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A COMPARATIVE STUDY OF THE SCOPE, SEQUENCE, AND TIMING

OF THE INTRODUCTION OF PHONICS AS PRACTICED

BY SOME PUBLISHERS OF READING SERIES

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A COMPARATIVE STUDY OF THE SCOPE, SEQUENCE, AND TIMING

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ACKNOWLEDGMENTS

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CHAPTER I

INTRODUCTION

The teaching of beginning reading is regarded by reading experts
as the most important process in the entire field of education. Most,
if not all, other educative processes utilize varying amounts of read-
ing. Because of the extreme importance placed upon the teaching of
beginning reading, this process has been and continues to be the sub-
ject of continuing and intensive research, analysis, prediction, and
consequent controversy.

Projects in educational research repeatedly bring to light concepts
about reading that have previously been unexplored. Research has opened
new areas needing exploration and has contributed materially to the gen-
eral evolution of reading instruction.[1]

The over-all history of research related to the teaching of begin-
ning reading indicates that more research is needed, particularly in
those areas where reading authorities disagree on such basic procedures
as the proper sequence and timing for introducing the development of
independence in word recognition. There is equal disagreement about
the scope of such skill development.

These differing opinions become abundantly clear in the words of

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[1]William H. Burton, Reading in Child Development (Indianapolis:
The Bobbs-Merrill Company, Inc., 1956), pp. 147-48.

Harris when he states:

> During the past few years every popular set of basal readers
> has had a systematic, sequentially developed program for de-
> veloping independence in word recognition as an integral part
> of the method of teaching described in its manuals for teachers.
> These programs vary considerably in the order in which par-
> ticular items are introduced, exact study and presentation
> methods suggested, amount of drill recommended, and so on.[1]

This divergence of opinion is further substantiated in a recent,

thorough research into reading in the elementary schools. Austin, the

author of the report of this research project, states:

> Each of the basal reading series currently in use in the
> schools included in this study introduces phonic elements
> and teaches certain phonic principles and their application.
> Although phonics is considered an important part of the total
> word study program in each series, the amount of emphasis
> placed on it differs according to the theoretical orien-
> tation of the various authors. Similarly, the time when it
> is initially introduced varies from one series to another.[2]

There seems to be rather general agreement among authorities that the

need exists in a beginning reading program for development of independ-

ence in word recognition. The question seems to be not one of either/or

but rather one of when, how, and how much. The two authorities cited

above, Harris and Austin, seem to agree that independence in word re-

cognition is developed through instruction in word analysis and other

systematic procedures.

Preparation in word analysis is supposed to develop skills of word

perception which permit the child to translate visual symbols in print

into the language sounds with which the child is already familiar. The

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[1]Albert J. Harris, How To Increase Reading Ability (New York: Da-
vid McKay Company, Inc., 1963), p. 325.

[2]Mary C. Austin, Coleman Morrison, and others, The First R: The
Harvard Report on Reading in Elementary Schools (New York: The Mac-
millan Company, 1963), p. 30.

child then needs to learn accurate and stable visual discrimination skills that enable him to see that words are different with respect to each letter symbol. If the child is to be expected to identify words independently, he needs to be able to identify the sound equivalents of the letters in these words and blend them into a sound pattern enabling him to "hear" the word.

Durrell submits the following considerations in word analysis:

There are many levels and types of word analysis and many different methods of approach in teaching the skills involved. A complete program would include ear training to give the child skill in attending to the auditory elements of words, visual training for recognition of the visual elements that accompany word sounds, and, above all, provision for independent use of the skills.[1]

It is obvious from these statements that Durrell places considerable and specific emphasis upon the development of word-analysis skills.

According to Yoakam, the last fifty years have been a period in which reading specialists have tended to move from one extreme to the other in the general area of establishing "systematic plans for the development of independence in word recognition."[2] In the early 1930's this movement reached perhaps its greatest extreme when an almost complete abandonment of any method which represented a "method of systematic development of specific skills in word recognition" took place.[3]

Gray reports that the lack of systematic instruction in the early grades resulted in much reading retardation in the upper grades and in

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[1]Donald D. Durrell, Improvement of Basic Reading Abilities (New York: World Book Company, 1940), p. 197.

[2]Gerald A. Yoakam, Basal Reading Instruction (New York: McGraw-Hill Book Company, Inc., 1955), p. 136.

[3]Ibid.

high school in the 1930's and 1940's. This situation created a serious reaction to the almost complete lack of training in word-recognition skills in the teaching of beginning reading.[1]

Controversies in Teaching Reading

The controversy that exists in the teaching of beginning reading consists essentially of two opposing points of view: a meaning-first emphasis advocated by such reading authorities as Witty,[2] and a discrimination-first emphasis advocated by such reading and language authorities as Terman and Walcutt.[3]

Both of these points of view recognize and utilize the concepts of meaning and discrimination. The major difference between the two is in timing and emphasis. Because the individual advocate of either method practices strict adherence to his cause, the two philosophies of the teaching of beginning reading are located on opposite ends of a continuum: either emphasizing meaning first and then discrimination, or emphasizing discrimination first and then meaning.

One leading authority who represents the meaning-first approach, or, as it is more commonly called, the sight-memory method of teaching beginning reading, places word recognition in the following category in relation to timing:

> The techniques represented in the diagram on page 168 are the principal ones to teach children in developing their word

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[1] William S. Gray, *On Their Own in Reading* (Chicago: Scott Foresman & Company, 1948), pp. 27-28.

[2] Paul Witty, "A Forward Look in Reading," *Elementary English*, XXXVIII (March, 1961), 151-164.

[3] Sibyl Terman and Charles Child Walcutt, *Reading: Chaos and Cure* (New York: McGraw-Hill Book Company, Inc., 1958), pp. 1-148.

identification ability. The use of picture clues and recognition of sight words are techniques which children usually are taught in the earliest stages before the other methods of attack are introduced.[1]

Another authority, who is not here identified as belonging to either of the opposing points of view states:

> Phonics instruction may well be the most important of the mechanical skills taught in the primary grades in helping the child expand his sight vocabulary and become an independent reader.[2]

Thus it becomes more obvious that timing and emphasis of word-analysis skills, particularly skills in phonetic analysis, not whether or not these skills are to be taught, represent the major areas where opinions differ.

The radically diverging concepts of the teaching of beginning reading tend to complement each other. The strength of one is the emphasis upon meaning in the act of reading, while the strength of the other is emphasis upon efficiency in symbol discrimination in the act of reading. On the one hand, strict adherence to meaning neglects early and sufficient instruction in discrimination skills. Because of this emphasis on meaning and the highly repetitive vocabulary which tends to be rigidly controlled, children would be required to attempt to master memory-association techniques. This process frequently causes frustration and boredom. On the other hand, the approach to beginning reading that places too much emphasis upon discrimination frequently does so at the expense of the proper amount of attention to meaning. When this

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[1]Nila Banton Smith, Reading Instruction for Today's Children (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1963), pp. 167-68.

[2]Arthur W. Heilman, Principles and Practices of Teaching Reading (Columbus, Ohio: Charles E. Merrill Books, Inc., 1961), p. 181.

lack of attention to meaning occurs, isolated drills upon symbol-sound associations tend to become the goal rather than reading experiences that are meaningful to the child. Usually, little or no attention is given to the meaning patterns of phrases, sentences, and paragraphs.

Entirely different attitudes toward the reading process tend to be developed by the two approaches to the teaching of beginning reading. Early emphasis on meaning-first develops an attitude of whole-word perception which needs to be subjected to modification upon the introduction of training in word-part discrimination. This transition from whole-word to word-part tends to become an almost unsurmountable obstacle for many who may have become accustomed to seeing words as unstructured whole forms. Early emphasis on discrimination-first contains the possibility of developing an attitude based on such close examination of word-parts that children may fail to make the transition necessary to the recognition of word wholes and other larger units of meaning. This failure to make the necessary transition frequently produces word-callers who tend not to become fluent readers.

Because there is such a disparity among reading authorities in relation to when, how, and in what order instruction in word-analysis skills should be introduced in the beginning-reading program, further research is indicated.

Meaning-Discrimination Balance

To help children understand the symbolic, conceptual nature of reading as a way of communicating meaning, it seems necessary that a delicate meaning-discrimination balance be maintained from the very

beginning of reading instruction.[1] This meaning-discrimination balance suggests a third view of initial instruction, one which contains a balanced emphasis.

This "dual" approach to the teaching of beginning reading represents a dynamic psychology of learning applied to the beginning reading process. In this approach the central role of meaning in reading needs to be clearly recognized. Understanding of reading as a process of communication needs to be emphasized. Such an instructional program needs to perform simultaneously the functions of introducing the beginning reader to reading experiences in which meaning is maximized so that the symbolic nature of reading is understood, and of developing the analytic skills deemed essential to the perception of the structure of the English language. If these dual conditions are met prior to introducing the child to the development of a sight-word vocabulary, the act of reading then tends to be active, not passive. That is, the child takes an active part in attacking new words, which is made possible by his knowledge of analytic skills.

Justification

Since there are so many differing opinions among reading authorities in relation to when, how, and in what sequence instruction in word-analysis skills should be introduced in the beginning reading program; since a reading program that includes both meaning and discrimination receiving equal emphasis from the very beginning of reading instruction seems to offer some of the answers to the basic controversy

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[1]Mary C. Austin, The Torch Lighters, Tomorrow's Teachers of Reading (Cambridge, Massachusetts: Harvard University Graduate School of Education, 1961), pp. 46-47.

among reading authorities; and in light of the following statements, further research in the specific area of the introduction and development of phonic skills seemed to be indicated.

> The mechanics of reading is another area in which the respondents saw definite need for further research. Among the specific skills and techniques which would profit from further investigation were: phonics, techniques of increasing vocabulary, and a re-appraisal of readiness programs.[1]

The preceding statements are excerpts from the compilation of the replies made by educators to a questionnaire submitted to them by the Harvard-Carnegie Reading Study.

Statement of the Problem

The purpose of this study was to analyze and compare the introduction of phonetic analysis in eight basal reading series. Three aspects of introduction of phonetic analysis are described and compared. These three aspects are:

1. Levels at which instruction in phonetic analysis is introduced.

2. Sequences in which phonetic skills are introduced.

3. The extent of instruction in terms of the names of the letters and of the forms, pronunciations, and meanings of letters and words.

Definition of Terms

For purposes of this study the following definitions were used:

Phonetics--the science of speech sounds.

Phonics--the application of phonetics to the working out of word pronunciation while reading.

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[1]Ibid., pp. 70-71.

Word perception--recognition accomplished through phonetic, struc-
tural, and configurational analysis.

Word meaning--understanding as a result of context and direct study.

Vowels--the letters A, E, I, O, U, and sometimes W and Y.

Consonants--the other twenty-one letters of the alphabet.

Initial consonant--the first letter in a word, when it is a conso-
nant.

Blending--running together smoothly the sounds of letters in the
natural pronunciation of a word.

Consonant substitution--replacing one consonant with another in a
syllable or a word creating a new syllable or word, with a sound simi-
lar to the original except for the consonant.

Sight word--a word that has been, or is to be, learned by many
repetitions.

Auditory discrimination--recognizing and distinguishing between
the sounds represented by different letters and groups of letters which
are presented orally.

Visual discrimination--visually recognizing and distinguishing be-
tween the sounds represented by different letters and groups of letters.

Major Assumptions

For the purposes of this study the following assumptions have
applied:

1. That the approaches to the teaching of reading used by the
basal reading series do contain a number of differences in relation to
the scope, sequence, and timing of the introduction of instruction in
phonetic skills.

2. That the development of independence in reading should be accomplished early in the beginning-reading program.

3. That certain basic skills and understandings should be introduced and reinforced while at the same time permitting formal, systematic reading from books carefully designed in terms of words associated with the phonetic sequence.

4. That since both meaning and discrimination skills are essential in a beginning-reading program, a balance should be maintained so that growth in both skills will be simultaneous.

5. That phonetic analysis is one of many reading skills essential to independence in reading and to the understanding of the relationship between language sounds, symbols, and words.

Delimitations of the Study

For the purposes of this study the following delimitations have applied:

1. This study was limited to eight leading basal reading series.

2. The study was limited to an analysis of the introduction of instruction in phonetic skills.

3. This analysis of phonetic skills is described and compared.

Procedure

This study was conducted pursuant to the following procedure:

1. The first step taken in this study involved extensive research and reading of books, periodicals, and other literature published by reading authorities.

2. Eight leading basal reading series were examined.

3. The sequences, levels, and scope of introduction of specific phonetic skills and understandings were depicted in tabular form.

a. <u>Scope of instruction</u>. The amount of instruction given to specific phonetic skills in terms of numbers of letters used for this instruction.

b. <u>Level of instruction</u>. The grade level or reader level at which each phonetic skill is introduced.

c. <u>Sequence</u>. The chronological order in which phonetic skills are introduced.

4. A tabulation was made of the introduction of each phonetic skill in each of the eight reading series, and a record kept of each time the particular skill received additional attention. This phonetic-skill introduction and the additional attention such instruction receives was obtained exclusively from the skills-development section of the lesson plans provided for each lesson. These lesson plans are in the teacher's manuals which accompany each of the eight reading series.

5. Tables were developed from the above described records. These tables, which are presented and described in Chapter III of this study, permit specific comparisons of the scope, sequence, and level of introduction of phonetic skills.

6. The final step was the preparation of the report of the results of the various analyses.

Format for Succeeding Chapters

The succeeding chapters of this study contain a description of the charts and tables necessary for categorizing the phonetic elements

to be analyzed, results of the tabulations, analysis of the results, and conclusions drawn from the study.

Chapter II is a review of related literature. Chapter III is a presentation and a description of the tables used in categorizing the introduction of phonetic elements. Chapter IV contains an analysis of the tables, findings of the study, conclusions drawn, and possible recommendations for further study.

CHAPTER II

REVIEW OF RELATED LITERATURE AND RESEARCH

A review of literature related to the teaching of beginning-reading reveals that the teaching of phonics is one aspect of teaching children to read that historically has been subjected to almost constant change. This state of change has ranged from the period when the child was required to memorize each sound for each letter of the alphabet to the period when phonics was almost completely abandoned in favor of the whole-word approach. In recent history the change has been toward placing renewed emphasis upon phonics in the beginning-reading program.

Review of the Literature

The first formal attempts to teach reading in America employed the alphabet method, or, as it was more commonly called, the ABC method. This method starts with learning the names of the letters. The pupil was required to associate the name of the individual letter with its symbol as it appeared in the word to be pronounced or recognized. Both the New England Primer, which appeared in 1690, and the Webster American Spelling Book, published in 1793, were based on the ABC method. The latter book was the first to be authored by an American. Its author, Noah Webster, apparently was more interested in the unification of the American language than in teaching reading. This fact is evidenced by the preface to his book:

> To diffuse a uniformity and purity of language in America--to destroy the provincial prejudices that origi-nate in trifling differences of dialect, and produce reciprocal ridicule--to promote the interest of literature and harmony of the United States--is the most ardent wish

of the Author; and it is his highest ambition to deserve
the approbation and encouragement of his countrymen.[1]

The phonic method was originated in 1534 in Germany by Ickelsamer
and was introduced to America by Webster as a part of his spelling book.
Whereas the ABC method taught the names of the letters, the phonic
method taught the phonetic sounds of the letters and of letter combina-
tions. The phonic method introduced by Webster primarily to unify the
language of the new country was eventually adopted and adapted by
teachers to help children attain independence in attacking new words in
the teaching of reading.[2]

In the 1840's many experimental schools in Prussia and Switzerland
were under the influence of Pestalozzi, who had developed a different
method of teaching reading. This method presented a picture or an ob-
ject together with a word which represented it. Many American edu-
cators visited these experimental schools and were so impressed with
the new method that they insisted upon its adoption in the United
States to replace the ABC method. This marked the introduction of the
word method in the United States.

Because of the rapidly increasing dissatisfaction with the status
of reading in the 1890's, the word method was short-lived. Many of the
critics placed all the blame for poor reading on the new word method.
Consequently, phonics received new emphasis.

The period from 1890 to 1920 marked the return to organized

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[1]Noah Webster, The American Spelling Book (Boston: Isaiah Thomas
and Ebenezer Andrews, 1798), p. 1.

[2]Emerald V. Dechant, Improving the Teaching of Reading (Englewood
Cliffs, New Jersey: Prentice-Hall, Inc., 1964), p. 177.

systems of phonics in which the learning of phonic elements was stressed. The books most widely used to teach reading during this period were the Ward Readers, the Gordon Readers, and the Beacon Readers. These books required the memorization of the sounds of letters and groups of letters at the very outset of the reading program.

By 1920 the first scientifically standardized tests became available, and the results of these tests revealed that many children couldn't recognize or pronounce the words in the tests. Of those children who could read the material, many frequently had difficulty understanding the context.

Simultaneous with the advent of the standardized tests was the emergence of new philosophies of learning, which were reinforced by new discoveries in the psychology of learning. These new learning theories placed great emphasis on meaning in reading. The test results seemed to indicate that reading for meaning was being sacrificed because of the great amount of attention being given to memorizing isolated phonics.

The fate of phonics for the next twenty years is described succinctly by Smith:

> With the new emphasis on meanings and severe criticism of the method of teaching phonics, the whole area of phonics teaching fell into disrepute. This subject was considered old-fashioned, out-moded, behind the times. Phonics was practically abandoned throughout the country.[1]

In the late 1930's a movement was again made toward the inclusion of phonics in reading programs, because there were great numbers of children who were not reading near their grade level. This movement toward more emphasis on skill development in phonics has continued to

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[1] Smith, op. cit., pp. 167-68.

the present time. Now, however, the approach, timing, and sequence used in phonics preparation seems to be quite different from the earlier preparation, which frequently consisted primarily of isolated drill work. Most reading programs used today include other word-recognition skills, such as configuration, context, structural analysis, and introduction to the use of the dictionary, in addition to instruction in what are considered to be those necessary phonic generalizations.

A major contribution was made by Durrell in 1941 when he presented a plan for systematic instruction in word analysis, which included both oral and visual training and provided for independent use of skills in word recognition. His plan emphasized specific teaching of both phonetic and structural elements of words which generally appear in the vocabulary of the particular grade level.[1]

A comprehensive plan for developing word-recognition skills, which included the development of accurate visual and auditory perception; visual, structural, and phonetic analysis; and systematic development of dictionary skills was introduced by Betts in 1946. This program was perhaps the most ambitious and the most inclusive of the above mentioned skills, which many reading authorities believed to be necessary for word recognition. Emphasis was placed on the use of the dictionary as a means of determining pronunciation, syllabication, accent, and meaning.[2]

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[1]Durrell, op. cit., pp. 197-207.

[2]Emmett A. Betts, Foundations of Reading Instruction (Chicago: American Book Company, 1946), pp. 590-595.

With a warning against overdependence on any one technique for the development of word-recognition skills, Gates in 1947 recommended the development of skills in word-form analysis, structural analysis, phonetic analysis, and those generalizations which he thought would help the child in attacking new words. Gates insisted upon the development of a variety of procedures to be used in attacking new words.[1]

By 1948 Gray had developed a plan for the teaching of independence in word recognition. He recognized that as the child progresses in reading, the necessity for more exact methods of word attack increases. The following statement is an indication of the importance Gray placed upon phonetic analysis in word recognition:

> Skill in phonetic analysis is essential for independence in identifying new printed words, but this skill should be based on fundamental understandings of how sounds and their letter symbols function in our language; and these understandings should develop as generalizations based on the child's experience with words—words which he learns visually as meaningful wholes, rather than mechanically as a series of letter sounds. And finally the use of phonetic understandings and skills should be geared into the total process of word perception.[2]

Another important contribution to the teaching of reading was made in 1948 when McKee published a detailed program for the development of independence in word recognition. McKee's approach contains a sequential development of skills in visual and auditory analysis, and phonetic and structural analysis. This plan emphasized the teaching of principles, understandings, and generalizations which are intended to help the child analyze, pronounce, and recognize new words. Following

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[1] Arthur I. Gates, The Improvement of Reading, 3rd ed. (New York: The Macmillan Company, 1947), pp. 212-230.

[2] Gray, op. cit., p. 32.

his statement that "the instruction to be given at the first grade level should follow five important propositions," McKee concludes:

> Thus, the teaching of independent word-identification skills that are needed by first-grade children must be much more systematic, definite, and realistic than it has been during past years.[1]

In 1960 Dolch published an elaborate plan for the teaching of beginning reading in which he devoted a great deal of attention to establishing the habit of looking at words as wholes before starting instruction in sounding. Many reading authorities state that it is important to build a basic stock of sight words, variously described as consisting of approximately seventy-five to one hundred and fifty words. Dolch questions the advisability of establishing a particular number of sight words. The important consideration in Dolch's plan is that "by the time the child has learned one hundred and fifty sight-words, he has learned the habit of perception of word-wholes."[2]

Stressing that phonics should be based on reading, Dolch later states:

> The more interesting and effective plan is to teach phonics one step at a time, as suggested by and needed in the reading. Sounding is built on known sight words. Phonics is always generalizing from the known words. Then when we see that part in a new word, we assume it sounds just as it did in the previous words. This means, phonics built from reading and used in reading.[3]

Gans approaches the introduction of skill development in phonics

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[1]Paul McKee, The Teaching of Reading in the Elementary School (Cambridge, Massachusetts: Houghton Mifflin Company, The Riverside Press, 1948), pp. 200-201.

[2]Edward W. Dolch, Teaching Primary Reading (Champaign, Illinois: Garrard Press, Publishers, 1960), p. 269.

[3]Ibid., p. 276.

in the following manner:

Theory I. Phonics in Relation to Clues from Children

Many experienced teachers and specialists in the field
of reading accept no one time or method as best for teaching
all beginners. Instead, in light of what seems best for
the child or children involved, they utilize situations as
they arise.

Theory II. The Preplanned Approach to Phonics

Strongly opposed to the foregoing plan of inducting
children into word recognition only partly through the use
of phonics are those who advocate a uniform systematic ap-
proach to teaching phonics as an introductory part of the
entire reading program.[1]

The approach generally used by the basal system with its textbooks

and accompanying teachers' manuals is advocated by Gans. Her basic

contention is that if too much stress is placed on phonics in the de-

velopment of independence in word identification, it tends to hold back

those children who have a natural alertness to certain visual clues

from word recognition.[2]

Review of the Research

Research studies in the general field of reading and other closely

related areas point to the desirability of early introduction of letter

names and letter sounds. Such a series of studies conducted by Durrell

and associates revealed that:

1. Most reading difficulties can be prevented by an
instructional program which provides early instruction in
letter names and sounds, followed by applied phonics and
accompanied by suitable practice in meaningful sight vocabu-
lary and aids to attentive silent reading. . .

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[1]Roma Gans, Common Sense in Teaching Reading (Indianapolis:
Bobbs-Merrill Company, Inc., 1963), pp. 76-77.

[2]Ibid.

2. Early instruction in letter names and sounds produces a higher June reading achievement than does such instruction given incidentally during the year.[1]

To teach the child to read with understanding, appreciation, and enjoyment are the fundamental objectives of the teaching of reading. To say that a child reads with understanding is to say that he reads with meaning. Reading skills involve the means of unlocking and using the meaning conveyed by written symbols. To read with appreciation and enjoyment, the child must understand what he has read. The assumption must be made that the child understands the meaning of the symbols of reading if he is to make effective use of reading in study. The attainment of meaning is thus the most important and continuing task of a reading program.

The ultimate goal of a program of beginning-reading instruction should be one that involves the learner as an active seeker of meaning. To attain this goal the child should be provided with experiences in the reading of symbols that have maximum meaning for him if he is to understand how written symbols are used to express ideas. If the child lacks basic word perception skills, he is put in a position of guessing and of dependence upon the teacher for the cues to meaning of symbols and the pattern of meaning such symbols are intended to convey.

Emphasis on Word Perception

If the child is to unlock meaning in symbols, he should possess certain tools which he can put to work in the process of reading.

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[1]Donald D. Durrell, "First-Grade Reading Success Study: A Summary," _Journal of Education_, Boston University School of Education, CXL (February, 1958), 5.

These tools are the skills of word perception. A study conducted by

Olson to follow the growth in reading and word perception of 1,172

first-grade children disclosed the following:

> The most significant findings are in relationships
> between February reading achievement and the various tests
> of letter knowledge. The following conclusions seem to be
> justified by the findings:

> 1. September tests which measure knowledge of letter
> names provide the best predictions of February success in
> reading. All such tests show higher correlations with
> reading achievement than does mental age.

> 2. February tests of various types of ability in
> phonics show the highest correlations with reading achieve-
> ment.

> All findings are consistent with the conclusion that
> early teaching of letter names and of various aspects of
> phonics is essential to rapid progress in reading. There is
> no support for the assumptions that a sight vocabulary of
> 75 words should be established before word analysis instruc-
> tion is given or that a mental age of seven is necessary for
> the use of phonics.[1]

The last sentence in the preceding quotation contrasts markedly

with the findings of Dolch and Bloomster, who reported that "children

do not profit greatly from word analysis much before they have reached

a mental age of seven."[2]

In a study involving an experimental group of 120 first-grade

children in five classrooms and a control group of 86 first-grade chil-

dren in four classrooms, Beltramo[3] discovered significant differences

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[1]Arthur V. Olson, "Growth in Word Perception Abilities as It Is
Related to Success in Beginning Reading," Journal of Education, Boston
University School of Education, CXL (February, 1958), 36.

[2]Edward M. Dolch and M. Bloomster, "Phonic Readiness," Elementary
School Journal, XXXVIII (November, 1937), 201-205.

[3]Louise Beltramo, "An Alphabetical Approach to the Teaching of Be-
ginning Reading in Grade One" (unpublished Ph.D. dissertation, Univer-
sity of Iowa, 1954).

in reading abilities favoring the experimental group. The experimental

group had received additional systematic instruction in word attack

skills while the control group received instruction from the regular

basal program. The technique of matched pairs was used. Beltramo con-

cluded that first-grade children can learn basic phonetic skills with a

planned program of instruction in phonics.

Lineham conducted a study in which an experimental group of 314

pupils in twelve classrooms was paired with a control group of 300

children in twelve classrooms in the same school. It is interesting to

note that on September tests the control pupils were higher than the

experimental pupils in mental age, learning rate, and nine of twelve

tests of letter knowledge. Despite the initial advantage in favor of

the control group, the following results were obtained:

> The experimental group followed a program of system-
> atic presentation of letter knowledge and phonics develop-
> ment with an incidental program of word recognition; the
> control group used systematic presentation of word recogni-
> tion with an incidental program of letter and phonics de-
> velopment.
>
> February tests showed statistically significant dif-
> ferences favoring the experimental group in all tests:
> oral reading, silent reading, applied phonics, hearing
> sounds in words, and all tests of letter knowledge. June
> achievements were also in favor of the experimental group,
> with statistically significant differences in oral reading
> and paragraph meaning. . .[1]

Emphasis on Comprehension

An important consideration in an effective reading program is a

clear recognition and implementation of the relationship between the

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[1]Eleanor B. Lineham, "Early Instruction in Letter Names and Sounds
as Related to Success in Beginning Reading," _Journal of Education_,
Boston University School of Education, CXL (February, 1958), 48.

perceptual and the broader conceptual aspects of reading. The act of
word perception in reading should involve attributing meaning to the
word. Because of the fundamental nature of word perception in reading,
an effective reading program will place a strong beginning and continu-
ing emphasis upon accuracy and fluency in the development of effective
word perception habits as the basic core of the reading program. The
reading program should also place an expanding emphasis upon the de-
velopment of the comprehension and interpretation of meaning which
growth in word perception habits makes possible.

A study conducted by Sparks[1] revealed that the 124 first-grade
children who had received beginning-reading instruction in the reading
series, Phonetic Keys to Reading,[2] scored significantly higher in both
comprehension and vocabulary subtests than the 122 first-grade children
who had used another basal system. The mean I.Q.'s for the two groups
were 110 and 105, respectively. The same study revealed that the 122
second-grade children who had received instruction in Phonetic Keys to
Reading scored significantly higher in comprehension than the 104
second-grade children who had used another basal program. The mean
I.Q.'s for these two groups were 105 and 108, respectively.

In a study directed by Agnew[3] of Duke University, it was discov-
ered that the primary-grade children from Durham, North Carolina, where

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[1]Paul E. Sparks, "An Evaluation of Two Methods of Teaching Reading"
(unpublished Ed.D. dissertation, School of Education, Indiana Univer-
sity, 1956).

[2]Theodore L. Harris, Mildred Creekmore, and Margaret Greenman,
Phonetic Keys to Reading Series (Oklahoma City, Oklahoma: The Economy
Company, 1952).

[3]Donald C. Agnew, "The Effects of Varied Amounts of Phonetic Train-
ing on Primary Reading" (unpublished Ph.D. dissertation, Duke Univer-
sity, 1939)

phonics was emphasized, scored significantly higher than the primary-grade children from Raleigh, North Carolina, where a typical basal program was used. The statistically significant differences occurred in both comprehension and vocabulary subtests. Agnew matched 89 pairs of both populations. The respective I.Q.'s were 111 and 112.

Sister Mary B. Wohleber[1] found in an experiment conducted in the Pittsburgh Parochial Schools that the 65 first-grade children who had used a beginning-reading program which stressed phonics scored significantly higher than the 65 first-grade children who had used a conventional basal program. The significant differences occurred in comprehension and vocabulary subtests. The mean I.Q.'s were 114 and 115, respectively. Using the same technique of matched pairs,[2] Wohleber found that the 80 second-grade children who had used a reading program which stressed phonics scored significantly higher on comprehension and vocabulary subtests than the 80 second-grade children who had used a conventional basal program. The mean I.Q.'s for these two groups were 105 and 106, respectively. Continuing her investigation into the third grade,[3] Wohleber found that the 79 third-grade children who had been the pilot group scored significantly higher than the 79 third-grade children who had used a typical basal reading program. These significant differences were revealed in comprehension and vocabulary subtests. The mean I.Q.'s were 105 and 106, respectively.

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[1]Sister Mary B. Wohleber, "A Study of the Effects of a Systematic Program of Phonetics on Primary Reading" (unpublished Ph.D. dissertation, University of Pittsburgh, 1953).

[2]Ibid., p. 83.

[3]Ibid., p. 85.

Bear[1] discovered that the 136 first-grade children who had used a
phonics-oriented beginning-reading program scored significantly higher
than the 139 first-grade children who had used the usual basal program.
The groups were paired, with the mean I.Q.'s being 112 and 113, respec-
tively. The significant differences favoring the phonics-oriented
group were revealed in two comprehension subtests and three vocabulary
subtests.

A recent study was conducted by Duncan[2] in which the median test
was applied to second- and third-grade scores of 882 children who had,
as the pilot group, received instruction with Phonetic Keys to Reading,
and of the 878 children in a control group. The children in the latter
group received beginning-reading instruction in a "conventional" basal
reading program. The analyses of the test results revealed highly sig-
nificant differences favoring the pilot group on every subtest. The
subtests on each grade level were of comprehension, vocabulary spelling,
and language. The mean I.Q. for both groups was 103.

The desirability of early instruction in sound-symbol relationships
is reported by Santeusanio[3] in a study involving 202 first-grade chil-
dren who had received instruction in homophones and 202 first-grade
children who had received beginning-reading instruction from a typical
basal reading program. All four relevant subtests of comprehension and

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[1]David E. Bear, "Phonics for First Grade: A Comparison of Two
Methods," Elementary School Journal, LIX (April, 1959), 394-402.

[2]Roger L. Duncan, "A Comparative Study: Two Methods of Teaching
Reading," School Management, VIII (December, 1964), 46-47.

[3]Nancy C. Santeusanio, "Evaluation of a Planned Program for Teach-
ing Homophones in Beginning Reading" (unpublished Ed.D. dissertation,
Boston University, 1962).

vocabulary showed significant differences favoring the 202 first-grade children who had received instruction in homophones.

In a follow-up study of his 1959 investigation, Bear[1] discovered that on three out of four relevant subtests of vocabulary and spelling the 96 sixth-grade children who had received intensive phonics instruction in first grade scored significantly higher than the 90 sixth-grade children who had not received intensive phonics instruction in the first grade.

Because of the relationship between the perceptual and the conceptual aspects of reading, there is need for a carefully preserved balance. An effective reading program will so balance the perceptual and conceptual aspects of reading that independence in active, meaningful reading for enjoyment as well as for understanding is attained early and is expanded continuously. As the child grows in word perception power, he develops a firmer basis for extending and improving comprehension and interpretation skills.

On the comprehension subtest in a study conducted by Kelly,[2] the 100 second-grade children who had received beginning-reading instruction with the Phonetic Keys to Reading program scored significantly higher than the 100 second-grade children who composed the control group. The mean mental ages were 100 months and 101 months, respectively.

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[1]David E. Bear, "Two Methods of Teaching Phonics: A Longitudinal Study," Elementary School Journal, LXIV (February, 1964), 273-279.

[2]Barbara C. Kelly, "The Economy Method Versus the Scott Foresman Method in Teaching Second Grade Reading in the Murphysboro Public Schools," Journal of Educational Research, LI (February, 1958), 465-469.

It seems desirable to develop a word-perception program that will help the pupil unlock word meanings early and effectively. The program should also contain the greatest possible transfer value for future use.

Differing Approaches to Word Perception

Approaches to the teaching of word perception usually differ in four important respects: (1) the emphasis upon meaning, (2) the relative emphasis upon word wholes and parts, (3) the emphasis upon arbitrary association vs. meaningful generalization, and (4) the timing and emphasis upon discrimination in word perception.

To be truly effective, a reading program should develop an instructional pattern in which a parallel, balanced, and continuing emphasis is given to (1) the active search for meaning in reading, (2) both whole-word and part-word approaches to word perception, (3) the process of meaningful generalization, and (4) basic visual and auditory discrimination skills. The reading program should present a psychologically sound instructional pattern in which concern for meaning and for the perceptual skills necessary to unlock meaning are developed simultaneously.

Bliesmer and Yarborough[1] discovered that the frequently-made statement that phonics-oriented beginning-reading programs fail to develop adequate comprehension skills is untenable:

> It would appear, therefore, that beginning reading
> programs which give attention to sound-symbol relationships

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[1]Emery P. Bliesmer and Betty H. Yarborough, "I. A Comparison of Ten Different Beginning Reading Programs in First Grade," Phi Delta Kappan, XLVII (June, 1965), 500-504.

> prior to teaching of words . . . tend to be significantly
> more productive in terms of specific reading achievement
> (as measured by the criterion test) than do analytic read-
> ing programs which involve the more conventional approach
> of going directly from readiness procedures (using pictures)
> to the reading of whole words before either letter names or
> the sounds the letters represent are taught.

An in-depth study conducted by Greenman[1] and spanning the years 1952-1955 revealed that the experimental group, which received beginning-reading instruction with the Phonetic Keys to Reading program, scored significantly higher on all subtests of the Gates Primary Reading Tests, Types I, II, and III.[2] The control group received beginning-reading instruction with one of the typical basal reading programs. The mean I.Q.'s were 109 and 106, respectively. The same tests were administered to all first-grade pupils in May, 1953, May, 1954, and May, 1955.

Wollam[3] conducted a study involving 301 fourth-grade pupils who had used Phonetic Keys to Reading in Grades 1-3 and 306 fourth-grade pupils who had used a typical basal program. His findings disclosed that the former group of fourth-graders scored significantly higher on both the vocabulary and the spelling subtests. Mean I.Q.'s were 107 and 109, respectively.

A significant study conducted by Russell involving 56 second-grade pupils in the "phonics group" and 56 second-grade children in the "little phonics group" revealed the following:

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[1]Margaret Henderson Greenman, Progress Report of Reading Study, 1952-1955 (Champaign, Illinois: Board of Education, 1955).

[2]Gates Primary Reading Tests I, II, and III (New York: Bureau of Publications, Teachers College, Columbia University, 1942).

[3]Walter A. Wollam, "A Comparison of Two Methods of Teaching Reading" (unpublished Ph.D. dissertation, Western Reserve University, 1961).

The table reveals clearly that the early and rather direct type of instruction in the phonics group has a favorable influence on the achievement in spelling, reading, as measured by the Gates primary tests, and some related visual and auditory abilities as here measured.[1]

The average I.Q.'s were 104 and 105, respectively.

Based on the results of his study, the following conclusion was drawn by Russell:

A first-grade program of direct instruction in reading that includes early instruction in handwriting and phonetic analysis (with emphasis on both appearance and sound of words, syllables, and letters) produces better achievement in English spelling than a more incidental first-grade program involving little "phonics."[2]

A study under the direction of McDowell[3] revealed that on a majority of the relevant subtests there was no significant difference between 142 fourth-grade pupils who had used a modification of a linguistics beginning-reading program and the 142 fourth-grade pupils who had used a "conventional" basal program. The mean I.Q.'s were 116 and 115, respectively.

The only study that was located which contained significant differences favoring the use of a "conventional" basal series was one conducted by Morgan and Light,[4] who reported that the third-grade children who had used a regular basal program demonstrated no significant

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[1]David H. Russell, "A Diagnostic Study of Spelling Readiness," Journal of Educational Research, XXXVII (December, 1943), p. 278.

[2]Ibid., p. 282.

[3]Reverend John B. McDowell, "A Report on the Phonetic Method of Teaching Children to Read," Catholic Education Review, LI (October, 1953), 506-519.

[4]Elmer F. Morgan and Morton Light, "A Statistical Evaluation of Two Programs of Reading Instruction," Journal of Educational Research, LVII (October, 1963), 99-101.

differences on three of five relevant subtests. The other two subtests revealed significant differences favoring the children who had used the basal program. The mean I.Q. for each group was 102.

CHAPTER III

ANALYSIS OF THE INSTRUCTIONAL LEVEL, SCOPE, AND SEQUENCE

OF PHONETIC ANALYSIS IN EIGHT BASAL READING SERIES

This chapter presents in tabular form and discussion the results of
an examination of the teacher's manuals which accompany each of eight
beginning-reading series. The first section of the chapter details the
sequences in which the particular skills and understandings are intro-
duced. Since the figures are constructed to correlate with specific
reading levels (i. e., preprimer, primer, etc.), they concurrently
establish the level or timing of the introduction of each phonetic
skill.

The second section of this chapter presents a discussion of the
accompanying tables which portray the scope of phonetic instruction in
terms of numbers of letters used to reinforce the introduction of spe-
cific phonetic elements. These tables contain an actual count of each
time the pupils' attention is specifically directed to a particular
phonetic element. This actual count establishes the validity of the
study based on Berelson's definition:

> In many content analyses the problem of validity is no
> problem at all. Take the case of a typical symbol analy-
> sis for example; the analyst intends to measure the fre-
> quency of occurrence of references to "democracy" and
> "communism" and he counts the incidences of the terms and
> their synonyms. Assuming there is no doubt about the syno-
> nyms, there is no doubt about the validity of the analysis.
> The instrument measures what it is intended to measure.[1]

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[1]Bernard Berelson, Content Analysis in Communication Research,
(New York: American Book-Stratford Press, Inc., 1952), p. 169.

The lesson plans that accompany each beginning-reading series are carefully designed to present in detail the word-attack skills which the individual authors and publishers consider to be necessary for a beginning-reading program. In essence, the lesson plans verbalize the author's basic concepts relative to the development of word-attack skills.

The typical lesson plan that accompanies each beginning-reading series contains a section devoted to the skills-development program for the series. This skills-development section served as the source for all instances where the pupils' attention was directed specifically to a letter or letters, which were simultaneously identified by name.

The information contained in Tables 1-7 shows the sequences and reader levels each of the eight basic-reading series uses to introduce specific phonetic skills in their respective beginning-reading programs. The phonetic-skills and phonetic-generalizations programs of each of the eight series are contained in these seven tables. These tables are particularly significant in that they chart the exact placement of specific phonetic skills and generalizations in the total program of beginning reading for each series. The tables also portray the relationships among the series, relative to sequence of introduction and reader level of introduction of the above named skills.

The key to the tables gives the abbreviations used for the names of the publishers of the eight beginning-reading series studied.

The tables which follow the first group of seven show the sequences, reading level, initial emphasis, and total emphasis used in introducing and reinforcing specific phonetic elements.

Key to Tables

A & B - The Allyn and Bacon Company

ABC   - The American Book Company

EC   - The Economy Company

GINN   - Ginn and Company

H-M   - The Houghton-Mifflin Company

MAC   - The Macmillan Company

R-P   - The Row-Peterson Company

S-F   - The Scott-Foresman Company

The sequences in which the various series introduce the letter-sound relationships of single consonants are presented in Table 8. Even a casual observation reveals the general lack of agreement on the sequence of introduction of letter-sound relationships. This lack of agreement becomes even more pronounced in relation to reader level of introduction. The nearest the series come to agreement of sequence of introduction of letter-sound relationships is simultaneously the point of greatest divergence. This paradox occurs with the introduction of Q(U). Although the range in sequence of introduction of Q(U) among the eight series is only three, the range in reader level is at its greatest, from preprimer for one series to third year for another series. The letter receiving the next greatest amount of agreement on sequence of introduction is the consonant Y. But three of the eight series do not present the consonant Y in their beginning-reading programs. One series does not introduce the consonant Z in its beginning-reading program.

Two of the series introduce no letter-sound associations on the

TABLE 1.-The sequences and reader level of introduction of specific skills and understandings for the preprimer level of eight basic reading series

A & B	A B C	E C	GINN	H-M	MAC	R-P	S-F
s	j	ō		t	t	c	s
	s	ā		n	s	d	
	p	ē		d	r	j	
	h	ī		r		b	
	c	Vowel		c		r	
	Alphabet	digraph		g		h	
	order	rule		s		l	
	g	oa		l		t	
	1	ee		h		m	
	st	ai		Initial		s	
	r	ea		consonant		k	
	m	Silent e		substitu-		ch	
	d	rule		tion		w	
	f	ū		p		f	
	t	ŏ		wh		Th	
	b	ă		v		p	
	bl	ĕ		m		br	
	tr	ĭ		w		g	
	n	ŭ		j		wh	
	y	t		Th		Compound	
	wh	Phonetic		f		words	
	pl	analysis		Initial		y	
		g		digraph		v	
		d		substitu-		pl	
		n		tion		pr	
		p		b			
		h		y			
		z		k			
		s		sh			
		s(z)		ch			
		b					
		r					
		1					
		k					
		m					
		f					
		c(k)					
		st					
		fr					
		pl					
		sh					
		TH					
		Th					
		w					
		v					
		j					
		y					
		x					
		qu					

In one-syllable words, final single vowels are long.
In one-syllable words, medial vowels are usually short.
ay
Vowels are usually short before double consonants.
tt
ll
ck
ss

TABLE 2.-The sequences and reader level of introduction of specific skills and understandings for the primer level of eight basic reading series

A & B	A B C	E C	GINN	H-M	MAC	R-P	S-F
r	TH	ou	s	sl	n	ou	h
f	Th	ow(o)	l	tr	w	oy	b
t	k	tr	w	fl	h	ay	p
b	sh	br	h	str	c	TH	Compound words
Compound words	ll	spl	c	fr	b	ow	r
l	str	Before ll, a sounds like aw	b		d	n	m
c	y(i)	ar	n		Finding small words in larger words	ew	d
h	s(z)	or	f			sh	l
d		ur	p			ar	c
m		After w, or sounds like ur	m		TH	Finding small words in larger words	t
w		ng	t		g		n
n		nk	d		l	oo	w
g		se(s)(z)	r		f	y(i)	g
y		After w, a sounds like o	g		Th	g	f
s		oi	Possessives		p	ir	i
p		oy	wh		ch	ch	Initial consonant substitution
i		kn	Th				
Initial consonant substitution		gn	ch				
		c(s)					
		$\overline{oo}$					
		$\breve{oo}$					
		aw					

E C (continued):

Syllabic division between twin consonants
- ble
- cle
- dle
- fle
- kle
- ple
- tle
- zle

Syllabic division after short vowel and single consonants
Syllabic division after a long vowel and before the single consonant following
- y(i)

ck is not broken in syllabic division.
- ch
- cl
- er(ur)
- ir(ur)
- wh
- ed(ed)
- ed(ed)
- ed(d)
- ed(t)
- ew(oo)
- ew(u)
- ear(eer)
- ear(air)
- ear(er)

Syllabic division between two consonants
- sl

Before ld or mb, o is long.
- thr

TABLE 3.-The sequences and reader level of introduction of specific skills and understandings for the first reader level of eight basic reading series

A & B	A B C	E C	GINN	H-M	MAC	R-P	S-F
d(ed)	fl	er	Compound	bl	y	m	ed(d)
d	tw	ly	words	st	j	gr	TH
l	ed(t)	y	Initial	nd	wh	possessive	s(z)
t	fr	tch	consonant	cr	possessive	pl	Contrac-
p	br	es	substitu-	v	m	br	tions
r	cl	es fol-	tion	Final con-	oy	ll	n
s	m	lows sh,	k	sonant sub-	ōō	st	p
m	d(ed)	z, ch	bl	stitution	d(ed)	tr	t
n	Syllabic	sm	pl	z	ed(t)	pr	Final con-
s(s)	division	est	st	thr	ed(d)	ōō	sonant sub-
Final con-	ă	Double fi-	d	nt	tr	k	stitution
sonant sub-	ĭ	nal con-	br	ed	cl	l	d
stitution	nd	sonant be-	tr	ed(t)	ar	cr	m
tr	mp	fore adding	m	ed(d)	v	tw	l
fr	nt	endings	n	gr	bl	ng	ll
br	(possessive)	cr	j	st	st	ck	In words
dr	ng	sp	dr	Compound	ou	sn	ending with
gr	ck	squ	z	words	ow(ou)	or(er)	double con-
bl	ld	sw	sh	pr	sh	mp	sonants, the
fl	Compound	el	fr	ch		fl	final one is
pl	words	air	es	c(s)		ch	silent
cl		en	ō	l		fr	ch
gl		i is long	v	ll		ow(ō)	sh
ch		before nd	gr	Drop final		ă	Th
sh		i is long	r	e before		Th	wh
TH		before ld	ē	adding ing		al	
Th		Drop final	d(ed)	cl		ā	
Contrac-		e before	ī	br		Silent e	
tions		adding ed,	ā	possessive		rule	
wh		er, or, ing	fl	Double fi-		ur	
st		gl	ū	nal conso-		sh	
		sn		nant before		sp	
		dr		adding ing		ĭ	
		pr		r		ī	
		dge(j)		k			
		ge(j)		ck			
		al					
		be					
		en					
		un					
		ore					
		's					
		bl					
		gr					
		cs(sk)					
		spr					
		Compound words					
		Hyphenated words					
		sc(s)					
		are(air)					
		ph(f)					
		ire					
		Change y to i before adding es, er, ed, est					
		Before gh, i is usually long					
		Contractions					
		ture(cher)					
		gu					
		ar(er)					
		wr					

TABLE 4.-The sequences and reader level of introduction of specific skills and understandings for the second reader (number one) level of basic reading series

A & B	A B C	E C	GINN
z	Contractions	Review of pre-	ă
k	l	viously pre-	TH
Drop final y be-	sk	sented phonetic	ŏ
fore adding ies	ed	skills and	cr
g	ŏ	generalizations	b
f	ī		l
Double final con-	ē		z
sonants before	ā		Th
adding ing	silent e		Final consonant
kn	y(ē)		substitution
Drop final e be-	Silent e rule		c
fore adding ing	Hyphenated words		ck
ou	sm		g
Change y to i be-	es		ĕ
fore adding ed	er is a syllable		ll
a	after final s		ss
es	er		sh
Use es for plural	ēe		pr
after es	ō		sl
ly	nk		ōo
thr	est		Double final con-
or	ar		conant before
ew	or		adding ed
ōo	gl		sn
wr	cr		ch
Use es for plural	pr		ai
after ch	ch		ay
er	sh		st
sw	TH		g(j)
oa			oa
ai			Final twin con-
Vowel digraph rule			sonants have
nd			one sound
ld			Drop final e
nt			before adding
st			ing
i			ŭ
Use es after sh or			cl
x			ēa
e			x
ē			c(s)
sp			er
o			cks
c(s)			ee
ō			ng
			nk
			Silent e rule

TABLE 4 - <u>Continued</u>

H-M	MAC	R-P	S-F
sm	e̅e̅	<u>Dictionary</u>	tr
pl	k	<u>reference</u>	fr
gl	<u>Compound words</u>		br
sn	Before ght i		cr
er	is long		dr
sh	Initial conso-		gr
sch	nant substitu-		st
ō	tion		cl
<u>(silent e)</u>	ay		sl
Double final con-	ck		bl
sonant before	br		pl
adding ed, er,	gr		fl
<u>ing</u>	fr		gl
ly	st		i
est	er		<u>Vowel sub-</u>
ss	er(r)		<u>stitution</u>
	ea		ir
	(ō)ow		y(ī)
	pl		<u>y(e̅)</u>
	<u>es</u>		Y usually has
	Change y to e		the long i
	before adding		sound at the
	<u>es</u>		<u>end of a word</u>
	a		sm
	e		sp
	i		sn
	o		sw
	u		a
	cr		ai
	sk		ay
	sl		<u>ar</u>
	tw		Before l, a
	sw		<u>sounds like aw</u>
	sp		Double final
	sn		consonant be-
	sm		fore adding ed,
	dr		<u>ing</u>
	spr		ng
	spl		<u>nk</u>
			Change y to i
			before adding
			<u>ed</u>
			(silent) gh
			are(air)
			ck
			kn
			es

TABLE 5.-The sequences and reader level of introduction of specific skills and understandings for the second reader (number two) level of eight basic reading series

A & B	A B C	E C	GINN
ŭ	lt	scr	y(Ī)
(silent) gh	Vowel digraph rule	tw	Change y to i before adding es
i is long before gh	ēā	Accent	gl
ū	oa	n(ng)	ar
ō	ai	Before n, m, or y, o sounds like u	Before l, a has the sound of aw
ow	ir	Sometimes syllabic division can take place between two vowels	Contractions
Vowel substitution	er	ful	ou
ēē	In one-syllable word, single vowel is usually short	ness	kn
ar		less	ew
be	ū	ou(oo)	ir
Silent e rule	le and the preceding consonant make a final syllable	mis	qu
air	lf	re	ow(ō)
y(Ī)	ay	arr	str
ea	ŭ	irr	spr
cr	ear	err	squ
sl	air	orr	y(ī)
Alphabetical order	ou	When e follows two consonants, silent e rule is not applicable	ur
a	ōō	eigh(a)	ui
y(Ī)	ŏŏ	ar sounds like or after w	thr
ly	en(n)	(silent) gh	Hyphenated words Vowel digraph rule
ck	ain(n)	tion	Vowels are usually short in 3 or 4 letter words
v	in(n)	ey(i)	ea(ĕ)
ŏŏ	kn	ey(ā)	er
tw	wr	ou(aw)	aw
ay	(silent) gh	ou(u)	or
ea(ā)	ow(ou)	ou(ōō)	ch(sh)
ow(ou)	ow(ō)	tain(tin)	ow(ou)
str		tain(ten)	Alphabetical order
sm		ie(Ī)	sc
Th		ie(ē)	sp
TH		age(ij)	oi
pr		ent(unt)	oy
		ex(eks)	(silent) gh
		ex(iks)	sch
		ex(egz)	gn
		ex(igz)	
		s(zh)	
		s(sh)	
		ery	
		ty	
		ment	
		ment(munt)	

TABLE 5 - Continued

H-M

qu
g(j)
ā
Vowel substitution
ai
ay
Silent e rule
Contractions
ē
ēa
ēē
ea(ĕ)
When not in the final position, e is short if it is the only vowel
ī
en
ĭ
i is long before gh
i is long before nd
ă
ŏ
ō
spr
oa
ŏŏ
ow(ou)
Single medial o is usually short
u
ou(aw)
ou(ōō)
ou(ŏŏ)
ou(ŭ)
Vowel digraph rule
tch
Single vowel at end of one syllable word is usually long
ful
le
ow(ō)
Th
ff

MAC

oa
Vowel digraph rule
ew
Contractions
ă
y(ī)
e
ai
air
ĭ
ŏ
or
ea(e)
ear
ŭ
est
Silent e rule
ŏŏ
fl
z
Alphabetical order
be

R-P

ly
aw
ŏ
cl
Initial consonant substitution
bl
u
ū
i is long before ght
(silent) gh
Hyphenated words
Contractions
sm
str
spl
ēē
spr
thr
dr
s(z)
ēa
ai
y(i)
gl
c(s)
oa
y(ī)
nk
g(j)
sk

S-F

sk
c(s)
ē
e
Unless it is at the end of a word, a single vowel is usually short
ēē
ēa
Vowel digraph rule
ie(ī)
ly
er
Silent e rule
Change y to i before adding es
ō
o
or
er
est
qu
squ
spr
str
thr
Before l or r, c has the sound of k
scr
oi
oy
Drop e before adding ed, ing, er, est
wr
ōō
ow(ō)
ū
ŭ
ur
u(ŏŏ)
ou
g(j)
ea(e)
ear(air)
ear(er)
ear(eer)
air
ew
Alphabetical order
au
i is usually long before gh
o is usually long before ld

TABLE 6.-The sequences and reader level of introduction of specific skills and understandings for the third reader (number one) level of eight basic reading series

A & B	A B C	E C	GINN
ea(ĕ)	Drop final e before adding ing	Review of previously presented phonetic skills and generalizations	sk
Syllabic division between two consonants	sn		tw
	ful		ly
er	Change y to i before adding ed		est
un	ft		Change y to i before adding ly or es
Syllabic division between twin consonants	eer		sm
g(j)	are(air)		scr
Dictionary reference	Drop final consonants before adding ed		spl
oi	ere(air)		Drop final e before adding ed
ir	ere(eer)		The number of sounds equals the number of syllables
re	ear(air)		be-
aw	ear(eer)		a-
Syllabic division before consonant preceding final le	The number of vowel sounds equals the number of syllables		a- and be- indicate syllabic division
Before double consonants, vowel is usually short	dge		ie(ē)
au	tch		sw
qu	er(r)		un
Change y to i before adding er or est	Accent		Syllabic division between two consonants
The number of vowel sounds equals the number of syllables	The first syllable is usually accented in a two-syllable word		ew(ōō)
The vowel is usually long when ending an open syllable	ur		Change final f to v before adding es
dis	ir		gh(g)
squ	or(er)		mb
tch	ear(er)		au
scr	our(or)		
eigh(ā)	ore(or)		
	oor(or)		
	Double final consonants before adding y, est, ing		
	qu		
	sp		
	squ		
	g(j)		
	c(s)		
	str		
	thr		
	Change y to i before adding es		
	sl		
	With twin consonants the second is silent		
	spr		
	spl		
	aw		
	a sounds like aw before l		

TABLE 6 - Continued

H-M	MAC	R-P	S-F
sk	c(s)	Syllabic division between twin consonants	The number of vowel sounds equals the number of syllables
oi	ly	Accent	a-
oy	Twin consonants have one sound	qu	Accent
wr	Syllabic division	Vowel sound is long in open syllable	Syllabic division between two consonants
ar	ur	au	Syllabic division between twin consonants
are(air)	ir	tle(l)	Syllabic division after a vowel followed by a single consonant
sp	ph(f)	scr	Vowel rules apply in syllables
squ	ce(s)	oi	be-
scr	s(z)	Hyphenated words	Syllabic division before a single consonant preceding final le
or	ch	Syllabic division in compound words	un-
or(ar)	qu	est	In unaccented syllables, most vowels have the schwa sound
or(er)	squ	Syllabic division between two consonants	ful
ur	Last syllable consists of final le and preceding consonant	un	ish
er	Drop final e before adding ing	sc(sk)	Use of accent mark
ir	x		In unaccented syllables, i is short
The number of sounds equals the number of syllables	aw		In accented syllables, vowels are long
y(ī)	o is long before ld		
tion	TH		
tion, ing, ly are syllables	ex		
es is sometimes a syllable	g(j)		
er amd est are syllables	an		
ew	a-		
aw	sc(sk)		
un and ful are syllables	ear(er)		
re	Drop final e before adding y		
kn	Change y to i before adding er or est		
mb	kn		
gu(g)	str		
	For plural after final sh, use es		
	Syllabic division between twin consonants		
	Double final consonants before adding ing		
	in		

TABLE 7.-The sequences and reader level of introduction of specific skills and under-
standings for the third reader (number two) level of eight basic reading series

A & B	A B C	E C	GINN
ness	sw	Syllabic division	ear
sc(sk)	be	in compound words	en
Before t, gh is	en(n)	Pronunciation de-	s(z)
silent	on(n)	termined by mean-	ei(ā)
a sounds like aw	ey(ē)	ing--homographs	g(zh)
before l	er(r)	ti(sh)	There is no syllab-
ful	or(r)	ci(sh)	ic division in con-
in	ar(r)	si(sh)	sonant digraphs
Between vowels,	le(l)	At the end of an	less
there is syllabic	el(l)	unaccented sylla-	ey(ā)
division after the	Change f to v be-	ble, e, i, and o	ei(ē)
first of three	fore adding es	are half-long	a sounds like ŏ
consonants	un	ous	after w
or	For one-syllable	ish	The vowel sound in
en	words, vowel rules	dom	a two-syllable
oy	apply in accented	or(er)	word with double
less	syllables	de	middle consonants
Change f to v be-	n	dis	is short
fore adding es	less	mid	There is syllabic
mb	oi		division before a
Accent	oy		single consonant
u(o͞o)	re		between two vowels
ur	in		The vowel sound is
	de		long in words di-
	ex		vided between a
	in, de, ex are un-		vowel and the sin-
	accented syllables		gle consonant which
			follows it
			Suffixes are syl-
			lables
			wr
			gn
			air
			are(air)
			re
			Syllabic division
			in compound words
			de
			dis
			Accent
			en(n)
			ful
			ex
			de
			An unaccented fi-
			nal syllable end-
			ing in l or r
			sounds like l or r

TABLE 7 - <u>Continued</u>

H-M	MAC	R-P	S-F
There is syllabic division between two consonants	<u>ie(ē)</u>	Drop final e before adding ing	ex
	Before adding es change f or fe to v	Glossary reference for meaning only	de
Determine placement of a single consonant between two vowels by pronouncing word part first with and then without the consonant	de	Alphabetical order	re
	ie(Ĭ)	wr	in
	se(s)	ful	Prefixes are usually unaccented
	Before d change ay to ai	Before adding es or ed, change y to i	x
	In syllabic division, th is not broken	in	k
com		less	ness
be-	ou(ŭ)	Short diacritical mark	After the first vowel, a consonant blend begins the second syllable
dis-	Between two consonants there is syllabic division	Before adding es, change f to v	A consonant blend starts the second syllable when it follows a vowel and another consonant
de-	The final vowel is usually the last syllable	dis	
ex-		Before adding er or est change y to i	
sup	Between twin consonants there is syllabic division	Long diacritical mark	
Most suffixes add a syllable	an	ness	tion(shun)
im	sk	Before adding endings beginning with vowels, double final consonants	tion(chun)
for	ey(Ĭ)	tion	Before adding es change final f to v
There is syllabic division before consonant preceding final le	ic	ble	Final syllables are unaccented when ending with le
less	oi	ten(n)	Suffixes are usually unaccented
ness	ain(ĕn)	Vowel digraph rule in accented syllables	v is usually part of the preceding syllable
con	At times ed is a syllable	The vowel is usually short in closed accented syllables	Syllabic division does not break th, ch, or sh
Syllabic division between twin consonants	en	ough(ō)	im
The vowel is short in closed syllables	un	Pronunciation determined by meaning--homographs	dis
The vowel is long in open syllables	non	ment	
sw	(silent) gh	Vowels usually have short sound at the beginning of accented syllables	
in	Most endings are syllables	ough(ŭff)	
sk	ear(air)	ple	
ty	ue(ōō)	al	
au	oe	dle	
pre	thr	kn	
en	Between a vowel and consonant, and preceding another vowel, there is syllabic division	gu	
ment		gle	
ea(ā)	wh(h)	kle	
ear(air)	ern	aught	
Change f to v before adding es	o(ōō)	ture(cher)	
ie(ē)	al	Before adding s, change fe to ve	
ie(Ĭ)	ei(ā)		
ui	ness		
able	pr		
fore	or(er)		
or(er)			
shr			

TABLE 8.-Sequences and reading level of letter-sound relationships of single consonants in the beginning-reading program of eight basic reading programs

Letters	A & B Seq	RL	ABC Seq	RL	EC Seq	RL	GINN Seq	RL	H-M Seq	RL	MAC Seq	RL	R-P Seq	RL	S-F Seq	RL
B	4	P	14	Pp	9	Pp	6	P	16	Pp	8	P	4	Pp	3	P
C	6	P	5	Pp	15	Pp	5	P	5	Pp	7	P	1	Pp	9	P
D	8	P	11	Pp	3	Pp	12	P	3	Pp	9	P	2	Pp	7	P
F	2	P	12	Pp	14	Pp	8	P	15	Pp	12	P	13	Pp	14	P
G	12	P	6	Pp	2	Pp	14	P	6	Pp	10	P	15	Pp	13	P
H	7	P	4	Pp	6	Pp	4	P	9	Pp	6	P	6	Pp	2	P
J	16	P	1	Pp	18	Pp	16	1^1	14	Pp	15	1^1	3	Pp	15	P
K	17	2^1	17	P	12	Pp	15	P	18	Pp	19	2^1	11	Pp	16	1^1
L	5	P	7	Pp	11	Pp	2	P	8	Pp	11	P	7	Pp	8	P
M	9	P	10	Pp	13	Pp	10	P	12	Pp	16	1^1	9	Pp	6	P
N	11	P	15	Pp	4	Pp	7	P	2	Pp	4	P	18	P	11	P
P	15	P	3	Pp	5	Pp	9	P	10	Pp	13	P	14	Pp	4	P
Q(U)	20	3^1	19	3^1	21	Pp	21	2^2	21	2^2	20	3^1	20	3^1	20	2^2
R	1	P	8	Pp	10	Pp	13	P	4	Pp	3	Pp	5	Pp	5	P
S	14	P	2	Pp	8	Pp	1	P	7	Pp	2	Pp	10	Pp	1	Pp
T	3	P	13	Pp	1	Pp	11	P	1	Pp	1	Pp	8	Pp	10	P
V	19	2^2	18	1^1	17	Pp	19	1^1	11	Pp	17	1^1	17	Pp	19	2^2
W	10	P	9	Pp	16	Pp	3	P	13	Pp	5	P	12	Pp	12	P
X	-	-	-	-	20	Pp	20	2^1	20	2^1	21	3^1	-	-	21	2^2
Y(Consonant)	13	P	16	Pp	19	Pp	17	1^1	17	Pp	14	1^1	16	Pp	17	2^1
Z	18	2^1	-	-	7	Pp	18	1^1	19	1^1	18	1^1	19	2^1	18	2^1

preprimer level. One series presents three such associations; one se-
ries presents one letter-sound association; three series present six-
teen, seventeen, and eighteen associations, respectively, and one series
presents the maximum number of associations, twenty-one, on the pre-
primer level.

Table 9 lists the number of instances in which the children's
attention is specifically directed to the symbol and an attempt is made
to establish an association between the sound and its symbol. The
first tabulation for each series is of the number of times this asso-
ciation is attempted on the particular reader level. The second tab-
ulation is the cumulative number of times the association is attempted
in the entire beginning-reading program of the indicated series. The o
numbers of times an attempt is made to establish a sound-symbol rela-
tionship constitute the scope of this part of phonetic analysis for
each series.

Although each series does reinforce the initial presentation of
each sound-symbol relationship, there is a great variance in such re-
inforcement, both among the various series and within each series. The
range for initial emphasis is from 1 in one series to 31 in another
series. The range for total emphasis is from 1 in one series to 78 in
another series. The initial emphasis provided by each of two series
greatly exceeds the total emphasis provided by another series. The
beginning-reading program of one of the series provides a comparatively
small amount of initial emphasis for each of the sound-symbol relation-
ships but greatly increases the emphasis for each relationship on each
succeeding level so that by the conclusion of the 3^2 reader, the total

TABLE 9.-Initial and total emphasis of letter-sound relationships of single consonants in the beginning-reading program of eight basic reading programs

Letter	A & B		ABC		EC		GINN		H - M		MAC		R - P		S - F	
	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE
B	20	25	4	30	28	37	4	19	17	44	9	9	24	26	8	10
C	22	40	16	56	16	47	3	49	12	44	8	14	7	27	6	22
D	17	28	5	37	23	49	8	28	11	39	7	11	12	26	5	11
F	24	30	11	28	19	52	3	13	15	37	7	7	9	13	8	12
G	14	18	11	18	25	50	4	35	7	32	7	15	1	15	5	14
H	21	29	22	25	24	33	4	8	14	44	8	14	14	15	9	21
J	7	10	18	20	13	26	8	8	15	27	8	8	7	8	3	7
K	4	9	5	9	16	28	5	14	6	9	3	3	3	5	2	5
L	20	32	15	23	30	44	7	23	12	41	5	10	6	10	4	17
M	17	25	10	29	25	34	3	17	13	44	9	9	4	13	4	11
N	14	23	2	22	16	31	4	25	4	30	5	8	5	10	4	11
P	14	33	12	35	24	36	9	14	16	57	5	6	4	7	4	9
Q(U)	5	5	3	3	9	17	8	12	3	8	3	5	2	5	3	8
R	23	33	9	31	23	34	3	23	13	53	4	7	13	16	3	10
S	15	44	21	72	16	78	3	28	11	39	4	16	5	13	3	38
T	19	35	10	35	27	39	12	28	14	58	6	8	4	18	5	11
V	2	4	6	6	12	20	2	8	5	25	7	7	2	3	3	4
W	16	17	13	30	18	43	5	13	14	16	6	13	5	8	7	11
X	-	-	-	-	16	24	6	12	1	1	3	3	-	-	3	8
Y(Conso-nant)	12	22	4	28	18	24	9	18	5	5	9	18	2	14	8	8
Z	3	3	-	-	18	34	6	13	6	11	9	14	4	4	1	1

emphasis for each relationship is comparatively large. Of the eight

series, three use a relatively small amount of either initial or total

emphasis, which (by definition) limits their scope, relative to the

sound-symbol relationship segment of their respective phonetic-analysis

programs.

The attempts to establish the sound-symbol relationship for the

consonant S, with its various phonemic characteristics, receives the

greatest amount of emphasis from each of the series. The consonants

K, Q(U), and Z receive the least amount of emphasis from each of the

series.

The letter-sound relationships of consonant blends and consonant

digraphs, which are presented in Table 10, are another instance where

the eight series find little common ground with respect to sequence of

introduction or reader level of introduction. The range of such letter-

sound relationship introduction is at its greatest for the consonant

digraph QŪ, which is introduced on the preprimer level by the Economy

Company and on the 3^1 reader level by four other series. Out of a

possible forty-two, the range of the number of consonant blends and

digraphs receiving attention extends from forty-one for one series down

to thirty-four for another series.

Since there is obviously such a pronounced difference of opinion

as to sequence and on which reader level the letter-sound relationships

of the various consonant blends and digraphs should be attempted, it

seems that the only point where the eight series approach agreement is

with the specific blends and digraphs that should be introduced. But

even so, there are forty-nine specific instances where a given series

TABLE 10.-Sequences and reading level of letter-sound relationships of
consonant blends and digraphs in the beginning-reading programs of
eight basic reading series

Letters	A & B		ABC		EC		GINN		H - M		MAC		R - P		S - F	
	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL
BL	7	1^1	2	Pp	30	1	5	1^1	10	1^1	8	1^1	25	2^2	6	2^1
BR	3	1^1	12	1^1	10	P	7	1^1	17	1^1	12	2^1	3	Pp	5	2^1
CH	11	1^1	18	1^1	17	P	1	P	4	Pp	3	P	1	Pp	2	2^1
CK	24	2^2	15	1^1	8	Pp	16	2^1	19	1^1	11	2^1	15	1^1	29	3^2
CL	10	1^1	14	1^1	18	P	18	2^1	16	1^1	7	1^1	24	2^2	7	2^1
CR	22	2^2	21	2^1	22	1^1	15	2^1	12	1^1	17	2^1	12	1^1	9	2^1
DR	5	1^1	22	2^1	26	1^1	10	1^1	23	2^1	22	2^1	31	2^2	10	2^1
FL	8	1^1	10	1^1	36	2^1	13	1^1	7	P	24	2^1	17	1^1	12	2^1
FR	4	1^1	13	1^1	2	Pp	12	1^1	9	P.	14	2^1	18	1^1	8	2^1
GH	33	3^2	28	2^2	41	3^1	33	2^2	-	-	-	-	23	2^2	22	2^1
GL	12	1^1	26	2^1	27	1^1	21	2^2	21	2^1	-	-	21	2^1	9	2^1
GN	-	-	-	-	15	P	32	2^2	-	-	-	-	-	-	-	-
GR	6	1^1	19	1^1	31	1^1	14	2^1	14	1^1	13	2^1	11	1^1	10	2^1
KN	17	2^1	29	2^2	16	P	22	2^2	34	3^1	33	3^2	32	2^2	18	2^1
NG	-	-	16	1^1	12	P	28	2^2	-	-	-	-	14	1^1	20	2^1
NK	-	-	25	2^1	13	P	29	2^2	-	-	-	-	22	2^1	21	2^1
PH	-	-	-	-	34	1^1	-	-	-	-	28	3^1	-	-	30	3^2
PL	9	1^1	5	Pp	3	Pp	6	1^1	20	2^1	16	2^1	4	Pp	11	2^1
PR	28	3^1	17	1^1	28	1^1	17	2^1	15	1^1	34	3^2	5	Pp	12	2^1
QU	29	3^1	31	3^1	7	Pp	23	2^2	28	2^2	29	3^1	35	3^1	23	2^2
SC	-	-	-	-	32	1^1	30	2^2	27	2^1	32	3^1	-	-	-	-
SCH	-	-	-	-	-	-	34	2^2	26	2^1	-	-	-	-	-	-

TABLE 10 - <u>Continued</u>

Letters	A& B Seq	RL	ABC Seq	RL	EC Seq	RL	GINN Seq	RL	H-M Seq	RL	MAC Seq	RL	R - P Seq	RL	S - F Seq	RL
SCR	32	3^1	-	-	40	3^1	38	3^1	36	3^2	31	3^1	-	-	-	-
SH	13	1^1	6	P	4	Pp	11	1^1	3	Pp	10	1^1	8	P	3	2^1
SK	30	3^1	24	2^1	37	2^2	36	3^1	30	3^1	18	2^1	33	2^2	--	-
SL	23	2^2	27	2^2	20	P	19	2^1	5	P	19	2^1	19	1^1	14	2^1
SM	21	2^2	23	2^1	21	1^1	37	3^1	22	2^1	15	2^1	26	2^2	18	2^1
SN	-	-	20	1^1	29	1^1	20	2^1	24	2^1	20	2^1	16	1^1	-	-
SP	20	2^1	32	3^1	23	1^1	31	2^2	32	3^1	25	2^1	20	1^1	15	2^1
SPL	-	-	36	3^1	11	P	39	3^1	-	-	27	2^1	28	2^2	-	-
SPR	-	-	35	3^1	33	1^1	25	2^2	29	2^2	26	2^1	29	2^2	25	2^2
SQU	31	3^1	33	3^1	24	1^1	26	2^2	33	3^1	30	3^1	-	-	24	2^2
ST	16	1^1	1	Pp	1	Pp	9	1^1	11	1^1	9	1^1	9	1^1	13	2^1
STR	25	3^1	9	P	14	P	24	2^2	8	P	6	1^1	27	2^2	26	2^2
SW	19	2^1	37	3^2	25	1^1	40	3^1	35	3^2	23	2^1	-	-	16	2^1
Th	1	P	8	P	6	Pp	3	1^1	2	Pp	2	P	2	Pp	4	2^1
TH	14	1^1	7	P	5	Pp	4	P	18	1^1	1	P	7	P	19	2^1
THR	26	3^1	34	3^1	38	2^2	27	2^2	13	1^1	-	-	30	2^2	27	2^2
TR	2	1^1	3	Pp	9	P	8	1^1	6	P	5	1^1	10	1^1	17	2^1
TW	27	3^1	11	1^1	39	2^2	35	3^1	25	2^1	21	2^1	13	1^1	-	-
WH	15	1^1	4	Pp	19	P	2	P	1	Pp	4	1^1	6	Pp	1	1^1
WR	18	2^1	30	2^2	35	1^1	41	3^1	31	3^1	-	-	34	3^1	28	2^2

does not agree with some of the eight series, relative to which blends or digraphs should be introduced.

Only two series attempt to present the relationships for GN and SCH, and only three series introduce PH. A particular series introduces PL, PR, and SP, but does not present SPL or SPR, even though it does present other three-letter combinations, including STR and SQU.

As with the introduction of single consonant letter-sound relationships, the initial and total emphasis used by the various series for reinforcing the introduction of consonant blends and digraphs, as shown in Table 11, varies greatly among the series as well as within the individual series.

The range of initial emphasis used by the various series to reinforce the letter-sound relationships extends from one for a particular series to twenty-seven for another series. The range for total emphasis is from one to fifty-four. The series which, because of its phonetic orientation, could reasonably be expected to provide more initial and total emphasis for reinforcing purposes does not do so in several specific instances. The American Book Company, in its beginning-reading program, uses a total emphasis of fifty-four to reinforce the introduction of ST, whereas The Economy Company, the phonics oriented beginning-reading series, uses a total emphasis of twenty-seven to reinforce the introduction of ST. The Economy Company introduces ST on the preprimer level, while the American Book Company introduces ST on the 1^1 level. Thus, one series stresses early introduction and the other series stresses total emphasis to establish a letter-sound relationship for the consonant blend, ST.

TABLE 11.-Initial and total emphasis of letter-sound relationships of consonant blends and digraphs in the beginning-reading programs of eight basic reading series

Letters	A& B		ABC		EC		GINN		H - M		MAC		R - P		S - F	
	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE
BL	7	17	6	21	7	13	10	25	7	25	7	9	5	5	1	1
BR	9	17	13	20	14	21	4	26	6	36	3	19	2	21	1	2
CH	13	39	3	35	5	31	2	45	7	38	2	25	5	18	1	4
CK	2	4	7	19	4	25	13	22	5	8	3	11	4	13	1	1
CL	3	12	9	25	5	12	10	24	10	27	7	15	5	5	1	1
CR	2	7	6	13	5	15	8	17	13	30	3	5	1	6	1	2
DR.	8	19	4	13	4	13	4	15	11	20	3	10	8	8	1	1
FL	7	16	9	13	2	14	6	22	3	25	3	5	3	11	1	1
FR	6	19	9	19	7	16	7	20	2	10	3	16	3	11	1	1
GH	6	6	2	7	2	6	3	11	-	-	-	-	2	2	3	5
GL	1	3	2	6	4	11	6	6	14	17	-	-	1	3	1	1
GN	-	-	-	-	1	9	3	3	-	-	-	-	-	-	-	-
GR	7	14	4	10	4	12	2	11	6	16	3	10	8	12	1	1
KN	5	10	2	2	6	19	6	14	3	3	3	3	3	15	5	7
NG	-	-	8	17	8	25	4	4	-	-	-	-	7	12	3	5
NK	-	-	4	7	10	27	3	3	-	-	-	-	4	8	3	6
PH	-	-	-	-	6	13	-	-	-	-	3	3	-	-	2	2
PL	7	9	2	9	7	16	8	19	17	24	3	9	1	16	1	1
PR	1	4	1	11	4	13	5	10	12	16	2	2	2	9	1	1
QU	5	5	3	3	9	12	3	12	3	7	3	5	2	5	3	9
SC	-	-	-	-	3	14	5	5	1	3	3	3	-	-	-	-
SCH	-	-	-	-	-	-	3	3	3	3	-	-	-	-	-	-

TABLE 11 - Continued

Letters	A & B		ABC		EC		GINN		H - M		MAC		R - P		S - F	
	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE
SCR	2	5	-	-	4	7	2	4	9	9	3	3	-	-	-	-
SH	8	21	4	51	8	22	2	30	10	44	8	25	3	12	1	3
SK	1	1	4	7	1	7	4	4	11	14	3	10	2	2	-	-
SL	2	6	1	8	5	13	2	10	3	17	3	5	3	10	1	1
SM	4	11	4	9	4	11	2	2	4	10	3	7	4	4	1	1
SN	-	-	1	5	4	20	9	22	5	8	3	5	3	8	-	-
SP	1	12	8	11	4	20	3	7	5	11	3	5	2	10	1	1
SPL	-	-	4	4	7	14	2	2	-	-	3	3	5	5	-	-
SPR	-	-	4	4	3	10	3	10	4	10	3	11	5	11	2	2
SQU	3	7	2	2	3	10	6	6	6	7	4	4	-	-	3	3
ST	8	35	5	54	8	27	4	40	12	34	8	16	7	18	1	1
STR	9	11	3	9	10	18	3	15	3	16	2	5	6	6	2	2
SW	2	6	5	5	3	14	1	1	2	2	3	3	-	-	1	1
Th	3	11	4	24	7	21	5	28	6	18	2	20	4	10	5	7
TH	5	7	6	12	7	11	10	32	2	5	2	4	2	5	3	7
THR	1	3	2	2	1	5	4	15	8	18	-	-	6	6	2	2
TR	9	31	7	32	27	36	8	25	3	14	6	10	7	10	1	1
TW	1	4	6	11	5	14	2	2	10	12	3	8	1	11	-	-
WH	6	15	3	10	5	18	4	23	6	15	4	12	3	14	3	7
WR	2	7	2	7	5	21	1	4	5	6	-	-	5	15	2	3

The series that is popularly considered to be one of the leading exponents of the so-called "meaning-first" method of teaching beginning reading uses a small amount of initial and total emphasis to teach the letter-sound relationships of consonant blends and digraphs when compared with the other seven series considered in this study. This smaller amount of emphasis is abundantly noticeable with even a casual observation of Table 11.

As could probably be expected, the area where the greatest amount of disagreement occurs in the word-recognition programs of the eight series is the introduction of the sound-symbol relationships for vowels. The sequences and reading level of single vowel letter-sound relationships are presented in Table 12 for the eight series. Even though the many differences are readily apparent in Table 12, it is necessary to examine Tables 1 through 7 to gain an understanding of the myriad interrelationships each series develops in programing the introduction of both vowels and consonants.

There seem to be three basic approaches used to introduce single vowel sound-symbol relationships. The first approach usually introduces both the long and the short sounds associated with a given vowel before introducing these sounds associated with the next vowel. The second approach usually presents the similar sounds (long or short) for all the vowels before teaching a second sound for any vowel. The third approach separates the introduction of similar sounds that are associated with different vowels. This separation may be from one grade level to another, as with the introduction of short E on the 1^1 reader level and short A on the 2^1 level. It must be pointed out that

TABLE 12.-Sequences and reading level of single vowel letter-sound re-
lationships of eight basic-reading programs

Letters	A & B		ABC		EC		GINN		H - M		MAC		R - P		S - F	
	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL
A (long)	2	2^1	8	2^1	2	Pp	4	1^1	4	2^1	2	2^1	4	1^1	6	2^1
A (short)	1	2^1	2	1^1	7	Pp	6	2^1	8	2^2	7	2^2	3	1^1	5	2^1
E (long)	6	2^1	7	2^1	3	Pp	2	1^1	1	2^1	3	2^1	11	2^2	8	2^1
E (short)	5	2^1	4	1^1	8	Pp	9	2^1	5	2^2	8	2^2	12	2^2	7	2^1
I (long)	4	2^1	6	2^1	4	Pp	3	1^1	7	2^2	4	2^1	6	1^1	2	2^1
I (short)	3	2^1	3	1^1	9	Pp	8	2^1	6	2^2	9	2^2	5	1^1	1	2^1
O (long)	8	2^1	5	2^1	1	Pp	1	1^1	3	2^1	5	2^1	2	1^1	9	2^1
O (short)	7	2^1	9	2^1	6	Pp	7	2^1	9	2^2	10	2^2	10	2^2	10	2^1
U (long)	10	2^2	12	3^2	5	Pp	5	1^1	11	3^1	6	2^1	8	2^1	11	2^1
U (short)	9	2^2	11	2^2	10	Pp	10	2^1	10	2^2	11	2^2	7	2^1	12	2^1
Y (long)	11	2^2	1	P	11	Pp	11	2^2	12	3^1	12	2^1	9	2^1	3	2^1
Y (short)	12	2^2	10	2^1	12	Pp	12	3^1	2	2^1	1	1^1	1	1^1	4	2^1

only one series maintains a consistent pattern of introduction, by pre-
senting all the long sounds of the vowels first, then all the short
sounds. This pattern is followed by The Economy Company, which presents
all vowel sounds on the preprimer level. The range for vowel letter
sound-symbol relationship introduction for the eight series is from
preprimer to the 3^2 level.

Investigation of Table 14 reveals that one series introduces the
vowel spellings AY, OU, OW, and EW before any of the vowels have been
introduced individually, except the short sound of Y. This same series

also introduces the long sound of OO before the introduction of the

single vowel O.

The data in Table 13 show the initial and total emphasis used by

each of the eight series in attempting to establish single vowel letter-

sound relationships. The range of initial emphasis for the long sound

of the vowel A is from one for one series to thirty-nine for another

series. This means that the one series directs the children's atten-

tion to the sound-symbol relationship for the vowel A only once during

TABLE 13.-Initial and total emphasis of single vowel letter-sound re-
lationships of eight basic reading programs

Letters	A & B		ABC		EC		GINN		H - M		MAC		R - P		S - F	
	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE
A (long)	2	15	35	54	39	62	5	36	1	9	13	25	13	39	4	12
A (short)	3	23	6	16	25	53	17	35	3	14	5	9	17	54	4	12
E (long)	5	17	4	11	35	58	2	15	5	11	8	17	15	16	4	7
E (short)	4	15	21	43	25	45	10	21	2	6	12	14	12	18	4	5
I (long)	5	26	9	25	22	63	4	36	12	26	10	26	1	24	9	12
I (short)	5	21	25	59	25	56	10	26	3	13	5	15	9	43	8	14
O (long)	6	18	2	20	26	58	5	25	1	17	9	25	9	30	4	12
O (short)	5	16	8	31	27	54	13	32	4	15	5	11	16	17	4	10
U (long)	3	12	4	4	24	52	2	30	5	5	6	6	3	21	3	9
U (short)	7	21	9	15	25	51	10	32	4	9	4	4	4	22	3	8
Y (long)	8	12	4	36	14	23	8	10	4	5	3	5	4	8	2	2
Y (short)	4	7	2	12	12	20	3	5	7	7	9	9	2	6	2	2

the reading program for the reader level on which the vowel is intro-
duced, while the other series calls the children's attention to the
same relationship thirty-nine times during a comparable period. The
range in total emphasis is from two in one series to sixty-three in
another series. It is perhaps significant to note that the phonics
oriented series, in addition to introducing all vowel sounds on the
preprimer level, generally provides more emphasis in its attempts to
establish sound-symbol relationships for the vowels than the other
series. This greater emphasis contrasts with the lesser emphasis, men-
tioned in the discussion of Table 11, used by the same series in its
attempts to establish sound-symbol relationships for consonant blends
and digraphs. The logical conclusion would be that this series con-
siders early introduction of, and much attention to, vowel sounds
important characteristics of its program to teach beginning reading.

The sequences and reading level of vowel digraphs and diphthongs,
and vowel-consonant combinations of the eight series are presented in
Table 14. It is perhaps significant to note that of the forty-two
combinations listed, only twelve receive specific attention from all
eight series. Again, as with the introduction of previously discussed
sound-symbol relationships, there is obviously lack of agreement on
the introduction of vowel combinations. The range of introduction for
a specific combination is from preprimer level for one series to 2^2
level for another series. There is no pattern in common for the se-
quence of introduction among the series, and rarely do two or more
series present particular combinations in the same relative order.

Only two series attempt to establish the sound-symbol relationships

TABLE 14.-Sequences and reading level of vowel digraphs and diphthongs, and vowel-consonant combinations in eight basic reading programs

Letters	A & B		ABC		EC		GINN		H - M		MAC		R - P		S - F	
	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL
AI	3	2^1	2	1^1	3	Pp	2	2^1	1	2^2	13	2^2	16	2^2	3	2^1
AIR	8	2^2	11	2^2	23	1^1	30	3^2	-	-	-	-	-	-	14	2^2
AL	10	2^2	15	2^2	9	P	23	3^1	-	-	-	-	19	3^2	-	-
ALK	-	-	-	-	10	P	-	-	-	-	-	-	-	-	-	-
AR	6	2^2	6	2^1	11	P	8	2^2	18	3^1	3	1^1	5	P	8	2^2
ARE	-	-	19	3^1	30	2^1	31	3^2	19	3^1	-	-	-	-	-	-
ARR	-	-	-	-	34	2^2	-	-	-	-	-	-	-	-	-	-
AU	22	3^1	13	2^2	28	2^1	25	3^1	26	3^2	-	-	14	2^2	16	3^1
AW	23	3^1	25	3^2	18	P	17	2^2	10	2^2	17	3^1	-	-	17	3^1
AY	16	2^2	1	1^1	5	Pp	3	2^1	2	2^2	8	2^1	3	P	-	-
EA(ē)	7	2^2	8	2^2	4	Pp	5	2^1	3	2^2	10	2^1	17	2^2	10	2^2
EA(ĕ)	11	2^2	-	-	29	2^1	16	2^2	5	2^2	22	3^2	20	3^2	18	3^1
EA(ā)	14	2^2	9	2^2	38	2^2	21	3^1	24	3^2	23	3^2	-	-	-	-
EAR	-	-	12	2^2	22	P	27	3^2	-	-	21	3^2	21	3^2	12	2^2
EAR(air)	-	-	20	3^1	-	-	-	-	25	3^2	-	-	-	-	11	2^2
EE	4	2^2	5	2^1	2	Pp	7	2^1	4	2^2	7	2^1	-	-	-	-
EI(ē)	-	-	-	-	-	-	29	3^2	-	-	28	3^2	-	-	-	-
EI(ā)	-	-	-	-	-	-	26	3^2	-	-	29	3^2	-	-	-	-
EIGH	24	3^1	-	-	37	2^2	-	-	-	-	-	-	-	-	-	-
ER	5	2^2	3	1^1	19	P	6	2^1	21	3^1	6	1^1	12	2^1	1	2^1
EW	25	3^2	-	-	21	P	10	2^2	23	3^1	11	2^2	7	P	13	2^2
EY	-	-	24	3^2	41	2^2	28	3^2	-	-	26	3^2	-	-	-	-
IE(ī)	-	-	22	3^1	39	2^2	-	-	27	3^2	24	3^2	-	-	-	-

TABLE 14 - <u>Continued</u>

Letters	A & B		ABC		EC		GINN		H – M		MAC		R – P		S – F	
	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL	Seq	RL
IE(ē)	–	–	–	–	40	2^2	24	3^1	16	3^1	27	3^2	–	–	4	2^1
IGH	–	–	–	–	24	1^1	–	–	–	–	19	3^1	15	2^2	15	3^1
ILD	–	–	–	–	31	2^2	–	–	–	–	18	3^1	–	–	–	–
IMB	–	–	–	–	32	2^2	–	–	–	–	–	–	–	–	–	–
IND	–	–	–	–	33	2^2	–	–	–	–	–	–	–	–	–	–
IR	17	3^1	21	3^1	20	P	11	2^2	22	3^1	16	3^1	13	2^1	–	–
IRR	–	–	–	–	35	2^2	–	–	–	–	–	–	–	–	–	–
OA	2	2^1	10	2^2	1	Pp	4	2^1	6	2^2	11	2^2	18	2^2	5	2^2
OI	18	3^1	27	3^2	14	P	19	2^2	14	3^1	30	3^2	–	–	19	3^1
OLD	–	–	–	–	25	2^1	–	–	–	–	–	–	–	–	–	–
OMB	–	–	–	–	26	2^1	–	–	–	–	–	–	–	–	–	–
OND	–	–	–	–	27	2^1	–	–	–	–	–	–	–	–	–	–
OO(o͞o)	12	2^2	16	2^2	16	P	1	2^1	7	2^2	2	1^1	6	P	6	2^2
OO(o͝o)	13	2^2	18	3^1	17	P	15	2^2	8	2^2	15	2^2	9	1^1	7	2^2
OR	21	3^1	7	2^1	12	P	18	2^2	20	3^1	14	2^2	8	1^1	2	2^1
ORR	–	–	–	–	36	2^2	–	–	–	–	–	–	–	–	–	–
OU	1	2^1	14	2^2	6	P	9	2^2	11	2^2	4	1^1	1	P	9	2^2
OW(ō)	9	2^2	4	1^1	7	P	12	2^2	12	3^1	8	2^1	11	2^1	21	3^2
OW(ou)	15	2^2	17	2^2	8	P	22	3^1	9	2^2	5	1^1	4	P	22	3^2
OY	26	3^2	26	3^2	15	P	20	2^2	15	3^1	1	1^1	2	P	20	3^1
UE	19	3^1	–	–	42	3^1	–	–	–	–	–	–	–	–	–	–
UI	–	–	–	–	43	3^2	14	2^2	17	3^1	20	3^2	–	–	–	–
UR	20	3^1	23	3^1	13	P	13	2^2	13	3^1	25	3^2	10	1^1	–	–

of EI (E̅) and EI (A̅) during the beginning-reading program, but six of

the eight series make an attempt to establish the relationships of

either IE (I̅) or IE (E̅).

All eight series introduce the long E sound of EA, seven series in-

troduce the short E sound of EA, and six series introduce the long A

sound of EA. It is interesting to note that six of the programs in-

troduce EAR as in near, but only three programs introduce EAR as in

pear. AR as in car is introduced by all series, but only half of the

series introduce ARE as in care, and only one series introduces ARR as

in barrel. Half of the series introduce UI as in fruit, but only two

series introduce UE as in due. There is close agreement among the

series on the introduction of only one pair of vowel-combination

sound-symbol relationships, the long and short sounds of OO.

Four of the eight series attempt to establish the sound-symbol

relationship for the letters EY. One program makes the initial intro-

duction of the letters EY on the 2^2 reader level, while the other three

make the initial introduction on the 3^2 reader level. One of the four

programs relates the EY combination to two phonemes, long E and long A;

two of the series relate the combination only to long E, and one series

relates the combination to long A only.

The phonemic correspondence of long I is related to IGH by four

of the eight series, but only two programs relate the sound of long I

to ILD, and only one program relates long I to IND.

Efforts to reinforce the presentation of vowel letter-sound rela-

tionships by the eight series are detailed in Table 15. It is again

interesting to compare both the initial and total emphasis provided by

TABLE 15.-Initial and total emphasis of vowel digraphs and diphthongs, and vowel-consonant combinations in eight basic reading programs

Letters	A& B		ABC		EC		GINN		H - M		MAC		R - P		S - F	
	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE
AI	2	14	2	11	1	10	4	23	2	7	4	24	11	14	3	3
AIR	3	4	3	5	6	27	2	2	-	-	-	-	-	-	3	6
AL	2	4	2	6	8	15	3	4	-	-	-	-	4	4	-	-
ALK	-	-	-	-	8	12	-	-	-	-	-	-	-	-	-	-
AR	8	26	5	15	19	62	5	13	5	5	7	26	4	6	2	2
ARE	-	-	5	5	4	8	2	2	5	5	-	-	-	-	-	-
ARR	-	-	-	-	5	8	-	-	-	-	-	-	-	-	-	-
AU	1	3	3	7	3	20	3	10	3	3	-	-	4	4	1	1
AW	5	7	4	4	8	24	3	11	3	3	7	9	-	-	1	1
AY	4	20	2	6	6	28	5	12	2	6	2	14	3	4	-	-
EA(ē)	3	6	3	6	1	7	5	27	3	7	7	17	11	15	4	5
EA(ĕ)	3	14	-	-	5	7	5	15	3	3	5	5	6	6	1	1
EA(ā)	3	3	3	3	6	12	16	16	3	3	5	5	-	-	-	-
EAR	-	-	13	16	13	26	2	2	-	-	3	3	21	21	2	2
EAR(air)	-	-	13	13	12	26	-	-	3	3	-	-	-	-	5	5
EE	4	26	2	13	1	10	5	15	3	6	5	32	-	-	-	-
EI(ē)	-	-	-	-	-	-	8	8	-	-	2	2	-	-	-	-
EI(ā)	-	-	-	-	-	-	8	8	-	-	4	4	-	-	-	-
EIGH	3	3	-	-	13	28	-	-	-	-	-	-	-	-	-	-
ER	2	4	2	25	13	43	7	29	3	5	7	35	1	6	9	15
EW	4	4	-	-	12	31	3	3	4	4	6	11	4	8	2	2
EY	-	-	4	4	4	22	2	2	-	-	2	2	-	-	-	-
IE(ī)	-	-	1	1	6	13	-	-	2	2	4	4	-	-	-	-

TABLE 15 - <u>Continued</u>

Letters	A & B		ABC		EC		GINN		H - M		MAC		R - P		S - F	
	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE	IE	TE
IE(ē)	-	-	-	-	6	11	6	6	1	3	6	6	-	-	3	3
IGH	-	-	-	-	8	21	-	-	-	-	5	5	5	6	4	5
ILD	-	-	-	-	4	7	-	-	-	-	3	3	-	-	-	-
IMB	-	-	-	-	4	6	-	-	-	-	-	-	-	-	-	-
IND	-	-	-	-	4	7	-	-	-	-	-	-	-	-	-	-
IR	2	2	7	10	10	33	3	15	3	7	8	12	1	2	-	-
IRR	-	-	-	-	6	6	-	-	-	-	-	-	-	-	-	-
OA	2	7	6	14	1	8	5	22	3	4	8	16	10	10	3	3
OI	6	8	5	5	6	20	3	12	7	7	3	3	-	-	4	7
OLD	-	-	-	-	2	5	-	-	-	-	-	-	-	-	-	-
OMB	-	-	-	-	2	5	-	-	-	-	-	-	-	-	-	-
OND	-	-	-	-	2	4	-	-	-	-	-	-	-	-	-	-
OO(ōō)	3	18	2	16	10	30	5	25	3	8	9	25	3	7	14	17
OO(o͝o)	3	8	5	13	10	30	4	24	6	11	3	3	2	2	12	12
OR	1	1	5	24	3	28	2	16	5	5	3	9	3	5	2	4
ORR	-	-	-	-	5	7	-	-	-	-	-	-	-	-	-	-
OU	2	18	7	11	5	36	4	16	3	6	10	27	3	8	5	5
OW(ō)	2	16	2	21	16	24	4	11	7	7	5	9	4	8	2	2
OW(ou)	3	11	2	4	5	7	6	6	3	3	1	5	3	7	1	1
OY	2	2	9	9	6	26	3	14	3	3	7	17	3	3	4	4
UE	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-
UI	-	-	-	-	2	2	4	7	1	1	2	2	-	-	-	-
UR	5	11	2	2	13	25	4	11	3	3	10	10	2	3	-	-

the phonics oriented program with that provided by the program that has

previously been identified as representative of the so-called "meaning-

first" programs. Again, very little emphasis is provided by the latter

program for reinforcing purposes, when comparison is made with the

other series. Apparently this program operates on the assumption that

other activities will establish the necessary sound-symbol relation-

ships for the various vowel combinations.

The basic generalizations governing sound-consonant letters rela-

tionships, and the sequences in which these generalizations are intro-

duced are presented in Table 16. Other generalizations are developed

by some of the programs, but either the unlisted generalizations were

advanced by one series only, or they were generalizations that over-

lapped those that have been listed, and therefore they were not in-

cluded in Table 16.

TABLE 16.-The sequences of introduction of rules for consonant sounds

Rules	Series							
	A&B	ABC	EC	GINN	H-M	MAC	R-P	S-F
Before E, I, or Y C sounds like S	2	4	1	4	2	1	2	3
Before E, I, or Y G sounds like J	3	3	2	3	3	3	3	4
Twin consonants take the sound of one of the consonants	4	1	3	1	1	2	1	1
GH is silent in the medial position	1	2	4	2	4	4	4	2

The generalizations which direct attention to sound-vowel letters

relationships are displayed in Table 17. All eight series develop the

TABLE 17.-The sequences of introduction of vowel-sound rules

Rules	Series							
	A&B	ABC	EC	GINN	H-M	MAC	R-P	S-F
Vowel digraph rule	1	2	1	2	5	1	-	3
Silent E rule	2	1	2	1	1	2	1	4
Short vowel sound in one-syllable words, unless at end of word	-	3	3	3	2	4	-	2
O is usually long before MB or LD	-	-	6	-	-	3	-	6
I is usually long before ND or LD	-	-	7	-	4	-	-	-
The vowel that ends a one-syllable word is frequently long	-	-	4	-	5	-	-	1
Vowels before double consonants are usually short	4	-	5	5	-	5	-	-
Vowels between consonants are usually short	3	-	8	-	-	-	-	-
In open syllables vowels are usually long	6	-	-	6	8	-	3	-
Vowel digraph rule applies to vowels in syllables	-	-	9	-	-	-	-	7
Silent E rule does not apply when final E follows two consonants	-	-	11	-	-	-	-	-
The long sound of I before GH	-	-	10	-	-	-	-	-

silent E generalization very early in their respective programs. Seven of the eight series introduce the vowel digraph rule. The generalization that the vowel sound in a word of one syllable is short unless the vowel is at the end of the word is introduced by six series. The remaining generalizations are introduced by four or fewer of the series.

Table 18 presents the general sequences of the introduction of letter-sound relationships. It is immediately obvious that seven of

TABLE 18.-The sequences of introduction of letter-sound relationships

Relationships	Series							
	A&B	ABC	EC	GINN	H-M	MAC	R-P	S-F
Relating sounds to single initial consonant letters	1	1	4	1	1	1	1	1
Relating sounds to combinations of initial consonants	3	2	6	3	2	2	2	2
Relating sounds to single final consonant letters	2	3	4	2	3	4	4	3
Relating sounds to combinations of final consonants	6	4	6	5	4	5	5	4
Relating sounds to single vowels	5	5	1	4	6	6	6	5
Relating sounds to vowel combinations	4	7	2	6	7	3	3	6
Learning consonant sound generalizations	8	8	5	7	5	8	8	8
Learning vowel sound generalizations	7	6	3	8	8	7	7	7

the eight relate sounds to single initial consonant letters as the first step in phonetic analysis while one series begins phonetic analysis by relating sounds to single vowels. The initial agreement among the seven series is quickly lost as each series further develops its individual program of phonetic analysis. By the time the various series introduce the sixth step in their respective programs of phonetic analysis, there is almost complete lack of agreement as to sequence. The most obvious difference among the series relative to sequence of introduction of specific phonetic skills is the immediate introduction of vowel sound-symbol relationship versus delayed introduction of vowel sound-symbol relationship.

CHAPTER IV

SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

One of the basic assumptions on which this study was based was that
the approaches to the teaching of reading used by the basal reading se-
ries do contain a number of differences in relation to the scope, se-
quence, and timing of the introduction of instruction in phonetic skills.

This chapter presents a summary of the programming of the intro-
duction of specific phonetic elements and generalizations that are used
by eight basal reading series. The findings in this chapter are based
on an analysis of the data gathered, and the conclusions and recommenda-
tions are an outgrowth of the findings.

Summary

It is obvious from the tables developed in this study that all
eight series analyzed do in fact give a considerable amount of atten-
tion to the introduction of phonetic analysis in their respective
beginning-reading programs. The sequence and timing in which the series
introduce the various elements of phonetic analysis and the different
phonetic generalizations are the specific areas where the greatest
amount of disagreement occurs.

Seven of the eight series present the sound-symbol relationships
of consonants in the initial position in words as the introduction to
the development of phonetic-analysis skills. The eighth series intro-
duces the sound-symbol relationships of vowels as the introduction to
the development of phonetic-analysis skills. Even though a majority
of the series agree upon which should be presented first, vowels or

consonants, there is almost complete lack of agreement upon the order of presentation for specific letters. An example of this lack of agreement is the first letter presented by each of the series. These letters for the respective series are: S, J, O, S, T, T, C, and S. Here there seems to be agreement among at least three of the series on the introduction of the letter S; however, by the time these same three series introduce the third letter, there is complete disagreement, as one series introduces F, one introduces L and the other series introduces B. It is appropriate to note that one of the three series that agrees on S as the first letter to be introduced, does so on the primer level, while the other two series introduce the same letter on the pre-primer level.

It is interesting to note also that one series introduces no phonetic analysis skills on the preprimer level; two series introduce only one letter each on the preprimer level, and one series introduces three letters on the preprimer level. At no time on any of the reading levels is a pattern of sequences established that would be common to two or more series.

Another interesting manifestation of lack of agreement among the series relative to sequence and timing in presenting elements of phonetic analysis is the contrast between the Ginn and Company program, which presents no phonetic analysis on the preprimer level and The Economy Company program, which presents all the vowels and the consonants, plus three consonant blends, three consonant digraphs, and some phonetic generalizations on the preprimer level.

The Economy Company beginning-reading program introduces the association between all vowel symbols, both long and short, before it

introduces any of the consonants, and as noted before, this introduction

occurs on the preprimer level. The other seven series delay the intro-

duction of single vowel sound-symbol associations until the first-reader

level for the earliest such introduction to the third reader, number

two, for The American Book Company's introduction of the long sound of

U.

Varying numbers of consonant blends are introduced by seven of the

eight series before any attention is given to the vowel sound-symbol

relationships; however, one of the seven does introduce the diphthongs

OO (oo), OU, OW (o), and OY before it introduces any of the vowels

singly. This same series also presents the vowel digraphs AY and EW

again before the introduction of any of the individual vowel sounds.

Beginning attempts to pronounce unknown words for seven of the

programs consist of initial consonant substitution. The other program,

that of The Economy Company, introduces sounding as the first attempt

to pronounce unknown words. This sounding is accomplished by first

determining the number of vowels in the word and the sound each vowel

should have. Later all eight programs use syllabication as an aid to

pronunciation.

Although only one series establishes a definite pattern of pre-

senting the long and short vowel sounds, some of the series present

both the long and short sound of each vowel before presenting the next

vowel. The Macmillan program separates the long and short sound of

each vowel by at least one reader level. With the exception of the

short Y sound, which is presented on the first reader level, the Mac-

millan program presents the long vowel sounds on the second reader

level, number two. The Ginn and Company presents all the long vowel
sounds, except Y, on the first reader level and all the short vowel
sounds, except Y, on the second reader level, number one. The Y sounds
are presented by the Ginn program as follows: the long sound of Y on
the second reader level, number two, and the short sound of Y on the
third reader level, number one.

All eight programs agree upon the necessity of introducing three
specific rules for consonant sounds, but here again, there is no agree-
ment upon sequence.

The "silent E rule" is the only vowel-sound rule where all eight
series reach agreement that a specific rule should be presented, but
four series present it first, three present it second, and one series
presents it fourth.

The amount of reinforcement given by each reading program to the
learning of each element of phonetic analysis in terms of the number of
times the pupils' attention is specifically directed to a particular
element is yet another area where the series reach no agreement.

Findings

The findings of this study which were considered to be most sig-
nificant were the following:

1. The Allyn and Bacon Company beginning-reading series presents
the following phonetic-analysis program on the preprimer level: intro-
duction of the consonant S.

2. The American Book Company beginning-reading series presents
the following phonetic-analysis program on the preprimer level: intro-
duction of fifteen consonants, three consonant blends, one consonant

digraph, and alphabetical order.

3. The Economy Company beginning-reading series presents the following phonetic-analysis program on the preprimer level: all vowels, all consonants, four vowel digraphs, three consonant blends, three consonant digraphs, the vowel digraph rule, the silent E rule, and three phonetic-analysis generalizations.

4. The Ginn and Company beginning-reading series presents no phonetic-analysis program on the preprimer level.

5. The Houghton-Mifflin Company beginning-reading series presents the following phonetic-analysis program on the preprimer level: introduction of eighteen consonants, four consonant digraphs, initial consonant substitution, and initial consonant digraph substitution.

6. The Macmillan Company beginning-reading series presents the following phonetic-analysis program on the preprimer level: introduction of three consonants.

7. The Row-Peterson Company beginning-reading series presents the following phonetic-analysis program on the preprimer level: introduction of seventeen consonants, three consonant blends, three consonant digraphs, and compound words.

8. The Scott-Foresman Company beginning-reading series presents the following phonetic-analysis program on the preprimer level: introduction of the consonant S.

9. Within the first year of its beginning-reading program, the Allyn and Bacon Company introduces no vowels.

10. Within the first year of its beginning-reading program, the American Book Company introduces the following vowels: long Y, short A, short E, and short I.

11. Within the first year of its beginning-reading program, The Economy Company introduces the following vowels: all, both long and short, and twenty-four vowel digraphs, diphthongs and vowel-consonant combinations.

12. Within the first year of its beginning-reading program, Ginn and Company introduces the following vowels: long O, long E, long I, and long U.

13. Within the first year of its beginning-reading program, the Houghton-Mifflin Company introduces no vowels.

14. Within the first year of its beginning-reading program, The Macmillan Company introduces the following vowels: short Y, five vowel digraphs, diphthongs, and vowel-consonant combinations.

15. Within the first year of its beginning-reading program, The Row-Peterson Company introduces the following vowels: long and short A, long and short I, long O, and short Y; ten vowel digraphs, diphthongs, and vowel-consonant combinations.

16. Within the first year of its beginning-reading program, The Scott-Foresman Company introduces no vowels.

17. In the first year of its beginning-reading program, The Macmillan Company presents four vowel digraphs, diphthongs, and vowel-consonant combinations for which no single vowel letter-sound relationships have been previously introduced.

18. In the first year of its beginning-reading program, The Row-Peterson Company presents five vowel digraphs, diphthongs, and vowel-consonant combinations for which no single vowel letter-sound relationships have been previously introduced.

19. The American Book Company introduces the long sound of AI, as in <u>aim</u>, before the introduction of the single vowel sound-letter relationship of long A.

20. Using the consonant P as a typical example, the following is a portrayal of the amount of initial emphasis and subsequent reinforcement used by each of the eight series in the three years of its beginning-reading program in an effort to establish the sound-letter relationships for the consonants:

    a. The Allyn and Bacon Company: initial emphasis, 14; total emphasis, 33.

    b. The American Book Company: initial emphasis, 12; total emphasis, 35.

    c. The Economy Company: initial emphasis, 24; total emphasis, 36.

    d. Ginn and Company: initial emphasis, 9; total emphasis, 14.

    e. The Houghton-Mifflin Company: initial emphasis, 16; total emphasis, 57.

    f. The Macmillan Company: initial emphasis, 5; total emphasis, 6.

    g. The Row-Peterson Company: initial emphasis, 4; total emphasis, 7.

    h. The Scott-Foresman Company: initial emphasis, 4; total emphasis, 9.

21. Using long O as a typical example, the following is a portrayal of the amount of initial emphasis and subsequent reinforcement

used by each of the eight series in the three years of its beginning-
reading program in an effort to establish the sound-letter relationships
for the vowels:

    a. The Allyn and Bacon Company: initial emphasis, 6; total
       emphasis, 18.

    b. The American Book Company: initial emphasis, 2; total
       emphasis, 20.

    c. The Economy Company: initial emphasis, 20; total empha-
       sis, 58.

    d. Ginn and Company: initial emphasis, 5; total emphasis,
       25.

    e. The Houghton-Mifflin Company: initial emphasis, 1; total
       emphasis, 25.

    f. The Macmillan Company: initial emphasis, 9; total empha-
       sis, 25.

    g. The Row-Peterson Company: initial emphasis, 9; total
       emphasis, 30.

    h. The Scott-Foresman Company: initial emphasis, 4; total
       emphasis, 12.

22. Using the consonant blend FR as a typical example, the fol-
lowing is a portrayal of the amount of initial emphasis and subsequent
reinforcement used by each of the eight series in the three years of
its beginning-reading program in an effort to establish the sound-letter
relationships for consonant blends:

    a. The Allyn and Bacon Company: initial emphasis, 6; total
       emphasis, 19.

b. The American Book Company: initial emphasis, 9; total emphasis, 19.

c. The Economy Company: initial emphasis, 7; total emphasis, 16.

d. Ginn and Company: initial emphasis, 7; total emphasis, 20.

e. The Houghton-Mifflin Company: initial emphasis, 2; total emphasis, 10.

f. The Macmillan Company: initial emphasis, 3; total emphasis, 16.

g. The Row-Peterson Company: initial emphasis, 31; total emphasis, 11.

h. The Scott-Foresman Company: initial emphasis, 1; total emphasis, 1.

23. Using the diphthong OY as a typical example, the following is a portrayal of the amount of initial emphasis and subsequent reinforcement used by each of the eight series in the three years of its beginning-reading program in an effort to establish the sound-letters relationships for vowel digraphs, diphthongs, and vowel-consonant combinations:

a. The Allyn and Bacon Company: initial emphasis, 2; total emphasis, 2.

b. The American Book Company: initial emphasis, 9; total emphasis, 9.

c. The Economy Company: initial emphasis, 6; total emphasis, 26.

d. Ginn and Company: initial emphasis, 3; total emphasis, 14.

e. The Houghton-Mifflin Company: initial emphasis, 3; total emphasis, 3.

f. The Macmillan Company: initial emphasis, 7; total emphasis, 17.

g. The Row-Peterson Company: initial emphasis, 3; total emphasis, 3.

h. The Scott-Foresman Company: initial emphasis, 4; total emphasis, 4.

2. As the data for this study indicated, there is little agreement among the eight series as to scope, sequence, and timing for the introduction of specific elements of phonetic analysis.

Conclusions

On the basis of the findings of this study, the following conclusions seem tenable:

1. The word-attack programs used by each of the eight series analyzed in this study demonstrate that each series recognizes the value of phonetic analysis in a beginning-reading program.

2. Each of the eight series manifests a different degree of emphasis upon phonetic analysis in its beginning-reading program. This degree of emphasis that the individual series places upon phonetic analysis tends to modify the basic philosophy (i.e., meaning-first or discrimination-first) of the particular series.

3. The Allyn and Bacon Company does not emphasize phonetic analysis at the outset of its beginning-reading program.

4. The American Book Company introduces several consonant sound-letter relationships on the preprimer level of its beginning-reading

program. However, since the introduction of vowel sound-letter
relationships is delayed until the latter part of the first-year program,
intensive utilization of phonetic analysis does not occur at the outset
of the beginning-reading program.

5. The Economy Company, which uses intensive phonetic analysis at
the outset of its program, differs from the other seven series.

6. Since the Ginn and Company series has no program for phonetic
analysis on the preprimer level and delays the introduction of vowel
sound-symbol relationships until the latter part of the first year,
early emphasis is not placed on intensive phonetic analysis.

7. Most of the consonants and several consonant digraphs are in-
troduced on the preprimer level of the Houghton-Mifflin Company
beginning-reading program, but since no vowel sound-symbol relation-
ships are introduced during the first year of the program, introduc-
tion to intensive phonetic analysis does not occur at the outset.

8. In its preprimer program, the Macmillan Company beginning-
reading series introduces three consonant letter-sound associations
and delays all the vowel letter-sound associations, with the excep-
tion of the short sound of Y, until the second year; therefore, the
Macmillan program does not have early introduction of both bowel and
consonant sound-symbol relationships.

9. Introduction is made on the preprimer level of the Row-
Peterson Company beginning-reading program of most of the consonants
and several consonant blends and digraphs, but since vowel sound-
symbol relationships are delayed until the first- and second-reader
levels, intensive phonetic analysis is somewhat delayed.

10. Intensive phonetic analysis is introduced relatively late

in the Scott-Foresman Company beginning-reading program, which intro-
duces only the consonant S on the preprimer level, and delays the
introduction of vowel sound-symbol relationships until the second
year.

Recommendations

On the basis of the information presented in this study, the
following recommendations are made:

1. The data developed for this study revealed that there is much
disagreement among many of the beginning-reading series relative to the
scope, timing, and sequence of the introduction of phonetic analysis.
Because of the mobile nature of much of American society, efforts should
be made to establish correlation among the various series for the in-
troduction of specific elements of phonetic analysis. This correlation
could alleviate some of the confusion that is caused for enrollees
new to the reading series being used in the receiving school.

2. The habit of independence is necessary for effective reading.
It is recommended that authors and publishers make an attempt to deter-
mine the scope, sequence, and timing of the introduction of phonetic
analysis most appropriate for early development of independence in
reading.

3. It was found in this study that the eight reading series
under investigation use differing amounts of emphasis for the intro-
duction of sound-symbol relationships for specific letters and combina-
tions of letters. Efforts should be made to determine the optimum
emphasis for the introduction of sound-symbol relationships.

4. The eight series examined in this study also use differing

amounts of total emphasis in the first three years of their respective
programs of phonetic analysis in an attempt to establish sound-symbol
relationships. Here again efforts should be made to determine the
optimum emphasis for establishing sound-symbol relationships.

5. Seven of the eight reading series examined in this study delay
the introduction of single vowel sound-symbol relationships until the
first-reader level. It is recommended that efforts be made to deter-
mine the value of earlier introduction of single vowel sound-symbol
relationships.

6. This study reveals that there is no agreement among the eight
series relative to the sequence for the introduction of the rules for
phonetic analysis. It is recommended that authors and publishers of
beginning-reading programs determine the most effective sequence in
which to present the rules or generalizations for phonetic analysis.

7. The data for this study show that there are forty-nine spe-
cific instances where a given series does not agree with some of the
eight series, relative to which consonant blends or consonant digraphs
should be introduced in the beginning-reading program. It is recom-
mended that agreement should be established for the introduction of
specific consonant blends and consonant digraphs.

Recommendations for Further Study

Many research studies have been conducted in an effort to deter-
mine and compare the relative merits of the different approaches to the
teaching of beginning reading. A number of the studies have disclosed
that basal reading series do teach phonics. In light of the preceding
statements, the following suggestions for further study are offered:

1. There are three basic approaches commonly used to introduce single vowel sound-symbol relationships. The first approach usually introduces both the long and the short sounds associated with a particular vowel before introducing these sounds with another vowel. The second approach usually presents the similar sounds, either long or short, for all the vowels before teaching a second sound for any vowel. The third approach separates the introduction of similar sounds that are associated with different vowels. This separation may be from one grade level to another. The data developed in this study could be used in a study to determine which of the three basic approaches is the most effective.

2. Authors and publishers of beginning-reading series could use the data in this study to determine whether their respective reading programs could be strengthened relative to the introduction and reinforcement of phonetic analysis.

3. It would be possible, using the data presented in this study, to develop a word list that would correlate with the scope, sequence, and timing of the introduction of phonetic analysis used by many beginning-reading programs.

4. The data developed in this study could be used in a research project to determine the value of both initial and total emphasis which beginning-reading programs place on the elements of phonetic analysis.

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