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THE UNIVERSITY OF OKLAHOMA

GRADUATE COLLEGE

A COMPARATIVE STUDY OF THE SCOPE, SEQUENCE, AND TIMING OF THE INTRODUCTION OF PHONICS AS PRACTICED BY SOME PUBLISHERS OF READING SERIES

A DISSERTATION

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in partial fulfillment of the requirements for the

degree of

DOCTOR OF PHILOSOPHY

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GERALD TAULBEE SAMPLE

Norman, Oklahoma

1966

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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This study is dedicated to my wife, Anita, and our children. It has required the utmost patience, cooperation, and understanding of my family to make this study possible.

TABLE OF CONTENTS

		Page
LIST OF TABLES		v
Chapter		
I.	INTRODUCTION	1
	Controversies in Teaching Reading	4
	Meaning-Discrimination Balance	6
	Justification	7
	Statement of the Problem	8
	Definition of Terms	8
	Major Assumptions	9
	Delimitations of the Study	10
	Procedure	10
	Format for Succeeding Chapters	11
II.	REVIEW OF RELATED LITERATURE AND RESEARCH	13
	Review of the Literature	13
	Review of the Research	19
III.	ANALYSIS OF THE INSTRUCTIONAL LEVEL, SCOPE, AND SEQUENCE OF PHONETIC ANALYSIS IN EIGHT BASAL READING SERIES	31
IV.	SUMMARY, FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS	67
	Summary	67
	Findings	70
	Conclusions	76
	Recommendations	78
	Recommendations for Further Study	79
BIBLIOGRAPHY		81

LIST OF TABLES

Table		Page
1.	The Sequences and Reader Level of Introduction of Specific Skills and Understandings for the Preprimer Level of Eight Basic Reading Series	34
2.	The Sequences and Reader Level of Introduction of Specific Skills and Understandings for the Primer Level of Eight Basic Reading Series	35
3.	The Sequences and Reader Level of Introduction of Specific Skills and Understandings for the First Reader Level of Eight Basic Reading Series	36
4.	The Sequences and Reader Level of Introduction of Specific Skills and Understandings for the Second Reader (Number One) Level of Eight Basic Reading Series	37
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	39
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	41
7.	The Sequences and Reader Level of Introduction of Specific Skills and Understandings for the Third Reader (Number Two) Level of Eight Basic Reading Series	43
8.	Sequences and Reading Level of Letter-Sound Relationships of Single Consonants in the Beginning-Reading Program of Eight Basic Reading Programs	45
9.	Initial and Total Emphasis of Letter-Sound Relationships of Single Consonants in the Beginning-Reading Program of Eight Basic Reading Programs	47
10.	Sequences and Reading Level of Letter-Sound Relationships of Consonant Blends and Digraphs in the Beginning-Reading Programs of Eight Basic Reading Series	49

LIST OF TABLES (Continued)

Table		Page
11.	Initial and Total Emphasis of Letter-Sound Relationships of Consonant Blends and Digraphs in the Beginning-Reading Programs of Eight Basic Reading Series.	52
12.	Sequences and Reading Level of Single Vowel Letter-Sound Relationships of Eight Basic Reading Programs	55
13.	Initial and Total Emphasis of Single Vowel Letter-Sound Relationships of Eight Basic Reading Programs	56
14.	Sequences and Reading Level of Vowel Digraphs and Diphthongs, and Vowel-Consonant Combinations in Eight Basic Reading Programs.	58
15.	Initial and Total Emphasis of Vowel Digraphs and Diphthongs, and Vowel-Consonant Combinations in Eight Basic Reading Programs.	61
16.	Sequences of Introduction of Rules for Consonant Sounds.	63
17.	Sequences of Introduction of Vowel-Sound Rules.	64
18.	Sequences of Introduction of Letter-Sound Relationships . .	65

A COMPARATIVE STUDY OF THE SCOPE, SEQUENCE, AND TIMING OF THE INTRODUCTION OF PHONICS AS PRACTICED BY SOME PUBLISHERS OF READING SERIES

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 reading. Because of the extreme importance placed upon the teaching of beginning reading, this process has been and continues to be the subject 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 general evolution of reading instruction.[1]

The over-all history of research related to the teaching of beginning 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 developing 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 particular 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 orientation 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 independence 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 recognition 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: David 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 Macmillan 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, structural, 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 consonant.

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 similar 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 between 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. Scope of instruction. The amount of instruction given to specific phonetic skills in terms of numbers of letters used for this instruction.

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

c. Sequence. 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 originate 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 combinations. 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 object together with a word which represented it. Many American educators 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 approach 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 development 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 vocabulary and aids to attentive silent reading. . .

---

[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 achievement.
>
> 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 instruction 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 children 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 Beginning Reading in Grade One" (unpublished Ph.D. dissertation, University 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 concluded 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 systematic presentation of letter knowledge and phonics development with an incidental program of word recognition; the control group used systematic presentation of word recognition with an incidental program of letter and phonics development.
>
> February tests showed statistically significant differences 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 continuing 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 development 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 discovered 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 University, 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 Training on Primary Reading" (unpublished Ph.D. dissertation, Duke University, 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, respectively. 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 significant 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 children 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 Teaching 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 reading 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 introduced. 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 specific 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 analysis for example; the analyst intends to measure the frequency 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 synonyms, 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	
	l	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					
		l					
		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		TH	sh	l
d		ur	p		g	ar	c
m		After w, or sounds like ur	m		l	Finding small words in larger words	t
w		ng	t		f	oo	n
n		nk	d		Th	y(i)	w
g		se(s)(z)	r		p	g	g
y		After w, a sounds like o.	g		ch	ir	f
s		oi	Possessives			ch	j
p		oy	wh				Initial consonant substitution
j		kn	Th				
Initial consonant substitution		gn	ch				
		c(s)					
		oo					
		oo					
		aw					
		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 words	bl	y	m	ed(d)
d	tw	ly	Initial consonant substitution	st	j	gr	TH
l	ed(t)	y	k	nd	wh	possessive	s(z)
t	fr	tch	bl	cr	possessive	pl	Contractions
p	br	es	pl	v	m	br	n
r	cl	es follows sh, z, ch	st	Final consonant substitution	oy	ll	p
s	m	sm	d	z	oo	st	t
m	d(ed)	est	br	thr	d(ed)	tr	Final consonant substitution
n	Syllabic division	Double final consonant before adding endings	tr	nt	ed(t)	pr	d
s(s)	ă	cr	m	ed	ed(d)	oo	m
Final consonant substitution	ĭ	sp	n	ed(t)	tr	k	l
tr	nd	squ	j	ed(d)	cl	l	ll
fr	mp	sw	dr	gr	ar	cr	In words ending with double consonants, the final one is silent
br	nt	el	z	st	v	tw	ch
dr	(possessive)	air	sh	Compound words	bl	ng	sh
gr	ng	en	fr	pr	st	ck	Th
bl	ck	i is long before nd	es	ch	ou	sn	wh
fl	ld	i is long before ld	o	c(s)	ow(ou)	or(er)	
pl	Compound words	Drop final e before adding ed, er, or, ing	v	l	sh	mp	
cl		gl	gr	ll		fl	
gl		sn	r	Drop final e before adding ing		ch	
ch		dr	ē	cl		fr	
sh		pr	d(ed)	br		ow(o)	
TH		dge(j)	ī	possessive		ă	
Th		ge(j)	ā	Double final consonant before adding ing		Th	
Contractions		al	fl	r		al	
wh		be	ū	k		ā	
st		en		ck		Silent e rule	
		un				ur	
		ore				sh	
		's				sp	
		bl				ĭ	
		gr				ī	
		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 previously presented phonetic skills and generalizations	ă
k	l		TH
Drop final y before adding ies	sk		ŏ
g	ed		cr
f	ŏ		b
Double final consonants before adding ing	ī		l
kn	ē		z
Drop final e before adding ing	ā		Th
ou	silent e		Final consonant substitution
Change y to i before adding ed	y(ē)		c
a	Silent e rule		ck
es	Hyphenated words		g
Use es for plural after es	sm		ĕ
ly	es		ll
thr	er is a syllable after final s		ss
or	er		sh
ew	ēe		pr
o͞o	ō		sl
wr	nk		o͞o
Use es for plural after ch	est		Double final conconant before adding ed
er	ar		sn
sw	or		ch
oa	gl		ai
ai	cr		ay
Vowel digraph rule	pr		st
nd	ch		g(j)
ld	sh		oa
nt	TH		Final twin consonants have one sound
st			Drop final e before adding ing
i			ŭ
Use es after sh or x			cl
e			ēa
ē			x
sp			c(s)
o			er
c(s)			cks
ō			ee
			ng
			nk
			Silent e rule

TABLE 4 - Continued

H-M	MAC	R-P	S-F
sm	ēē	Dictionary reference	tr
pl	k		fr
gl	Compound words		br
sn	Before ght i is long		cr
er	Initial consonant substitution		dr
sh	ay		gr
sch	ck		st
ō	br		cl
(silent e)	gr		sl
Double final consonant before adding ed, er, ing	fr		bl
ly	st		pl
est	er		fl
ss	er(r)		gl
	ea		i
	(ō)ow		Vowel substitution
	pl		ir
	es		y(ī)
	Change y to e before adding es		y(ē)
	a		Y usually has the long i sound at the end of a word
	e		sm
	i		sp
	o		sn
	u		sw
	cr		a
	sk		ai
	sl		ay
	tw		ar
	sw		Before l, a sounds like aw
	sp		Double final consonant before adding ed, ing
	sn		ng
	sm		nk
	dr		Change y to i before adding ed
	spr		(silent) gh
	spl		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(ĭ)
(silent) gh	Vowel digraph rule	tw	Change y to i before adding es
i is long before gh	ēa	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	ū	less	ew
be	le and the preceding consonant make a final syllable	ou(oo)	ir
Silent e rule	lf	mis	qu
air	ay	re	ow(ō)
y(ī)	ŭ	arr	str
ea	ear	irr	spr
cr	air	err	squ
sl	ou	orr	y(ī)
Alphabetical order	ōō	When e follows two consonants, silent e rule is not applicable	ur
a	o͝o	eigh(a)	ui
y(ĭ)	en(n)	ar sounds like or after w	thr
ly	ain(n)	(silent) gh	Hyphenated words
ck	in(n)	tion	Vowel digraph rule
v	kn	ey(i)	Vowels are usually short in 3 or 4 letter words
o͝o	wr	ey(ā)	ea(ĕ)
tw	(silent) gh	ou(aw)	er
ay	ow(ou)	ou(u)	aw
ea(ā)	ow(ō)	ou(o͝o)	or
ow(ou)		tain(tin)	ch(sh)
str		tain(ten)	ow(ou)
sm		ie(ī)	Alphabetical order
Th		ie(ē)	sc
TH		age(ij)	sp
pr		ent(unt)	oi
		ex(eks)	oy
		ex(iks)	(silent) gh
		ex(egz)	sch
		ex(igz)	gn
		s(zh)	
		s(sh)	
		ery	
		ty	
		ment	
		ment(munt)	

TABLE 5 - Continued

H-M	MAC	R-P	S-F
qu	oa	ly	sk
g(j)	**Vowel digraph rule**	aw	c(s)
ā	ew	ŏ	ē
Vowel substitution	**Contractions**	cl	e
ai	ă	**Initial consonant substitution**	**Unless it is at the end of a word, a single vowel is usually short**
ay	y(ī)	bl	ĕē
Silent e rule	e	u	ĕā
Contractions	ai	ū	**Vowel digraph rule**
ē	air	**i is long before ght**	ie(ī)
ēā	ĭ	(silent) gh	ly
ēē	ŏ	**Hyphenated words**	er
ea(ĕ)	or	**Contractions**	**Silent e rule**
When not in the final position, e is short if it is the only vowel	ea(e)	sm	**Change y to i before adding es**
ī	ear	str	ō
en	ŭ	spl	o
ĭ	est	ēē	or
i is long before gh	**Silent e rule**	spr	er
i is long before nd	ŏŏ	thr	est
ă	fl	dr	qu
ŏ	z	s(z)	squ
ō	**Alphabetical order**	ēā	spr
spr	be	ai	str
oa		y(i)	thr
ŏŏ		gl	**Before l or r, c has the sound of k**
ow(ou)		c(s)	scr
Single medial o is usually short		oa	oi
u		y(ī)	oy
ou(aw)		nk	**Drop e before adding ed, ing, er, est**
ou(ōō)		g(j)	wr
ou(ŏŏ)		sk	ōō
ou(ŭ)			ow(ō)
Vowel digraph rule			ū
tch			ŭ
Single vowel at end of one syllable word is usually long			ur
ful			u(ŏo)
le			ou
ow(ō)			g(j)
Th			ea(e)
ff			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(ē)	Drop final e before adding ing	Review of previously presented phonetic skills and generalizations	sk
Syllabic division between two consonants	sn		tw
er	ful		ly
un	Change y to i before adding ed		est
Syllabic division between twin consonants	ft		Change y to i before adding ly or es
g(j)	eer		sm
Dictionary reference	are(air)		scr
oi	Drop final consonants before adding ed		spl
ir	ere(air)		Drop final e before adding ed
re	ere(eer)		The number of sounds equals the number of syllables
aw	ear(air)		be-
Syllabic division before consonant preceding final le	ear(eer)		a-
Before double consonants, vowel is usually short	The number of vowel sounds equals the number of syllables		a- and be- indicate syllabic division
au	dge		ie(ē)
qu	tch		sw
Change y to i before adding er or est	er(r)		un
The number of vowel sounds equals the number of syllables	Accent		Syllabic division between two consonants
The vowel is usually long when ending an open syllable	The first syllable is usually accented in a two-syllable word		ew(o͞o)
dis	ur		Change final f to v before adding es
squ	ir		gh(g)
tch	or(er)		mb
scr	ear(er)		au
eigh(ā)	our(or)		
	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 understandings for the third reader (number two) level of eight basic reading series

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

TABLE 7 - Continued

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

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		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
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 series presents one letter-sound association; three series present sixteen, seventeen, and eighteen associations, respectively, and one series presents the maximum number of associations, twenty-one, on the preprimer 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 association is attempted on the particular reader level. The second tabulation is the cumulative number of times the association is attempted in the entire beginning-reading program of the indicated series. These numbers of times an attempt is made to establish a sound-symbol relationship 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 reinforcement, 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 relationships 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(Consonant)	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 QU, 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 - Continued

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
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 relationships 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 presenting 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 attention to the sound-symbol relationship for the vowel A only once during

TABLE 13.-Initial and total emphasis of single vowel letter-sound relationships 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 introduced, 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, mentioned 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 considers 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 sequence 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($\bar{e}$)	7	2^2	8	2^2	4	Pp	5	2^1	3	2^2	10	2^1	17	2^2	10	2^2
EA($\breve{e}$)	11	2^2	-	-	29	2^1	16	2^2	5	2^2	22	3^2	20	3^2	18	3^1
EA($\bar{a}$)	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($\bar{e}$)	-	-	-	-	-	-	29	3^2	-	-	28	3^2	-	-	-	-
EI($\bar{a}$)	-	-	-	-	-	-	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($\bar{i}$)	-	-	22	3^1	39	2^2	-	-	27	3^2	24	3^2	-	-	-	-

TABLE 14 - Continued

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 ($\bar{E}$) and EI ($\bar{A}$) during the beginning-reading program, but six of the eight series make an attempt to establish the relationships of either IE ($\bar{I}$) or IE ($\bar{E}$).

All eight series introduce the long E sound of EA, seven series introduce 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 introduce 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 introduction 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 relationships 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($\bar{e}$)	3	6	3	6	1	7	5	27	3	7	7	17	11	15	4	5
EA($\breve{e}$)	3	14	-	-	5	7	5	15	3	3	5	5	6	6	1	1
EA($\bar{a}$)	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($\bar{e}$)	-	-	-	-	-	-	8	8	-	-	2	2	-	-	-	-
EI($\bar{a}$)	-	-	-	-	-	-	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($\bar{i}$)	-	-	1	1	6	13	-	-	2	2	4	4	-	-	-	-

TABLE 15 - 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
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(o͞o)	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 relationships for the various vowel combinations.

The basic generalizations governing sound-consonant letters relationships, and the sequences in which these generalizations are introduced 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 overlapped those that have been listed, and therefore they were not included 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 series do contain a number of differences in relation to the scope, sequence, and timing of the introduction of instruction in phonetic skills.

This chapter presents a summary of the programming of the introduction 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 recommendations 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 attention 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 introduces 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 preprimer 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 introduction 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 presenting 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 Macmillan 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 agreement 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 significant were the following:

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

2. The American Book Company beginning-reading series presents the following phonetic-analysis program on the preprimer level: introduction 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 aim, 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 emphasis, 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 emphasis, 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 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 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 introduced on the preprimer level of the Houghton-Mifflin Company beginning-reading program, but since no vowel sound-symbol relationships are introduced during the first year of the program, introduction 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 exception 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 introduces 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 introduction 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 determine 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 introduction of sound-symbol relationships for specific letters and combinations 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 determine 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 specific 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 recommended 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 determine 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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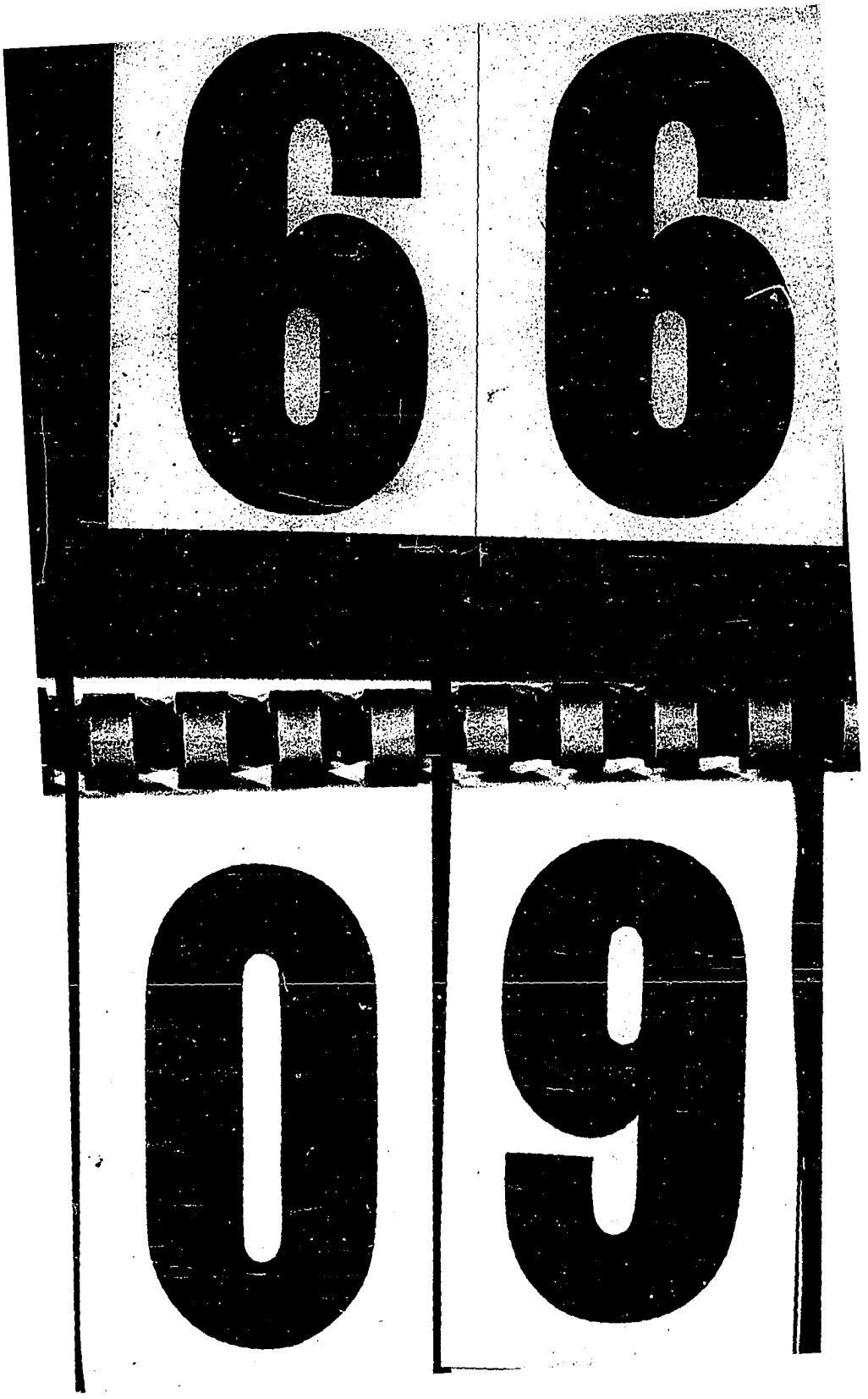
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166
09