Five Approaches to Intermediate Grade Level Reading Problems: A Critique

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FIVE APPROACHES TO INTERMEDIATE GRADE LEVEL READING PROBLEMS:
A CRITIQUE

by
Mary Therese Long

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LIFE

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CHAPTER I

INTRODUCTION

In the dynamic and complex world in which we live, the ability to read well is one of the most important skills a person can acquire. Satisfactory adjustment to life demands effective reading. Because our world is a reading world, it is virtually impossible to discover any activity in school, business, or leisure time pursuits, that does not require proficiency in reading. This proficiency is a prerequisite if an activity is to fulfill the purpose for which it was designed.

The justification for this thesis is based upon the needs of those individuals who are having difficulty with one or more of the purposes for reading:

a. daily life activities
b. progress in school
c. recreation
d. personal and social adjustment
e. citizenship.

If the ramifications from lack of ability to read for these purposes were studied in entirety, it would not be difficult for us to appreciate the important role played by effective reading ability. Furthermore, the importance of good reading ability
would become more obvious if we were to examine the handicaps of people who either have failed to learn to read or failed to learn to read well enough to satisfactorily adjust to the emotional and intellectual demands of the modern world.

In comparing the number of reading disability cases in the classrooms thirty years ago with the number found in our classrooms today, we discover that generally the percentage of reading problems has decreased. In the late nineteen-twenties, reading researchers estimated that those pupils who failed in the elementary grades were mostly failures in reading, ranging from 99 per cent in the first grade to 25 per cent in the eighth grade. The percents cited by authorities today show a decline, 8 to 15 per cent for an entire school population. The reasons for this decrease seem to be the following factors:

a. The teaching of reading, especially in the elementary school, has achieved higher status in the curriculum.

b. Teachers are being better trained.

c. Reading materials are more plentiful.

d. Reading techniques and devices have improved.

e. Reading research has become more extensive.

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1 E. A. Betts, Foundations of Reading Instructions (New York 1946), p. 46.
M. Monroe, Growing into Reading (Chicago 1951), p. 13.
Paul Witty, Reading in Modern Education (Boston 1949), p. 59.
Despite these improvements, we continue to find reading disabilities at all school levels from first grade into college. It would be impossible to analyze and evaluate all the various schools of thought about the causes, diagnoses, and treatments for this wide range of reading problems. Thus, it is the author's intention to summarize some research of five authorities and apply their findings to the reading disability cases found in the Intermediate Grades.

In support of this point of view is a summary of early reading research by Marion Monroe done at the University of Chicago. In 1932, she put her research into book form published by the University of Chicago under the title Children Who Cannot Read. It is hoped that this classic example of research analysis and evaluation will support the evidence upon which this critique is written.

A study of four hundred and fifteen children who had special reading defects that varied from mild retardation in reading to extreme disabilities were studied by Marion Monroe and compared with a control group of one hundred and one school children in an average American school population. The reading defect cases were divided into three groups according to the process of referral. The first group were the clinic reading cases, the second group were the special reading cases, and the third group were the defective reading cases. One hundred and one school children were designated as "controls".

The mean chronological ages of the reading-defect cases were
several years in advance of the controls. This discrepancy was
due to the following cause: the author wished to secure as a con-
trol, a group of children who were in the beginning stages of
learning to read, in order to compare the usual learning process
with that of the reading-defect cases. As the reading-defect
cases were extremely retarded in reading, it was necessary to se-
cure a young control group if one was to have somewhat similar
stages of learning for comparison.

The mental ages of the reading cases had a wider distribution
than those of the control. The mean mental ages of the clinic and
the defective reading cases were about the same as that of the con-
trols, but the mean of the special reading cases was over a year
in advance of that of the control.

The mean intelligence quotients of the groups show some dis-
crepancies which probably can be explained by differences in samp-
ling. The mean I.Q. of the clinic reading cases was about 10-15
points above the mean I.Q. for all the Institute Cases. It appear-
ed that the reading-defect cases were fairly typical in their in-
telligence-test scores of the sampling of population from which
they were selected. Reading defects can occur at any intellectual
level from the very superior to the very inferior, as measured by
intelligence tests.

Monroe felt that before any comparisons of the severity of
reading defects between children could be made, one must measure
the child's reading achievement and then determine whether or not
this achievement is in harmony with other achievements. Monroe used Gray's Oral Reading Paragraphs to measure the ability to read increasingly difficult paragraphs aloud; the Haggerty Reading Examination to measure the ability to read silently and underline the correct answer; the Monroe Silent Reading Examination to measure the ability to read silently; the Iowa Word Test to measure the ability to read isolated words correctly; the Word Discrimination Test to measure the ability to select the correct words from lists of confused words and the Stanford Achievement Test in Reading was substituted whenever the child's reading was above the norms of any of the previous tests. An average of the grade scores obtained by a child on all the tests was selected as a measure of his reading achievements. Correlation coefficients were obtained for the control group between each test and the average of the tests to determine the relationship of each skill to the composite achievement.

Monroe next compared each child's actual reading achievement with that expected from various criteria. An easily obtained criterion of the child's development is his chronological age. As children grow older, they generally increase in reading achievement as well as in mental capacity and in other scholastic accomplishments. A measure of the discrepancy between reading and age would give an indication as to whether or not the child has a reading defect. The difference between age-grade placement and his reading grade placement gave a measure of the disparity between
reading and age. The control children had a normal distribution of discrepancies about their mean. Most of them had reading scores in the neighborhood of the level expected from their ages, but some were accelerated and others were to a similar extent retarded.

Although a measure of the discrepancy between reading achievement and chronological age gives a good differentiation between reading-defect cases and the controls, there are individuals who might be selected by this criterion who would fail to have a specific reading defect. The general defectives would all be included with the reading-defect cases if one was to select age as the only criterion. The generally subnormal child is below his age level in other of his mental capacities and achievements as well as in reading and could not be regarded as a case of special disability so long as his achievements were harmoniously low. The defective child could, however, have a reading defect in addition to his general subnormality if his reading achievements were still more retarded than his other accomplishments.

As a second measure of the reading-defect, Monroe compared the child's average or composite reading grade score with his mental age to note the extent to which his reading was accelerated or retarded. Mental age was found to correlate with reading more highly than chronological age. The reading-defect cases showed much greater discrepancies in reading with respect to mental age than did the controls. Their average discrepancies were 2.2 to 2.9 years retardation below mental age.
Although the discrepancy between mental and reading age gives a good differentiation between the controls and the reading-defect cases, there were objections to using this criterion alone as a measure of reading defect, since the young bright child does not ordinarily have an opportunity to reach his mental age in reading. A combination of the two criteria, C.A. and M.A., would be better than either alone.

Monroe thought it would be desirable to compare the child's reading achievement with his achievement in other subjects if she was to make sure that the reading defect was a specific one. For this reason, Monroe gave to each child a test in arithmetic, selecting the Stanford Achievement Test in Arithmetic Computation, which has its scores transmuted into grade units. There is also a positive correlation between reading and arithmetic which further justifies using arithmetic as an additional criterion of expected achievement in reading. The average discrepancy of the controls was one-third grades' acceleration in reading. The reading-defect cases were, on the average, retarded below arithmetic, from one and one-fourth to one and three-fourths grades. Spelling was also considered as one of the skills which was highly related to reading.

In order to arrive at a single measure of the reading-defect, Monroe took a combination of the three criteria of reading, C.A., M.A., and arithmetic. She obtained a reading index by comparing the child's composite reading grade with his average C.A., M.A.,
and arithmetic grade. The three groups of reading-defect cases were found to have highly similar distributions of scores and were therefore placed together in one distribution.

The reading index discriminates very well between the reading-defect cases and the controls. Using the reading index as a measure of the variation between a child's reading and his other accomplishments, Monroe drew several conclusions with regard to reading defects. In the general population, there is no hard-and-fast line of demarcation between reading-defect cases and normal readers. There are all degrees of gradation from very severe discrepancies between reading and other accomplishments to very mild discrepancies. The discrepancies may run in either direction above or below, and the reading index gives a measure of acceleration as well as special defects. The reading index, although resembling the intelligence quotient somewhat in its distribution and in its limits, does not correlate very highly with it. There is, however, a tendency for the children whose reading achievements are above expectation to have somewhat higher intelligence quotients than the children whose reading achievements are below expectation.

Monroe tells us in her book that the children of superior mental capacity who fail to learn to read are, of course, spectacular examples of specific reading difficulty since they have such obvious abilities in other fields. The majority of her reading-defect cases were not superior, however, and did not have the compensation of other mental talents. The children of dull and
inferior intelligence who have a reading handicap in addition to their other inadequacies present difficult problems for school adjustment. It is necessary at all times to discriminate carefully between a true reading case and the child whose reading is poor for his age but who is, nevertheless, doing as well as would be expected from other achievements.

Monroe gives a very good interpretation of the educational profile and the reading index in the selection of cases. The educational profile assists in understanding the child's problem of maladjustment by indicating the magnitude of the discrepancy or lack of harmony between his accomplishments. It helps to discriminate between the high and the low points of his achievements. It does not help directly in understanding the causative factors involved in the defect, although it aids us in selecting points of investigation. It does not help directly in the selection of remedial methods, although it indicates in some cases discrepancies between the reading skills which offer a point of attack. The reading index sets a goal toward which to work in applying remedial instruction and gives a satisfactory means of measuring the improvement brought about by the corrective work.

If an attempt is made to remove a child's reading defect by teaching him to read, one must not only know the extent of his retardation in reading, but also the nature of his difficulties. His errors in reading give an indication of his particular difficulties. All children in learning to read make errors which are
gradually eliminated as a part of the natural process of learning. Reading errors are of many kinds and may be classified into various types. The errors made by the control group were used as the standard with which to compare the errors of the reading defect cases. Errors were carefully recorded on three tests: Gray's Oral Reading Examination, the Iowa Word Test, and the Word-Discrimination Test. The analysis of errors included the following items: faulty vowels, faulty consonants, reversals, addition of sounds, omission of sounds, substitution of words, repetition of words, addition of words, omission of words, refusals, and words added. In order to have the same basis of comparison for all children regardless of the number of paragraphs read, Monroe worked out a table whereby she could translate the child's raw errors into the proportion of errors per 500 words. By use of these tables, the number of errors of any error-type made by a child could be compared with those of the control group, at his own particular level of reading. The reading-defect cases as a group greatly exceeded the controls in their errors in the following types: total errors, vowels, reversals, omission of sounds, repetition, consonants, and addition of sounds. They exceeded the controls slightly but not significantly in the following types: substitution, omission of words, refusals and words added, and addition of words. The reading-defect cases were more variable in their errors than the controls, as shown by the larger standard deviations of all error-types, particularly repetition, vowels, and
omission of sounds.

In considering the causes for a child's failure to read, Monroe feels that one must inquire into a great number of possible impeding factors, both in the child's constitutional organization and in his environment.

a. Defects in visual acuity: Such defects may hinder a child by causing eyestrain and discomfort in individual cases but it does not necessarily disrupt the learning process. The examination, however, did not include tests for muscular balance, binocular vision, or peripheral acuity.

b. Defects in discrimination of complex visual patterns: There were no significant differences between good and poor readers in number of diseases, operations and accidents occurring during school ages, so that any relationship between illness and reading defects would not result primarily from disrupted school attendance.

c. Defects in discrimination of orientation and sequence of patterns: There was a significantly greater incidence of left-eye preference and of left-eye preference with right-hand preference among the reading-defect cases than among the controls. Left-eye preference, moreover, is associated with fluent mirror-reading and fluent mirror-reading is associated with reading disabilities. There was a slight tendency for left-eye preference to be associated with reversal errors in reading. Reading defect cases report a larger incidence of changed handedness,
and of left-handedness among members of the immediate family than do the controls.

d. Defects in speech related to reading disabilities: The reading-defect cases had many more speech defects than the controls. Defective speech may be considered a factor in reading disability, either as one cause of the reading defect or as a result of a common cause.

e. Defects in discrimination of speech sounds: The reading-defect cases differed significantly from the controls, although less mature in both C.A. and M.A. than the reading-defect cases, made fewer errors in auditory word discrimination and had a larger number of successes in the visual-auditory learning test. Lack of precise auditory discrimination was found to impede the learning which involves auditory impressions.

Other rather interesting discoveries were made:

a. The reading-defect group had a large excess of boys over girls.

b. In a number of cases, a child's lack of precision in bodily control necessitated the selection and application of remedial methods to fit this need.

c. Difficulties in vocabulary and sentence structure were not measured in this study, but they were important factors in the reading disabilities of a number of cases.

Monroe also discovered that there were difficulties related to the methodological aspects of reading which include, overstress of speed in reading and overstress of some methods of word-recogni-
tion. Among the environmental factors which impede progress in reading may be mentioned a foreign language, illiterate parents, truancy and poor school attendance, frequent moves from school to school, number of siblings etc. Among the personality and emotional factors which may impede progress in reading were resistance to reading, fear, timidity, embarrassment, and in some cases, the emotional factors may be due to constitutional instability.

Remedial instruction in reading should require an overt motor response on the part of the child whenever possible because it is more easily observed by both the teacher and the child, it is part of the normal reading process, it may assist in discrimination and it may also assist in attention.

Monroe claims that the remedial teaching of reading is a different problem from the usual teaching of reading to unselected children. The problem in remedial instruction is to find a possible method of learning for those children who have not been able to learn to read by methods adapted to the group. The methods found helpful for reading-defect cases may not be necessary or advisable in ordinary instruction.

Monroe's remedial instruction included a great amount of individual attention. It was therapeutic emotionally in replacing failure with success, and in stimulating a genuine striving for a goal which could often be achieved, and it emphasized the patient, guiding, sympathetic teacher.

Progress was made in remedial teaching both in the laboratory
and in the classroom. Progress was made under individual instruction and also in small groups of children selected for similarity of achievements and errors. The rate of progress in reading under remedial instruction was found to be a function of the child's intelligence, his age, the number of hours spent in training, the number of months during which treatment was continued, the severity of the disability, the personality and behavior difficulties encountered in applying the remedial training, and the closeness of supervision of the remedial techniques. Children and teachers varied greatly with regard to these factors. Individual cases were found in which a low intelligence-quotient child surpassed a high-intelligence quotient child in rate of progress. The remedial methods, consisting as they did of many methods adapted to the specific difficulties of the children proved successful with the various types of cases. The children with whom the remedial work failed were those whose reading difficulties were complicated by behavior disorders which the teachers were unable to control, or those to whom the remedial work was given irregularly and without persistent, systematic, or sympathetic treatment.

In general, Monroe's book is a very reputable and substantial work written during a period in which education was undergoing an important metamorphosis. The general and basic ideas of the book seem to be in accord with the feeling of reading experts today; namely, that even with the best of instruction in reading, disability can occur; that not all children who are below predicted
reading level should be classified as reading cases; that reading is a highly complex skill and that no one particular reading case is similar or exactly the same as another.

However, Monroe does not stress the importance of reading in all of its facets. She makes no comments as to the needs for preventing disabilities, offers no statement as to the attitude and value of recognition to adjustment for individual difference, is not aware of any type of differentiation between the complexity of the disability and the type of diagnosis required, shows no indication of recognizing that diagnosis is continuous and finally, claims that remedial instruction should be completely different from ordinary classroom instruction.

Certainly these ideas or lack of them have been amended or added to the modern body of knowledge regarding remedial reading instruction. Yet, we must not lose sight of one important and necessary principle of scientific research. What was an unknown or incorrectly developed idea in 1932, need not be in that same state today. Through constant evaluation and appraisal, ideas can be tested for their validity and worth. One technique by which this type of investigation can be carried on, is the critique. This method of analysis and summary is valuable because it permits the investigator to critically synthesize many theories and ideas about a given subject. Usually the critique tries to answer specific questions proposed about a general topic. The conclusions derived should represent the complete picture, and yet be
interpolated with the scientific process of reduction so that the results will be critically reasonable and systematically brief.

The purposes of this critique are three-fold:

a. To discuss and evaluate critically research by five authorities into the importance of multiple causation involved in cases of reading difficulty grouped under the following headings:
   A. Physical Deficiencies
   B. Emotional Factors
   C. Environmental Factors
   D. Intellectual Factors
   E. Educational Factors.

b. To summarize the recommendations of these authorities as to treatment of reading disabilities.

c. To determine which method as investigated by these five authorities could be used in the Intermediate Grades to facilitate more effective reading.

An endeavor will be made to answer the following questions:

a. What has research shown with respect to the nature and importance of the factors listed above in reading disability?

b. What has research shown with respect to instructional techniques and other procedures as a means of treating reading disability?

b. What method, in the author's opinion, should be used in the Intermediate Grades to facilitate more effective reading?
There are unquestionably more reports of research on the subject of reading than on the teaching of any other subject. This is especially true of the last ten years. Authorities in the field are constantly striving to improve the techniques and procedures for teaching reading so that our world will be a world of better readers.

A number of good reports of these investigations are available to the teacher but most of them are so intricate and specific in design and content that they fail to offer a practical program of teaching which would embody the results of these myriad experiments.

There are also a large number of practical theses available which present the findings of research rather completely and validly. However, the practical procedures recommended take a variety of forms when reduced to actual classroom procedures and materials. The problem then is to formulate some sort of synthesis between the results of research and the requirements of the classroom.

Still the problem is too general and ambitious for the time and space allotted to this investigation. The plan must be narrowed to a field of concentration that is more specific and workable. Thus, the differences in purpose between this paper and other somewhat similar efforts are:

1. To summarize and evaluate specific research in the field of reading rather than contribute original material based upon research.
b. To answer three specific questions based upon the recommendations of studies which pertain to the problem rather than upon the proof of a new theory.

These recommendations indicate that:

a. No two cases of reading disability result from the same set of circumstances and thus no two have exactly the same reading patterns.

b. No two cases have the same instructional needs.

c. No two cases can be treated in exactly the same manner.

The author firmly believes that children who get into difficulty with reading need immediate help. The classroom must give aid to the child who is in minor difficulty with his reading or whose reading has become or is becoming so impaired that he needs explicit attention in order to grow securely and comfortably in reading again.

Learning to read is complex and there are many possible confusions along the way. The early detection and correction of these difficulties by the classroom teacher will do much to prevent the accumulation of minor problems that may lead to major reading disability.

The paper has been written as definitely as possible. The author has presented the material in terms of the needs of the individual child who is having difficulty in reading. Consequently, the individual nature of reading instruction is emphasized through the use of a well-organized, diversified program of reading
As a result of this procedure, certain problems have arisen. First, there is the problem of determining the pattern of reading disability. This phase of the total program is complicated by many characteristics of the child and his learning environment that have a bearing on his reading growth. Poor reading ability is so interrelated with other characteristics of child growth and development that it is often extremely difficult to determine whether the reading disability or some other condition is the basic problem.

The second problem is that of adjusting instructional techniques and other procedures to the treatment of reading disability cases. Some experts feel that the most important element in the problem is that the material should deal with a subject in which the child is interested. Others feel that the level of difficulty of the material is of even greater importance. Still others believe that having the type of material that is compatible with the nature of the remedial instruction is of paramount importance. Which is the most important? That is the problem.

The final and most important problem is that of determining the effectiveness of reading methods in the Intermediate Grade classroom. In general, there are six approaches to teaching reading:

a. Word recognition
b. Oral instruction
c. Totally silent reading instruction

d. Reading experience charts

e. A thought-getting process centered around purposeful activities

f. A well-organized coordination of all the other methods.

These problems will be dealt with and resolved as far as possible in the following sections of the paper:

The first major section is devoted to the nature and importance of reading difficulty according to the five authorities. After describing the nature of a disabled reader, the considerations involved in classifying a reader as disabled are explained. This is followed by a discussion of the causes of reading deficiencies. The role of the intellectual, educational, environmental, emotional, and physical factors are described and evaluated.

Chapter Three deals with the treatment of reading difficulties according to the five authorities. Their approach to the basic principles of remedial instruction is described next. The second part of this chapter presents the various aspects of the treatment of these reading difficulties:

a. Development of basic comprehensive abilities

b. Correcting word-recognition difficulties

c. Treating orientational difficulties

d. Overcoming specific reading defects

e. Improving reading in the content areas
f. Increasing the rate of comprehension

Chapter Four is the explanation of the author's choice of method for effective reading in the Intermediate Grades. This is done by discussing the advantages of the five approaches according to:

a. E. A. Betts
b. G. L. Bond
c. E. W. Dolch
d. W. S. Gray
e. Paul Witty.

The final section of this paper contains a summary of the previous chapters, recommendations for further research, and conclusions based on the material studied.
CHAPTER II

NATURE AND IMPORTANCE OF READING DIFFICULTIES ACCORDING TO THE FIVE AUTHORITIES

Reading disability is oftentimes a subtle and difficult condition to describe. This seems more evident when we examine the cases of problem readers. No two cases are exactly alike and no two cases are caused by the same set of circumstances. Yet, they have enough characteristics in common to form an atypical group in the classroom situation.

"The first characteristic of the problem reader is that he does not read as well as he should." With this condition apparent there is a great possibility that general scholastic achievement will be handicapped. Not only is present educational growth impeded but frequently reading patterns can become so complex that future growth in reading seems improbable.

1 Guy L. Bond and Miles A. Tinker, Reading Difficulties: Their Diagnosis and Correction (New York 1957), p. 67.
Typically then, the disabled reader is a child of sufficient intellectual capability who has failed to grow in reading. "Eight out of ten readers have normal or superior intelligence." He is not living up to his potential as a learner and is quite likely to be ineffective in other areas of learning.

This brief discussion, however, is not sufficient to identify all the children who could be classified as disabled readers. There are many more factors that must be considered in order to determine whether a child is disabled in reading.

Perhaps the first question to be asked about the child is whether he has been given the opportunity to learn to read. W. S. Gray states that the extent one can associate meanings with written or printed form is a matter of experience. Edward Dolch agrees that children will understand only in terms of their own experience. He has never received systematic organized instruction and thus has not had the chance to learn. He is, to all appearances, doing as well as can be expected of him.

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2 E. A. Betts, "Are Retarded Readers Dumb?", Education, 76 (May 1956), 573.

3 W. S. Gray, "Reading and Understanding", Elementary English, 28 (March 1951), 148-149.

The same principle would apply to a child from a foreign country. Although he may present a unique instructional problem, he is not a disabled reader because he did not have the opportunity to learn the English language.

A more complicated factor involves the child whose reading skills do not compare with his other intellectual achievements, especially his verbal learnings. His verbal language development has been increasing and improving since birth but his reading instruction did not begin until first grade. It is axiomatic, then, that he cannot be expected to read up to his general verbal achievement level.

Because reading is a function of language [listening and speaking] development, a second factor to be considered in the determination of reading problems is verbal ability. Frequently, the aural-verbal ability of a child is used as an indication of the level at which he is expected to read. If a child has an excellent listening vocabulary and can understand difficult material spoken to him, he should be able to read at a higher level than most children his age. "Most children who do not get along in reading have

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5 Gray, pp. 148-159.

a higher listening or hearing comprehension than reading comprehension. This difference between listening comprehension level and reading level tells us two things: first, that the child is retarded in reading and second, how much the child is retarded.\(^7\) However, caution must be used with this device before a child who is reading below his general verbal ability is classified as a disabled reader. The length of time in school, the opportunity to learn to read, and the accuracy of verbal aptitude must be taken into account if we are to judge a child's reading ability correctly.

A third factor to consider in this discussion is success in non-reading fields. E. A. Betts states that pupils who have difficulty with reading are in real trouble in most other areas.\(^8\) While this indicator is insufficient evidence in itself to classify a reading problem, in the vast majority of cases, success in nonreading fields does indicate how well the child is able to apply himself to learning situations other than reading. Arithmetic computation is frequently used as one of the subjects less influenced by reading ability.

\(^7\) Betts, "Are Retarded Readers Dumb?", p. 568.

\(^8\) Ibid.
Marion Monroe, for example, uses arithmetic achievement as one of the criteria for selecting children who will profit from remedial instruction in reading.

The final and usually most important criterion used to judge the existence of a reading disability is a child's mental ability as compared to his reading ability. The outcome of this comparison will be a reading expectancy level at which the child is to perform. Undoubtedly, the true mental ability of a child should be used as a basic consideration in classifying a child as a disabled reader. Caution is necessary for this reason. The determination of mental capacity of a poor reader is difficult.

There are many types of tests which may be used to assess the mental age of children. Four general types of measurement are: verbal group mental tests, nonverbal group mental tests, individual performance mental tests.

The verbal group mental tests are of little use in selecting children who will profit from remedial work in reading as they are to a great extent, reading tests themselves. "With group tests of intelligence, pupils must be able to read in order to answer most, and in some tests, all, of the questions and to solve problems." However, they can be given to large groups and the

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10 Betts, "Are Retarded Readers Dumb?", p. 571.
results are useful in making most comparisons for able readers.

Nonverbal group tests, or paper and pencil tests, do not require reading matter as a means of presenting the items. They can be given to large groups and therefore save a great deal of testing time. They are useful in selecting children who have a marked discrepancy between their mental age and their reading age. "To be retarded in reading, a child's mental par must be higher than his reading par." However, nonverbal group tests are, to some extent, performance tests rather than tests of reasoning ability, and they are not desirable measurements for an individual diagnosis. "Group tests especially in reading tend to penalize low achievers."

Individual mental tests are the most suitable measure of mental growth to be used with reading cases. They give an accurate measure of mental ability for able readers and are only slightly affected by the lack of reading ability of disabled readers. They are, however, very time-consuming and require trained examiners.

Individual performance tests are useful for measuring the mental ability of children who are physically handicapped. These

11 Ibid., p. 574.

12 E. A. Betts, "Types of Reading Measures", Ed. 80 (May 1960), 535.
tests are also time-consuming, requiring trained examiners and further, they do not emphasize the verbal aspects of intellectual growth.

E. W. Dolch, unlike the other four authorities, tends to have a rather negative opinion of the validity of reading tests. "Present reading tests actually measure a mixture of various factors in reading, without one's knowledge of how much of any factor is included." Dolch observes also that "... teachers believe that present reading tests are for supervisory purposes only."

In summary, the disabled reader is one who has had an opportunity to learn to read, but who is not reading as well as could be expected, by his aural-verbal ability, his mental capacity, and his success in non-reading learnings. He is, in reality, the child who is at the lower end of the reading distribution for a variety of reasons which will be discussed next.

Causes of reading disability are numerous. Some, which in the past were regarded as important, do not receive the same emphasis today. The search for a single cause or factor of disability has rarely proved to be sufficient. Seldom if ever does

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14 Ibid., 204.
a single cause generate disability in reading. The author of this paper strongly emphasizes multiple causation and maintains that all but the very mildest cases of reading disability are caused by a composite of related conditions.

Paul Witty contends "...it would be an indefensible error not to recognize that the causes of an individual's poor reading may be traced to some of the circumstances attending to his physical, mental, and emotional development."  

Dolch diagnosis the causes of deficiency in reading as falling into two large interrelating groupings: the environmental causes and the inherent causes.

Both Betts and Gray agree that the causes of reading disability are numerous as does Guy Bond who maintains that "... ordinarily several factors are involved, each contributing to the difficulty as a part of a pattern."

15 Paul Witty and David Kopel, Reading and the Educatve Process (Boston 1939), p. 239.

16 E. W. Dolch, Psychology and The Teaching of Reading (Boston 1951), p. 203.

17 Bond and Tinker, p. 64.
In addition to the stress laid on the many causes of reading disability, there is one general fact about reading which should be spotlighted. This fact, emphasized by Betts and Gray, is the highly complex nature of the reading process. "Reading is a complex of mental abilities, embracing with other elements, clusters of specific skills, abilities, and attitudes." "Reading is neither a unique ability nor a single complex of mental processes, but a series of many complex mental activities which vary widely with the conditions."

Proficient reading depends upon the acquisition and versatile application of several intricately co-ordinated skills. These skills or abilities are acquired only through long, motivated practice under good guidance. Because the reading process is so


20 Gray, "The Relation of Basic Instruction in Reading to the Total Reading Program", *Ed., 74* (May 1954), 537-538.
complex, there are many opportunities for unfortunate complications to impede its growth. Various factors, operating singly or more often together, may hold up further progress in reading.

It is the purpose of this chapter to discuss and evaluate the role of various physical deficiencies and environmental, intellectual, emotional, and educational factors as contributing causes of reading disability.

The five authorities agree that visual deficiency may be a factor in some cases of reading disability. They stress the fact that ocular comfort and visual efficiency are desirable prerequisites for easy reading. When a child shows signs of becoming a disability case, the tendency of both teachers and parents is to think of the possibility of visual deficiencies. It is true, of course, that a child's eyesight may be so poor that it is practically impossible to read. And there seems to be a number of less severe eye defects which constitute handicaps to children in the reading situation. It is not surprising, therefore, that many studies have concentrated upon visual deficiencies as causes of reading disability.

Of the five authorities studied in this paper, the two who have done the most extensive research in visual deficiencies are

21 Paul Witty, "Are Children Learning to Read?", School and Society, (May 10, 1952), 293.
Emmett Betts and Paul Witty. From the great number of studies about various types of visual handicaps, Betts has found that there is no significant relationship between visual deficiency and reading achievement. He does stress, however, the fact that "... children with a visual handicap have to compensate for this by putting excessive strain on their eyes during prolonged reading."  

The most frequently used method in studying the relationship between visual efficiency and reading ability is to compare the relationship between visual efficiency and reading ability is to compare the visual characteristics of groups of successful and unsuccessful readers. Reports from studies by Witty and Kopel tend to agree and substantiate the findings of Betts. Witty and Kopel failed to find any differentiation between poor and good reading groups on the basis of one or another single visual deficiency. 

As a result of the intense research of visual difficulty, both Betts and Witty offer suggestions to the classroom teacher.

22 Betts, Foundations of Reading Instruction, pp. 172-203.

regarding the symptoms to look for in observing signs of visual discomfort in the appearance or behavior of children. The following symptoms seems to be most significant:

a. Excessive blinking
b. Head movement while reading
c. Tilting the head
d. Inflammation of eyes
e. Widely dilated pupils
f. Deviation of one eye
g. Tenseness during visual work
h. Rubbing eyes frequently
i. Tending to avoid close visual work
j. Tending to lose place in reading.

The implications of the studies done by Betts and Witty are the following:

a. One should recognize that eye defects may be a handicap to both good and poor readers.
b. There is sufficient positive evidence to indicate that such defects as far-sightedness, fusion difficulties, and binocular in-co-ordination may contribute to reading difficulties in certain cases.

24 Betts, "Factors in Reading Disabilities, Ed. 72 (May 1952), 624-637.
c. Severe reading disability, in most instances, is the result of the accumulated influence of many factors operating together in a complex pattern.

d. Where visual defects are present and uncorrected the child is more likely to get into difficulty in reading and is more difficult to teach.

There has been relatively little research done regarding hearing deficiencies and progress in reading. The investigations which have been carried on, however, have been done mainly by Betts and Witty.

Betts states that "...impaired hearing may be causally related to poor reading or it may reveal merely another difficulty for which the non-achievers must compensate." The conclusion of Witty and Kopel is that auditory factors appear related to reading disability in individual cases of gross defect and under special conditions of instructions, i.e., a pre-dominantly oral-phonetic type of instruction.

There is sufficient evidence from the research of these two authorities to indicate that every child who is a hearing deficiency case will have more difficulty in learning to read under an

25 Betts, Foundations of Reading Instruction, pp. 203-224.

oral-phonetic type of instruction then will the child with normal hearing. While impairment of hearing seldom appears to be the sole cause of reading disability, it may be an important contributing factor in a pattern of causes.

The general health of children is another important factor if they are to become efficient readers. Learning to read is a complicated and, more often than not, an arduous task. For success, the child must be alert, attentive, and able to concentrate and participate vigorously in the classroom reading activities. Any physical condition which lowers a child's vitality so that he is in a continuous state of fatigue makes it impossible for him to give sustained attention to the task at hand. Malnutrition and loss of sleep are examples. The child who is in a state of chronic fatigue may become almost continuously, or at least intermittently, inattentive. When this happens, the child fails to learn what he should or only learns slowly. In particular, he fails to learn words or techniques which are necessary for progress in later lessons. These effects are cumulative so that eventually he becomes a disabled reader. In addition, such a child is disposed to develop nervous tensions and a negative attitude toward reading. "Not all good physical specimens learn

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to read easily but a low general health status may interfere with learning.

In some cases, extensive and frequent periods of absence for whatever cause lead to reading disability. When the new words and techniques taught during absences are vital for later learnings, a child may become severely handicapped in subsequent assignments.

An appreciable number of disabled readers exhibit poor motor co-ordination. This is shown by awkwardness in walking, running, writing, and athletic activities. Tests of motor precision tend to yield better scores for superior readers than for non-readers. W. S. Gray noted that poor readers commonly exhibit difficulties in pronunciation and enunciation, imperfect breathing, co-ordination, and irregular eye movements, and that frequently their reaction time and rate of physical activity are slow.

Speech defect is a prominent type of motor-in-co-ordination often associated with reading disability. According to early research done by Marion Monroe, there appears to be a reciprocal

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28 Betts, Foundations of Reading Instruction, p. 135.


30 W. S. Gray et al., "Remedial Cases in Reading: Their Diagnosis and Treatment", Supplementary Educational Monograph, 22 (Chicago 1922), 163-174.
relation between facility in speech and reading. Later, Bond found "no important differences in incidence of speech defects among poor and good silent readers." However, Bond did find that 35 per cent of those children that were retarded in oral but good in silent reading had speech defects.

According to Witty and Kopel, the observed association of motor inefficiencies and reading disability "had suggested the presence in some children of a common basic cause: dysfunction of the endocrine glands." The author of this paper stresses the use of caution with this theory. Further evidence is needed to establish any assumption that associated speech and reading difficulty are both symptoms of other more basic factors.

The results of research by Gray, Bond, and Witty indicates that motor in-co-ordination is a concomitant in certain reading disability cases. Causal relationship, however, has not been established. The suggestion by Witty that motor in-co-ordination together with reading disability are merely symptoms of some basic condition such as glandular dysfunction seems probable but needs confirmation.

Perhaps no other single physical cause of reading deficiency

31 Bond and Tinker, p. 96.

32 Witty, Reading and the Educative Process, p. 216.
has received so much popular attention as has lateral dominance. Its role in reading disability is a controversial issue. The literature on the subject is extensive and largely equivocal. It is possible here to indicate only the trends of evidence from the five authorities and to attempt some evaluation of it.

"Lateral dominance refers to the consistent preference for using and for more skillful use of the muscles on one side of the body." An example of it is illustrated by handedness which involves preferred use of either right or left hand for skilled manipulations, and by eyedness which involves preferred use of the right or left eye for such tasks as aiming or examining things closely. "Moreover, in a majority of individuals [perhaps 60 percent] the preferred hand and eye are on the same side of the body. When ocular or manual dominance is not well established or has been inhibited, or when a condition of mixed dominance exists [right-handedness and left-eyedness or right-eyedness and left-handedness] it is assumed that there is a corresponding lack of cerebral dominance or that dominance is mixed. Such conditions, as well as the single factors of left-handedness and left-eyedness.

33 Bond and Tinker, p. 99.

34 Witty, Reading and the Educative Process, p. 222.
are said to cause or contribute to reading disability.

The investigations of Witty and Kopel "revealed that left-handedness and left-eyedness, as well as other conditions of laterality, occur with practically equal incidence in groups of poor and of good readers." 35

In support of this conclusion, Gray agrees that "the results of investigations do not justify the emphasizing of handedness in reading program." However, one must reserve judgment as to the validity of the relationship of laterality to reading.

Edward Dolch concurs with this point of view. "Our conclusion must be that we should be very slow to ascribe inability to read to some special breakdown of lateral dominance." 37

In a more recent investigation than Dolch's, Guy Bond found no relation of lateral dominance to reading disability.

The evidence that left-handedness, mixed dominance, or lack

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37 Dolch, *Psychology and The Teaching of Reading*, p. 251.

of dominance may be involved in reading disability is equivocal. Careful analysis of data and conclusions indicates that, in certain rare clinical cases, one or another of these anomalies may contribute to reading disability as part of a pattern of hindering factors.

In the preceding paragraphs, a number of physical conditions which may be involved in reading disability were discussed. In the following pages, various emotional, intellectual, environmental, and educational factors will be examined and their possible roles in contributing to reading disability appraised.

The personal and social adjustment of the child is intimately linked with his emotional adjustment. In fact, when a child having a reading disability tends to be a personality case, we imply that the child is having difficulty in his emotional adjustment.

Most children in difficulty with reading are working under some disturbing emotional stress. "One of the most important effects of stress is the impairment or deterioration in learning." Betts also found that "Most of the individuals we study in our clinics are emotionally upset because they cannot read well

enough to do what is expected of them or to attain their own goals." Emotional tension in the classroom is manifested by symptoms. "Evidences of frustration usually are symptoms, not causes, or reading difficulty."

These symptoms, compiled from studies by Gray, Betts, Witty, Bond, and Dolch, include:

a. Shyness or retiring behavior
b. Lack of attentive concentration
c. Habitual nail-biting
d. A tendency to stutter
e. Lack of self-confidence shown by discouragement, irritability, or aggressive behavior.


43 Betts, Foundations of Reading Instruction, pp. 148-149.

44 Witty, Reading and the Educative Process, p. 229.

45 Bond, Reading Difficulties: Their Diagnosis and Correction, p. 104.

Dolch, Psychology and The Teaching of Reading, pp. 246-248.
When groups of poor readers are compared with good readers, the results usually show a somewhat larger percentage of pupils with unfavorable signs of personality adjustment among the retarded readers. It should be kept in mind, however, that many children with adjustment difficulties become good readers.

Reports of a clinical study by Witty and Kopel indicate that the incidence of emotional problems among clinical cases of disabled readers is high. "In the Northwestern University Psycho-Educational Clinic we found that fully 50 per cent of seriously retarded readers are characterized by fears and anxieties so serious and far-reaching that no program of re-education could possibly succeed which did not aim to re-establish self-confidence and to remove anxieties."

In order to restore the child's security, Dolch recommends: first, complete acceptance of the child as he is; second, establishment of rapport between the teacher and the child; and third, discovery of the child's interests and his "area of confidence."

Inability to learn to read satisfactorily usually means

47 Witty, Reading and the Educative Process, p. 231

severe frustration for the child. When his unsuccessful attempts to read make him conspicuous in a socially unfavorable way, the child is hurt and ashamed. All five authorities agree that his continued lack of success with attendant frustration and feelings of insecurity bring on emotional maladjustment. As E. A. Betts explains it, "... each symptom becomes worse as the reading material becomes more difficult." Some of these children become easily convinced that they are stupid. This feeling is frequently enhanced by the attitudes of their classmates, their parents, and even the teacher, if she fails to understand the true situation. Betts claims that "today's teacher seeks to 'learn' the child before she teaches him - that is, she begins where he is." If she does not, the child can be in a position to develop a reading handicap.

Some valuable suggestions to parents about what they can do to prepare their child for learning to read are offered by Betts:

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Witty, Reading and the Educative Process, p. 299.

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"Types of Reading Measures", p. 533.
a. Expect boys to be slower than girls in getting on to the knack of reading. Twenty-five per cent of all boys read below their mental capacity. Eighty per cent of all retarded readers are boys.

b. Keep a record of your child's development including facts about his birth. Eighty per cent of all retarded readers have normal or superior intelligence.

c. Make sure your child is 'visually' ready for school.

d. Expect big differences in the ages at which children learn to read.

e. Find out why your child is having difficulty with reading.

f. Think many times before having your child repeat a grade.

Witty and Dolch say that most children who enter school with well-adjusted personalities are eager to learn to read. They thrive on success and approval. When some of the children meet only failure and frustration, the resulting emotional upset practically always leads to personal and social maladjustment.

When reading disability is accompanied by emotional involvement, it becomes a question of whether the personality maladjustment is of primary or of secondary importance. There is a

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52 E. A. Betts, "Parents and Reading", Ed., 78 (November 1957), 136-137.

consensus of opinion among the five authorities regarding this point. They tend to stand in an intermediate position between the extremes of those who believe that every personality tension unfavorable to learning to read has arisen prior to entering school and those who hold that emotional upsets occur only when children are frustrated in their attempts to learn to read.

Their point of view is summarized very adequately in the words of Bond:

It is not surprising that the emotional maladjustment associated with reading disability can be both cause and effect. Examination of reported evidence and the views of writers and clinical workers suggests that only in a few cases does the personality maladjustment existing prior to reading experience prevent a child from learning to read. In a large number of cases, the emotional difficulties appear to be due to failure in reading. 54

There are no data available which permit one to assign exact percentages to the proportion of instances in which the emotional difficulties are causes rather than effects. Examination of all the evidence, however, does make it pretty clear that "the emotional maladjustment is much more frequently the effect than the cause of reading disability. This view is strongly supported by the fact that in most instances, the emotional difficulties clear up when the reading disability is relieved by remedial instruction." 55

54 Bond and Tinker, p. 107.

55 Ibid.
Success in learning to read, then, depends in some cases, upon the personal and social adjustment of the child. As noted previously, the child who is happy, has a well-adjusted personality, and feels secure is more likely to make normal progress in his reading than the insecure child. Conditions in the home have an important effect upon a child's personality adjustment before he goes to school and during the school years. Paul Witty estimates that causes of reading deficiency are related to home conditions in 40 per cent of all cases studied.

A number of unfortunate home conditions may bring about emotional maladjustment in the child. Emmett Betts states sheer neglect or lack of sympathetic understanding can make the child feel that he is not loved or not wanted. Over-protection and domination of the child by the parents can lead to adjustment difficulties. Parents may be excessively anxious that their child learn to read well and the cumulative effect may produce neglect of reading entirely. If a sibling's reading achievement is compared unfavorably to the brother or sister, the effect may be disastrous. If any conflict between parent and teacher arises over the child, it may have deleterious effects upon the adjustment of the child.

56 Witty, "Answers to Questions About Reading", p. 122.
57 Betts, Foundations of Reading Instruction, pp. 127-128.
Any one or a combination of home situations mentioned in this section may result in personality maladjustment in the child.

In general, then, the five authorities would concur that unfavorable home conditions hinder rather than help reading progress.

It is of great importance that the child develop favorable attitudes toward schools, his teacher, other school children, and toward reading. While favorable attitudes foster progress in learning to read, unfavorable attitudes may result in reading disability. "Satisfactory personal and social adjustment provide the background for the development of favorable attitudes toward reading and the entire school situation."

Dolch believes that most children begin school eager to learn to read; a few children will come feeling 'antagonistic' toward the idea of reading. Occasionally, there will be an emotionally disturbed beginner who makes it quite difficult to cultivate positive attitudes towards reading. "A child's interpretation of a selection depends on the attitudes he takes to it. Favorable attitudes increase interest in a topic or a type of selection."

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58 Ibid., pp. 118-119.


60 E. A. Betts, "Reading Is Thinking", Education Digest, 24 (May 1959), 48-49.
The fourth factor to discuss in examining the causes of reading disability, is intelligence.

"Reading achievement tends to be related to intelligence at all academic levels." This fact is unanimously agreed upon by the five authorities. What is not in complete harmony, is the degree of relationship between intelligence and reading achievement.

Taking a moderate viewpoint, Betts states that:

Since reading is largely a 'thinking' process, it follows that mental maturity intelligence is a primary factor in reading ability. A child of low mental ability is not likely to succeed with typical reading activities because he has very little to take to the printed page. On the other hand, some children with normal or superior intelligence do not succeed with reading activities. It appears that mental maturity is essential in dealing with reading, but that mental maturity does not insure success.

Witty develops this opinion further:

The relationship between intelligence and reading ability is positive, although low intelligence is infrequently a cause of poor reading. Reading is merely one individuation of intelligent behavior. Valid tests of reading, therefore, should show very close correspondence with adequate tests of intelligence.

From research conducted by Guy Bond, it would seem that he

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61 Bond and Tinker, p. 111.

62 Betts, Foundations of Reading Instruction, pp. 120-124.

63 Witty, Reading and the Educative Process, p. 225.
and W. S. Gray agree in their findings. Both men suggest that it would be most accurate to say that low intelligence is not itself a direct cause but that it may lead indirectly to reading disability. This occurs when reading instruction of the slow learner during early school years is not adapted to his needs. "... there is no substitute for down-to-earth, day-by-day teaching of reading, based on a reasonable plan of providing for individual differences in achievement."

The child of low intelligence is not ready to read as soon as the one with normal intelligence and he must necessarily proceed at a slower pace after he does begin. In the regular classroom situation, the slow learner is likely not to learn enough at each lesson for effective handling of the next assignment. He drops farther and farther behind as time goes on in the developmental program. If these handicaps are allowed to accumulate, he becomes a reading disability case.

Edward Dolch, on the other hand, takes a highly positive stand with regard to the relationship between reading and intelligence. He states that "the strongest single factor in the pupil's success in reading is undoubtedly his degree of intelligence."

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64 Betts, "Types of Reading Measures", p. 533.
65 Dolch, Psychology and The Teaching of Reading, pp. 139-140.
It is desirable, Dolch asserts, that the teacher of reading know as fully as possible the intelligence level of each pupil. She will get a very good idea of the situation from classroom contacts, but an intelligence test may make this impression more definite and accurate.

In summary, the implications of the evidence show that reading achievement is related to intelligence but that the possession of less than normal intelligence need not be a cause of reading disability. There is enough evidence to support the claim that dull children may become reading disability cases, but they also can be taught to read up to the level indicated by their mental capacity.

Among all the factors which have been discussed as possible causes of reading disability, the group of conditions that are classed as educational stand out as very important to the five authorities.

Too often disability cases are brought about through faulty learning or lack of educational adjustment. As the child

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Gray, "Reading and Understanding", pp. 148-159.

Bond and Tinker, pp. 113-119.

Dolch, Problems in Reading, pp. 155-161.
progresses up through the reading program, he fails to acquire the essential learning or gets into difficulty because of faulty learnings. "... efficient reading is a high-grade, mental activity. It requires a stimulating motive for reading, an alertness to various kinds of meanings, relationships, and evaluations that are pertinent, and the vigorous use of many mental processes - recall, analysis, synthesis, evaluation, judgment."

To a great extent, proficient instruction in reading depends upon the teacher. As W. S. Gray says "Both systematic instruction in reading and less formal guidance in reading contribute to maximum growth in reading."

Whether reading or child development should be the chief concern of the school during the early grades is a controversial issue discussed specifically by Edward Dolch. The emphasis was almost entirely upon development of reading skill to the detriment of individual needs. Dolch concluded that he knew of no research to solve the problem, as it was basically one of philosophy.


68, "What is the Evidence Concerning Reading?", Progressive Education, 29 (January 1952), 107-110.

69 Dolch, Problems in Reading, pp. 12-14.
Recently, however, many educators have arrived at the view that the chief concern of the school should be the 'happy', wide development of each child's personality. This argument is in opposition to a developmental reading program in the primary grades for it contends that putting pressure on the children to read sometimes produces personality maladjustments, and destroys interest in learning to read. With specific reading deficiency cases, this point of view may be well founded and valid. However, for the majority of children, the author of this paper would doubt its veracity. "One of the chief purposes of basic reading instruction is to help the learner to develop an enduring, continuous interest in reading as a purposeful act."

A solution to this issue might be the employment of individualized instruction. This method, as outlined by Gray, has the following advantages:

a. Wide provision for individual differences.
b. Teachers are given more of a chance to be on the alert to identify problems and difficulties which the children face.
c. Good teaching provides wide opportunity for supplementary practices adjusted to the varying needs of individuals.

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70 Ib id.

71 E. A. Betts, "Three Essentials in Basic Reading Instruction", Ed., 74 (May 1954), 576.
d. It provides different types of assigned problems on each selection, adjusted to the varying levels of ability of the pupils.

e. There is a greater amount of time for the teacher to assist each child.

f. This wide extension of supplementary reading organized largely on an individual basis uses personal motives and interests as a core.

A staunch advocate of this type of program, Paul Witty declares that "children's literature should be regarded not as an adjunct or supplement to basic instructional materials but instead as the core of basal materials themselves."

In discussing types of reading programs, Betts claims that "60 to 95 per cent of a school's population needs this type of teaching in order to bring reading achievement up to capacity level."

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74 E. A. Betts, "Factors in Reading Disabilities", Ed., 72 (May 1952), 627.
Gray offers a worthwhile opinion in summing up this problem. "The evidence from research indicates that the real issue is not which of the two procedures is the better, but rather what is the role of each in contributing to more effective pupil development in reading."

A second problem dealing with school administrative policies, is the promotion policy. Essentially, this refers to promoting children mainly by age rather than by achievement with no accompanying adjustment in curriculum requirements. "Estimates of retardation range from 5 to 40 per cent of the school population depending upon the criteria used, concepts of retardation or school policies."

This promotional policy produces a wider and wider range in reading ability in successively higher grades, states Betts. At the same time, the curriculum requirements remain fairly fixed. Thus, some of the material assigned to pupils in the upper grades is too difficult for their present reading ability. It would seem

75 Gray, "The Role of Group and Individualized Teaching in a Sound Reading Program", p. 441.

76 Betts, "Factors in Reading Disabilities", p. 624.

77 _____, "Three Essentials in Basic Reading Instruction", p. 577.
then, that the child is being forced to adjust to the curriculum rather than adjusting the curriculum to the child.

Gray expresses the unanimous opinion of the five authorities: "As a foundation stone in the road to better reading, teachers and administrators must adjust the reading program to the unique characteristics and needs of pupils."

Success in learning to read depends largely upon the stage of all-around development which the child has achieved. The pattern of growth involved embraces a complex of abilities, acquired behavior, and information. In general, the five authorities would agree that a child is ready to be taught to read by any given program when he has attained a certain stage of mental maturity, an adequate background of experience, and satisfactory personal and social adjustments.

As early as 1931, Edward Dolch explained that some aspects of reading readiness, such as intelligence, come with maturation. But many important factors are learned and therefore are open to guidance. To a large degree then, reading readiness can be and should be taught in a program of instruction that is susceptible to modification and adjustment to differences in intelligence.

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79 Dolch, *Psychology and The Teaching of Reading*, pp. 139-140.
Starting a child in a reading program before he has acquired the readiness which will assure success in classroom reading activities, accounts for the large incidence of failures in reading during the primary grades.

W. S. Gray states that a vigorous program of reading readiness is necessary both prior to initial instruction in reading and at every successive stage of development.

Beginning in grade one and in every grade thereafter, reading instruction can be effective for all pupils only when there is satisfactory adjustment to individual differences. To avoid redundancy, the consensus of the five authorities is expressed adequately by Guy Bond: "Reading instruction, to be effective, must proceed on an individual basis."

It has been found that a vast majority of reading cases are brought about through failure on the child’s part to acquire the necessary learning, or through faulty learnings as he progresses through the reading program. A second factor is ineffective teaching.

In a discussion of the factors that may lead to ineffective teaching, difficulty of materials is high on the list. If this

80 Gray, "Foundation Stones in the Road to Better Reading", p. 435.

81 Bond and Tinker, p. 32.
condition is accompanied by a rigid curriculum, the results can be disastrous. "There is considerable evidence to substantiate the statement that regimented mass instruction is one of the chief causes of reading difficulties."

Use of materials and methods that appear dull and unimportant to the child constitutes another aspect of ineffective teaching. Children want to understand what is read and derive knowledge from the reading material. Bond feels very strongly that "the excessive use of ill-constructed and insipid experience charts, the reading of dull and anemic materials made up of almost meaningless sentences in many primers, and isolated drill on word parts" can influence the child's reaction and attitude to the reading situation.

E. A. Betts states that "Some instructional materials fall far short of the objectives of reading instruction."

Developing this point further, Paul Witty conducted a study among teachers to determine the factors which reduced efficiency of grade instruction in reading.


83 Bond and Tinker, p. 116.

84 Betts, "Factors in Reading Disabilities", p. 631.
Prominent on the list of possible causes were inadequate instructional materials and the un-natural and repetitious quality of first grade materials.

Regarding the conditions essential to effective learning through reading, Gray states that a rich, well-adjusted curriculum combined with an abundant supply of appropriate reading material is a must.

In a similar way, procedures which do not tie class activities in with reading programs may lead to a reading disability. If reading is taught as an isolated subject that has nothing to do with the schoolroom, children often see no reason for learning to read.

Referring again to Gray's conditions essential for effective learning, he maintains that the co-ordinated use of reading with other subjects will motivate the child to want to learn.

In other words, if the reading activities stem from some of the important things the child is doing in class, and if many of the class activities stem from the reading program the child can see a reason for reading and his interest and motivational level will be high.


86 W. S. Gray, "Reading As an Aid in Learning", Forty-Eighth NSSE Yearbook, II (1949), 233-240.

87 Ibid.
Excessive emphasis upon isolated drill tends to kill interest in reading and learning to read. The five authorities are of one opinion regarding this point. Betts describes isolated drill as "useless", Gray and Dolch as an extremely poor technique, Witty and Bond as unnecessary and undesirable.

Is the child able to transfer what he learned in the drill to actual reading and more important, does he see the reason for the drill? If the answers to these questions are negative, so is the necessity for the drill. Keeping these questions in mind, however, while governing the employment of the drill technique is meant as an aid to the teacher rather than an attempt to do away with sensible amount of drill. Some children would never learn without some drill.

Further, educational factors which can contribute to reading difficulty and are representative of the findings of the five authorities are the following:

a. Inappropriate emphasis upon the basic reading skills
b. Lack of an orderly, sequential reading program

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Betts, "Factors in Reading Disabilities", p. 631.
Gray, "Reading and Understanding", p. 156.
Bond and Tinker, p. 117.
c. Overemphasis upon the mechanics of reading to the neglect of meaning

d. Overemphasis upon phonetic analysis as a word-recognition technique

e. Unsatisfactory teacher-pupil relationships.

In summarizing the preceding discussion, it should be evident that educational factors play an important role in the causation of reading disability.

Edward Dolch stresses as most important the administrative policies of schools which prevent either adjustment of instruction to individual differences or proper emphasis on reading readiness.

Guy Bond and William Gray mutually emphasize inappropriate instruction and inadequate instructional material as the most important educational causes of reading disability.

Emmett Betts concurs with these opinions, as causes of reading difficulty, but places greatest stress upon individual reading readiness in order to promote the necessary interest in reading.

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Paul Witty's approach to this problem is contained appropriately in the following statement:

Particularly regrettable in the usual teaching routine is the failure to conceive reading as a thinking enterprise, demanding the use of creative intelligence in situations inextricably associated with the total complex development of the growing child. 90

In the preceding pages, the author has discussed and presented a critical evaluation of the research done by five authorities into the importance of multiple causation involved in cases of reading difficulty grouped under the following headings:

a. Physical deficiencies
b. Emotional factors
c. Environmental factors
d. Intellectual factors
e. Educational factors.

The following chapter will deal with the recommendations of these authorities as to treatment of certain disabilities.

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90 Witty, Reading and the Educative Process, p. 234.
CHAPTER III
TREATMENT OF READING DIFFICULTIES
ACCORDING TO THE FIVE
AUTHORITIES

The remedial program must be designed to emphasize those phases of reading growth that will enable the problem reader to grow rapidly, and solidly. The program designed for each child must be based on a diagnosis of his instructional needs.

Betts states that five to forty per cent of all children who are retarded readers belong in a corrective reading program. These cases include children who have significantly higher capacity levels than achievement levels or significantly higher verbal ability or language facility than conceptual background or children with specific deficiencies.

Regarding the remedial reading program, Betts estimates that less than one per cent of all reading disabilities are remedial reading problems. He cautions all teachers who would classify a child as a disabled reader. "There is a vast difference in treatment between the mild corrective reading case and the extreme

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1 E. A. Betts, "Factors in Reading Disabilities", Ed., 72 (May 1952), 627-628.
remedial reading case. It is highly impractical to start a remedial program until the nature of the retardation and the subsequent instruction needed by the disabled reader has been established.

After the diagnosis has been made to determine the kind of instruction that is needed, it is axiomatic that the remedial program should be carefully planned. "The diagnostic study may be cursory and incomplete or it may be extensive and thorough." Whichever method is chosen, however, it must indicate the nature of the disability and the type of exercise recommended to correct the difficulty.

Once a plan for remedial work has been outlined, it should be followed as closely as possible. However, it should, of necessity, be modified from time to time as the child progresses in reading. From investigating the research of the five authorities regarding the flexibility of the remedial program, the author

2 Ibid.
3 Paul Fitty and David Kopel, Reading and the Educative Process (Boston 1939), p. 235.
4 Ibid., pp. 267-293.
suggests that programs of remediation be as flexible as possible in order to meet the new reading needs of the child. "There is no one method that should be used exclusively and rigidly in the remedial reading program."

If a remedial program is based upon a sound diagnosis of a child's reading disability, there are many ways to develop each of the deficient skills and abilities. "Contrasting methods can do much to secure growth in different aspects of reading."

Guy Bond suggests two sources of help describing teaching techniques which are available to the teacher:

a. Professional books on remedial instruction in reading

b. Teacher's Manuals and workbooks accompanying basal reading programs.

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5 Paul Witty, "Answers to Questions About Reading", Nat. Par. Teach., 50 (September 1955), 11.


7 Guy L. Bond and Miles A. Tinker, Reading Difficulties; Their Diagnosis and Correction (New York 1957), p. 208.
Bond cautions the teacher, however, in attempting to use a variety of teaching methods and techniques. Care must be taken that the teaching approaches do not confuse the child. "The direction given him should be simple and the teaching techniques should not be changed too often." 

The major difference between remedial instruction and ordinary classroom instruction is the degree of individualization involved. "The principle that remedial instruction should be specific and not general means that the teacher should emphasize those phases of reading development that will correct the child's limitation. It does not mean that just one type of exercise should be employed nor does it mean that a specific skill or ability should be isolated and receive drill." As has been mentioned before, isolated drill on a specific skill is virtually meaningless in the normal classroom situation. It would be doubly useless in the case of the reading disability.

In considering either ordinary reading instruction or remedial teaching, the programs demand efficient, well organized plans.

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8 Ibid., pp. 208-209.

Such organization is necessary if there are to be no omissions in developing the essential skills; little chance for over-emphasis of a specific technique, and proper introduction to new skills as the pupil has the necessary pre-requisites for learning them.

One reason why the disabled reader is in difficulty is because he does not understand the processes involved in being a good reader. "When children are frustrated by inability to use their textbooks properly, the classroom can become an inescapable chamber of horrors." It is the job of the teacher then to take the necessary steps to bring meaning to the reading situation.

It is the opinion of E. W. Dolch that the child should be shown how to go about his reading and how much use he can make of each added reading accomplishment. "The child in remedial classes must realize what he has to learn, how he has to learn it, and be willing to learn it. He must put getting the meaning to one side and pay attention to how he gets the meaning. Otherwise, he will not remedy his poor reading ability." The remedial

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10 Ibid., pp. 329-330.


teacher will find that making the processes of reading meaningful to the learner helps to solve his reading confusions.

Most teachers will agree that the disabled reader frequently feels insecure and defeated in school. Any remedial program designed to treat reading problems must make the child feel his successes from the start and take into account the child's sense of "pride in real accomplishment."

Dolch, in establishing five steps in remedial reading, stated that the first consideration should be gaining the child's confidence. This can be done by stressing the fact that the child is still a contributing member of the class and that remedial reading is an educational opportunity to be entered voluntarily.

Further steps in establishing confidence and giving the child needed encouragement are the following:

a. The teacher must be an energetic, enthusiastic, and optimistic person.

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13 A Manual for Remedial Reading, pp. 3-12.

14 "What Next in the Teaching of Reading?", Ed., 78 (May 1958), 528.

She must make the child sense her confidence in him. This can be done by showing the pupil that she knows he can learn to read.

b. The teacher must start the child in material that is somewhat easy for him so that his successful performance will be immediately recognized. As he gains confidence in himself and his ability, the difficulty of the reading situation can be increased.

c. The teacher must organize the program of instruction to demonstrate to the child that he is progressing toward his goal of better reading. Paul Witty states that "reading improvement programs for elementary children should be organized to show the child indications of desirable changes in his pattern of reading."

The most important problems the remedial teacher has to deal with are the selection of appropriate materials and the employment of

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16 Paul Witty, "Reading As An Aid in Learning", Forty Eighth NSSE Yearbook, II (1949), 235.

of sound teaching procedures. One is dependent upon the other.

In discussing the materials appropriate for the child's reading ability and instructional needs, Emmett Betts and Paul Wittty feel that the most important element in the problem is that the material deal with a subject in which the child is interested.

"Interest has special significance in the remedial endeavor. It fosters the successful accomplishment and mastery of needed skills."

Guy Bond and Edward Dolch feel that the level of difficulty of the material is of greater importance. The difficulty level should enable the child to read comfortably, and with enjoyment. It is the teacher's job to pick out materials at the level to suit the child. In making this judgment, she should look at the number of unusual words it contains, the length of its sentences, the number of prepositional phrases, the number of unusual word orders, the complexity of the ideas it includes.

William Gray believes that having the type of material that is compatible with the nature of the remedial instruction is of

18 Paul Wittty, "Interest, Effort and Success: Bases for Effective Reading", Ed., 79 (April 1959), 481.

19 Bond and Tinker, pp. 222-224.
paramount importance. The type of material that is suitable for one kind of disability is not necessarily suitable for another. He states that "there is a demand for appropriate reading materials, adapted to the needs and reading ability of each child taught."

In the author's opinion, all three factors should be considered in selecting material for remedial work, and all three are of equal importance in their own right.

There is one further consideration, however, that the five authorities agree upon. Betts expresses it appropriately: "There is a need for a wide variety of reading materials to meet the interests at every level of difficulty."

In summarizing the preceding discussion of the basic principles of remedial instruction according to the five authorities, it must be remembered that unanimous agreement about such an extensively complex subject as this is virtually impossible. However, there is enough consensus to permit the author to formulate

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21 E. A. Betts, "Parents and Teachers Want to Know About Reading", Ed., 78 (January 1958), 29.
a list of principles underlying the treatment of disabled readers:

a. Treatment in the remedial program must be based on an understanding of individual instructional needs.

b. Remedial instruction must be well organized and made meaningful to the learner.

c. Remedial instruction must restore the child's confidence and demonstrate his increasing improvement.

d. Materials must be appropriate to the child's reading level, instructional needs, and interests.

e. Sound teaching procedures must be used.

If it were possible, in the following pages, to discuss in their entirety the teaching procedures and methods of treatment for the difficulties introduced in chapter two, more volumes than the present one would be necessary. However, it is possible to summarize the research of the five authorities with respect to their treatment of those disabilities most frequently encountered in the intermediate grades.

These difficulties are classed under the following headings:

a. Development of basic comprehension abilities

b. Correction of word-recognition difficulties

c. Treatment of orientational difficulties

d. Overcoming specific reading defects

e. Improvement of the rate of comprehension.
To read means to read with understanding. To accomplish this, there must be comprehension of words, thought units, sentences, paragraphs, and longer units. Instruction for developing comprehension involves coordination of all these units into an integrated sequential problem.

Word meanings and the concepts tied in with these meanings are acquired in a variety of ways. A child must be able to recognize or identify a word before he can sense its meaning. Although the development of word recognition and of word meanings are discussed separately in this paper, it must be kept in mind that they are taught co-ordinately in the regular instructional program.

E. A. Betts states that comprehension problems arise for five reasons:

a. When the learner doesn't have the necessary personal experience with which to make concepts
b. When he becomes involved with language
c. When he doesn't know how to think
d. When he doesn't know how to use different types of context clues in order to get at the meaning of the term
e. When he doesn't know how to shift gears from skimming to rapid reading to study-type reading.

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E. A. Betts, "Three Essentials in Basic Reading Instruction", Ed., 74 (May 1954), 580.
Agreeing with these reasons is W. S. Gray, who claims that "the extent to which a reader associates meanings with words or phrases in reading depends on the variety and richness of related experiences in his mind."

What can we do then to promote better comprehension abilities in these disabled readers?

The meaning of a new word can frequently be derived from the context in which it occurs. To do this, the child will need to comprehend the rest of the words in the sentence or passage. Many children with reading disabilities make little or no use of context in trying to discover the meanings of strange words. Such children should be given practice in "guessing" the meaning of unknown words as they occur in context. He should be taught to read the rest of the sentence or passage and then look back and try to decide what the unknown word might mean. If a sentence is part of a story, other sentences may amplify and clarify the meaning.

23 W. S. Gray, "Reading as Experiencing, Thinking, and Learning", Calif. Jour. of Ed., 27 (February 1959), 139.
24 Ibid., p. 141.
25 Bond and Tinker, p. 245.
Although some guesses may be wrong, such training usually brings considerable skill in deriving meaning from context.

Another difficulty which disabled readers have is in choosing the correct meaning of a word that has several meanings. In this case, the correct meaning is sensed only in terms of the context. Many and varied examples of exercises to train pupils in use of context clues as aids to working out word meanings are given in workbooks.

The extension and enrichment of word meanings are aided by wide reading of interesting and easy materials. It is the consensus of the five authorities that "not more than one unfamiliar word should appear in 100 to 200 running words." The use of old words in a variety of contexts broadens and clarifies their meanings. The more important new words will be met sufficiently often to acquire more and more meaning. It is unrealistic to expect that a clear meaning for every new word encountered will be learned right away. But, this does not mean that unfamiliar words should be ignored. It is especially important that the reader should pay particular attention to whatever unfamiliar words he meets in context. Gradually, many of these words will become


commonplace and meaningful.

Both Betts and Gray stress the fact that motivation is maintained by guiding the children to material which catches their interest and is pitched at just the correct level of difficulty so that the context will yield a maximum amount of intelligible clues to the meaning of any new words.

E. W. Dolch has done extensive research in the use of context in developing word meaning. His suggestions are particular, concise and easy to put into action.

For instance, a word may be defined in a sentence, it may be recognized as a synonym, or it may sum up the particulars of a situation. Sometimes a meaning clue may come from familiar idioms and sayings, or it may come from the mood or feeling that is reflected in the context.

It is common practice to explain the meanings of new words to a child by using words already known. This happens especially in the context of printed material. Dolch outlines five ways of giving word meanings with words only. They are:

a. Synonyms or word substitutions

\[\text{28}\]
Gray, "Reading as Experiencing, Thinking, and Learning", pp. 141-143.
E. A. Betts, "Reading Is Thinking", Ed. Dig. 24 (May 1959), 47-49.

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E. W. Dolch, Psychology and The Teaching of Reading (Champaign 1951), Ch. 9.
b. Classification

c. Pointing out difference

d. Pointing out similarities

e. Many associations.

The fifth method places stress upon enriching the meaning of a word by presenting to the child anything that can be told about the word, anything he can read about it plus any other associations that can be built up through reference to direct and vicarious experiences.

It must be emphasized at this point in the discussion that the acquisition of verbal meaning alone is not enough. In any program for developing word meanings through reading, the goal should be to go beyond mere verbal meaning. "The acceptance of word manipulation rather than thinking about ideas is called verbalism and verbalism can become a malignant disease in education." 31

As pointed out by Dolch, one way to avoid verbalism is to appeal to realistically conceived imagination. If a child can

30 [Ibid., pp. 182-183.]

31 [Betts, "Reading Is Thinking", p. 49.]

32 [Dolch, A Manual for Remedial Reading, pp. 106-107.]
be aided in exercising his imagination to extend his verbal understandings of words to concrete pictures instead of being satisfied with a synonym, he will try to recall some of the birth of sensory impressions, emotional reactions, ideas, and events suggested by each word.

Another approach is to ask the child to tell anything a word, a phrase, or a symbolic expression makes him think of. Skill in getting a child to extend meanings from mere words to reality through using his imagination may develop slowly in some children, but once a child gets the knack of doing this, the reading program will have contributed some to word comprehension.

In the present discussion, the author wishes to present the general viewpoint of the five authorities as to workable steps which can be taken to implement the teaching of word meaning.

First, word study should deal with new words met in context. Second, these words should be used in discussion and in oral and written reports.

Third, the child should read a considerable body of material in which the word occurs frequently.

For the remedial teacher, a fourth step is essential. She should introduce activities which involve the application of meanings of the words to such concrete situations as demonstration and use of equipment, giving titles to pictures or drawings, and the writing of letters.

As has been mentioned before, direct, systematic, well-organ-
ized drill on words has value in developing word meanings when this drill is on words in context. The teacher will find it profitable to devote some study to the meanings suggested by common prefixes, suffixes, and word roots, and to synonyms and antonyms.

In addition to identifying the root word and prefix or suffix with their meanings, the possibility of making other words by adding other prefixes or suffixes may be used. The meanings of the more common word roots, prefixes and suffixes may be worked out in this manner. It must be remembered, however, that "the instruction in the use of structural aids to meaning should accompany and be co-ordinated with use of structural aids to word recognition in the reading program."  

A final aid in developing word meanings as suggested by Dolch, Bond, and Gray, is the proper use of a good dictionary. This technique not only improves skill in the use of the dictionary for acquiring word meanings, but it provides "further training in


34 Paul Witty, Reading in Modern Education (Boston 1959), p. 148.
deriving meaning from context clues and in making different meanings for the same word."

In addition to knowing the meaning of words, there are many other skills needed for satisfactorily understanding sentences. These include the grasping of relations between words and groups of words, reading by thought units, proper interpreting of punctuation, comprehending figures of speech and symbolic expressions. Retarded readers tend to be deficient in one or several of these skills.

Remedial methods for the child who is disabled in reading thought units must be based on the premise that ultimately he will have to learn to recognize meaningful groups of words as he silently reads consecutive printed matter. "Comprehension becomes a major problem in the middle grades with the assigned silent reading of school." He will be reading sentences, not isolated thought units.

The remedial work must teach the child to rapidly recognize thought units of several words and also to spot them in the sentences he reads. This must be done in contextual settings or the

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37 Ibid.
Phrases learned in isolation should be immediately read in complete sentences.

Witty offers a list of exercises for developing experience in reading by thought units:

a. Titles for stories and pictures may be written on the blackboard and their suitability discussed. Then pupils may be asked to suggest other phrases that would make equally appropriate titles.

b. The class may be directed to locate in their books certain phrases which are written on the blackboard, and they may be asked to find other phrases that answer questions.

c. Phrases that have an unusual or perhaps colloquial connotation may be written on the blackboard and their meaning discussed. These phrases may be used in sentences and substitute expressions may be found for them.

d. A column of phrases may be written on the blackboard opposite the sentences in which they appear and the children may be asked to find the same phrases in the sentences and underline them.

e. Another exercise, similar to number four, may be devised in which the phrases in the column are arranged in mixed order. The children should be asked to draw a line from each sentence to the phrase which it contains.

f. Phrases may be written in one column on the blackboard and words or other phrases that mean the same in another column.
Children may be asked to draw lines connecting two items that have the same meaning.

5. Pupils may be asked to locate in their books, sentences that contain given phrases.

Frequently, retarded readers are also unable to understand the meaning of a paragraph. With such children the tendency is to consider each sentence as a separate unit unrelated to other sentences in the paragraph. It is possible for a child to read and understand words, thought units, and yet not comprehend fully the connected material in a paragraph.

To develop skill in finding the topical sentence which presents the key idea in a paragraph, the child is given illustrations and explanations. Next, the child is asked to find and underline the topical sentences in new paragraphs. In addition, the pupil should be taught how the other sentences in the paragraph develop the idea presented in the topical sentence. One technique for doing this is to number the sentences in a paragraph. Then through questions and discussion, bring out the role of each sentence in relation to the others.

W. S. Gray, Guy Bond, and E. A. Betts have done research on a major scale into the remedies for difficulties in paragraph

38 Witty, Reading in Modern Education, pp. 151-152.
comprehension. To compare and contrast their suggested remedies, the author refers the reader to Table One in the Appendix.

Skill in word recognition is a fundamental part of the equipment of a capable reader at any grade level. As the child approaches the intermediate grades, the materials and methods used in teaching him gradually demand more and more independent word recognition. The child who has failed to establish effective means of identifying and recognizing words for his level of advancement, will be handicapped in all aspects of reading.

Word study, as conceived by E. W. Dolch, involves two types of outcomes. The first is "expanding meaning vocabulary and teaching the word-recognition techniques so that meaning will accompany the identification of the symbols," and the second is "the development of a set of flexible skills and knowledge that will enable the child to recognize words he already knows and identify new words with speed and understanding."

Each of the five authorities places great emphasis upon the correct acquisition of word-recognition techniques. Their methods for handling the difficulties may differ, but the fundamental principles underlying their various methods are very similar.

39 Dolch, Psychology and The Teaching of Reading, pp. 31-33.

40 Ibid., p. 33.
In general, they state that instruction in word recognition should be designed to enable the child to do three interrelated tasks. First, he must be able to recognize known words rapidly with a minimum of analysis. Second, he should be skilled in recognizing partially known words with little analysis. Third, he must develop a flexible set of skills that will enable him to work out the recognition of new words independently.

E. A. Betts, in particular, has done a great amount of work in the area of word recognition. He proposes that the necessary skills and knowledges involved in this skill be classified into the following six learnings:

a. Associating the appropriate meanings with the printed symbols
b. Using context clues and other meaning aids to anticipate the words to be recognized and then checking the accuracy of the recognitions
c. Becoming flexible and efficient in visually analyzing the words into useable recognition elements
d. Developing knowledges of visual, structural, and phonetic elements, knowledge of consonant and varied sounds, prefixes and suffixes, etc.
e. Learning skill in auditory blending and visually synthesizing word parts to rapidly pronounce or recognize the word as a whole
f. Forming the habit of using the more analytical and the pronunciation techniques when needed.

Children who have difficulty associating the appropriate meaning with the printed symbol, should make use of the basic comprehension skills discussed previously. In addition, in all word-recognition exercises, the meanings of the words should be kept in the forefront.

There are methods closely related to the reading act which will help the child to develop the habit and the ability of associating meanings with the word symbols. These include drawing illustrations for a story being read and retelling the story in his own words.

In addition to emphasis on word meanings in all reading comprehension situations, the child must at all times develop his word-recognition techniques in meaningful settings, if he is to be encouraged to associate precise ideas with the printed symbols.

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The child who is limited in this ability may also profit from exercises that develop sensory impressions, precise meanings, and extension of meaning.

Plus these exercises, extensive reading coupled with the habit of noticing expressive use of words will aid in encouraging the child to associate meaning with printed symbols.

The importance of forming the habit of rapidly recognizing known strongly. The child who fails to build a large sight vocabulary will be seriously handicapped in identifying new words. This limitation comes about in two ways. First, the child will be unable to use context clues effectively because the vocabulary load of unknown words will be too great. Second, he will be inefficient in the more mature methods of word study.

"Remedial training for increasing the sight vocabulary of a disabled reader is best done by using a basal reader at a level of difficulty that is somewhat easy for the child," says Guy Bond.

Sight vocabulary can be built in three steps contends E. W. Dolch:

1. Some primary grade level book must be used.

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44 Betts, Foundations of Reading Instruction, p. 596.

45 Bond and Tinker, pp. 271-272.
b. Oral reading is essential.

c. Reread to speed up word recognition.

All five authorities agree that the child should be started in material that is easy for him to handle. However, Betts, offers extremely explicit suggestions for exercises to encourage the habit of reading words at a glance. Each makes use of the basic vocabulary that is being developed. They are:

a. Exercises in which the word is so much expected that recognition will be rapid

b. Exercises in which a child finds the correct word in a list on the blackboard as the teacher gives the clue

c. Various word games and their meanings.

With this third suggestion, the reader is referred to *Psychology and the Teaching of Reading* by E. W. Dolch, pages nine through thirteen.

Meaning clues are among the most important aids to word recognition. They enable the reader to anticipate new or unfamiliar words before he actually sees them. No matter what other aids to recognition are used, the proficient reader always uses some form of meaning clue to aid them, if there is one given, as there almost always is in ordinary prose.


Meaning clues are of two types. The first expectancy clues which enable the mature reader to anticipate the words and concepts that he is likely to encounter when reading about a given topic and the second type is the context clue in which a word or phrase is so completely anticipated from the meaning of the sentence or paragraph that the slightest glance is all that is needed to confirm that it is the expected word or phrase.

The remedial work for weakness in the use of expectancy clues would be, for the most part, to place greater emphasis on the readiness development which precedes the reading of a topic and each selection within the topic. "The child who is weak in using expectancy clues needs more attention given to the introduction if units and selections, more picture study prior to reading, more opportunity for vocabulary development on a particular topic or selection to be read, and more careful planning of the outcomes expected."

The child who has failed to develop ability in using context clues as an aid to word recognition is indeed in difficulty.


49 Betts, Foundations of Reading Instruction, pp. 601-608.

50 Ibid., p. 603.
"This ability is one of the most important, if not the most important, means of word recognition." It is a rapid technique which enables the reader to identify a word immediately.

Remedial training should be based upon having the child read materials that are of such a level of difficulty that he encounters about one new word in every forty running words. Dolch contends that the pupil should be reading for purposes that demand thorough understanding of the content. In the more severe cases of this type, a separate and immediate purpose for each paragraph or sentence should be stated.

Paul Witty concurs by adding that "this will emphasize reading for meaning and will enable the child to recognize known words at a glance and use context clues as an aid to other techniques in the identification of unfamiliar words."


52 Dolch, Psychology and the Teaching of Reading, p. 59.

53 Ibid., pp. 60-61

54 Witty, "Answers to Questions About Reading", p. 12.
In addition to the above suggestions, the following more informal exercises will encourage the child to use context clues:

a. Exercises in which the meaning of the sentence indicates the word to be recognized

b. Exercises in which context plus initial elements are used as aids to word recognition

c. Riddles in which the context gives the answer.

"The set of skills needed to reinforce the meaning clues in word recognition can be grouped under three types of learning:

a. Flexible visual analysis of words

b. Knowledge of word parts

c. Fluent synthesis of word parts".

The most effective remedial measures for the child who is disabled in the visual analysis of words are similar to those used by the teacher when she is developing this ability in the first place. The materials used for such training should be rather difficult so that the child will be forced to analyze words visually. Help in finding parts of compound words or in locating root words in affixed words is excellent experience in visual analysis, states E. A. Betts.

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55 Bond and Tinker, p. 260.


57 Betts, Foundations of Reading Instruction, p. 619.
Experience in syllabifying words seems also to be effective. Dolch suggests first using known words and then having the child locate similar elements in unknown words.

For the child who is deficient in the knowledge of word parts, the following suggestions seem to be in order:

a. Pointing out the similarity between a new word and other words the child knows orally on the blackboard
b. Exercises to teach initial consonant sounds
c. Exercises to teach initial blend sounds
d. Exercises to teach vowel sounds
e. Exercises to teach hard and soft consonant sounds
f. Exercises to teach variant endings
g. Exercises to teach common word elements.

There are also certain drill devices that are used to increase the disabled child’s knowledge of word parts:

a. Word wheels
b. Word slips
c. Word tachistoscopes.

The remedial work that should be given to a child who is poor in the visual synthesis of words is to have him recognize

58 Dolch, A Manual for Remedial Reading, p. 175.

59 Ibid., pp. 158-159.
words presented to him by rapid-exposure techniques. A slip of words correctly analyzed into syllables could be placed in the tachistoscope and the child could tell some fact about each word.

The over-analytical reader results from too early an introduction of detailed oral-phonetic instruction in word recognition or from too much emphasis placed on the establishment of word recognition techniques.

The remedial treatment for children who tend to analyze words that are already known as sight words, is to give more training with the types of exercises that were discussed previously for increasing sight vocabulary, associating words with meanings, and using context clues effectively. Flash techniques, such as employing the tachistoscope as described before, are helpful. Rapid exposure of word cards is useful in overcoming the tendency to analyze words that are well known.

The over-analytical reader who breaks words up into too many parts is corrected by emphasizing structural analysis and knowledge of the larger elements. Stress on sounding each letter is desirable. Noting root words, prefixes, suffixes, and variant endings will aid the child to establish the habit of analyzing words into larger elements.

Word recognition is a difficult and complex learning. It is beyond the focus and purpose of this paper to analyze in detail

Ibid.
each technique as proposed by the five authorities. Therefore, the writer has chosen to present a general viewpoint and consensus of opinion in the chapter itself, and for the sake of comparison of more specific remedies of the problems most often found in the intermediate grade classroom refers the reader to Table Two in the appendix.

The development of proper directional habits in the reading situation involves two related instructional tasks. The first is concerned with acquisition of the left-to-right direction of attack required for proficient word identification and recognition. Any failure in performing the latter task results in what is known as reversal errors.

The procedure for correcting inappropriate directional habits in progressing along a line of print is the use of demonstrations and explanations given by the teacher during work at the blackboard, with experience charts and with other printed materials. The pupil's attention is directed toward writing from left to right. Then the child is instructed to follow as a pointer or finger is moved along underneath the words when the sentences are read.

Certain special aids are available for this corrective work. The first is to work with a single sentence that is confined to a single line of print. Its vocabulary and sentence structure

61 Betts, Foundations of Reading Instruction, pp. 345-347.
should be well within the comprehension of the pupil. Additional spacing between words in the sentence sometimes helps. Estts continues that after considerable practice with a single line, a selection of two or three lines may be used with rather wide spacing between lines, even quadruple spacing, rather than the familiar double spacing of typed material. In teaching how to read this multiple-line material, emphasis must be put on going all the way back to the first word in the next line in the back sweep of the eyes after one line is finished. The teacher should demonstrate this by swinging a pointer or finger from the end of one line to the beginning of the next in a single continuous sweep. After an adequate amount of practice on this kind of spaced material, the child should be guided in transferring his new skill to reading regular book printing.

In general, significant degrees of reversing the order of letters in words occurs more frequently among the more severely retarded readers. The remedial teacher should first give a clear exposition of the need, in order to recognize a word, for examining it from left to right. She accompanies this explanation with a demonstration. After writing a word on the blackboard, she moves a pointer or her finger along the word as she pronounces it slowly. To emphasize the procedure when a restudy

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Ibid.
is needed, she then moves her finger quickly back to the very beginning of the word, and progresses to the right again as she reads it a second time. On the second time through, the teacher should put stress on the desirability of grasping the word as a unit after the difficult part is worked out. Next, the method of working out the recognition of an unfamiliar word encountered in the context of a sentence is explained and demonstrated in a similar manner. The finger is moved along underneath the words as they are read. After a slight pause on reaching the unfamiliar word, she moves her finger along the word, pronouncing it as she did with the isolated word. The explanations and demonstrations are repeated as frequently as necessary, while the pupils are practicing left-to-right orientation in perceiving words. It is desirable to transfer this practice to sentences and paragraphs in book materials as soon as possible.

Other methods would include:

a. Writing words
b. Typing
c. Choral reading and motion picture aids
d. Use of initial consonants and consonant blends
e. Training in consonant substitution
f. Consonant Lotto and other group sounding games
g. Alphabetizing and dictionary exercises.

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Bond and Tinker, p. 314.
For specific remedies to alleviate orientational difficulties as suggested by the five authorities, see Table Three in the appendix.

In concluding the discussion of treatments for difficulties found most often in the intermediate grade classroom, it is necessary to include three specific trouble areas:

a. Overcoming specific reading defects
b. Improving reading in the content areas
c. Increasing rate of comprehension.

It is the author's intention to summarize briefly the treatments involved in each type of disability so that the reader will be aware of the possible solutions should she need to put one or the other to practice in the ordinary classroom.

There are three major groups of specific retardation problems: the child who is limited in one or more types of comprehension, the child who has failed sufficiently to develop some of the basic study skills, and the child who is ineffective in oral reading but who is in all other respects a competent reader. Each of these children is in need of remedial help to overcome a specific defect.

The major method of correcting a specific type of comprehension difficulty is to have the child read materials in a well-graded, basic reader at the appropriate level of difficulty for
him. The purpose for reading the material should be such that the ability in which the child is limited is stressed. The reasons for reading should be well understood by the child before the reading is done and there should be checks on the accuracy of the reading at the end. These check questions should reflect the specific comprehension ability being emphasized. The comprehension abilities most important are:

a. Reading to retain factual information
b. Reading to sense the organization of information
c. Judging the authenticity and relevance of information
d. Interpreting the information given
e. Appreciation abilities.

The methods for correcting specific limitations in basic study skills are to find exactly the study skill in which the child is ineffective and then to teach that skill and give him enough practice to make it become part of his permanent reading equipment. The basic study skills are:

a. Location of sources of information
b. Use of basic references
c. Interpretation of pictorial and tabular materials
d. Methods of organizing information.

Ibid., p. 347.
Ineffective oral readers need to be given material that is relatively easy for them to read and have ample opportunity to prepare it. The major problems in oral reading are:

a. Inappropriate eye-voice span
b. Lack of proper phrasing
c. Unfortunate rate and timing
d. The emotionally tense oral reader.

Reading materials in the content fields are first used in the primary grades and become more prominent as the child progresses through subsequent grades, when the materials become more highly specialized. Proficient reading in these areas is based upon normal progress in a well-rounded basic reading program and in acquiring certain supplementary abilities and skills as occasion for their use arises in one or another field.

The abilities required for reading literature are closely related to general reading ability developed in the basic program. The reason for this may be because the basic program is frequently composed of predominantly narrative material. But the reading abilities used in the other areas are not intimately related to each other or to general or narrative reading ability, though, of course, there is some overlapping.

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65 Witty, Reading and the Educatve Process, Ch. 6.
E. A. Betts, "Reading as a Thinking Process", National Elementary Principal, 35 (September 1955), 88-89.
There is need for adjusting reading skills and abilities in each subject matter field. The comprehension abilities employed and the rate of reading depend upon the nature and organization of the material, its difficulty, and the purpose for which the reading is to be done.

Social studies, science, mathematics, and literature are the four content fields. They involve a wide range of materials to be read and somewhat different reading abilities are required in each field.

The learnings necessary for proficient reading in the content areas are:

a. Special vocabulary
b. Application of proper comprehension abilities to a particular field
c. Common words with special meanings in a content field
d. Concepts, symbols, and abbreviations
e. Use of pictures, graphs, maps, and tables
f. Differences in organization.

To a large degree diagnosis of difficulties in content fields depends upon teacher-made tests and other informal procedures such as observation of pupil responses in class discussions and in individual work with a pupil. The remedial instruction is based upon the diagnostic findings. The teacher should be alert to individual differences and adjust instruction to them.

Success of the remedial instruction depends upon maintaining
good morale and motivation in the pupil. These are fostered by making the diagnosis and the organization of the remedial procedures a co-operative enterprise between the teacher and the pupil, as well as by making sure the child notices every sign of progress he is making.

The program for improving rate of reading must include the following:

a. Use of appropriate materials
b. Proper incentives to develop and maintain motivation
c. Appropriate techniques for increasing rate.

Two general techniques are employed to increase speed of reading. The first is working against time with proper materials and adequate motivation. The second consists of using machines of various kinds. "Just as much gain in speed can be obtained, however, by the well-organized, less complicated, and less expensive procedures as by the use of machines.

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67 Paul Witty, "How Can Efforts to Improve Reading in Specific Curriculum Areas Be Considered with other Aspects of a Sound Reading Program?", Conference on Reading, (1958), 242-246.

Bond and Tinker, p. 389.
An essential part of any program for speeding up reading is to develop flexibility in adjusting rate to materials and purposes.

Witty claims that there has been "too much emphasis upon speed of reading per se." The best way to teach a child to comprehend at an appropriate speed is to furnish him with the skills and concepts to understand properly and quickly what he is to read. When this is done, the child will ordinarily learn to understand rapidly whatever he attempts to read. If he has handicaps and does not improve his speed when these handicaps are removed, a speed-up program is in order. Similarly, dawdlers may profit from putting special emphasis upon speed. See Table Four in the appendix for specific remedies.

68 Witty, Reading and the Educatve Process, p. 209.

69 ______, "Improvement of Reading Abilities", pp. 251-273.

CHAPTER IV

EXPLANATION OF AUTHOR’S CHOICE OF METHOD

FOR EFFECTIVE READING IN THE

INTERMEDIATE GRADES

The teaching of reading has been studied by the five authorities over a period of many years. The modern approaches to reading are the result of researches in the field of reading, in the psychology of learning, in child development, and in numerous other areas. These researchers have suggested modifications of method which have been tried by teachers in classrooms throughout the nation. In general, the author finds agreement among the five authorities that no one specific method alone is suitable to all children or in all reading situations. Probably in no case in practice is any method used in its pure form to the exclusion of others. A careful study of current practices by the authorities indicates that they fall into at least six broad categories. These methods of teaching and their relative advantages and disadvantages according to the five experts are the following:

a. Word recognition.
b. Oral instruction.
c. Totally silent reading instruction.
d. Reading experience charts.
e. A thought-getting process centered around purposeful activities.
A well-organized coordination of all the other methods.

If reading instruction is primarily the teaching of word recognition, it is assumed under this method that the major task is to enable the child to be effective in the recognition of isolated words. Realizing that word recognition is fundamental to efficient reading, many teachers employ methods that are built almost solely for the purpose of giving systematic training upon words.

As discussed in particular by E.W. Dolch and E.A. Betts, there are three types of word-recognition methods. The first, the letter-by-letter spelling or sounding method, is not very widely used at the present time, although its use is sometimes recommended for the correction of remedial cases. In the letter-by-letter spelling method, the children learn individual words through spelling them and remembering their letter sequence. The initial instruction under this method, of course, is teaching the alphabet.

A slight modification, but fundamentally the same, is the letter-by-letter sounding method, in which each individual letter is sounded and then the word is also said. Here the individual sounds of the letters constitute a fundamental part of initial instruction. For those letters that have several sounds, the task of teaching each of them is rather difficult.

Both of these methods have certain serious limitations or disadvantages, according to Betts and Dolch. In the first place, emphasis upon the individual

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E.W. Dolch, Psychology and the Teaching of Reading (Boston 1951), pp. 69-100.

2 Ibid.
letter type of attack calls for minute observation, which limits the effectiveness of the reading of the pupil when he becomes a somewhat more mature reader. Dependence upon this way of word recognition is too slow and cumbersome for the rapid sort of reading that a child is expected to do today. It might have been a relatively effective method back in the time that it was introduced and highly recommended, but it should not, in the author's opinion, be used as a method of instruction today.

In the second place, this method is a time-consuming one. The children at no time during their beginning learning are independent learners. They have to be under the constant supervision of the teacher. She must, through many processes, teach them individual letter names, or sounds, and teach them a small vocabulary. Then they are somewhat able to read relatively simple material. Other learnings, such as linguistic, artistic, and the like, are not accompaniments of beginning instruction. It is relatively a long time before the children get to the reading of meaningful material. These disadvantages make the letter-by-letter method, one that should be avoided as a basic method.

The second primarily word-recognition method is the phonetic method. This method teaches reading as primarily a matter of sounding out words. It differs from the letter-by-letter sounding method in that it employs phonetic elements as well as individual-letter sounds. Under this method of instruction, the child usually is given ear training to make sure he attends to and learns that words are made up of individual sounds. He is then taught the most frequent be-

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3 E.W. Dolch, Methods in Reading (Champaign 1955), pp. 44-91.

4 W.S. Gray, On Their Own in Reading (Chicago 1963), pp. 32-66.
Beginning sounds of words, taught the most frequently used vowel and consonant sounds, and taught some of the more important phonetic blends. In the strictest application of the method, initial instruction is limited to drill upon these elements. After the child has some familiarity with these phonetic elements, the elements are combined into words and the child sounds out the word. The words are then combined into sentences. In reading sentences, theoretically, the child resorts to phonetic analysis only as needed.

It is assumed in instruction under this method that through the learning of the sound elements, the child has developed a system of word recognition that makes him an independent recognizer of words. While it is true that some ability at sounding is very helpful in independent recognition of words, too much or too early emphasis upon this method has serious ramifications. First, initial introduction is much like nonsense learning and therefore is inefficient as a method, because nonsense learning is much more difficult than meaningful learning. Second, this method tends to limit reading ability later on. The author has found that many disability cases occurring in the higher grades can be best described as overanalytical readers. The author refers the reader to Table Two in the Appendix. In other words, such pupils tend to break a word into its elements when they could readily recognize the word as a whole at sight or they tend to break the word into small elements when larger ones would suffice. They are thereby hampered in becoming fluent readers.

A third disadvantage is that the method delays the meaningful reading act for some time, and thereby other important learnings arrived at through reading are not achieved.

Fourth, the necessary drill upon the phonetic elements, when reading is introduced in this fashion, is tedious and uninteresting to most children.
Modifications of this method are widely used today. The method is usually used in combination with other methods. As a sole method of reading instruction it has serious limitations. However, if combined with other methods, it has much usefulness. It is not a question then of whether we should use phonetic analysis or not; it is a question of when to introduce phonics and how much to use.5

The third primarily word-recognition method is the word-drill method. Under this technique the first reading instruction is devoted to vocabulary drill.

The more important disadvantages to this method are:
a. It may cause certain types of reading difficulty at later stages in the program.
b. The artificial motivating devices used to keep the child’s interest cannot arouse the amount of interest that normal reading experiences do.

This method, however, in combination with other methods, is used widely today. At times, in the introduction of words that do not lend themselves to easy recognition, the word may be efficiently introduced through word-drill devices. This method is useful when used in combination with other methods, in building a wide vocabulary for the child of meager sight vocabulary.

The oral instruction method is based upon the premise that the words which the child learns to read are a part of his oral vocabulary and that he can increase his reading ability most effectively by relating it to his oral language.

5 Betts, Foundations of Reading Instruction, pp. 616-614.
Gray, On Their Own in Reading, pp. 34-53.
E.W. Dolch, Problems in Reading (Champaign 1948), pp. 37-96.

6 “Four 'Methods' of Teaching Reading”, Elementary English, 31 (Feb. 1954), 72-76.
Paul Witty, Reading in Modern Education (Boston 1949), p. 142.
The child is encouraged to read aloud whenever and wherever possible. No attempt is made to suppress vocalization. As a matter of fact, undue suppression of vocalization is thought to be unwise. The underlying philosophy of the method is that in order that learning to read may be efficient, the visual presentation of printed materials should be tied up with the spoken language.

This method has the advantage of making errors easily detected. The teacher knows instantly any trouble the child is having. Immediate correction is possible. Thus, there may be constant diagnosis and appraisal of progress.

The weakness in the method are the following:

a. The method tends to limit the child later in his reading growth since vocalization becomes a rather fixed habit, which slows the reading very materially.

b. This method is probably more subject than any other to unfortunate emotional results inasmuch as the child is frequently asked to stumble through a passage which he is poorly equipped to read orally.

c. There is not much opportunity for individualization of instruction in reading. All the children have the same material, which they follow as each member of the class reads it.

d. The method is slow and cumbersome.

e. It is wasteful of pupil and teacher time, because both the teacher and the pupils have to listen to the reading of one child.

f. The methods tend to deteriorate into mere oral word calling.

The non-oral method completely repudiates the use of any oral reading whatsoever. The philosophy underlying this method is that it is totally unnecessary in the teaching of reading to relate the visual symbol to the spoken
word. It is felt that the vocalization which results from relating the visual symbol to the spoken word unduly hampers the learner. It is believed that it is as easy for the child to visually understand the printed symbol as it was for him to learn the complicated auditory patterns needed to understand the spoken words and that children are able to do the latter before they are one year of age. The contention is that inner speech is a very serious handicap to effective silent reading, that oral reading habits become firmly entrenched in initial instruction, which, depends on word sounding and oral reading, and that the habits of inner speech while reading are in the majority of cases never completely overcome.

While there is no direct oral reading involved, oral expression such as retelling stories is encouraged. However, the child who starts a story in the words of the book is required to begin again, using his own words. Bond states that "oral reading itself is introduced only after it has been made sure that the non-oral reading habit has been permanently established." A fourth method of teaching reading discussed primarily by Guy Bond is the use of reading experience charts. Here the daily experiences of the children, inside and outside of school, become the content of the reading material. This material is prepared by the pupils under the guidance of the teacher, or by the teacher herself.

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7 Dolch, Psychology and the Teaching of Reading, pp. 156-180.
8 W. S. Gray, Reading in General Education (Chicago, 1948), pp. 63-77.
9 Bond and Wagner, Teaching the Child to Read, pp. 90-91.
10 Ibid., pp. 92-93.
The method is based upon several educational principles:

a. The child learns by doing.
b. Integrated learning is the most effective learning.
c. The child's experiences are more real to him than those of other persons, and, therefore, reading is more meaningful.
d. The words which the child uses in his everyday conversation are most easily learned.

The disadvantages to this method as seen by Dr. Bond are the following:

a. Most experience-chart material has a heavy vocabulary burden.
b. It is difficult to repeat words that have been introduced.
c. Too many concepts are inadequately handled to make for the rich and full-meaning that is necessary for understanding.
d. Memory reading rather than actual reading is fostered.
e. The quality of the material is often poor.
f. It does not encourage imaginative reading and offers no possibility for discovery in reading.

The advantages to experience charts is that they deal with specific class experiences prepared for and then read by a specific class. The charts may be kept for a short time so that the children may relive or review the things they have done.

This method, if used, should be used as a supplementary aid as it cannot and therefore should not be expected to do the whole job.

A fifth method for reading instruction involves a thought-getting process

\[\text{Ibid.}, \text{ pp. 95-96.}\]
centered around purposeful activities. Under this technique, the reading program is organized into topical units. These units are carefully planned so that materials at various reading levels can be assembled. Thus, children of different reading abilities can each read materials suited to him and can thereby make worthwhile contributions to the total class enterprise. The units are introduced in such a way that the purposes for reading are real to the children.

Under such a plan, the entire class reads upon a given subject. First, background materials are read by all students. Then sub-topics are selected to be studied further. With the help of the teacher who knows the available materials and the instructional needs of the pupils, groups are formed. Each group deals with a phase of the larger topic.

E.A. Betts and Paul Witty, especially, think that this method has many excellent advantages:

a. Each child would be reading at his reading level, materials that were suited to him and for purposes that were real to him.

b. The goals for reading are logical and easily understood by the child.

c. It is a well organized method.

d. The child can see his progress toward the achievement of a goal.

e. Thoughtful and critical reading is stimulated as the child is reading to solve a problem.

f. Interest is stimulated.

g. A differentiated attack suited to different purposes and materials is

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12 E.A. Betts, "What Makes Sense in Reading?", *Education*, 80 (September 1959), 46-47.

developed.

As the topics change and as the purposes for reading change, many and varied reading skills and abilities are developed.

From the above listing of strengths, it can be seen that the purposeful and meaningful method is an effective one for teaching reading. However, in the author's opinion, there are some weaknesses which must be considered:

a. If too many topics are handled the program may become much too difficult.

b. There may be a tendency to slight the development of word-recognition technique.

c. There may be a tendency to have the program somewhat overbalanced toward getting factual materials and thereby neglecting imaginative literary materials.

The final method to be discussed is the author's choice for effective reading in the intermediate grades. Simply stated, it is a well-organized composite of the other methods.

Reading instruction may be a modified, purposeful method, which uses as techniques within the larger more fundamental instruction for purposeful, meaningful reading, analytical word study, and many silent reading situations. It may be seen from the previous discussions of approaches to reading that the teacher needs a diversification of method in which she can employ the program of instruction that is suitable to the problem which she has at hand at a specific time. However, it has been found most effective to have the instruction fundamentally that of purposeful topical reading. At the same time, the other methods are used as teaching techniques to solve the problems and to avoid the dangers that would be inherent if the purposeful method alone were used.

The composite method permits the four classifications of reading experience
to proceed in an integrated way. A diversified program has at least the following four fundamental aspects:

a. Those reading experiences in which the teacher shows the children how to go about reading and helps them discover the use of techniques and skills.
   The basal program shows the children how to read.

b. Those reading situations which frequently grow out of the basic program in which the child uses new reading techniques and skills.

c. The personal-development reading experiences, which may or may not be related to the other reading experiences, are all those recreational and guided reading activities which the child undertakes for his own personal enjoyment.

d. The re-educational reading opportunities which enable the child who gets into difficulty to be given special help at the onset of his difficulty.

All four aspects of the program are necessary, important, and interrelated, as is demonstrated by the following discussion of the basic steps underlying good teaching in any reading situation.

First, the teacher prepares thoroughly before beginning a new unit. She knows what the children will be reading in their basal reader. She accumulates materials and formulates the plan of procedure.

Second, interest must be encouraged and backgrounds of knowledge and vocabulary must be established. Interest can be obtained and backgrounds of concepts and vocabulary can be built through discussion, written work, and the use of audio-visual aids.

Pupil-teacher planning is the third step in dealing with any fundamental topic. It is by means of such planning that purposes are developed, problems raised, and directions formulated.
The fourth step of background reading is necessary before the class organization can be decided upon. This reading might well be done in the basic reader by the group who are dealing with the topic in their basal readers. The more able readers who have already progressed beyond that topic in the basal reader might reread the material in order to gain further backgrounds of understanding. The immature readers, not yet prepared to read at the level of the material of the unit, may well be given material about the unit at their own respective reading levels.

Further planning is now undertaken to formulate in greater detail the direct procedure. At this time, subgroups are formed under the guidance of the teacher. The responsibility of each group being to collect information on more specific topics.

The sixth point is direct guidance by the teacher. It is necessary at this point to help determine who will be within each committee. The teacher must consider the interests of each child, his reading ability, the available material in terms of its amount and difficulty. The best and poorest reader within the class might be members of the same committee. The teacher also suggests efficient ways of proceeding or she leads the children to discover them. She anticipates possible difficulties the children will encounter and gives direct instruction in how to meet them.

Co-operative and individual reading and discussions may now be systematically and intelligently pursued by the children. Their purpose is real and important because interest has been aroused. They know how to proceed, understand the organization and sense their responsibility. They know what they produce is to be used in a cooperative venture.

The eighth step is culminating the experiences of learning by making use
of the results of their efforts. It has especially great significance to a reading experience in that it develops the essential habit of making a practical application of what has been read. It also makes for accuracy in interpretation and demonstration of the meaningfulness of the reading act. It furnishes opportunity for rereading in the case of inconsistencies or disagreements and thereby makes for critical reading. It forms a reasonable and sensible end for the unit. It develops habits of persistence by making it necessary for the children to hold to the task until the end is reached. The culminating experience should be a direct outgrowth of the suggestions introduced in the planning stage and should be compatible with the purposes for which the children were reading.

The final step of evaluation should be made both by pupil and teacher. They should be made throughout the progress of the experience as well as after its culmination.
CHAPTER V

SUMMARY, RECOMMENDATIONS, AND CONCLUSIONS

Instruction designed to develop so complex an ability as reading must be individual instruction. The complex learnings that make up reading are developmental in that new learnings are rooted in and dependent upon previous learnings, and in turn, these new learnings become the background basic to subsequent learning. Each child goes up through a developmental sequence of learning to read at his own unique rate.

When the learning curves for any two children are compared, differences are immediately apparent. And, also, immediately apparent are irregularities within any one child's learning curve. These irregularities coupled with differences between children's general rate of learning constitute one of the most serious problems in the teaching of reading. In order to meet the differing rate of learning among children and the irregularities of rate of learning typical of each child, the teacher must teach each child as an individual. The administrative devices, the group procedures, the wealth of material, the extensive libraries, and the programs of appraisal are simply ways of giving well-prepared teachers a reasonable chance of individualizing instruction in teaching reading.

While it is recognized that the instructional needs of children differ, it is well to recognize that children have similar instructional needs. An instructional need of all children is the need to be taught to read. Furthermore,
while it is recognized that children differ, it is also recognized that they are more alike than they are different. They differ, however, in the length of time and in the expenditure of effort required to establish a given learning. It is not possible to forecast which child will get into difficulty. It may be the intellectually very able, it may be the child with poor hearing, it may be the child with any one of innumerable reasons for failure to establish a learning essential in the reading sequence or one who overemphasizes a necessary learning.

While adjustment to individual differences is imperative, it is fortunate that individuals respond in similar ways. As a part of her professional training, the teacher knows the characteristics of child development. She makes use of these facts in teaching children. She knows the psychology of learning and makes use of its theories. She knows the methodology of reading and she teaches reading.

In order to know a child, a teacher must know his capacities, his physiological condition, his emotional and social adjustments, his interests, attitudes, drives, forces that impinge upon him, and his reading abilities. The teacher must know all the capabilities of each child if she is to capitalize on the capabilities to further reading and other developments of all the children. Much of this data she gains from test results, observations, conferences, and the questionnaire. Whatever means is used to secure information, the teacher should attempt to understand the child's capabilities as early in the school year as possible.

The teacher should know the physiological condition of the child. She should be on the alert to detect signs of visual discomfort, of auditory defect, of fatigue, of illness, and of other detrimental physiological conditions. She should make needed adjustments insofar as possible and should secure medical
diagnosis and corrective measures for the children that need them. When a child has been absent from school because of illness, she should recognize that he has missed all the important instruction which has taken place during his absence and that he is likely to approach his learning with somewhat lowered physical energy. He is likely, therefore, to be somewhat less able to continue from the point at which he left instruction than he was when illness made it necessary for him to miss school.

The teacher must know the emotional and social adjustment of each child if she is to adequately adjust instruction to the individual. She should be aware of conditions which disturb the child and of his responses when confronted with those conditions. The integrity of the individual must be respected, not only by the teacher but by all within the school community.

Information about the interests, attitudes, and drives of the child, both in and out of school, are facts important to the teacher. The sooner she is aware of the interests of the children, the better she will be able to utilize them as motivation for the development of reading. She observes any material the child picks up to read for himself, she talks with the child and notes the topics about which he shows enthusiasm, she discovers his attitude toward reading — the importance he places on being able to read, the extent to which he uses reading both recreationally and in solving problems. She studies his drives. She attempts to find out what makes him tick as an individual.

Since what happens to the child outside school as well as in school has an influence upon reading development, the teacher must know the home and other educative forces which influence the child and his reading development. Reading has an important place in some homes. The parents use reading effectively, the children are encouraged to read, a cultural environment is maintained. In other
homes reading is infrequently used, materials are limited and poor, and the child is discouraged sometimes in his attempts to read. There are many emotional, cultural, and economic factors of the home that have an impact upon the child and his reading growth.

In addition to personal, intellectual, and physical development, the teacher must know the child's reading development. It is to the child's reading development, above all else, that the reading program must adjust. The teacher must know the child's development of word-recognition techniques so that she can aid him in further growth. She must know the backgrounds of understanding he has developed. She must know the material he can read and comprehend so that she can adjust material to his capabilities. She must know what the child has read so that she does not have him re-read a great deal of material he has previously studied. She must know the development in all of the outcomes of reading instruction if further instruction is to be effective.

As far as can be forseen by the writer of this paper, changes are needed not so much in the general scope and design of the reading programs as in the upgrading progress in harmony with expanding needs. Possible alterations might include the following recommendations:

1. Making wider provision for developmental reading instruction in the upper grades. This is of primary importance.

2. Promoting greater mastery of basic reading attitudes and skills at all levels.

3. Promoting effective adjustment of instruction to individual differences.

4. In efforts to provide maximum progress both in and through reading, early training must be given in the other language arts of listening, speaking and writing.

5. Increasing and more effective use of audio-visual aids.
f. Improving basic reading periods and selections. They extend the child's cultural background as well as allowing for the child's personal development.

g. Improving reading in content fields. The goal sought should be a closely coordinated sequential program of reading improvement in all curriculum fields for all levels of school.

h. Demanding better reading materials, adapted to interests, needs, and reading ability of the age group taught.

i. Improving the criteria of the reading program.

j. Obtaining greater assistance from administrators and parents.

In presenting conclusions of the research that has been summarized, the author wishes to point out that the five authorities concur that there are definite principles which must be followed by any teacher of any classroom who wishes to teach reading effectively. They include the following points:

a. The realization of the changing role of reading and its new relation to learning activities.

b. The development of a broad concept of reading.

c. The acceptance of the idea that growth in reading is a continuous process.

d. The reading program must be broadened in harmony with the expanding interests and needs of the pupils.

e. Guidance in reading is essential in each curriculum field.

f. The adjustment of the reading program to the unique characteristics and needs of each child.

To accomplish these objectives, the teacher must know the child, know the material, teach for readiness, establish purposes, and most important, show the child how to use reading effectively to reach his goals. She must also recognize the ranges of talent and adjust the material to the general reading capa-
bilities of each child, and she must give direct instruction in the phases of reading that are to be developed.

It is hoped that this critique will aid the teacher in the complex problem of showing the child how to go about his reading task. The problem of bringing the child, the material, and the methods of instruction realistically together is a difficult one. However, it is not an insurmountable one. It is the problem of teaching the child to read.
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## APPENDIX

### TABLE I

**REMEDIES FOR DIFFICULTIES IN PARAGRAPH COMPREHENSION**

<table>
<thead>
<tr>
<th>Probable Cause</th>
<th>Bond</th>
<th>Gray</th>
<th>Betts</th>
<th>Dolch-Witty</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meager background of experience</td>
<td>Picture dictionary, word games. Provide experiences by excursions, etc.</td>
<td>Enlarge experiences by excursions, etc.</td>
<td>Extensive use of reading material at pupil's level of experience and difficulty.</td>
<td></td>
</tr>
<tr>
<td>Difficulty in word perception</td>
<td>Word study in context. Word cation and use of games. Picture the dictionary.</td>
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<td></td>
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<tr>
<td></td>
<td>Material gradually raise level of difficulty.</td>
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</tr>
<tr>
<td>Overemphasis on correct oral reading</td>
<td>Keep record of pupil progress.</td>
<td></td>
<td>Check comprehension.</td>
<td>Gradually increase difficulty.</td>
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</tr>
<tr>
<td>Failure to provide easy paragraph material in paragraph comprehension</td>
<td>Graded practice exercises, poems, stories of increasing length.</td>
<td>Encourage independence with questions of judgment and Material grouped evaluation by topic, attractive stories.</td>
<td>Practice organisation by outlining, summarizing, classifying.</td>
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<td></td>
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</tr>
<tr>
<td>Overemphasis on word analysis</td>
<td>Check comprehension.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Emphasize contextual clues. Eliminate oral reading for a time.</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
APPENDIX

TABLE II

REMEDIES FOR DIFFICULTIES
IN WORD RECOGNITION

<table>
<thead>
<tr>
<th>Difficulty and Probable Cause</th>
<th>Bond</th>
<th>Dolch</th>
<th>Witty</th>
<th>Betts-Gray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addition of Sounds</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speech defects</td>
<td>Correct speech. Correct speech.</td>
<td>Examination and correction.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Failure to discriminate consonant sounds</td>
<td>Teach word perception by intrinsic and phonetic combination method.</td>
<td>Preliminary: drill to train for word sounds. clears this up.</td>
<td>Increase in mental age</td>
<td></td>
</tr>
<tr>
<td>Failure to discriminate word forms accurately</td>
<td>Emphasize intrinsic method.</td>
<td>Sound drills of words alike except for sounds added by reader.</td>
<td>Will disappear naturally as child matures.</td>
<td>Drill words used in sentence by flash technique.</td>
</tr>
<tr>
<td>Previous errors which give set toward plurals, participles, etc.</td>
<td>Provide opportunity for practice of skills in context.</td>
<td>Work book practice exercises.</td>
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</tbody>
</table>
TABLE II (Continued)

<table>
<thead>
<tr>
<th>Difficulty and Probable Causes</th>
<th>Bond</th>
<th>Dolch</th>
<th>Witty</th>
<th>Betts-Gray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addition of Words</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too great dependence on context</td>
<td>Intrinsic method of developing individual word recognition. Rhyming words in familiar rhymes. Picture dictionary.</td>
<td>If meaning is disrupted, present child with typed copy of sentence and have him read to point out difference in meaning.</td>
<td>Teacher reads aloud ... child listens to errors.</td>
<td></td>
</tr>
<tr>
<td>Comprehension exercises which require both knowledge of content and ability to discriminate word forms.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Too rapid rate</td>
<td>Caution pupil to read more carefully.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE II (Continued)

<table>
<thead>
<tr>
<th>Difficulty and Probable Cause</th>
<th>Bond</th>
<th>Dolch</th>
<th>Witty</th>
<th>Betts-Gray</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Omission of Sounds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speech defects</td>
<td>Correct</td>
<td>Speech defects</td>
<td>Speech correction</td>
<td>Examination and correction</td>
</tr>
<tr>
<td>Difficulty in discriminating word perception by</td>
<td>Development of word perception by intrinsic method.</td>
<td>Sound tracing for errors.</td>
<td>Note common prefixes and suffices and study lists containing them.</td>
<td></td>
</tr>
<tr>
<td>complex visual patterns; recognizing small units in words and omitting the rest.</td>
<td>Plenty of practice with words in context.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Slow or faulty techniques of attacking words</td>
<td>Teach phonetic attack as necessary.</td>
<td>Syllabification and combining syllables into words.</td>
<td>May need specific phonetic instruction.</td>
<td></td>
</tr>
<tr>
<td>Overstress of speed.</td>
<td>Slower rate.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
TABLE II (Continued)

<table>
<thead>
<tr>
<th>Difficulty and Probable Causes</th>
<th>Bond</th>
<th>Dolch</th>
<th>Witty</th>
<th>Dettis-Gray</th>
</tr>
</thead>
</table>

Omission of Words and Line Skipping

| Too great speed for other techniques | Manual guide for direction-al orientation | Slower rate | Teacher reads aloud. Child observes errors and distortion of meaning produced by errors. | Slower rate |

- If meaning disrupted - concert reading
- Emphasize comprehension.
- If meaning not disrupted - ignore
- Type stories.
- Widen spaces between lines.
- Gradually reduce space.
- Draw a line under print as read.

Draw attention to content.

Develop awareness of errors.
<table>
<thead>
<tr>
<th>Difficulty and Probable Causes</th>
<th>Bond</th>
<th>Dolch</th>
<th>Witty</th>
<th>Bette-Gray</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Word Substitutes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of word analysis method</td>
<td>Phonetic exercises which require context comprehension and word discrimination.</td>
<td>Phonetic stories,</td>
<td>Give method suited to individual.</td>
<td>Phonetic drill.</td>
</tr>
<tr>
<td>Limited contextual clues.</td>
<td>Encourage use of contextual clues.</td>
<td>Easier reading until substitutions are automatically reduced by increased contextual clues.</td>
<td>Read easier material for meaning.</td>
<td>Call attention to context clues.</td>
</tr>
<tr>
<td>Limited meaning and speaking vocabulary.</td>
<td>Build up meaning vocabulary by providing rich and varied experiences.</td>
<td>Build up reading vocabulary.</td>
<td>Provide rich social setting which stimulates use of language.</td>
<td>Call attention to number of errors.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Use audience situation for oral reading.</td>
</tr>
<tr>
<td>Difficulty and Probable Causes</td>
<td>Bond</td>
<td>Dolch</td>
<td>Witty</td>
<td>Letts-Gray</td>
</tr>
<tr>
<td>--------------------------------</td>
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<td>-------</td>
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</tr>
<tr>
<td>Faulty Vowels and Consonants</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inability to associate visual and auditory symbols</td>
<td>Adjust method to pupil's sensory equipment.</td>
<td>Teach association of letters and most frequent sounds.</td>
<td>Phonetic drill. Flashcard exercises.</td>
<td></td>
</tr>
<tr>
<td>Failure to observe what words with same sounds often contain same letters.</td>
<td>Teach a combination of intrinsic and phonetic word perception techniques.</td>
<td>Blending phonetic stories, sounding and tracing.</td>
<td>List words of similar sound elements. Match isolated sounds.</td>
<td></td>
</tr>
</tbody>
</table>
### Table II (Continued)

<table>
<thead>
<tr>
<th>Difficulty and Probable Causes</th>
<th>Word by Word Reading</th>
<th>Bond and Dolch</th>
<th>Witty</th>
<th>Gray</th>
<th>Betts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overemphasis on vocabulary study</td>
<td>Varied reading activities organized around a core of interest.</td>
<td>Encourage.</td>
<td>Give easier material.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overemphasis on phonetic and other analytic drills.</td>
<td>Flash cards made by teacher of troublesome words, phrases, and sentences.</td>
<td>Quick perception drills.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of systematic left to right perception habits</td>
<td>Stress contextual clues.</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Lack of training in identification marks</td>
<td></td>
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</tr>
</tbody>
</table>

- Have teacher explain rhythmic progress of reading and use of punctuation.
<table>
<thead>
<tr>
<th>Difficulty and Bond and</th>
<th>Dolch</th>
<th>Witty</th>
<th>Gray</th>
<th>Betts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inadequate Interpretation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overemphasis on word recognition</td>
<td>Extensive, easy reading. Emphasize size comprehension.</td>
<td>Wide, easy reading.</td>
<td>Read short thought units, emphasize comprehension, gradually increase length. Use dictionary for meanings.</td>
<td>Use material at pupil's level - gradually increasing difficulty.</td>
</tr>
<tr>
<td>Limited meaning vocabulary</td>
<td>Build vocabulary by widening experiences</td>
<td>Build up background.</td>
<td>Enlarge experiential background.</td>
<td>Build up experiential background.</td>
</tr>
<tr>
<td>Narrow background of experience</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Unsuitable materials</td>
<td>Provide interesting, valuable material of proper difficulty.</td>
<td></td>
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</tbody>
</table>
## APPENDIX

### TABLE III

<table>
<thead>
<tr>
<th>Difficulty and Probable Causes</th>
<th>Bond</th>
<th>Dolch</th>
<th>Witty</th>
<th>Detts-Gray</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Repetition of Words</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Previous errors which disrupted meaning</td>
<td>Meaningful practice of word perception techniques in context.</td>
<td>Clear up other errors.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>With reversals, may be type of regression movement</td>
<td>Demonstrate left-to-right progression,</td>
<td>Manual guidance in direction.</td>
<td>Call attention to difficulty. Stress carefully perception of words.</td>
<td>Read silently as teacher reads aloud.</td>
</tr>
<tr>
<td>Devise to gain time</td>
<td>Build up effective method of word attack.</td>
<td>Prepare oral reading carefully.</td>
<td>Read in audience situation.</td>
<td></td>
</tr>
<tr>
<td>Difficulty and Probable Causes Bond</td>
<td>Dolch</td>
<td>Witty</td>
<td>Better-Gray</td>
<td></td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------</td>
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<td></td>
</tr>
<tr>
<td><strong>Reversals</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Confused directional preference</td>
<td>Demonstration of left to right progression.</td>
<td>Tracing.</td>
<td>Explain the nature and the cause.</td>
<td>Practice that calls attention to word details.</td>
</tr>
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</tr>
<tr>
<td>Difficulty in coordinating temporal sequence of sound with directional sequence of printed word.</td>
<td>Say elements of word in proper phonograms, or syllables. Motor aids if necessary.</td>
<td>Tracing.</td>
<td>Sounding.</td>
<td>Flash card drill with phrases. Mích, easy, interesting material.</td>
</tr>
<tr>
<td></td>
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</tr>
<tr>
<td>Failure to observe that reading has a definite directional sequence.</td>
<td>Manual guide.</td>
<td>Cards with words outlined in Braille dots.</td>
<td>Practice words in context.</td>
<td>Marker.</td>
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</tbody>
</table>
### Table IV

**Remedies for Increasing Rate of Comprehension**

<table>
<thead>
<tr>
<th>Difficulty and Probable Causes</th>
<th>Bond</th>
<th>Dolch</th>
<th>Witty</th>
<th>Betts-Gray</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Slow Reading</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Due to pupil's excessive</td>
<td>Get pupil's understanding and cooperation in solving problem.</td>
<td>Select easy, interesting material.</td>
<td>Use easy, interesting reading material.</td>
<td></td>
</tr>
<tr>
<td>articulation</td>
<td></td>
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</tr>
<tr>
<td>Eliminate all reading, except remedial, for a time.</td>
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<tr>
<td>Rich interesting, easy material</td>
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<tr>
<td>As speed increases, start checking for comprehension.</td>
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</tr>
<tr>
<td>Difficulty and</td>
<td>Bond</td>
<td>Dolch</td>
<td>Witty</td>
<td>Betts-Gray</td>
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<tr>
<td>---------------------</td>
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<tr>
<td>Probable Causes</td>
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</tbody>
</table>

**Slow Reading**

Due to narrow eye-voice span

Avoid comprehension exercises, oral reading, any type that might slow reader during early part of remedial program.

Select easy, interesting material.

Measure and record progress.

Be enthusiastic.

Give plenty of encouragement.

Keep at it.

Physiological maturation.

Trace eye movements by use of Metron-O-Scope.

Rapid phrase perception exercises of gradually increasing length and complexity.

Use of material at reader's level.

Orienteate pupils to directional procedure in reading.
Approval Sheet

The thesis submitted by Mary Therese Long has been read and approved by a board of three members of the Department of Education.

The final copies have been examined by the director of the thesis and the signature which appears below verifies the fact that any necessary changes have been incorporated, and that the thesis is now given final approval with reference to content, form and mechanical accuracy.

The thesis is therefore accepted in partial fulfillment of the requirements for the Degree of Master of Arts.

Date

Signature of Adviser