A SURVEY OF METHODS EMPLOYED TO TEACH A REMEDIAL READING GROUP WITH SPECIAL EMPHASIS ON A VISUAL-PHONIC TECHNIQUE

A Thesis

Presented to

the Faculty of the School of Education

East Carolina College

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts in Education

by

Edith Crockett Roberts

August, 1964

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Edith Crockett Roberts, A SURVEY OF METHODS EMPLOYED TO TEACH A REMEDIAL READING GROUP WITH SPECIAL EMPHASIS ON A VISUAL-PHONIC TECHNIQUE. (Under the direction of Dr. James W. Batten), School of Education, August 1964.

The purpose of this study was to determine if the East Carolina College Reading Laboratory method, which was devised by Dr. Keith D. Holmes for individual or clinical instruction, could, with modifications, be used effectively to teach a group of retarded readers in a classroom situation.

Procedure: The pursuit of this investigation involved the following steps: (1) selection of those children with the greatest need for remedial instruction, (2) diagnosing the reading difficulties of this particular group, (3) applying remedial measures with particular emphasis on the Holmes Visual-Phonic technique, and (4) testing and evaluating the results.

Conclusions: After seven months of instruction the following conclusions were reached: (1) All pupils had made a substantial gain on the basis of extensive and varied testing. (2) An objective comparison of reading progress with average, above average, and superior reading groups, disclosed that the study group ranked in the upper quartile. (3) Word-attack skills and spelling were significantly improved. (4) Children were receptive to this method when the program and materials were geared to their needs and interests. (5) Effective grouping tended to compensate for a disproportionate amount of individual instruction.

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The writer gratefully acknowledges the outstanding contribution of Dr. Keith D. Holmes, Professor of Education, and Director of the East Carolina College Reading Center. It took years of research, study, and experimentation to develop the Visual-Phonic method which served as the experimental technique for this study. The investigator worked in close collaboration with Dr. Holmes in writing the third chapter, which includes a concise description of his method as well as the concepts and evaluation for the twenty-four basic steps included therein. It should be noted, however, that this writer assumes sole responsibility for any mistakes or shortcomings in presenting a compendium of this method, whereas; all merit should be ascribed to the originator, Dr. Holmes.

The investigator also is especially indebted to Dr. James W. Batten who has given so generously of his time in guiding and directing this study. His comments and suggestions added substantially to whatever value this thesis may possess.

Sincere gratitude is also expressed to Mr. Irvin Dickens, Principal of Wells Elementary School, and to Mr. George S. Willard, Superintendent, and Mr. John R. Walters, Assistant Superintendent of Wilson City Schools, for their invaluable help in supplying records and materials. Acknowledgment of faithful and efficient service is also given to Mrs. Jean Garris, who did the final typing of the thesis, and to Dr. Douglas R. Jones, Dean of the School of Education, who has encouraged and helped in an administrative capacity.

No book is ever completely the work of the writer. This is especially true in scientific research, for the investigator draws ideas

from a host of authors who have paved the way for research. Acknowledgment is made within the documentation and bibliography to all those who have made contributions to the research project. However, those who contributed to the general background of information are legion, and neither time, space, nor memory is sufficient for their recall. To these unnamed authors, who have contributed so much, this writer is forever indebted.

Finally, to her husband, son, and daughter, expression is made with appreciation for their patience and understanding. They provided the greatest inspiration for this investigator's first attempt at scientific writing.

CHAPTER I

INTRODUCTION

I. THE PROBLEM

One of the greatest problems facing the schools today is the child who is experiencing an unusual difficulty in learning to read. Educators are constantly searching for more effective ways to teach these children who have spent three or more years in the regular classroom without mastering the necessary skills for adequate progress at their respective grade levels.

Statisticians estimate that approximately one third of the pupils in public schools are functioning below grade level.[1] About ten or fifteen per cent are classed as being educationally retarded, that is, working one or more years below their grade placement.[2] These children, suffering from reading disabilities, are handicapped as surely as those suffering physical afflictions. Their future services as citizens in a democratic society, as well as their own self-realization and self attainment, are at stake.

The "drop-out" problem which is a concern at both state and national levels can be indirectly linked with reading incapacitation. A pupil who

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[1]Albert J. Harris, How To Increase Reading Ability (New York: David McKay Company, Inc., 1961), p. 18.

[2]Ibid.

is unable to read proficiently will more than likely experience difficulty in other academic areas, which frequently leads to failure and eventual discouragement. Substantial relationships between reading and general school achievement are found to exist even after every effort has been made to eliminate the influence of intelligence. Research has borne out these findings in numerous studies, two of which are reported in the second chapter.

This failure to achieve often results in school retardation, discouragement, and mental frustrations, as well as an indisputable loss to society. Cognizant of this loss in service and self-realization, professional people are bending every effort to salvage this substantial segment of our school population. Never before in the history of mankind has this task been so crucial. If America is to assume a place of responsible leadership in a world that is constantly in the process of sociological, economic, and technological change, she needs the services of a well-informed citizenry. Needless to say, the ability to read is the most effective means for mass education; for reading bears the unique distinction of being not only a subject to be learned, but a valuable and indispensible tool for learning. Formerly, one of the major goals in elementary education was "learning to read"; the modern emphasis is on "reading to learn."

The teaching profession has responded to this important problem by constant and extensive efforts to discover ways of improving reading instruction. Four major reports of the National Society for the Study of

Education have been devoted to the subject.[3] More than 4,000 individual research studies in reading have been published in England and America since 1880, most of them in the last thirty years.[4]

Today, as never before throughout history, children need to be able to master the skills of communication. In this complex world the individual needs to read and understand from a wealth and variety of materials, to listen with critical attention, and to be able to express himself effectively in both simple and technical language. The teachers of today's children need to become aware of the constantly changing needs in communication, and the resultant implications for self study and evaluation of present teaching methods.

More and more teachers are doing classroom research in an effort to find solutions to these problems. They are getting involved because they realize the great need for such studies if they are to meet the challenge of providing suitable instruction in the expanding horizons of today's reading program. Still there continues to be a very definite need for other systematic and detailed studies that will give insight into the reading difficulties of children and provide adequate and appropriate techniques of remedial instruction.

It was with this thought in mind, as well as the humble knowledge of the writer's short-comings as a remedial reading teacher, that this study was begun.

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[3]John J. DeBoer and Martha Dallman, The Teaching of Reading (New York: Holt, Rinehart, and Winston, Inc., 1963), p. 6.

[4]Ibid.

II. NATURE OF THE STUDY

This is a descriptive study of a remedial-reading class at Wells Elementary School in Wilson, North Carolina. The methods of pupil selection, diagnoses, and techniques of instruction are considered. The hypothesis for consideration: Would the specific use of a Visual-Phonic device facilitate reading in a group of educationally-retarded children? Results were tabulated on the basis of tests administered at the beginning and end of the study, as well as other testing and evaluation during the interim.

III. PURPOSES OF THE STUDY

This study was initiated with the following purposes in mind:

(a) To diagnose the reading difficulties of a particular group of retarded readers

(b) To give remedial instruction to this particular group, using, insofar as practical, methods employed in the East Carolina College Reading Center

(c) To determine if the East Carolina College Center methods, which were devised for individual or clinic instruction, could be used effectively to teach a group of children in need of remedial help.

IV. LIMITATIONS

The symptoms described herein tend to be for the main part those symptoms which stand out most clearly with remedial reading groups. No attempt has been made to include all symptoms of difficulty, all techniques

of instruction, or all children in this particular class. With few exceptions, the examples of difficulty are main types that one would expect to find in any remedial classroom.

Use was made throughout the study of methods and materials employed at East Carolina College Reading Center, under the direction of Keith D. Holmes. Liberal use was made of his Visual-Phonic Original Reading Program, which was designed primarily to help children and adults master the necessary skills for successful reading. These techniques and materials of instruction were supplemented and modified slightly in order to fit group methods, since working with a group would necessitate a disproportionate amount of the instructor's time.

Also, the writer would like to acknowledge the lack of certain facilities of instruction which were available in the East Carolina College Reading Center. Certain machines, mainly the controlled reader, tachistoscope, and shadowscope were unavailable for this study. The Science Research Associates Reading Laboratory was used for approximately two weeks. All other materials and testing, with the exception of the Stanford Binet Intelligence Tests, were used and the scores tabulated.

V. DEFINITION OF TERMS

Retardation. The terms retarded and retardation are used in education in ways to create an ambiguity of meaning. For the sake of clarification the writer used the term retarded to denote a child whose general mental ability is exceptionally low. The terms educationally retarded or

retarded in reading are applied to those pupils whose school achievement lags behind that of most children their own age.[5] If the child is functioning one year below grade level in the primary grades, that constitutes educational retardation according to most authorities. In this case, it is assumed that the children possess average or above average intelligence, according to reliable mental ability tests.

Remedial Reading. Remedial reading differs from ordinary reading instruction in that it isolates and telescopes the basic skills, eliminates many supplementary activities, and stresses quick and accurate mastery of the phonetic and structural analysis skills. It necessitates proper diagnosis of difficulty before remedial treatment is initiated.

Adverse Factors. The term adverse factors is used to designate the multiplicity of causes that tend to fuse together in a pattern that is detrimental to the individual's success in reading.

VI. MAJOR STEPS OF THE INVESTIGATION

The pursuit of this investigation is to involve four distinct steps:

(a) Selection of a group of children for remedial instruction

(b) Diagnosis of the reading difficulties of this particular group

(c) Application of remedial measures

(d) Reports of the results along with recommendations for further study.

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[5]Harris, op. cit., p. 17.

CHAPTER II

ANALYSIS OF PREVIOUS RESEARCH

I. SUMMARY OF RESEARCH ON REMEDIAL READING

The task of teaching good readers to read better has never been too great a problem for teachers. According to Delacato,[1] regardless of the method used, they seldom seem to encounter difficulty and their progress appears to be in a constant stage of development. In fact, they learn by wholes, almost by osmosis,and they exist in every kind of classroom and in every kind of school.

Teaching the retarded learner is quite another matter, regardless of retardation, whether due to low mentality or to other factors that have prevented progress. School records often show that a child was not ready to read the first few months of school, or even for a year or more afterwards. Often one or more grades have been repeated. Nevertheless, by the time the necessary facilities for reading readiness were acquired, the pupil was past the level where beginning reading normally was taught.

Gates[2] says that the slow learner needs many concrete experiences because the facilities to generalize and conceptualize are lacking. Thus the pupil requires more repetition of words in contexts before he is able to recognize them on his own. Gates estimates that beginning readers with

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[1]Carl H. Delacato, The Treatment and Prevention of Reading Problems (Springfield, Illinois: Charles C. Thomas, Publishers, 1959), p. 9.

[2]Arthur I. Gates, Interest and Ability in Reading (New York: Macmillan Company, 1930), p. 35.

intelligence quotients of 70 - 79, require forty-five repetitions, while those with intelligence quotients of 120 - 129 need only twenty repetitions for mastery.

In the primary grades more time and effort are spent in teaching reading than on any other part of the curriculum. Yet, poor reading is recognized as the most important single cause of academic failure in the elementary school (although the poor reading may be due to low intelligence). The great emphasis placed on reading is due to the universal recognition that proficiency in reading is closely related to academic success, and even to an individual's future ability to function as a citizen.

A pupil who is unable to read proficiently and organize and interpret the printed symbol will more than likely experience difficulty in other areas. An investigation by Lee[3] demonstrated clearly the importance of reading in the elementary school. Six tests of reading ability were given to pupils in the fourth, fifth, and sixth grades and the results correlated significantly with the scores obtained from the Modern School Achievement Tests.

A study by Bond[4] showed a similar correlation at a higher level. Several reading tests and standardized achievement tests in all subjects

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[3]Doris M. Lee, "The Importance of Reading for Achievement in Grades 4, 5, and 6", Contributions to Education, No. 566 (New York: Bureau of Publications, Teacher's College Columbia University, 1933). Cited by A. J. Harris, How To Increase Reading Ability, p. 7.

[4]Eva Bond, "Reading and Ninth Grade Achievement", Contribution to Education, No. 756 (New York: Bureau of Publications, Teacher's College Columbia University, 1938). Cited by A. J. Harris, How To Increase Reading Ability, p. 7.

were given to three hundred ninth-grade pupils. A suitable statistical method was used to make sure that the results were not influenced by factors such as age or intelligence. Reading comprehension was found to be significantly related to scholarship in all separate subjects except mathematics. Evidence was also obtained that there were considerable differences in the abilities required to excel in various subjects. For instance, fast readers excelled in literature, whereas; the slow methodical readers evidenced a slight advantage in science, spelling, and mathematics.

There seems to be also a definite need for teachers to instruct their pupils in the particular skills that are involved in reading different types of materials in the school curriculum.

Harris[5] described three different types of reading:

(a) Developmental reading - to bring about improvement in reading skills

(b) Functional reading - to obtain information, to learn as a primary aim of reading

(c) Recreational reading - to entertain or furnish enjoyment; to appreciate that which is read.

Surveys[6] have indicated that about one-third of the children in a typical elementary school read at their grade level, one-third above their grade level, and about one-third are retarded by one or more years. Only

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[5]Albert J. Harris, How To Increase Reading Ability (New York: David McKay Company, Inc., 1961), p. 102.

[6]Ibid., p. 18.

about ten to fifteen per cent of these are cases of severe reading retardation. The progress of the others is commensurate with their abilities.

For example in one survey[7] 6,000 pupils in grades two to six were given tests of reading achievement. Of all these children, only eighteen per cent of the boys and nine per cent of the girls scored one or more years lower on the achievement tests than on the capacity test.

According to Durrell[8] most children want to learn to read. However, many of them have met with so little success that they appear to have given up hope of making progress. They demonstrate their discouragement in many ways: by inattention and distractibility, by misbehavior, by refusals to try, by lack of effort, by failure to respond to motivation, and by a general hopeless attitude toward the entire reading program. Until the teacher can replace this negative attitude with a positive one, the child will make very little progress even though he may appear to try. It is generally accepted that achievement in reading depends primarily upon a feeling of accomplishment. The child has to experience at least a measure of success. Both teacher and pupil want to see progress and both look to this progress for feelings of inner satisfaction. Durrell[9] says, "Patience with a lack of progress is a doubtful virture in teaching." Good teachers always strive for teaching methods by which

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[7]D. D. Durrell, Improvement of Basic Reading Abilities (Yonkers, New York: World Book Company, 1940), p. 45.

[8]Ibid., p. 7.

[9]Ibid., p. 137.

the pupil can see his achievement in small units or measures of growth, and will thereby get the necessary encouragement for continued success.

Again Durrell[10] says it is in the planning and class management of reading instruction that the most significant values in the reading program are won or lost. These values will be found in three by-products of the reading program. A good program will initiate and improve these skills; a poor program will weaken or lose them altogether. It is very important that the program have the following aims:

1. Zeal for improvement in reading skills
2. Initiative in voluntary use of reading
3. Desirable personal and social attitudes.

In the past, teachers have tried different methods of teaching reading. Proponents of each of these methods have eagerly acclaimed it for all children as the perfect prescription for total accomplishment in reading. It was also the antidote for all ills in the reading program.

Since that time, teachers have tried each of these methods, the alphabetical-oral method, the word method, the phonetic method, and the phrase-reading method, only to discover that not one of them alone works completely for every child or even works completely for any child.

Cole discusses briefly five fundamental techniques in their appropriate chronological sequence:[11]

1. The Alphabetical-Oral Method: Children who are taught by

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[10] Ibid.

[11] Luella Cole, The Improvement of Reading (New York: Farrar and Rinehart, Incorporated, 1938), Chapter I.

this method literally spell out the words as a means of learning them. Both spelling and reading are done orally, leading to habits of articulation that are very difficult to suppress later. They seldom develop the ability to comprehend adequately or to read at a rapid pace.

2. The Phonetic Method: Those who are taught by this method essentially learn to read through pronouncing words. Consonant sounds, which remain fairly constant, and vowel sounds which are subject to change, are combined to form words. Liberal use of phonograms or "word families" provides a means for learning a considerable number of words with relatively little effort. The main disadvantage of this method is due to the nature of the English language which is partly phonetic. When this method is used exclusively, it has been found that children develop a slow and cumbersome type of reading with habits of articulation. However, the phonics method is helpful in teaching first graders new words having a common element; it is useful in third and fourth grades for syllabication and furnishes pupils of all ages with a valuable method of word attack.

3. The Word, or "Look-Say" Method: For years this method was the most widely used. The emphasis is upon the meaning of a word and its appearance. The method rests primarily upon visual memory and configuration patterns. A pupil usually reads more rapidly because recognition is more instantaneous. The "Look-Say" method, however, has definite drawbacks. A child's acquisition of words begins to slow down unless some phonics is introduced. These children have no effective technique for attacking new words; a strictly sight method is not adequate for building up the large vocabularies which they will need in the upper grades.

Pupils who have defective vision or a poor visual memory usually reach a saturation point at about two hundred words, as similarity of configuration taxes their visual perception.

4. The Phrase-Reading Method: This method is essentially, an expansion of the "Look-Say" Method, except the units are whole phrases or short sentences instead of single words.

This method teaches phrases as thought units; however, its disadvantage lies in the fact that pupils fail to recognize the individual words when they are placed in other combinations. Retarded children seldom make any progress at all. Only mature children have the visual perception to see the component parts of the phrase. The average first grader sees at one time from half a word to a single small word. This method of reading is not possible until the child's eyes are mature enough to see a phrase at a single fixation.

Most teachers have found that the most effective results come from a combination of these methods. A pupil is given the necessary skills to work with each of them. The first few words are taught by the look-say method. As soon as the pupil has learned enough words to serve as a basis for phonics he is introduced to word-families and sounds. After a certain degree of proficiency is acquired and his visual discriminatory powers developed, he begins phrase reading. He should also learn how to break down polysyllabic words into pronounceable units. All word-attack skills should be taught so the pupil can develop an effective method of "unlocking" new words.

Over the years the methods of teaching reading have changed profoundly. The chief cause for change is the ever-increasing necessity for

children to read rapidly, accurately, and profusely from a wide variety of materials.

Reading is not a simple process, but rather a complexity of numerous, specific skills which must become synthesized in the mind of the pupil before he can gain proficiency. Like any other complicated adjustment which the growing child has to make, learning to read involves his total self and is interrelated with his emotional reaction to his environment. These feelings and attitudes comprise a part of his self-entity and can no more be separated from his mental being than his arms and legs from his physical being. The sum of the "whole child" is equal to the sum of his component parts.

In studying a retarded reader the classroom teacher or clinician must first attempt an accurate diagnosis of the pupil's limitations in reading. Any failure on the part of the student to develop needed skills as well as any tendency to over-emphasize certain skills to the exclusion of others may handicap his progress in reading. Deficiencies in comprehension, rate of reading, ability to interpret meanings, or application of what is learned are common defects among disabled readers. The presence of any one of these defects, as well as their combinations must be determined before adequate remedial help can be administered.

The typical American child begins to learn to read very soon after he enters school at six or six and one-half years old. The first few months are devoted to reading readiness programs and familiarizing himself with the basic tools of reading. Then he enters upon a stage of rapid progress in mastering the skills of reading itself. Practice

increases his familiarity with the printed symbols and their meanings, and eventually more speed and less effort is involved. Gradually this learning process slows down and his habits become somewhat fixed. Then he is ready to begin using these abilities for study skills and enjoyment.

Gray[12] separated this developmental process of reading into five component stages:

1. Period of preparation for reading

2. The initial period of reading instruction

3. The period of rapid progress in fundamentals, attitudes, habits, and skills

4. The period of wide reading to extend and enrich experience and to cultivate important reading attitudes, habits, and tastes

5. The period of refinement of specific reading attitudes, habits, and tastes.

The first two periods were said to occupy the kindergarten and first grade. The third period occupies grades two and three. The remaining elementary grades comprise the fourth period, leaving the fifth period for junior and senior high school.

Other and more recent studies have borne out Gray's classification. Depending upon the teacher, the method, and the individual child, first one specific skill and then another will receive the initial emphasis and show the first spurt of development. Thus the emphasis shifts from the

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[12]William S. Gray, "Report of the National Committee on Reading," Twenty-fourth Yearbook of The National Society For The Study of Education, Part I, (Bloomington, Illinois: Public School Publishing Company, 1925).

mechanics of reading to the functional aspect of the skills. It is at this shift of emphases that most reading disabilities begin to show up. These children who have not sufficiently mastered the basic skills, and those, who for some reason are incapable of coordinating these activities, are soon floundering with the printed page.

It is here that something should be done to help the child out of his dilemma. Remedial reading administered at this point would have a better chance to succeed than a program initiated later. If the reading disability is allowed to persist over a period of years, it will inevitably lead to failure, frustration and feelings of inferiority. Concomitant personality and behavior deviations are apt to add to the child's problem. The shortest time that elapses during this period of maladjustment means a better chance of helping him before his personality and academic record have been permanently scarred by failure.

Until the twentieth century, teachers retained these children in the same grade in the vain hope that they would sufficiently master the necessary skills for promotion.[13] However, frequent retardation of children, not only failed to bring the expected and desired results, but actually fostered undesirable work habits and traits of character that were not compatible with the role of education.

Until that time the main objective of the elementary school had been the acquisition of facts and fundamental skills. The curriculum was so difficult that only children with an intelligence quotient of 110 or

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[13]Cole, op. cit., p. 19.

more were able to complete school without being retained at least once.[14] Children with intelligence quotients below 90 failed over and over again and usually left school before completing the fifth grade. Only about ten per cent of the children entering school ever reached high school.

Research and follow-up studies, however, proved the lack of wisdom in such a course.[15] The non-promoted children were compared with children of similar ability and achievement who had been promoted. In the main, it was accepted that non-promotion did not improve scholarship nor did it appreciably reduce the range of individual differences. As a rule, the non-promoted child was more likely to do the same quality of work which he had done previously or he might do even worse. To complicate matters he usually had trouble making the social adjustment to a younger group.

As a result of these findings, the pendulum swung to the opposite direction, and there was an emphasis on social adjustment and the need for a child to be placed in an environment most conducive to full development of his personality. Due to the increased emphasis upon the child as an individual, rather than upon the curriculum, most children were moved along with their groups, even though they were completely incapable of working at that grade level.

Although this practice has been modified somewhat, teachers find a wide range of abilities in their groups. It would be an unusual class from grades four through seven, that did not have at least a three-year

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[14] Ibid.

[15] Harris, op. cit., pp. 103-113; 226-227.

span between the top and bottom scores on a standardized test.

Over a three-year period the Wilson City Schools noted a median span of at least four years between the top and bottom scores at each grade level on the Iowa Silent Reading Tests.[16] They were listed as follows:

Fourth Grade - from 4 years to 4.6 years

Fifth Grade - from 4.7 years to 8.2 years

Sixth Grade - from 6.3 years to 11.5 years

Seventh Grade - from 8.5 years to 11.6 years

A study by Cole[17] gives similar scores made in speed, vocabulary, and comprehension in the third, sixth, and ninth grades of a single school. There are two points to be noted in this illustration: (1) The range of reading ability was never less than four years. For instance the sixth grade teacher had the difficult task of teaching thirty-nine children who varied in speed from the second to the eighth grade, in vocabulary from the third to the ninth, and in the area of comprehension from the third to the eighth. It should be obvious to the reader that it would be next to impossible to teach this class as a group. (2) The variability usually increases from the lowest to the highest grades. The upper limits of achievement rise as the children become older, but the lower limits of the class change very slowly. As a result of this, the two ends of the distribution are constantly getting farther apart.

This is the customary picture in the average American elementary

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[16]John L. Walters, "Learning to Read," Report to Wells Elementary School Parent-Teacher's Association, October, 1963, Wilson, North Carolina. (Used by permission.)

[17]Cole, op. cit., pp. 21-22.

school. However, it does not represent an impossible task in the hands of a qualified teacher. Reading need not be a social procedure; it may be done on an individual basis. By constantly adapting the method and materials to each child's level of development and by properly grouping the individuals, the instructor can competenly provide for the needs of his group.

It is necessary to realize, of course, that there is no efficient way of teaching the class as a whole. Also, there is a need to become familiar with various books and remedial materials that would be appropriate for each level of development. Above all, whatever combination or modification of the general methods of teaching reading is selected, the teacher should constantly be guided by the needs of each child in his group.

The first pre-requisite is to diagnose those needs.[18] Nothing can be done to improve the quality of a student's reading until the teacher has spent sufficient time in diagnosing the specific nature of his difficulty, for only then can appropriate remedial instruction be provided. In the medical and psychological fields, as well as in the reading program, the true purpose of a diagnosis is to prescribe treatment for the person, as well as to describe his symptoms and behavior. It is an attempt to find out how the condition can be improved as well as why he reads a certain way. It is designed to help us understand how the present reading performance is a reflection of his physical and emotional adjustment to

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[18]George D. Spache, Toward Better Reading (Champaign, Illinois: Garrard Publishing Company, 1962), pp. 101-103.

academic demands or to life in general.

Many of the diagnoses and techniques of teaching reading are dealt with peripherally at first. Intelligence quotients, vision, and all other significant factors are studied in intricate detail. Delacato[19] expressed it in this manner:

> We must evaluate children at a wholistic level and also treat them at a wholistic level because children don't learn to speak and read in a vacuum, nor do they learn to speak and read with small or specific parts of their minds and bodies . . . . The reading doesn't lie in that eye, it doesn't lie in that arm and yet it is affected by those things.

Diagnosis need not seem so terribly complex, however, if the purpose is completely understood. The main purpose is to discover how each child may be helped to achieve a greater degree of self-satisfaction and self-fulfillment by correcting some of the symptoms that have prevented his development.

II. ADVERSE FACTORS AFFECTING READING

In discussing the factors that contribute to reading disability, it is necessary for clarity to consider each in turn. However, the diagnostician must beware of the fallacy that certain cases will be the result of a single factor such as defective hearing or impaired vision. In actual practice this is seldom, if ever, the case.[20] Most retarded readers show a multiplicity of causes, anyone of which might be a strong deterrent to reading progress. This combination of causes is the real

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[19]Carl H. Delacato, The Treatment and Prevention of Reading Problems (Springfield, Illinois: Charles C. Thomas, Publishers, 1959), p. 16.

[20]Spache, loc. cit.

reason for the individual's extreme retardation. Singly they are overcome, but in combinations they tend to produce disability.

Another false impression is that these factors merely exist side by side. According to Spache[21] they interact and fuse to form a pattern of causes that may not have any apparent beginning or ending.

Sex. Boys are much more subject to difficulty in all phases of language development than girls. About two-thirds of the milder reading disability cases, and 75 to 90 per cent of the severe cases, are boys.[22]

Twice as many cases of stuttering show up in boys as in girls.[23] The superiority of girls over boys in speech is marked even in the preschool years. It seems safe to conclude that between ten and fifteen percent of elementary school children have at least mild reading disabilities, and that boys out number girls in frequency of reading disabilities about three to one.[24]

Witty and Kopel[25] found that the 100 poorest readers in a large group of elementary school pupils contained 66 boys and 34 girls.

Monroe[26] found that boys comprised 84, 86, and 94 per cent of three groups of reading disability cases.

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[21] Ibid.

[22] D. D. Durrell, Improvement of Basic Reading Abilities (Yonkers-on-Hudson: World Book Company, 1905), p. 47.

[23] G. C. Stoddard and B. L. Wellman, Child Psychology (New York: The Macmillan Company, 1934), p. 156.

[24] M. J. Harris, How to Increase Reading Ability (New York: David McKay Company, Inc., 1961), p. 19.

[25] P. A. Witty, and D. Kopel, "Heterophoria and Reading Disabilities", Journal of Educational Psychology, Vol. 27, 1936, pp. 226-230.

[26] Marion Monroe, Children Who Cannot Read (Chicago: University of Chicago Press, 1932), p. 98.

Vision. Many children, upon entering school, do not have perfectly normal, fully developed eyes. Terman[27] says this situation is due in part to the usual incidence of eye defects in any population and in part to mere immaturity. About fifteen per cent of all young children are nearsighted. A much larger number, however, about 60 per cent are farsighted. Approximately 40 per cent have astigmatism to a sufficient degree to warrant correction. The exact number showing a muscular imbalance is not accurately known but is certainly as high as 20 per cent, probably higher. The above figures add up to well over 100 per cent because children often have two defects simultaneously. The only two that are mutually exclusive of each other are nearsightedness and farsightedness. Either condition, however, may appear with either or both of the other abnormalities.

Because of the influence which inadequate vision has upon reading, all teachers should familiarize themselves with the common symptoms of visual maladjustment. Teachers in the first grade and the remedial reading classes must be especially sensitive to the slightest abnormality of behavior on the part of any pupil during the reading class.

The most common symptoms are abnormalities in the appearance of the eyes themselves.[28] If the pupil's eyes water, if the lids are red or granular, or if the eyes are swollen or inflamed, there is definitely a need for attention. Also if the child rubs his eyes constantly, blinks, frowns, holds his head to one side, or holds his book too closely or too

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[27]Lewis M. Terman and J. C. Almack, The Hygiene of the School Child (New York: Houghton Mifflin Company, 1929), p. 35.

[28]Cole, op. cit., pp. 35-41.

far away, he is almost certain to have visual defects. Also, the teacher might observe the child's reaction to light in the room or to sunlight outdoors. Needless to say, attention should be given to those who have difficulty seeing the blackboard.

Muscular imbalance in the eyes should be observed. For instance, if a child has been using his eyes intensively and looks up suddenly, one eye may be turned in or out slightly more than the other. Whenever a teacher gets a fleeting impression that the child is slightly cross-eyed, even though his eyes quickly revert to normal, a special note should be made concerning this particular observation.

There are other symptoms which might have a bearing on vision such as headaches, nervousness, irritability, and even refusal to read. Poor performance itself is symptom enough to merit an investigation. Teachers often need to strengthen their own vision and powers of observation in order to diagnose properly these cases of inadequate perception.

Hearing. Hearing losses are very significant in reading progress because they interfere with the use of sounds as an aid to word recognition. As early as the beginning reading levels, pupils learn to use the sounds of beginning and ending letters to achieve the pronunciation and recognition of words. They become dependent largely upon phonetic knowledge of consonant sounds, since they are most commonly the initial and final letters in primary, monosyllabic words.

The range of vibrations usually heard by normal individuals lies somewhere between 20 per second and 20,000 per second.[29] Some children

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[29]Betts, op. cit., p. 192.

appear to have a very narrow auditory frequency range. This simply means that they are unable to hear high or low frequency range. Only sounds in the middle range can be heard; therefore, the f, s, t, and v sounds characterized by high frequencies would not be heard. Neither would they be able to distinguish w or wh in the low frequencies. Such children would not have the auditory acuity necessary to distinguish all the word sounds essential for reading. Being able to make the proper auditory discriminations between word sounds is second only to making the visual discriminations. It is possible for a child to learn to read with one of these handicaps, but it is very important that the teacher be aware of it, and have all the help possible in coping with the problem.

Laterality. Decidedly less attention is being given to aspects of the neurological theory of reading disability which was popularized about thirty-five years ago by Samuel T. Orton.[30] Many educators were impressed with his theories concerning "handedness", "eyedness", "Cerebral dominance", "eye-hand dominance", and "reversals." People have dominant eyes just as they have dominant hands. Most people are right-handed and right-eyed; a few are left-handed and left-eyed; some have mixed dominance. It has been demonstrated that the right side of the body is controlled by the left side of the brain, and vice versa. It has also been established that the right-handed and right-eyed people automatically do things from left to right, thereby tending to fit better into the normal patterns of reading and writing in the English language.

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[30]Samuel T. Orton, Reading, Writing and Speech Problems in Children (New York: W. W. Norton Company, 1937), p. 148.

These, whose dominant cerebral hemisphere is on the left, however, tend to look at words from right to left. Often they try to read from the right side, and occasionally become mirror writers.

Teachers of primary children are very familiar with reversal tendencies in children in which "saw" may be seen as "was", "no" for "on", etc. They are also familiar with partial reversals or confusion of internal parts of words such as "ture" for "true", "gril" for "girl", etc. All of these tendencies have been cited as evidences of mixed dominance. However, the evidence is not conclusive that this is the case.

Actually, an extensive research summary done by Hildreth[31] shows that out of a thousand reading clinic cases about 38 per cent showed mixed dominance and about 5 per cent were left-handed and left-eyed. These figures could be expected from any random selection.

In 1925 Dearborn[32] reported 25 cases of reading disability of whom eight (40 per cent) were either left-handed or ambidextrous. He suggested that the left-handed child might encounter special difficulty in establishing the left to right progression which is necessary in reading books written in the English language.

In 1933 Dearborn[33] reported on 100 cases of "dyslexia". The

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[31]Gertrude Hildreth, "The Development and Training of Hand Dominance", Journal of Genetic Psychology, LXXV, Second Half (December, 1949 and March, 1950), pp. 39-100 and 101-144.

[32]Elizabeth E. Lord, Leonard Carmichael and Walter F. Dearborn, Special Disabilities in Learning to Read and Write, Harvard Monographs in Education No. 6 (Cambridge: Harvard University Press, 1925).

[33]Ibid., p. 19.

proportion of left-handed individuals was again found to be high, approximately 29 per cent. At this date of the study, however, the emphasis was upon mixed and doubtful dominance, where the hand and eye were both considered. Cases where one hand and the alternate eye were dominant, and those where hand, eye, or both showed some degree of indefinite or confused dominance, constituted less than 64 per cent of the total group. Only 19 per cent showed consistent right dominance of both hand and eye.

Delacate[34] has done some very interesting research in this neuropsychological field, and seems firmly convinced that in the realm of neurology most of the answers to poor language and reading development will be found. He discusses, as important factors in poor reading, such subjects as: sleep patterns, tenality, handedness, visual control, musical ability, footedness, dominance, carbon dioxide retention, fluid levels, and reflex serialization.

Hildreth[35] found left-handed children showing a slightly greater tendency to reversals than right-handed, but did not consider the evidence reliable.

Thus, there is some evidence that poor reading may sometimes be associated with the factor of dominance. In spite of various and conflicting studies on this phenomenon of laterality, teachers should seek for an understanding of its true relationship to the language arts.

Poor Co-ordination. It is generally agreed that a considerable number of poor readers are clumsy. Many are far below average in

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[34]Delacate, *et passim.*

[35]Hildreth, *loc. cit.*

athletic skills such as running, jumping, climbing, playing organized games, etc. They give evidence of poor co-ordination in all motor activities. Most classroom teachers, as well as remedial reading teachers are wholly familiar with the student who is poor in subjects and whose writing is completely indecipherable.

The lack of oxygen to a human being for a period of three minutes can cause death or total intellectual incapacitation. The cortical cells can be destroyed to the extent that the person is no longer a thinking organism. The newest cells, phylogenetically, are the most vulnerable to anoxia (lack of oxygen).[36] These brain cells, which are the newest in the evolutionary scale and are the most easily damaged, are the ones dealing with association and language.

What happens after one minute of oxygen deprivation or deficiency, is a thought-provoking question and necessitates further study. Delacato[37] made several studies along this line and, from his interviews with doctors and obstetricians, came up with some interesting conclusions, concerning why boys and first-born children have more reading difficulties. He felt that while one minute of anoxia might not cause gross motor and intellectual disabilities which are classic symptoms of anoxia, it is sufficient to cause some damage to those most vulnerable cells involved with language and association. Since boy babies and first-born children are slower deliveries, as a rule, than girl babies and later deliveries, this could

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[36]Delacato, op. cit., p. 45.

[37]Ibid., pp. 45-46.

explain why boys seem more prone to have reading problems. This seems to be a premise that could explain why approximately four times as many boys as girls need remedial help.

Gesell[38] suggests that mild injuries to the brain during the birth of the child may be responsible for poor muscular co-ordination and for speech and reading handicaps.

General Health. Many other physical conditions may contribute to learning difficulties such as: fatigue, lack of proper sleep, malnutrition, pain, organic disease, or general bad health. All health problems should be identified, if possible, and referred to the proper authorities for help.

Illness. There is no evidence that the common infectious diseases of childhood or even surgical operations are related to reading disability. However, prolonged illness of any kind may influence reading ability if the child is kept out of school for a long period of time which causes him to miss important school work. Many times a history of long absences in the first and second grades is found among children with a severe reading disability. Many children fall behind their classmates when they are forced to be absent from school and afterwards seem to be unable to catch up.

If this is the case, the child needs a period of individual instruction in addition to regular classroom instruction. Individual help

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[38]Arnold Gesell and Catherine S. Amatruda, Developmental Diagnosis: Normal and Abnormal Child Development (New York: Paul B. Hoeber, Inc., 1941), et passim.

should be given to improve the basic skills that seem to cause difficulty. Under no circumstances should the teacher ever insist on having the child "make-up" the work, in the usual connotation of the words. This investigator questions the methods of any teacher who overloads a physically weakened child, already foundering in his daily work, with multitudinous written assignments and academic tasks.

Emotional Disturbances. For the past several years, there has been much emphasis placed on mental and emotional health as factors in reading ability.[39] Much of the earlier speculation centered about the idea that some children were so disturbed that they were unable to learn to read. The present tendency is to look to academic frustration as a contributing factor in mental illness. It has always been fairly obvious to the teachers that children who cannot use books profitably, and are required to attempt the impossible, are invariably driven to some form of rebellion.

It is true that a very high percentage of children, who have not mastered the basic reading skills, evidence signs of behavioral maladjustment. Many have records of aggression, withdrawal, extreme timidity, nervousness, and even complete lethargy. But, fortunately, most of these manifestations adjust themselves after the child begins to experience success in his school program. A primary requisite for a good remedial reading teacher is the ability to foster confidence in a disturbed child. This is one of the basic steps in mental therapy.

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[39]Harris, op. cit., pp. 269-270.

The teacher should bear in mind that if psychiatric treatment is needed, a specialist should be consulted. A teacher's job is in the realm of teaching and psychiatry belongs to the one who is thoroughly trained in that field.[40]

Age and Intelligence. It has been generally conceded that a child's ability to read improves with his advancing chronological age. It has also been repeatedly demonstrated that the reading age correlates highly with his mental age as determined by standard intelligence tests. Correlations for reading age and mental age, range usually from .50 to .80 in different studies.

In the light of this evidence, it may seem surprising to some people that so many poor readers have an I. Q. equal to the general population. The one hundred cases of "dyslexia" discussed by Dearborn[41] had a mean I. Q. of 103. Some studies have reported higher quotients.

These figures, just quoted, should serve as a reminder that the correlation between reading achievement and intelligence is by no means perfect; and that a sizable number of children have difficulties in learning to read even though the mentality is normal. However, after making a survey of the literature, Tinker[42] was convinced that, "the most determinant reading ability is, without doubt, general intelligence."

Home Background. Examining the case histories of poor adult readers,

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[40] Ibid.

[41] Dearborn, op. cit., p. 19.

[42] Miles A. Tinker, "Diagnostic and Remedial Reading," Elementary School Journal, 33: 293-307 and 346-358; December, 1932 and January, 1933.

Parr[43] came to the conclusion that a lack of reading material in the home had contributed to reading handicaps. Others have borne out his conclusions that the inferior cultural atmosphere of a home tended to produce poor readers with disproportionate frequency.

Several have reported research on this problem but very little reliable data have been found. Many times other factors entered the picture and the findings were inconclusive. However, it has been pointed out in numerous case studies of poor readers that socio-economic background, number of children in the home, foreign language in the home, size of family library, opportunity for travel, neighborhood play groups, and educational status and interest of parents do have an effect on the reading progress of children.

There is very little the teacher can do to change these factors; however, there is much she can do to compensate for them. The interested teacher will avail himself of every opportunity to help provide enrichment for those with impoverished backgrounds, whether this poverty stems from lack of finances or lack of love and attention at home.

Reading Readiness. Maturation has been described as "sheer growing up plus training."[44] Some people mature and develop into the type of person they should become; others just seem to grow older. The capacity to read comes with the maturing of specific bodily functions. Visual and auditory perceptions, listening and attention spans, information and experience backgrounds, ability to recall, reading interests and needs,

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[43] F. W. Parr, "Factors Associated With Poor Reading of Adults," School and Society, 35: 626; May 7, 1932.

[44] Emmett Albert Betts, The Prevention and Correction of Reading Difficulties (New York: Row Peterson and Company, 1936), p. 63.

along with the necessary ability to orient new sensations and associate them with the old, are products of a general maturation process. Effective learning can only take place when the total organism is in the proper state of readiness.

Lack of reading readiness, or immaturity, appears to be a very significant factor in reading progress. Many authorities class it as probably the number one reason why children experience reading difficulty.[45]

Educators have set the minimum figure of seventy-eight months as the mental-age figure for reading readiness. Since pupils enter the first grade when they are six or even earlier, many of them are being forced into reading instruction before they are mentally mature enough to learn.[46]

Possibly of even greater importance in reading readiness is one's oral language ability.[47] Some children have had an enriched background and enter school with several thousand words in their speaking vocabularies. They are able to converse fluently and have no language barrier to overcome. Others have a very limited vocabulary and are hardly able to speak in sentences.

Some have had an opportunity to attend kindergarten or nursery school and have already mastered some of the basic skills necessary for school progress. Others have had no such opportunity, so it is reasonable

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[45]Harris, op. cit., Chapter II.

[46]Spache, op. cit., p. 32.

[47]Spache, Ibid., pp. 25-62.

to expect their initial progress to be appreciably slower.

Emotional readiness is still another phase of the reading readiness program. It has been quite generally accepted that a child's ability to learn is conditioned by all his previous relationships with his family. Some children before coming to school have been greatly deprived of the necessary experiences of working in a group or conforming to desired patterns of behavior. They have not been allowed and encouraged to develop habits of independence and self-reliance. Neither have they had instilled within them feelings of security, and acceptance of the school program, that will enable them to enter happily into the normal school relationship. Needless to say, these children will require a longer period of adjustment and, consequently, may suffer reading retardation.

Some states have compulsory public kindergartens and optional nursery schools to help with the reading readiness program. However, this has not completely solved the problem.

Certain counties in Virginia have authorized the addition of an extra month to the regular nine months school term. All children, who are entering school for the first time in the fall, and all children who are in the lower quartile of their class and are deemed to be in need of more individual help, are required to come for this extra month. At the writing of this thesis, outcomes of this experiment have not been published.

Because reading is a complex process, dependent upon all of these factors, the classroom teacher and the remedial reading teacher need to make a thorough investigation of each child who comes to them for help.

Secure in the knowledge that all behavior and attitudes are the results of a multiplicity of factors, a teacher should follow a set plan of attack. The following plan by Austin[48] seems to meet adequately the requirements:

> (1) recognize symptoms of difficulty; (2) know which questions to ask in order to distinguish one problem from another; (3) select appropriate procedures and measures to supply relevant information; (4) understand and interpret the meanings and interrelationship of their findings; (5) make a differential diagnosis.

By this type of diagnosis it can be determined more accurately, by whom the child should be treated and just what type of treatment would be most likely to bring the desired results.

Several years ago, Monroe[49] pointed out that poor reading occurs if the number of impeding factors is greater than the number of facilitating factors. The reader might like to compare this type of progress to the forward and reverse motion of an automobile. Sustained progress in the right direction is necessary for the child if he is to arrive at the proper destination.

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[48]Mary C. Austin, "The Retarded Reader," The Underachiever In Reading, Supplementary Educational Monographs, No. 92: (Chicago: University of Chicago Press, December, 1962), p. 35.

[49]Monroe, op. cit., p. 110.

CHAPTER III

THE TECHNIQUE OF INSTRUCTION

I. THE VISUAL-PHONIC ORIGINAL READING PROGRAM

The Visual-Phonic Original Reading Program was devised by Keith D. Holmes, Professor of Education and Director of the Reading Laboratory at East Carolina College, Greenville, North Carolina. For the past ten years Professor Holmes has been instructing teachers, throughout the area, in the use of the Visual-Phonic Method of teaching reading. The East Carolina College Reading Laboratory has furnished the materials for the course. Children from the area, who are in need of remedial help, serve as subjects for the training.

The investigater attended the class in the summer of 1963 and was assigned a pupil as a subject for study. During the sumer session, this student appeared to make more progress in four weeks of private instruction than during the four previous years in school. Of course, it had to be taken into consideration that he was too self-conscious to work with the group. Nevertheless, the gain was still sufficient to warrant a decision to use the Visual-Phonic Method for teaching a remedial reading group. The writer was eager to see if it could be adapted to classroom use, and if it would be effective in teaching a group, rather than individuals. A few minor revisions would have to be made, however, in order to compensate for a disproportionate amount of the teacher's time. A description of the experiment and a tabulation of the results serve as the subject for this thesis.

The Visual-Phonic procedure varies specifically from the normal classroom practice, in that it provides a phonic base that functions with both visual identification and auditory discrimination as an approach to language and the reading process. Its scientific basis lies in the fact that we learn to read through the sensory apparatus with which all normal human beings are endowed - sight, sound, and touch.

The importance of sight is paramount in reading. Just seeing the word, or recognizing the letters that go to make up the word, is not reading; one must be able to perceive instantaneously and accurately that which one sees. To know that the word b-i-r-d means "bird" is necessarily different from actually having a mental image of a particular bird. This kind of perception is necessary for meaningful reading as opposed to mere "word calling."

Hearing, too, is very important. Authorities[1] tell us that the process of reading actually begins in the ear. Hearing the spoken word calls to the attention of the listener an almost endless variety of articulatory sounds. Vowel sounds are usually classified into three main groups - the short sounds, the long sounds, as well as modified sounds. The consonant sounds are also very important, being used approximately three times more frequently than vowels. These consonants sometimes modify the vowel sounds; sometimes they tend to blend their sounds together. Still other times they remain silent; or, when arranged contiguously, they might make a single sound. Both vowels and consonants make up the visual

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[1]Ethel L. Hatchett and Donald M. Hughes, Teaching Language Arts in the Elementary School (New York: Ronald Press Co., 1956), p. 118.

and auditory aspects of our English language. For this reason these alphabetic shapes and different sounds need to be taught as a preliminary preparation for reading.

Sight and hearing alone are not sufficient for optimum memory-recall, however; the other sensory approach, known as the kinesthetic process makes more meaningful that which one sees and hears. "Learn by doing" has been a constant theme of education since the value of the kinesthetic method was first perceived. When a person does something he has gained a useful experience which he can relate to other "seen" and "heard" concepts in his total mental environment. These words then become translated experiences which can be recognized as units of thought.

Intelligent understanding, combined with the coordination and emphasis of visual perception, auditory training, and kinesthetic practice used positively and concurrently, tends to supply the individual with the necessary help for learning how to read effectively. Visual perception, ear training, and manual writing are, therefore, inseparable. They go "hand in hand", and the improvement of the function of either one is almost certain to improve the function of the other sensory areas.

By the same token, for those who are limited in either perception, auditory training, or word-attack skills, the Visual-Phonic Method tends to train the other sensory areas to supplement those which the individual does possess. It has quite generally been established that blind people have highly developed auditory and kinesthetic senses, seemingly to compensate for their loss of vision.

If a child is limited in perceptual ability he must rely on some

other sources of learning for added help. If he knows the sounds and sound combinations of the alphabet and syllables in parts of words, then his ear training can help him achieve facility in language which will serve to further his independance in reading.

The pupil must have been trained, however, to associate these sounds with the visual symbols he sees. If this training has been of a Visual-Phonic nature, with much practice based upon instantaneous recognition and recall, his skill for improving reading speed, word-attack, and comprehension is often greatly reinforced. Word-calling or reading words in isolation from the text is of little value.

According to Helmes, it is estimated that our language is approximately ninety percent phonetic.[2] If this is true, then the child, who has been taught the Visual-Phonic approach, can possess necessary skill for "unlocking" a large proportion of the words he finds. Phonics and perception augment each other in this process.

Our language is not only made up of consonants and vowels but also incorporates certain combinations called phonograms or syllables. The Visual-Phonic Method institutes a new approach to vocabulary, limiting the number of syllables in words to which the child is first exposed. This approach begins with monosyllabic words, or words of one syllable. Polysyllabic words are gradually introduced as the program progresses.

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[2]Keith D. Helmes, Introducing an Experimental Beginning Reading Program for the Amelioration of General Reading Inadequacy and the Strengthening of Correlated Language Arts Skills in Grades One Through Three (Greenville, N. C.: Educational Services Publications, 1964), p. 5.

An extensive readiness preparation is initiated, teaching names, visible shapes, and different sounds of alphabetical letters. Thus the child is led from monosyllabic words with a short vowel sound through methodically progressive stages to polysyllabic words within the meaningful experience of each child. Exercises of instruction are so devised that every word will be used meaningfully and repeatedly. These exercises involve perception, ear training, spelling, writing, and speaking. Fundamentally, all basic aspects of the language arts program are incorporated into this method of teaching.

The Visual-Phonic Method is designed to teach the following: how words are formed; how to attack words; what syllables are; initial, medial, and terminal consonant sounds are used as well as the long vowel sounds and consonant blends; monosyllabic words with long vowel sounds, short vowel sounds, monosyllabic words with short or modified vowel sounds, polysyllabic words with short vowel sounds, selective polysyllabic words utilizing both vowel sounds, and a carefully chosen list of "helper words". The most important "helper words" are prepositions, conjunctions, and other connective words for fluency and flexibility.

The Visual-Phonic Original Reading Program is geared to the individual needs of all children. At present it is being used very effectively to teach illiterate adults in various sections of North Carolina in a planned attack to stamp out illiteracy. The special techniques for developing visual perception, auditory discrimination, and kinesthetic procedures, to speed word-thought recognition and memory recall are all designed for specific preparation of the child's own reading-readiness. The gradual

and orderly introduction of new practices and procedures seems to coincide with the modern psychology of learning, and permits the teacher to impart instruction in a definite and precise arrangement. It also provides ample drill for learning, and enables the instructor to reteach half-learned concepts without upsetting the developmental progress of other individuals in the same class. By the use of these measures the teacher is assured of a diagnostic and developmental program which was designed with the idea in mind that its use could facilitate independence in reading and other areas of the language arts.

The Visual-Phonic program presents a minimum basic functional vocabulary of over two thousand five hundred words, used meaningfully for the reading, writing, spelling, and speaking experience of every child from the first through the third grades. The vocabulary indicated represents a strategic sampling from Thorndike's A Teacher's Thirty Thousand Word List, the Buckingham-Dolch List, and Gates' Spelling Difficulties in three thousand, eight hundred and seventy-six words.

Another feature of Holmes' method of teaching reading and the language arts, is the use of inductive reasoning in formulating the hypotheses in learning situations. A teacher's guide has been devised whereby the children are led through the inductive process to form certain conclusions or hypotheses about the various rules to be learned.[3] This method can best be explained by the following example in which the teacher wants to help the children learn one way of dividing words into syllables. The

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[3]Keith D. Holmes, Student Guide to Language Skills, teacher edition (Greenville, N. C.: Educational Service Publications, 1960.)

presentation would include these steps:

1. Put word examples on the blackboard from area 2-a of the Student Guide that illustrate the rule, e. g., rabbit, after, discuss.

2. Underline with colored chalk the two like or unlike consonants that come between two vowels at the division of the syllables.

3. Draw a vertical line between the like or unlike consonants denoting where the syllabic division will usually be found.

4. Ask students what like elements they have observed that all the word examples have in common. (They should say that there are two like or unlike consonants between two vowels and that the consonants are divided.)

5. Ask students to draw conclusions concerning what one should remember when thinking about dividing similarly constructed words into syllables for the purpose of pronunciation, spelling, and writing.

6. They should, in their own words, approximate this rule: When two like or unlike consonants come between two vowels, the syllabic division usually separates the two consonants.

7. After formulating this hypothesis the teacher would give them ample "skill-drill practice" to cement the learning and check on the learner's proper application of the rule.

This method of teaching is designed primarily for the middle and upper grades. It is often used to teach primary or remedial classes in the use of certain basic rules. The astute teacher may find many situations in which this method could be put to use as a means of promoting interest, imparting knowledge, and improving retention.

II. PURPOSES, CONCEPTS, AND EVALUATION OF THE VISUAL-PHONIC ORIGINAL READING PROGRAM

The Visual-Phonic program was developed with the following concepts in mind:

The English language, which incorporates all facets of reading, writing, speaking, spelling, and listening, is irrevocably related to the alphabet and all the consonants, vowels, phonograms, and syllabic elements contained thereof; all language facets are constructed from this alphabet; and all issues of the language must of necessity be some form or combination of this essential alphabetic base.

There are twenty-four basic steps in the Visual-Phonic Original Reading Program. These steps, along with the concepts to be developed and testing and evaluating procedures, are listed as follows:

Step 1. To teach the names and visual shapes of all consonant letters

Concepts to be Developed: To understand and identify by name and to distinguish the physical differences between upper case (capital) and lower case letters

The learner may quickly identify and use correctly whatever name or form is called for by the teacher within the presentation, or visual shape as a language part, or as seen in words as well as in the reading context.

Testing and Evaluation: After instruction, practice and drill, the ultimate test will be for the students to write what they hear, as presented by the teacher. This practice is a graphic and realistic evaluative check upon the learner's functional application and understanding.

Step 2. To teach the unvoiced consonant sounds

Concepts to be Developed: To understand that the unvoiced consonant sounds are "breath" sounds and do not activate the vocal chords

They are the easiest and simplest consonant sounds to make because sound shifts are less frequent than with other consonants. These consonants are strategic and useful parts of language and the mastery of these sounds is vital to the learner's word-attack success and to his verbal and written understanding of language.

Testing and Evaluation: The student will be able, upon direction, to hear, read, write, and speak correctly these unvoiced consonant sounds whenever they are articulated by the teacher or viewed by the student as a language element.

Step 3. To teach the names and visual shapes of vowel letters

Concepts to be Developed: To understand that alphabetic vowel letters have names and that their individual shapes may be similar to each other or of special contrast to the configuration of other vowel and consonant letters

Each alphabetic vowel letter must have a name and individual shape, and these shapes and names are recognized as important in building words which are significant to the comprehension of thought units within the phrase, sentence, or paragraph. Vowel letters are different in name and configuration from consonant letters.

Testing and Evaluation: These vowel shapes and names may be written or orally indicated quickly and correctly by the student upon teacher direction and/or articulation.

Step 4. To teach the shortest vowel sounds and the use of the

breve

Concepts to be Developed: To understand that alphabetic vowel letters possess individual sounds and these sounds vary from one to the other

The shortest vowel sounds should be associated with a simple, monosyllabic key word which the student knows. The breve is a definite clue to each individual vowel sound.

Testing and Evaluation: The shortest vowel sounds, including the proper placement of the breve, should be written or spoken correctly by the students, upon teacher articulation, indicating their knowledge of the differences between one short vowel sound and another.

Step 5. To teach blending of unvoiced consonant sounds with the shortest vowel sounds

Concepts to be Developed: To understand that unvoiced consonant sounds may be blended with the shortest vowel sounds

The process of blending is always from left to right and the blended sounds of both alphabetic letters are fused into a sound unit. These blended sound units are significantly different from one another when heard or seen within syllables or words. The blending of an initial unvoiced consonant sound with the shortest vowel sounds may, with teacher discretion, be reversed so that an initial short vowel sound may be blended with an unvoiced consonant sound such as ă̆t, ĭ̆t, ŭ̆p. Upon mastery of the above, the short o͝o sounds should be blended with each unvoiced consonant sound.

Testing and Evaluation: The blended unvoiced consonant and shortest vowel sound units, when used as words, or syllables, should be written correctly upon teacher direction. When this blending process is reversed,

meaningful monosyllabic words may frequently evolve. The unvoiced consonant, shortest-vowel sound units should be written quickly and correctly by the students when these sounds are so articulated by the teacher.

Step 6. To teach the voiced consonant sounds

Concepts to be Developed: To understand that the voiced consonant sounds are the most difficult of all consonants to learn and articulate

The voiced consonant sounds b, d, g, j, and y are "sound demons;" since they start deep in the throat. The d, g, j, and y are formed with the lips open, while the sound of b must be made with the lips closed. These sounds are difficult to distinguish from one another but they combine readily with any other consonant and vowel combinations. The voiced consonant sounds must not end with an audible "uh" sound.

Testing and Evaluation: The student will be able to hear, write and speak correctly all voiced consonant sounds whenever they are articulated or viewed as a language element except b, g, j. or d which require more practice.

Step 7. To teach blending of voiced consonant sounds with the shortest vowel sounds

Concepts to be Developed: To understand that the voiced consonant sounds may be blended with the shortest vowel sounds

The process of blending is always from the left to right and the blended sounds of both alphabetic letters are fused into a sound unit. These blended sound units are significantly different from one another when either viewed or heard as in syllables of words. The blending of an initial voiced consonant sound with the shortest vowel sounds may, with teacher discretion, be reversed so that an initial short vowel sound is

blended with a voiced consonant sound such as ă̆d, ĭ̆b, ă̆g, ĕ̆d.

Testing and Evaluation: The blended voiced consonant, shortest vowel-sound unit, when used as words or syllables, should be written correctly upon teacher articulation or direction. When this blending process is reversed, meaningful monosyllabic words may frequently evolve, e.g., ă̆m, ă̆n, ĭ̆n, ŏ̆n, ĭ̆t. These voiced-consonant, short-vowel sound units as words should be read, written, or pronounced quickly and correctly by the students when so articulated by the teacher.

Step 8. To teach the longest vowel sound and use of the macron

Concepts to be Developed: To understand that alphabetic vowel letters possess individual sounds

The longest vowel sounds say their names. Each longest vowel sound should be associated with a key word that the student knows. The macron is a definite clue to each individual longest vowel sound. The long o͞o sound is associated also with a key word and this sound is critically involved in the proper pronunciation of syllables and words.

Testing and Evaluation: The longest vowel sounds, including the proper placement of the macron, should be written correctly by all students upon teacher articulation, thereby indicating their knowledge of the differences between one long vowel sound and another.

Step 9. To teach blending the unvoiced consonants with the longest vowel sounds

Concepts to be Developed: To understand that unvoiced consonant sounds may be blended with the longest vowel sounds

The process of blending is always from left to right and the blended sounds of both alphabetic letters are fused into a sound unit. These

blended sound units are significantly different from one another when viewed or heard as in syllables or within words. Also, the blending of an initial unvoiced consonant sound with the longest vowel sounds may, with teacher discretion, be reversed so that the combination forms a syllable or a word. (It is critical, however, that the teacher understands that by reversing this process the rule of the final silent "e" will be involved as well as the function of the vowel digraph, as in the following examples, respectively - āte, ēat.)

Testing and Evaluation: Blended, unvoiced consonants, and longest vowel-sound units, when used as possible words or syllables, should be read, spoken, or written correctly by students upon teacher direction and/or articulation. When this blending process is reversed, meaningful monosyllabic words may sometimes evolve. These unvoiced consonant, long-vowel sound units should be written quickly and correctly, with proper placement of the macron, when so articulated and/or directed by the teacher. (Again, it should be noted, however, that a long vowel sound blended with a following consonant sound would ordinarily be viewed as a closed syllable, where the initial vowel sound would be short (as in ăt); thus some words or syllables when this particular transition is used, would require the final silent "e" or an added contiguous vowel as in āte or ēat.)

Step 10. To teach blending the voiced consonants with the longest vowel sounds

Concepts to be Developed: To understand that voiced consonant sounds may be blended with the longest vowel sounds

This process of blending is always from left to right and the blended sounds of both alphabetic letters are fused into a sound unit. These

blended sound units are significantly different from one another when viewed or heard as in syllables or within words. This blending process may, with teacher discretion, be reversed so that the combination forms a syllable or a word. (Again, it is important that the teacher understand that by reversing this process, the rule of the final silent "e" will be involved as well as the function of the vowel digraph as in the following examples, respectively - ode, aid.)

Testing and Evaluation: The blended voiced consonant and longest vowel sound units, when used as possible words or syllables, should be written correctly, with proper use of the macron, by the student upon teacher direction and/or articulation. When this blending process is reversed, monosyllabic words may sometimes evolve, e.g., āte, āid. These voiced consonant, longest-vowel-sound units should be written quickly and correctly with the macron, when so directed and/or articulated by the teacher. (Again, it should be noted, however, that a long vowel sound blended with a following consonant sound would ordinarily be viewed as a closed syllable, where the initial vowel sound would be short, as in at.) Some words or syllables, when this particular transition is used, would require the final silent "e" or an added contiguous vowel, as in āte or eat.

Step 11. To teach a Visual-Phonic beginning reading vocabulary

Concepts to be Developed: To understand that the words of the English language consist of alphabetic letters, denoting specific individual sounds, which when put together from left to right, make simple but useful words

These words have special meaning and are critically essential to

comprehension. The Visual-Phonic monosyllabic words will be found to "sound like they look" and "look like they sound", and these words can be built by the students themselves by utilizing all alphabetic sounds. These words should be familiar and in the experience range of almost all students. The use of phonics is of significant help in individual word recognition, when these contiguous alphabetic sounds are blended together within the whole word to represent a general recognition vocabulary that has been heard and used in everyday experiences. These words may be spoken, read, heard, spelled, and written whenever necessary.

Testing and Evaluation: Upon teacher direction or pronunciation to students, these Visual-Phonic beginning vocabulary words should be spoken, read, heard, spelled, and written correctly.

Step 12. To teach the consonant blends

Concepts to be Developed: To understand that certain consonant letter sounds may be fused together into a blend.

These consonant blends are significant parts of whole words and they may serve in a word as an initial sound, a medial sound, or a terminal sound. The consonants r and l determine the greatest number of the consonant blend combinations.

Testing and Evaluation: The consonant blends upon teacher direction and/or articulation should be written quickly and accurately. These blends should also be spoken, read, heard and spelled correctly; and should be recognized in total word structures, whether coming at the initial, medial or terminal stage of words.

Step 13. To teach blending of the consonant blends with the shortest vowel sounds

Concepts to be Developed: To understand that the consonant blends may be blended with the shortest vowel sounds

This process of blending is always from left to right, and is fused into a sound unit. The blended sound units are significantly different from one another when heard or written as syllables or within words. The proper placement of the breve is critical to the understanding and articulation of these sound units and serves as an important clue to the involvement of the shortest vowel sounds.

Testing and Evaluation: These consonant blends, blended with the shortest vowel sounds, indicated by the breve, should be written correctly upon teacher articulation and/or direction. The sound combinations should also be spoken, read, heard and spelled correctly when tested diagnostically by the teacher.

Step 14. To teach blending of the consonant blends with the longest vowel sounds

Concepts to be Developed: To understand that the consonant blends may be blended with the longest vowel sounds

This process of blending is always from left to right and these blended consonants followed by the longest vowel sounds are fused into a sound unit. The blended sound units are significantly different from one another when viewed or heard in syllables or within words and the placement of the macron is critical to the understanding of these sound units and serves as an important clue to the involvement of the longest vowel sounds.

Testing and Evaluation: The consonant blends, blended with the longest vowel sounds, indicated by the macron, should be written quickly and correctly upon teacher direction and/or articulation. The sound combinations should also be spoken, read, heard, and spelled correctly when

tested diagnostically by the teacher.

Step 15. To teach the vowel digraphs most commonly used

Concepts to be Developed: To understand that the vowel digraphs are two vowels joined together

Most frequently the first vowel will "say its name" and the second vowel will be silent. These Vowel digraphs are important language (word) elements for they appear to be "hard spots" for the student whenever involved in reading or spelling. These vowel digraphs represent the "First case of 'Cases of the Double Vowels'", and may occur as a syllable within any word the learner may view or hear.

Testing and Evaluation: The vowel digraphs, when viewed by the student, are understood to incorporate the long vowel sound of the first vowel, so indicated by placement of the macron, and the second or adjoining vowel will be silent. The student, when confronted with these vowel digraphs, will pronounce such phonograms within words, as indicated by the following examples - ēat, pāint.

Step 16. To teach blending consonant blends with vowel digraphs

Concepts to be Developed: To understand that the consonant blends may be blended with the vowel digraphs

The process of blending is always from left to right and the blended sounds of the consonant blends with the vowel digraphs are fused into a sound unit. These blended sound units are significantly different from one another when heard or spoken as syllables or words. The consonant blend, vowel digraph units may at times make complete words without further alphabetic additions and the placement of the macron is critical to the understanding and pronunciation of the sound units, thus serving as an important

clue to the involvement of the longest vowel sound in the first vowel of the vowel twins, within this first case of the vowel digraphs.

Testing and Evaluation: The consonant blends, blended with the vowel digraphs, indicated by proper macron placement, should be written quickly and correctly upon teacher direction. The student, when confronted with the consonant blends, vowel digraph combinations, will pronounce these phonograms correctly as syllables or within words as indicated by the following examples, bl$\bar{e}$ach, dr$\bar{e}$am.

Step 17. To teach the consonant digraphs

Concepts to be Developed: To understand that the consonant digraphs are two consonants joined together, the resulting sound of which has been arbitrarily fixed

This sound is basically unlike the sound of either of the consonants which make up the pair. These consonant digraphs are important language (word) elements, for they appear to be "hard spots" for the learner. The consonant digraphs occur as part of a syllable or word which is viewed or heard.

Testing and Evaluation: The consonant digraphs, when directed and/or articulated by the teacher, should be written quickly and correctly by the student thereby indicating the degree of skill possessed by the learner.

Step 18. To teach blending of the consonant digraphs with the shortest vowel sounds

Concepts to be Developed: To understand that the consonant digraphs may be blended with the shortest vowel sounds

The process of blending is always from left to right, and the blended sounds of the consonant digraphs with the shortest vowel sounds are

fused into a sound unit. The blended sound units are significantly different from one another when heard, read, or written within syllables or words, and the proper placement of the breve is critical to the understanding and pronunciation of the sound units. It serves as an important clue to the individual short vowel sounds.

Testing and Evaluation: The consonant digraphs blended with the shortest vowel sounds, as indicated by the breve, should be written quickly and correctly upon teacher articulation or direction. These sound combinations should also be spoken, read, heard and spelled correctly by the students when tested diagnostically by the instructor.

Step 19. To teach blending of the consonant digraphs with the longest vowel sounds

Concepts to be Developed: To understand that these consonant digraphs may be blended with the longest vowel sounds

The process of blending is always from left to right and the blended sounds of these consonant digraphs are fused into a sound unit. The blended sound units are significantly different from one another when heard, read, or written as within syllables or words. The proper placement of the macron is critical to the understanding of these sound units and serves as an important clue to individual long vowel sounds.

Testing and Evaluation: The consonant digraphs blended with the longest vowel sounds, as indicated by the macron, should be written quickly and correctly upon teacher articulation and/or direction; and these sound combinations should also be spoken, read, heard, and spelled correctly when tested diagnostically by the instructor.

Step 20. To teach blending of the consonant digraphs with the

vowel digraphs

Concepts to be Developed: To understand that the consonant digraphs and vowel digraphs may be blended together to form a syllable or a word

The process of blending is usually from left to right, but on limited occasions, may be reversed (vowel digraph + consonant digraph, as in ēach.) The blended sound of these two combinations may be fused into a sound unit (syllable or word) and is significantly different from one another when heard, spoken, read, or written as in syllables or words. The proper placement of the macron within the vowel digraph unit is critical to understanding and pronunciation, and serves as an important clue to the digraph sound as a part of the combined sound unit.

Testing and Evaluation: The consonant digraphs blended with the vowel digraphs, indicated by the macron, should be spoken quickly and correctly upon direction by the teacher, while displaying flash cards related to this step. These sound combinations should also be read quickly and correctly when tested diagnostically by the instructor.

Step 21. To teach the vowel diphthongs

Concepts to be Developed: To understand that the vowel diphthongs are two adjacent vowels joined together, whose blended sounds are fused into a sound unit.

The vowel diphthongs are important language (word) elements; they appear to be "hard spots" for the learner. These vowel diphthongs must be learned in pairs. In fact, the diphthong pairs are different both in configuration and sound from one another. However, certain diphthong pairs do possess more than one key sound. Key words are provided to help associate each paired diphthong sound. Vowel diphthongs may come at the beginning,

middle, or at the ends of words; examples: auto, thought, thaw. Sometimes y and w, when used within diphthong units, serve as vowels.

Testing and Evaluation: The vowel diphthongs, upon teacher direction and/or articulation, should be written quickly and correctly and should also be spoken, read, heard, and spelled correctly (in pairs). When tested diagnostically by the instructor, the student should be critically aware that these vowel diphthongs are syllables within words.

Step 22. To teach blending consonant blends with vowel diphthongs

Concepts to be Developed: To understand that consonant blends may be blended with vowel diphthongs

The process of blending is usually from left to right and, in certain instances, the vowel diphthong may be blended with the consonant blend from left to right, in that order. The blended consonant, vowel diphthong units frequently make complete words without further alphabetic addition. These sound units are significantly different both in sound and configuration from one another when viewed, spoken, heard, or written, as in syllables or words.

Testing and Evaluation: The consonant blend, vowel diphthong units should be written or spoken quickly and correctly upon teacher direction and/or articulation. These configurative sound units should also be spoken, read, heard, and spelled correctly when tested diagnostically by the instructor, and the syllables or words should be recognized and used correctly by the students when confronted by them within sentence or story context.

Step 23. To teach blending of consonant digraphs with the vowel diphthongs

Concepts to be Developed: To understand that the consonant digraphs

may be blended with the vowel diphthongs

These units are significantly different, both in configuration and sound from one another. The process of blending the consonant digraphs and vowel diphthong sounds is most frequently from left to right. The blended units frequently make complete words without further alphabetic addition; they may at times be reversed in blended order, i. e., such; as well as syllables, i. e., author.

Testing and Evaluation: The consonant digraph, vowel diphthong units should be written or spoken quickly and correctly upon teacher direction or articulation. The configuration and sound units should also be spoken, read, heard, and spelled correctly by the students when tested diagnostically by the teacher. These syllables or words should be recognized and used correctly by students when confronted by them within sentence or story context.

Step 24. To present an advanced Visual-Phonic Vocabulary

Concepts to be Developed: To understand that an advanced Visual-Phonic Vocabulary has evolved progressively from the simplest monosyllabic English word forms, utilizing only the shortest vowel sounds, to two or more syllables incorporating both the shortest and longest vowel sounds.

All items utilized within the 24 Steps of the Original Visual-Phonic Beginning Reading Program have been explained and involved systematically and practically in preparing students to attack any English words, whether encountered as simple word units or words incorporated within the printed context. The relatedness of other vital skills and practice materials are critically essential such as cases of the double vowels; how to spell correctly, how to divide words into syllables; how

to pronounce words by vowel principles; how to apply diacritical marks correctly; and how to learn and use facts of accent placement. Combined forms, prefixes and suffixes are important parts of the heard, written, and spoken language. The four types of reading - main ideas, details, drawing conclusions, forming correct inferences as well as following precise directions are inseparably vital to the reading, writing, speaking, spelling and listening aspects of the English language. Oral and silent reading skills should be used correctly and effectively for vocabulary building and for the complete understanding of all word forms in special or general literature. Often, the difference between success or failure in comprehension and thought transmission is the practice of skillful phrasing which must be used correctly and consistently. Nearly all individuals, who have attempted unsuccessfully to learn to read by the "Look-Say-Method", or the so-called "Developmental Reading", may learn to read more successfully by the utilization of the Visual-Phonic approach or its supplemental usage within the classroom program. Positive achievement may develop when reading, writing, speaking, spelling, and listening skills are seen as inseparable and completely vital to efficient and effective communication.

Testing and Evaluation: All individuals, unless hampered by some physical or mental aberration which would subvert the learning process, may be able to read, write, spell, speak and listen successfully, in direct proportion to the facility and talent which they bring to the language arts process.

CHAPTER IV

DESIGN OF THE STUDY

I. SELECTION OF THE PROBLEM

In September, 1961, the reading program of the Wilson City Schools was departmentalized according to the Joplin Plan, which had been initiated and used successfully in Joplin, Missouri. Children of grades four through seven were grouped for instruction on the basis of their achievement in reading. The Iowa Silent Reading Test, the Iowa Test of Basic Skills, classroom performance, and teacher judgment were used as the criteria for evaluation. It was hoped that a more homogeneous grouping for reading would decrease the class range of individual differences and allow for more effective teaching. When the bell rang for instruction, each pupil met with students of similar abilities, returning at the end of the period to his regular classroom which was heterogeneously grouped otherwise.

It was decided at Wells Elementary School that after the children were ranked, the bottom fourteen students were to be assigned to the writer for remedial instruction. All of these children had attained fourth grade level, or above, without learning the necessary reading skills for successful progress beyond the primary level.

For two years, this writer worked with these groups, using different methods and techniques, in a conscientious effort to help them learn to read. The results were impressive, but still some children were unable to make the necessary progress.

At the East Carolina College Reading Laboratory the writer found a different method, The Visual Phonic Original Reading Program, which appeared to be an emergency measure for non-readers. It had been used very effectively with illiterate adults. A plan was instigated to use this method with a remedial reading group to test its relative effectiveness as compared with other groups using various other methods.

II. SCOPE OF THE PROBLEM

Seventeen of these children (two more were added later bringing the total to nineteen) were selected as being most in need of remedial help.

The following general characteristics were noted:

(1) The I. Q. scores ranged from 50 - 116.

(2) The Iowa Silent Reading Test scores fell below the standard scores for their grades, ranging from 2.4 to 4.6. However, these scores were contradicted by actual performance and teacher judgment. It was assumed that guessing or chance had accounted for the discrepancies between scores and actual knowledge. The boy who scored 2.4 was unable to read material on a pre-primer level.

(3) All children, with the exception of two, read slowly, inaccurately and without expression. Four of them were unable to read beyond first grade. One boy had no more than a dozen words in his reading vocabulary, did not recognize all letters of the alphabet, and was unable to cope with any book except the easiest pre-primer.

(4) Pupil comprehension was very inadequate. The two children who were reasonably fluent readers were practically incapable of getting

thought from the printed page. Only three children appeared to retain a significant amount of the material they read. These particular children, without exception, were weak in word-attack skills. One read too slowly to work with a group and required individual instruction for six weeks.

(5) All of the students were in need of phonics, structural analysis, syllabication, and other word-attack skills.

(6) Most pupils evidenced little or no interest in reading. Attitudes ranged from complete hostility to half-hearted acceptance of the situation.

III. DESIGN OF THE PROBLEM

In order to get the proper background for the study, it was necessary for the investigator to:

(1) Become familiar with the home and school history of each pupil

(2) Determine objectively his present status in reading

(3) Diagnose each child's reading difficulties

(4) Find the different factors contributing to these reading difficulties

(5) Select, evaluate, and apply remedial measures, with special emphasis on the Visual-Phonic approach

(6) Ascertain if the Visual-Phonic approach would supercede other methods used previously by the investigator as a means of teaching word-attack skills

(7) Determine if the inductive method of arriving at the hypothesis would be an aid to learning and retention of what is learned

(8) Determine the merits of the Visual-Phonic technique as a

probable method for teaching remedial reading.

IV. SETTING THE STAGE FOR PROGRESS

Years of experience and study had impressed upon the investigator the necessity for a favorable emotional climate to nurture the growth of learning. It was felt that nothing could be accomplished until the pupils had been motivated to do the necessary work to bring about competency in learning. Furthermore, the teaching situation had to be directed in such a way that motivation would be sustained.

In order to accomplish this Gargantuan task, the children had to be aroused from the lethargic or hostile attitudes which had been adopted as a defense against their own failures. Moreover, the teacher had to stimulate interest in a subject that had thwarted the pupils' efforts to succeed and had provoked feelings of mental incompetence. The investigator was faced with the fact that it is possible for children to face certain failures in school and maintain self-respect, but the emphasis that is now placed upon reading as a criterion of scholastic proficiency, frequently generates complete despair among those who are experiencing difficulty. These unfavorable concomitant feelings often make children impervious to the usual classroom methods of teaching.

Several measures employed to bring about the desired mental attitudes were instituted as follows:

(1) An attractive book display of low-vocabulary, high-interest-level materials was arranged to stimulate immediate attention.

(2) Every effort was made to awaken the pupil's interest and curiosity in the books by telling them stories, disclosing pictures, reciting

poems and nonsense rhymes, and by reading aloud excerpts from interesting passages.

(3) Hobbies and interests were explored as the instructor endeavored to acquaint the children with the rewarding and exciting things in store for them upon the printed page.

(4) Some attention was given to the pupils' common reading problems and the teacher assured the students that this was not to be a "repeat performance" of unhappy experiences so familiar to all. It was explained that the lack of reading facility was not confined to that group alone; there were thousands of others with similar problems.

(5) Many tactics were employed to instill self-confidence along with assurance that each child was capable of success.

(6) The necessity to return to the beginning, in order to find the "missing pieces" that had distorted their reading picture, was explained to the children.

(7) Instruction was begun for each child in materials that he could use successfully.

V. DIAGNOSING THE DIFFICULTY

In the meantime, tests and reading exercises were given in order to determine the general character of the reading difficulties. Each cumulative record was examined and results of previous testing carefully studied. Among these were the Iowa Tests of Basic Skills and Iowa Silent Reading Tests.

One of the first methods used to diagnose the reading difficulties was to have each pupil read apart from the group in a book that was suited

to his estimated grade placement. If the reading proved too advanced for his ability, a lower level was tried until the child felt considerably at ease with the material. A selection was considered too difficult if a child had trouble with more than one word in twenty, which is called the "frustration level", or if he read in a slow, labored manner, or showed any evidence of emotional distress.

When a fairly satisfactory level was found, he was allowed to continue the story and answer oral questions about it. The teacher helped him with words on which he stumbled or hesitated for more than five or six seconds. As he proceeded with the story the teacher was particularly observant for the following signs of difficulty:

(1) Lip movement, grimacing, or mumbling

(2) Keeping place with finger or pencil

(3) Fidgeting or nervous mannerisms

(4) Squinting, positions of book posture, and eye movements

(5) Inattention

(6) Speed

(7) Repetition

(8) Enunciation

(9) Tone of voice

(10) Incorrect phrasing

(11) Repetition or omission of words

(12) Word-attack

In addition to the informal oral testing, Gray's Oral Reading Paragraphs were administered and the results recorded. Particular attention was given to the various mistakes and they were appropriately marked as suggested by the manual. Later, these same test exercises would be given again,

mispronunciations and other critical mistakes noted, and comparisons made with the original scores.

VI. REMEDIAL INSTRUCTION

After a tentative conclusion had been reached concerning the child's basic needs, a plan of remedial instruction was begun. The plan for each child was constantly undergoing change, however, since the teacher was continually evaluating and searching for the best methods and materials to teach each missing skill.

Approximately one hour was given each day, four days each week for remediation. Many different materials on several grade levels were employed in order to meet the complexity of needs. The Reader's Digest, Gates, Peardon Practice Course, and Webster Practice Readers were used to supplement the Row, Peterson and Scott, Foresman texts. The basal texts were used primarily for story material since the Visual-Phonic approach to reading was being studied as opposed to the developmental method. Throughout the study, full use was made of the Holmes' Visual-Phonic Original Reading Program.

The first important consideration in the selection of materials was to find the appropriate level of difficulty. The interest level was the second value to be considered, since the pupils were inclined to do much better when a high-interest level was maintained.

Most of the children were started in material one or two years below the level indicated by the test scores. The primary reason for this was due to the nature of standardized tests. They tended to show the level at which comprehension could be achieved with difficulty, rather than the

level at which one could experience success, and with it the concomitant attitudes that are conducive to learning. Three children, ages ten through twelve had to return to first and second grade materials. One thirteen year old had to start with pre-primer materials.

Every effort was made to dramatize the progress of the children. Because they had lived with failure so long, the children needed concrete evidence of their improvement and their ability to learn. Many types of charts were kept by each child to record daily progress. As progress was made in various phases of reading, a child frequently had the privilege of helping someone else with a particular difficulty. "Each one, teach one" was used as an added incentive.

The teacher soon discovered that grouping was one of the most effective ways to maintain interest and variety in the reading program. Sometimes pupils were grouped in teams of two, three, or even four. These teams were often of similar ability; at other times a leader, who had mastered a particular skill, would work with one or two children in need of that particular help.

A pupil who had had reading difficulties and attended the East Carolina College Reading Laboratory was very efficient in working with some of his peers. The Reading Laboratory also providedhim with needed confidence to be able to work with a group as a leader. More advanced materials were used with him, while every effort was made to insure progress at the particular level of each child.

The units of improvement were small enough so that progress was recorded at frequent intervals. The children were encouraged to compete with their own past records rather than with other children, although many

games and drills were used that fostered group or team competition.

The instructor also varied the program at least three times every class period in order to capitalize on the interest which such variety could bring. Much regard was shown for the attention span of children and no activity allowed to continue when interest began to lag. Each lesson plan combined reading by groups, with some whole-class, some group, and some individual instruction. The teacher was with each group for those activities in which there appeared to be the greatest need. Time was shared with all the children and each child was encouraged to do his best. Successful efforts were rewarded with praise and positions of leadership in various activities.

Some of these activities included story telling, reading stories aloud, dramatizations, discussions, choral readings, spelling bees, writing dictation, flash card drills, phonics drills, syllabication, alphabetizing, word-analysis, games, and poetry.

Throughout the study much attention was paid to the sequence of instruction. Providing a proper foundation was known to be as important in reading instruction as it is in arithmetic, a foreign language, or even in building a house. If the learner experienced difficulty in word recognition this must be corrected before he could proceed successfully. All methods of word-attack were incorporated into the instruction, with special emphasis on following the twenty-four steps to reading as outlined in the Holmes' Visual-Phonic Original Reading Program.

With this increased emphasis on word recognition, great care was taken to see that the children learned to read by phrases and "thought units" instead of words. Much attention was given to phrasing and to the "eye-voice span." This "eye-voice span" indicates the distance the eyes are ahead

of the voice in oral reading. Only two of the children had a span of more than two words, thereby showing that they read word by word. One of the methods used to discover the length of the span was to slip a card over the reading material while the child was reading to see how many additional words he could recall from memory.[1] Several trials were given in order to arrive at a valid approximation.

The graphing of rate and comprehension scores on successive testings proved most effective for speeding up slow readers. Contests with tachistoscopic practice were also beneficial as a motivating factor, even though the tachistoscopes were "home-made."

Another way used to insure rapid progress in reading was the encouragement of proper eye movement. The teacher provided mirrors and had the children hold them on the opposite page from where they were reading, thus reflecting the pupil's eye-movements for the teacher to observe. The teacher explained the need for proper return at the end of each line to the beginning of the next. In order to allay the self-consciousness of the children being observed, several mirrors were provided simultaneously and the children were allowed to observe each other. It was also pointed out to them that effective eye-movements are characterized by not more than four stops to a line, very short pauses between fixations, rhythm of movement and rapid return sweeps. Regressive or backward movements of the eye indicate poor progress in speed and comprehension.

Frequently teacher-made tests of oral and silent reading were used

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[1] Donald D. Durrell, Improvement of Basic Reading Abilities (New York: Yonkers-on-Hudson, 1905), p. 24.

to supplement the facts secured by the use of standardized tests. Throughout the entire period of remediation, attention was given to all phases of reading which were necessary for progress at their particular levels. Word meanings, dictionary skills, interpretations, predicting outcomes, and different forms of comprehension were taught along with the word-attack skills. Various skills of increasing difficulty were begun at progressive levels and continued throughout the entire program. Reading, writing, spelling, speaking and listening were fused into a combined program to give the child the necessary facility for the language arts. As the child mastered these skills, in varying degrees of learning, he was also taught appreciation for literature and the boundless joy of reading, as well as understanding the need for capitalization and punctation.

VII. SOURCES OF DATA

There were many sources for the data used in this study. Books, pamphlets, magazines, interviews, school records, and cumulative folders represented some of these sources. The principal's office, as well as the superintendent's office furnished test data and school records that were invaluable to the report. Some of the test data and instructional materials are listed as follows:

1. Iowa Silent Reading Tests
2. Iowa Basic Skills Tests
3. Gray's Oral Reading Paragraphs
4. Weekly Reader Diagnostic Tests
5. Gates Primary Reading Tests
6. Gates Survey Readiness Tests

7. Gates Advanced Primary Reading Tests
8. Reader's Digest Books II and III
9. Gates Peardon Practice Exercises III, IV, and V
10. Webster Practice Readers
11. Teacher-made Tests
12. Cumulative folders, including all previous school records
13. Dolch Word Lists
14. Basal Text Books
15. Supplementary Texts
16. Interviews with teachers and parents

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

Lack of reading facility is the greatest single cause of failure in the schools of today. Not only is reading a subject to be learned, but an indispensable tool for the mastery of other subjects. For this reason educators are becoming increasingly interested in approaches, methods and techniques that will enable all educable children to develop the necessary skills for maximum reading efficiency.

In addition to a child's lack of innate ability, there are many other factors that contribute to reading deficiencies. Before any remedial program is initiated, the teacher must ascertain the nature of each child's difficulties and the factors from which these difficulties stem. A successful remedial program incorporates the following: (1) a proper diagnosis through careful testing and observation; (2) a selective choice of interesting materials as well as techniques geared to each child's needs and level of ability; (3) complete and adequate measures of remediation, administered with a proper regard for sequence and timing; and (4) sufficient motivation and encouragement to insure the child's cooperation.

Harris has said, "Words are the bricks with which the thoughts are built,"[1] and when a pupil is unable to recognize more than ninety per cent of the words in context, he is at a tremendous disadvantage in attempting

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[1]Albert J. Harris, How to Increase Reading Ability (New York: David McKay Company, Inc., 1961), p. 362.

to extract meaning from the printed page.

The non-reader and the severe remedial case nearly always have a basic deficiency or weakness in the methods of word attack and memory recall. Three major methods for developing a sight-recognition vocabulary have been worked out, the kinesthetic, the phonic, and the visual. These three methods were tried singly and in combinations. The Visual-Phonic Original Reading Program is a combination method, involving all three approaches.

II. CONCLUSIONS

There are so many detailed conclusions that could be drawn on the basis of this study that it would be practically impossible to list all of them. However, an attempt is made here to note the most significant results, as well as pertinent suggestions for classroom teachers and future investigators in this type of reading research.

1. At the conclusion of seven months of instruction all pupils had made a substantial gain on the Iowa Silent Reading Tests — from +.4 years to +4.7 years. (See Table I.) The seventeen pupils who were present for the entire study made an average gain of 2.0 years. The median gain was 1.8 years. The two students who entered late, and did not have the preliminary Iowa Silent Reading Tests, made significant gains on the basis of other tests.

2. When the statistics were compiled for the entire Wilson City Schools, the study group was rated above average. The ratings for the forty-nine classrooms that had departmentalized their reading programs were as follows:

Below average = -months to +.7 months

Average = +.8 to +1.4 years

Above average = +1.5 years and above

When the forty-nine separate median scores were arranged in a descending array, without regard for frequency, it was found that the research group ranked twelfth from the top. This represented a significant gain, especially when the reader considers the fact that normally one expects the least progress from that group which is retarded most in reading. By the same token, one expects a larger gain from those in the upper limits of ability, and since these children probably represented a fair sampling of children over North Carolina, there is reason to believe that only a very small percentage of them would be as educationally retarded as these children in the study group.

3. When the Iowa Silent Reading Test scores of the Wells Elementary School were ranked in order of descending magnitude, it was found that of the thirteen reading groups, the study group ranked sixth from the top. In this instance it was known that the study group represented that segment of the school population that was most educationally retarded. Test results of the other two groups that were classed as remedial, also, showed their median gains were five to six months below that of the research study group.

4. On the final Weekly Reader Diagnostic Test, given in April, the scores ranged from 4.4 to 7.5; the median score was 4.8. These tests were administered and scored by the homeroom teachers.

5. On the comprehension (c) and speed(s) tests in the Reader's Digest, the final scores ranged from c.80/s.85 words per minute in third grade material to c.100/s.455 words per minute in fourth grade material.

The pupil who made the lowest score was unable to read at all in October. Two pupils made the identical top score; one other achieved 455 words per minute but his comprehension score was 70 per cent. The highest score of all the children in October was c.80/s.200 words per minute in third grade material. The median score rate in October was 85 words per minute in second grade material; the median score rate in April was 167 words per minute in fourth grade material.

6. On the Dolch Spelling Test in April, the scores ranged from 60 per cent to 100 per cent. The pupils who made the low score of 60, had only a score of 20 on the same test given in December. The pupil who made a perfect score in April had a score of 88 on the previous test.

7. On the basis of the Iowa Tests of Basic Skills and Gates Advanced Primary Tests, satisfactory gains were made by the entire group.

8. Word-attack skills were definitely improved as evidenced by improved oral reading in the Gray's Oral Reading Paragraphs. (See Table I.) The gains ranged from 1.5 years to 4.4 years during the seven months of instruction. The median gain was 2.5 years. The average gain was 2.8 years.

9. Spelling was significantly improved as evidenced by the scorers on the Dolch Word List Test. Those with the greatest need for phonics at the beginning of instruction showed the most progress. One boy, who made a score of 18 in January, was able to score 78 on the final test.

10. Reading interest was maintained and class morale was high. As a result, all children read unassigned books for extra credit. They appeared to be very proud of their accomplishments and expressed disappointment when the reading class was concluded.

11. Teachers and parents expressed belief that the children had improved in other areas of school work. All pupils were promoted to the next grade.

TABLE I

GAINS SHOWN ON THE BASIS OF THE
IOWA SILENT READING TESTS, GRAY'S ORAL PARAGRAPHS,
AND GATES READING SURVEY

STUDENT		IOWA SILENT READING TEST			GRAY'S ORAL PARAGRAPHS			GATES READING SURVEY		
NO.	I.Q.	OCT.	MAY	GAIN	OCT.	MAY	GAIN	JAN.	MAY	GAIN
1	116	4.6	6.8	2.2	3.9	8.0	4.1	5.6	7.2	1.6
2	103	3.7	5.5	1.8	2.4	5.4	3.0	5.2	5.6	.4
3	89	4.1	5.3	1.2	3.7	5.2	1.5	4.1	5.5	1.4
4	96	4.0	5.8	1.8	2.9	5.9	3.0	4.3	5.7	1.4
5	105	2.9	5.7	2.8	2.6	7.0	4.4	4.4	5.5	1.1
6	104	3.5	8.2	4.7	3.7	5.4	1.7	4.4	6.1	1.7
7	97	3.4	6.1	2.7	4.5	7.0	2.5	4.1	5.6	1.5
8	86	3.9	5.4	1.5	3.2	5.2	2.0	4.1	5.1	1.0
9	103	3.0	4.6	1.6	2.8	5.1	2.3	4.2	5.4	1.2
10	86	3.5	4.2	.7	1.4	4.9	3.5	3.2	4.3	1.1
11	103	4.3	5.5	1.2	2.1	4.0	1.9	4.3	4.9	.6
12	107	3.6	6.1	2.5	1.8	5.7	3.9	4.7	7.6	2.9
13	108	3.8	6.1	2.3	2.4	6.4	4.0	5.7	6.0	.3
14	108	3.7	4.9	1.2	1.9	5.1	3.2	4.5	5.3	.8
15	90	3.3	6.4	3.1	2.6	5.1	2.5	4.0	5.4	1.4
16	64	3.7	4.6	.9	1.4	3.7	2.3	2.5	3.6	1.1
17	50	2.4	2.8	.4	—	3.2	3.2	—	2.9	2.9

TABLE I (CONTINUED)

STUDENT		IOWA SILENT READING TEST			GRAY'S ORAL PARAGRAPHS			GATES READING SURVEY		
NO.	I.Q.	OCT.	MAY	GAIN	OCT.	MAY	GAIN	JAN.	MAY	GAIN
18	95	*	6.5		1.8	5.1	3.3	3.7	6.0	2.3
19	80	*	4.7		1.4	3.6	2.2	2.4	3.4	1.0

— UNABLE TO SCORE

* NO SCORE AVAILABLE

III. RECOMMENDATIONS

In view of the gratifying results obtained with the Holmes' Visual-Phonic Original Reading Program, it is recommended that other remedial and regular teachers attend the East Carolina College Reading Laboratory and study this method for possible classroom use.

It is further recommended that more classroom teachers become involved in research of this kind. It is a very beneficial and rewarding experience and assures the investigator of a more thorough understanding of the subject. It is through the research process that most of the answers to educational problems will be found.

There is a definite need for other studies incorporating the Visual-Phonic Original Reading Program. One such study, involving an experimental group and a control group, would be of great benefit at this time. In the opinion of this writer, much greater results would be obtained by using an average or superior group of children for the experiment.

In addition to the above recommendations the following specific suggestions, concerning remedial instruction, appear to be justified on the basis of this study:

(1) The cooperation, confidence, and interest of the children are necessary for maximum learning.

(2). The desire to learn is intensified by the use of interesting material, chosen with the particular child's enjoyment as one of the criterial for selection.

(3) Homogeneous grouping alone is insufficient to care for the individual differences of children.

(4) It is important that instruction begin on a sufficiently low level for the pupil to attain initial success.

(5) Each child should be made aware of the areas in which he needs help; he must also have faith in his own ability to improve.

(6) Unusual and informal grouping can be very effective in promoting interest and a desire to excel.

(7) Specific problems are solved more easily when they receive attention in an orderly and progressive manner with a definite regard for the child's needs and ability.

(8) It is necessary to teach as many different methods of word-attack as possible in order to promote rapid and accurate recognition of individual words and words in groups.

(9) The inclusion of adequate practice will help the child with comprehension and speed.

(10) Provision for ample reading outside of school tends to promote fluency; however, discretion is needed in assigning homework.

(11) When the child attains a reasonable facility in accurate interpretations and the mechanics of reading, he should be given opportunity to do independent thinking.

(12) Training should be carried on simultaneously and progressively along all areas of weakness, although major emphasis will necessarily be placed on that phase which is presenting the greatest difficulty to progress at that particular time.

(13) Constant diagnosis is indispensable for the most effective remedial instruction.

(14) Of all the pre-requisites for teaching remedial reading, none

matches the importance of a sincere desire to help children salvage an opportunity for an education.

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