If she can form a word with her name Ave and the different sounds as represented by the drawn children, she has succeeded in getting all her children into the "shoe," or house.

Draw other children on the board. Choose another Old Woman and give her a different name.

Build a Chimney for Santa Claus

Give each child a card containing one consonant or consonant-blend. Each child is to help build a chimney for Santa Claus. The first child draws a brick on the blackboard for the chimney. On the brick he writes the word he has formed with the consonant. A second child adds another brick to the chimney by doing likewise. If a child fails to write
the correct word on the brick he has drawn, he must erase it and return to his seat. After all the bricks have been laid, the chimney is ready for Santa Claus.\textsuperscript{5}

\textsuperscript{5}Anna Eliza Sampole, \textit{Primary Games to Teach Phonics}, pp. 18, 35, 39.
CHAPTER IV

RESULTS OF THE EXPERIMENT

A few days after the beginning of the 1943-1944 term of school the children in the second grade were given the Haggerty Intelligence Examination, Delta I, and the Haggerty Reading Examination, Sigma I. Table 1 shows the results of the testing and comparisons between the phonetic and non-phonetic groups, as well as chronological and mental ages.

TABLE 1

MEDIAL MENTAL AND CHRONOLOGICAL AGES, INTELLIGENCE AND READING SCORES OF THE PHONETIC AND THE NON-PHONETIC GROUPS

<table>
<thead>
<tr>
<th>Items of Comparison</th>
<th>Phonetic Group</th>
<th>Non-Phonetic Group</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median mental ages in months</td>
<td>101</td>
<td>98.5</td>
<td>2.5</td>
</tr>
<tr>
<td>Median chronological ages in months</td>
<td>92.8</td>
<td>92.4</td>
<td>.4</td>
</tr>
<tr>
<td>Medians of intelligence quotients</td>
<td>118</td>
<td>110</td>
<td>8.0</td>
</tr>
<tr>
<td>Median scores in Haggerty Intelligence Exami-</td>
<td>66.8</td>
<td>61.8</td>
<td>5.0</td>
</tr>
<tr>
<td>nation, Sigma I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median scores in Haggerty Reading Examination, Delta I</td>
<td>13</td>
<td>9.7</td>
<td>3.3</td>
</tr>
</tbody>
</table>

109
In the intelligence examination, the maximum score was 119. The highest score for the phonetic group was 101; the lowest was thirty-eight; making a range of sixty-three. The range for the non-phonetic group was eighty-eight, since the highest score was 108 and the lowest, twenty. The difference of five between the phonetic median score of 66.8 and the non-phonetic median score of 61.8 shows that the two groups were almost equal in ability. The mental and chronological ages are also very nearly the same. The phonetic group's intelligence quotients ranged from 154.7 to 68.5, with thirteen ranking 100 or above. The median was 118. The range was from 150.5 to 75.6 for the non-phonetic group, with twelve intelligence quotients of 100 or above. The median was 110. The groups were very much the same in intelligence. The initial Haggerty Reading Examination, Delta I, shows a very low median score for both groups, as the highest possible score was forty-five. The results show a median score of thirteen for the phonetic group; the median score for the non-phonetic group was 9.7. In each item of comparison the slight difference favors the phonetic group.

When the Detroit Word Recognition Test was given at mid-tera, each group had lost two members. Table 2 shows a small deviation in the median score of 2.2 from the maximum score in favor of the phonetic group. A difference of 5.8
TABLE 2
COMPARISON OF MEDIAN SCORES, DEVIATIONS, ARITHMETIC MEANS FOR THE DETROIT WORD RECOGNITION TEST

<table>
<thead>
<tr>
<th>Items of Comparison</th>
<th>Phonetic Group</th>
<th>Non-Phonetic Group</th>
<th>Differences in Results Which Favor Phonetic Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Phonetic</td>
</tr>
<tr>
<td>Maximum score....</td>
<td>40</td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>Median score....</td>
<td>37.8</td>
<td>32</td>
<td>5.8</td>
</tr>
<tr>
<td>Deviation</td>
<td>2.2</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Arithmetic mean.....</td>
<td>35.7</td>
<td>30</td>
<td>5.7</td>
</tr>
</tbody>
</table>

between the two group scores again favors the phonetic group, as does a difference of 5.7 between the means. In the phonetic group there were four perfect scores of forty, two scores of thirty-nine, four of thirty-eight, and others ranging from thirty-six to thirty-two. Low scores ranging from thirty to ten brought the median score to 37.8. In the non-phonetic group, three perfect scores of forty, two of thirty-nine, two of thirty-six, and the remaining twelve scores varying from thirty-six to sixteen resulted in a median score of thirty-two. From these comparisons, it is obvious that the two groups continue to keep their small differences in their median scores. The phonetic
group has only a small gain over that of the non-phonetic group.

The Gates Phrase and Sentence Test, Type II, and the Gates Paragraph Reading Test, Type III, were given to the two groups at the close of the experiment. The phonetic group had nineteen members; the non-phonetic, seventeen. In the tabulated results of the Type II test, ten phonetic scores ranged from forty to forty-five. Of these, three were forty-five -- perfect scores. The remaining scores ranged from thirty-nine to twenty-seven. The non-phonetic scores for the first ten ranged from thirty-five to forty-three with only one score of forty-three. The remaining seven scores ranged from twenty-one to thirty-five. In the results of the Type III test, which has a maximum score of twenty-six, the phonetic group's first ten scores ranked from twenty-five to twenty-six, with six perfect ones. The remaining nine scores ranked from twelve to twenty-three. The mean was 22.5. The non-phonetic scores ranked from twenty to twenty-five for the first ten, and from eleven to twenty for the remaining seven. The mean was 20.5. See Table 3 for these results.

In the comparison of these two groups which were instructed differently in word recognition, the significant fact seems to be that the small differences in the achievement scores have remained throughout the experiment.
TABLE 3
MEDIAN SCORES, DEVIATIONS, AND ARITHMETIC MEANS FOR GATES' READING TESTS

<table>
<thead>
<tr>
<th>Comparisons</th>
<th>Groups</th>
<th>Highest Possible Scores</th>
<th>Median Scores</th>
<th>Deviation</th>
<th>Arithmetic Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gates' Phrase and Sentence Test, Type II..........</td>
<td>Phonetic</td>
<td>45</td>
<td>40.8</td>
<td>4.2</td>
<td>38.8</td>
</tr>
<tr>
<td>Differences, favoring phonetic group.............</td>
<td>Non-phon.</td>
<td>45</td>
<td>37.5</td>
<td>7.5</td>
<td>35.2</td>
</tr>
<tr>
<td>Gates' Paragraph Reading Test, Type III..........</td>
<td>Phonetic</td>
<td>26</td>
<td>25.2</td>
<td>.8</td>
<td>22.5</td>
</tr>
<tr>
<td>Differences, favoring phonetic group.............</td>
<td>Non-phon.</td>
<td>26</td>
<td>21.8</td>
<td>4.2</td>
<td>20.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3.6</td>
<td>-3.3</td>
<td>3.6</td>
</tr>
</tbody>
</table>

For a final comparison of the achievements of the phonetic and non-phonetic groups, the Haggerty Reading Examination, Sigma I, was given the second time. The results are shown in Table 4.

The small gain of three points is in favor of the phonetic group, as is true in other comparisons.

The averages of the grades for the two groups in the year's work that was done in spelling, Ear and Eye Fun by Stone, and Puzzle Pages, Book III by Shelton and Tate, showed that the phonics group had the higher average, especially in both written and oral spelling. In word
TABLE 4

COMPARISON OF THE MEDIAN ACHIEVEMENT OF THE GROUPS IN THE HAGGERTY READING TESTS, SIGMA I, BEFORE AND AFTER INSTRUCTION

<table>
<thead>
<tr>
<th>Comparisons</th>
<th>Maximum Score</th>
<th>Median Score, Initial Test</th>
<th>Median Score, Final Test</th>
<th>Gain in Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phonetic group</td>
<td>45</td>
<td>13</td>
<td>34.8</td>
<td>21.8</td>
</tr>
<tr>
<td>Non-phonetic group</td>
<td>45</td>
<td>9.7</td>
<td>28.5</td>
<td>18.8</td>
</tr>
<tr>
<td>Differences in gain of one</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>group over the other</td>
<td>3.3</td>
<td>6.3</td>
<td></td>
<td>3.0</td>
</tr>
</tbody>
</table>

recognition, finding the right words to be used in sentences and in pronunciation of words, the average grades of the members of each group at the end of each six-weeks' period showed about the same trend of differences as those shown in the standardized tests.
CHAPTER V

CONCLUSIONS AND RECOMMENDATIONS

From the data collected and the tabulated results obtained in the experiment during the study of the value of phonics as an aid in teaching second-grade reading, the conclusions and recommendations stated below have been derived.

1. Although most modern writers advocate a moderate amount of phonetic instruction, there are very few recent data to be found establishing its value.

2. It is apparent that phonics alone is not noticeably superior to a well-organized combination method in meaningful exercises to teach independent recognition of words and to increase comprehension.

3. Training in phonetics is rather uninteresting to small children unless the lesson is of short duration and is introduced in an attractive, game-like manner. It is to be remembered that the lesson is always to be presented apart from the regular reading period.

4. Children with phonetic training are more conscious of word forms, as well as letter sounds, than are those with no such training.
5. Phonics seems to be more applicable and effective in spelling than in the independent recognition of words in reading.

6. Phonetic instruction tends to improve the quality of pronunciation, most especially in the endings of words.

7. Children with an intelligence quotient of one hundred or more are more able to learn and to apply phonics than are the ones with lower quotients.

8. Desirable standards are difficult to judge, as overemphasis on phonic analysis and mere word recognition encourages the development of "word-callers" instead of the formation of correct attitudes of thoughtful appreciation.

9. A diverse method in the teaching of phonics is recommended so as to conform more nearly with the needs of different individuals.

10. A moderate instruction in phonics along with a simple method in word recognition, particularly his own, might be recommended for a dull child.

11. From the results of the experiment, it is recommended that separate activity groups be made of the bright and the dull children so that more efficient instruction may be adapted to the needs of the groups, thereby creating greater interest and higher tabulated results.
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