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## A Study in Methods for Helping the Disabled Reader

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A STUDY IN METHODS FOR HELPING  
THE DISABLED READER

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A Research Paper  
Presented to  
the Graduate Faculty  
Central Washington State College

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In Partial Fulfillment  
of the Requirements of the Degree  
Master of Education

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by  
Margaret Meyer

July 1964

THIS PAPER IS APPROVED AS MEETING THE PLAN 2  
REQUIREMENT FOR THE COMPLETION OF A RESEARCH  
PAPER.

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Mary I. Simpson  
FOR THE GRADUATE FACULTY

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## CHAPTER I

### INTRODUCTION AND DEFINITION OF TERMS

#### I. INTRODUCTION

The ability to read well constitutes one of the most important skills a person can acquire. Satisfactory adjustment to living in this complex modern world requires effective reading. It is difficult to discover any activity, whether in school, business or daily living that does not require reading.

The importance of reading becomes even more obvious when we consider what happens to those who fail to learn to read. They are handicapped in practically all walks of life.

#### II. DEFINITION OF TERMS USED

Disabled reader. The disabled reader may be a person of intellectual capability who has failed to grow in reading, or he may have low intelligence. He is not living up to his potential as a learner at least in reading. He may reject reading, become a discouraged person, acquire unfortunate adjustment patterns and become increasingly less able to learn. He is a person in need of educational help.



Remedial program. A remedial program is an organized program designed to emphasize those phases of reading instruction that will enable the disabled reader to grow.

Diagnosis. The term diagnosis is derived from Greek roots, which mean "to know through" or "to know thoroughly." When we are diagnosing a difficulty, what we want to do is find out what is wrong, what caused it and what can be done about it. That is what diagnosis means as applied to reading disability. (13:129)

## CHAPTER II

### PURPOSE AND IMPORTANCE OF STUDY

#### I. PURPOSE

This paper will present an over-all view of the remedial reading program. More specifically, the chief concern of this writer is to acquaint the reader with theory and current research on: first, the causes of reading disability; second, diagnostic procedure; and, third, and perhaps most important, corrective techniques.

#### II. IMPORTANCE OF STUDY

The child who fails to learn to read has long been a matter of concern to school personnel. The child who is performing consistently below the level of his reading potential is hampering his development as a child and, ultimately, his role as an adult.

Failure to achieve in reading may lead to undesirable attitudes, behavioral problems and even school dropouts. One authority (18) stated that if a child is unable to read by the time he gets into the fifth grade, he is a potential dropout.

To assist poor readers in overcoming these reading problems becomes a very important assignment.

## CHAPTER III

### REVIEW OF THE LITERATURE

#### I. LITERATURE ON THE CAUSES OF READING DIFFICULTIES

In order to be of help to the disabled reader, the teacher should be familiar with factors which contribute to reading failure.

The causes of reading difficulty are understandably numerous and complex for the simple reason that reading is a complex process.

For a good reader, reading is an apparently simple, yet effective, process. Not until the reading breaks down do we realize just how complicated it is. In this respect reading may be compared to an automobile engine. When every part is functioning, one has only to get behind the wheel and drive. Yet let one seemingly minor part fail to perform correctly and the whole mechanism fails to respond. Reading is, without a doubt, the most complicated of our mental processes. (19:27)

This section of the paper will elaborate on the physical, emotional, intellectual and educational factors influencing reading ability.

#### Physical factors influencing reading ability.

In general, physical defects or poor physical condition affect learning. General health affects mental alertness and this shows itself in school attention. The inattentive child does not learn and the sick child is very likely to be inattentive. (8:57)

A child's health depends partly on inborn physical characteristics and partly on environmental conditions.

Susceptibility to colds or low resistance to infectious disease may, in some cases, be inborn physical characteristics. Certain chronic conditions including rheumatic fever, asthma, heart trouble, tuberculosis, sinus trouble and chronic infection are other conditions which lower the child's energy output.

Poor home environmental conditions, such as: inadequate diet, insufficient rest, highly irregular schedules and improper exercise can cause malnutrition, listlessness, insufficient energy. (3:557)

Prolonged illness and lassitude may influence reading ability. When the child misses important work, he may never catch up. The teacher must take these facts into consideration. Besides general health factors, specific defects in vision, hearing and speech affect the child's reading ability.

Dolch (8:57) stresses the importance of visual health in these words: "Any defect which affects the eyes and ears immediately affects learning because, after all, a school-room requires continual use of these avenues of learning."

Three defects of the eyes most commonly known to the layman are nearsightedness, farsightedness and astigmatism. They are due to structural deviations from the normal shape of the eye and are most easily detected. They all produce eyestrain, fatigue, and secondary effects of

headache and nausea. They can all be corrected with properly fitted glasses. (13:231)

Harris (13:231) lists other visual information with which the teacher should be familiar. There are four adjustments the eye must constantly make for clear vision:

- (1) There is an automatic reflex adjustment of the size of the pupillary opening to the amount of illumination.
- (2) There is an automatic reflex adjustment of the shape of the lens to the distance of the object being looked at.
- (3) There is an automatic reflex control of the degree to which the eyes turn in so both focus on the same spot.
- (4) The eyes must be aimed so that the objects we wish to see most clearly are in the center of the visual field, where acuity is greatest. (13:232)

"For normal two-eyed vision, both eyes must be focused accurately on the same target. This allows a fusion in the brain of both images." (13:232)

When the six pairs of muscles which control the eye-balls come into improper balance through such conditions of extreme fatigue or paralysis, the child's vision becomes impaired. This lack of balance can cause crosseyedness or walleyedness, eyes that turn in, eyes that turn out, one eye that focuses higher than the other, poor depth perception or one eye that produces a larger image than the other eye. Results can be eye fatigue, blurred vision,

suppression of one eye (leading to eventual blindness in that eye), double vision or slow fusion. Romaine (22:98) emphatically states: "In my opinion muscular imbalances themselves, more definitely than any other ocular defect, are a factor in poor reading."

Color blindness does not seem to have any affect on reading ability. It is found in four to eight per cent of boys, rarely in girls.

What are the attendant affects of all these visual defects on the child and how do they impair his reading ability? A nearsighted student can hold the book close, but may not be able to see the board, wall charts or teacher. He will become inattentive because he does not clearly see the things which are intended to hold his attention. (8:60)

Many first-graders are far sighted because their eyes have not finished growing. Since it is fatiguing and uncomfortable to do close work, the student may develop a dislike for reading even though no eye trouble is apparent.

Poor fusion or slow fusion makes for difficulty in changing from near to far vision; a blurred or sometimes double image appears while the lenses are readjusting to the changed focus. (8:63)

It would seem important to know what screening devices are available for school use in testing for these special problems. A few good tests are: the Keystone

Visual Survey Telebinocular, the Eames Eye Test, the Ortho-Rater, the Massachusetts Vision Test and the Snellen Chart, which tests for only myopic vision at twenty feet, not at reading distance. (25:54)

Before any of these tests can be of value, however, we must have an alert teacher who can observe signs of visual discomfort; i.e., facial contortions, book held close to face, tense during visual work, tilting head, head thrust forward, body tense while looking at distant objects as blackboard and charts, assuming poor sitting position, moving head excessively while reading, rubbing eyes frequently, tending to avoid close visual work and tending to lose place in reading. (25:53)

Many a child who ignores directions is labeled inattentive and disobedient when, in fact, his problem is not disobedience, but impaired hearing. Deboer and Dallman (6:30) say:

Estimates vary as to the number of children having significant hearing defects. One of the most conservative estimates places the percentage at one and one-half to three and one-half per cent of all children. Other findings suggest as much as thirty per cent for girls and fifty per cent for boys.

Dahl (5:92) has summarized reports which show that hard-of-hearing children rate about seven points lower than normal in verbal or Binet-type tests, and show no significant differences in nonlanguage tests.

Waldman, Wade and Arey (32:68-90) state that deafened children are on the average, one year behind normal children in educational achievement.

Learning to read depends to a substantial degree upon speech, and any hearing impairment may contribute to reading disability. The degree to which it is a handicap depends, of course, on the amount of emphasis given to oral instruction. Difficulties in auditory acuity, and perception and blending handicap the child who is being taught exclusively by phonetic methods more than one who is taught by predominately visual techniques.

Many schools now are testing all children with the audiometer. When it is not available, cruder tests may be used. Harris (13:242) describes the whisper test wherein the child stands at least twenty feet away from the examiner in a quiet room. Exact distance is where a majority of the children in the room can hear and is determined by acoustics of the room. He, the examiner, whispers with residual breath; he empties his lungs then whispers softly, clearly enunciating. The child repeats each word as he hears it. The per cent of hearing efficiency is obtained by dividing the distance at which the child can hear by the normal distance.

Another test is the watch-tick test. One ear is covered, eyes are closed, the watch is moved toward and



away from him, the child saying "yes" and "no" to indicate when he can hear it. Distance is measured with a yardstick.

Some conditions that lead to progressively increasing deafness can be cured if treated early enough, and periodic tests of hearing should be routine health procedure in every school. Every teacher should watch for signs of poor hearing in the child's general behavior. Some noticeable symptoms are: inflamed or running ears, inattention, failure to understand directions, by watching closely the face of a speaker, tilting or cupping hand behind ear while listening, pitching the voice high in speaking, asking to have statements repeated, scowling, confusing words of somewhat similar sounds, making odd errors in enunciation and pronunciation, and having indistinct speech. (13:242)

In some cases, even though no hearing deficiency can be found, auditory discrimination and blending might be difficult. Find differences in sounds, as in shell and shall, or in mountain and fountain are not easily distinguished. He cannot blend dr and ink together to form drink. (2:43)

Burton (3:430) says, "All phases of auditory acuity are developed through practice and use and are subject to various types of training." Without that training, hearing impairment frequently leads to emotional maladjustment which may become tragic in its effect upon a child's personality.

The child is handicapped in working and playing with other children and feels greatly inhibited in attempting to take part in group activities. (2:92)

What can the teacher do when hearing deficiency has been detected? Dolch (8:67) says:

Even if it has not or cannot be corrected, she can make proper allowances in her work, by seating him in the best position, standing by him, and giving him every chance to know what is going on in class.

"There are many kinds of speech defects, among which stuttering, lisping, slurring, and generally indistinct speech are common." (13:244)

These defects affect reading in several ways. A child who cannot speak clearly and distinctly has trouble with phonetic analysis. Because he finds himself different from other children, there is often emotional disturbance, with resulting inattention which prevents learning. He may develop inhibitions, and form a dislike for reading because he cannot speak as clearly as the other children. If he does develop sight vocabulary, his speech defect may prevent him from making any progress in sounding.

The teacher must distinguish between actual speech defect and faulty speech habits. Defects in structure of mouth or teeth may be the cause, or inadequate language background, or the cause may be simply wrong speech habits. In any case, if at all possible the speech defect should be corrected before remedial reading instruction is begun. (3:559)

Some reading difficulties which cannot be attributed to defects in general health, vision, hearing or speech may be explained by neurological difficulties.

Burton (3:559) presents the old and modern neurological viewpoints:

At one time children who seemed normal physically, mentally and emotionally, but who could not learn to read were assumed to have congenital defects in the brain or other parts of the nervous system. Research has proved that only a very small percentage of cases of reading disabilities can be traced to congenital defects.

Modern neurologists are making the point that continued poor learning, lack of motor co-ordination, and speech difficulties may be the result of a difficult birth.

Gessell (10:238) says that: "The symptoms of minimal injury are so benign that they escape attention." Surprisingly, prevalence of reading disabilities and their frequent association with minimal birth injuries tends to support the thesis that these injuries are more common than is ordinarily supposed.

Diagnosis of birth injuries requires a competent medical specialist. A history of a difficult birth and symptoms of poor equilibrium, convulsive seizures, and responses characteristic of the brain injured on such tests as the Rorschach, the Bender Visual-Motor Gesalt, the Mosaic, and the Kohs Block-Design might lead to a recommendation for a neurological examination. (13:246 )

The diagnosis of the causes of poor reading must be established before corrective work may begin. The teacher may be able to determine the symptoms, however, the aid of the school nurse, the school psychologist and parent conferences should be utilized.

Important as physical defects would seem at first appraisal, they are not the only inadequacies which must be considered in a study of the problem.

The next factor the writer will discuss is the relationship between intelligence and reading.

Intellectual factors influencing reading ability.

One factor that needs to be considered carefully in any aspect of learning is intelligence.

The I. Q.'s of most children range from about 35 to 145. All of these students cannot be expected to learn to read. Witty and Koppel classify the ones who will never read and the ones who may reach a low level of achievement. They say:

. . . individuals with a Binet I. Q. below 25 ordinarily will never reach a level of mental development sufficient to learn to read; those with an I. Q. below 50 will experience difficulty in reading abstract material as well as other types of difficult material; and those with an I. Q. between 50 and 70 could become able to learn to read, but rarely above a fourth-grade level. (33:227)

Table I (at the end of the chapter) illustrates the expectancy levels of reading achievement for children with I. Q.'s over 65.

What is the relationship between intelligence and reading ability? Reading ability is defined as the comparison between mental ability and reading achievement. When the mental age and reading age are equal, the child is considered to be reading up to his capacity.

If a given child's reading grade is significantly lower than his mental grade, he is classified as a disabled reader. The amount of discrepancy between reading grade and mental grade, considered significant, increases as the child grows older. In the primary grades, from one-half to three-fourths of a grade difference is taken to be enough to classify the child as a disabled reader. In the intermediate grades, a difference of one to one and a half grades is used. (2:76)

"Most studies of over and under achievement have used the mental age criterion to estimate who were the good and who were the poor achievers." (2:77)

For instance, one might have two third-grade pupils of the same age reading at a high first-grade level, as illustrated below:

Child A	C.A. 8-4	M.A. 9-2	I.Q. 100	Reads 1 <sup>2</sup>
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Child B	C.A. 8-4	M.A. 7-0	I.Q. 84	Reads 1 <sup>2</sup>
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Both pupils are in the same grade and are reading at the same level. Child A has above-average intelligence, but he is learning at a rate far below his capacity. Child

B, although in the third grade, is achieving as well as could be expected on the basis of his ability. Pupil A, who is reading poorly in view of his ability, might profit from a change in technique and from individual instruction in certain mechanics of reading. (14:369)

Generally, high intelligence makes for success in learning to read, and low intelligence for difficulty in learning to read, but there are many exceptions. Each individual must be considered separately, and many other factors must be taken into account. A child of high intelligence, for instance, may develop an antagonism toward reading. This, in turn, may keep him from learning to read well. On the other hand, a child of low intelligence may learn up to his full capacity and make even more satisfactory progress than may be expected of him. (3:553)

A teacher must not jump at conclusions when considering the I. Q. of his pupils in reading disability cases, but rather, he should round out his analysis in relation to other possible causes. The child's score on the tests, along with other data, should be used to determine the potential for learning.

Emotional factors influencing reading ability.

Intellectual ability is no longer thought of as something entirely apart from emotions. It is known that a person cannot learn well, in reading or other baser learnings, if he is distracted by anxieties, frustrations and the sense of failure. (6:30) Some reading difficulties seem to have their roots in infancy, others originate during the preschool child's struggle to move away from the dependency of babyhood. The origin of other reading difficulties can be traced to home and school conditions. (30:282)

An attempt to describe carefully and accurately the different kinds of emotional problems that are contributory causes in reading disabilities would be most difficult and complex. This paper will be concerned with family attitudes and relations, and personality relations of the individual.

In many homes, authority is too personal, too wrapped up by the ties of affection; it centers too much on the beloved mother (or occasionally the father). Overdependency is rewarded at the expense of independence. (9:41) When too little is expected of him, the child grows to expect little of himself.

Another pattern is that of a child, who is quite jealous of a favored brother, who is very good in reading. His hostility becomes transferred to the act of reading, which is the brother's strong point. (13:266)

A child has developed a negative fear toward reading because it was associated with someone or something already feared or disliked. He may have been punished severely by a teacher who laid great stress on reading.

Attitudes of inferiority can be created by a variety of child-parent relationships. When parents do not respond to a child's needs, or when they do not give him warm recognition as a person, he feels deserted and helpless. (26:165) Very often these children feel that their parents do not care for them. In various ways their lives have failed to give them wholesome feelings of self-confidence and self-respect. Because of this, they are easily convinced that they are stupid and accept their inferior status in reading as perfectly natural.

A great variety of conditions may make a child unhappy and worried. He may be bothered by his parents' quarreling, concerned over a possible or actual divorce, upset by rivalry with a brighter brother or sister.

In some children, self-control is hard to maintain because the child has built up intense feelings of resentment, and his angry feelings are apt to break out with relatively little provocation. Shaffer (26:563) says: "Such forms of misconduct are symptoms. . . . A youngster who is dominating, hostile, or bullying to other children is telling us he is unsure of himself."



Robinson (21:78) explains: ". . . That neurotic children, even though intelligent, were often deficient in reading because the mechanics of reading requires cooperation, following directions, and sustained effort." Neurotic children are characterized by inferiority in these areas, as well as others.

There are innumerable other variations in the patterns of causation that underlie both reading and personality problems.

A child may react with a deep sense of failure to these problems, not only because he realizes his inability to develop adequate reading efficiency, but, also, because he constantly has to face various social pressures. Firstly, he must deal with the attitudes of his parents who are greatly disappointed in his inability to learn. Secondly, he must deal with the attitudes of the teachers, many of whom do not understand the difference between an inherent reading disability and an unwillingness to learn. Finally, the child with a reading disability must also deal with the reactions of his classmates, who certainly do not understand the complexity of a reading problem and who frequently tend to categorize him as "dumb," backward, or peculiar.

Thus, it is not unnatural that frustration and its consequences play an important role in the case of children who have reading difficulties.

Parents are not likely to be aware of the fact that their attitudes and behavior are related to their child's poor reading. Helen S. Grayum (12:195-199) reports:

Rarely are parents able to see how the home and patterns of over-protection, psychological rejection, excessively high standards, perfectionism, or unfilled psychological needs stemming from the family configuration, are related to reading failures. There is no doubt among clinicians who work with remedial cases that an emotionally unstable home environment is a factor in many of these cases.

When home conditions are unfavorable to the child, it is the responsibility of the school to take these conditions into account and to compensate for them as much as possible.

Every effort should be made to build wholesome attitudes in the child, to encourage feelings of personal worth and social acceptance and to provide many success experiences.

Any experience which builds the child's feeling of general adequacy will help him to increase his zest for attacking difficult reading situations.

Deboer (6:30) illustrates this point with the following anecdote:

One little girl who had not succeeded at all in any other classroom activity suddenly began to read with her group after dancing had been introduced in her classroom. Up to that time she had been timid and shy; but when the children danced, she joined them. She was so graceful that her ability was recognized by other children.

Further therapeutic goals would include:

1. Reduction of the tension connected with reading.
2. Change of the child's attitude toward self (ego-rehabilitation, self-confidence, etc.)
3. Change of the child's attitudes toward authority (school and parents).
4. Building a tolerance for interest in reading.  
(14:380)

Reading demands great mental discipline. An emotionally disturbed child is too distracted by his own problems to put forth the concentrated effort that is necessary. He is simply not as well prepared to read as a happy, well-adjusted child.

In conclusion, a child with emotional problems will need encouragement, will need to feel accepted, will need success experiences and will need the stimulus which comes from pride in real accomplishment.

#### Educational factors influencing reading ability.

What are the educational factors involved in reading disabilities? Even educators cannot agree among themselves. In the First Harvard Report on Reading in the Elementary Schools, the central staff members, the principals and teachers have this to say about problems and proposals:

Central staff members said, . . . these respondents felt that teaching performance was not as good as they wished it to be. (1:210)

The principals, also, found that helping the under-achiever reach his reading potential was their greatest problem. But, unlike the central office staffs, they thought that poor instruction was not as much of a contributing factor as environmental influences. Most frequently they said that lack of home interest and the meager background that many children brought to their educational tasks hindered progress in reading. They also cited teacher and pupil mobility, parental pressure, broken homes, poor attendance, and language barriers as additional difficulties which the school must overcome.

The classroom teachers. . . more frequently named the paucity or the kind of materials available as their greatest source of frustration. Primarily teachers complained of the content of reading books. In particular they felt that too many stories, especially those in the basal readers, lacked realism or that the stories did not motivate the children with wide interests but limited vocabularies. . . . Lack of sufficient time to teach basic requirements also troubled teachers. (1:210)

The Cincinnati New Intermediate Manual (4:134)

suggests possible contributing educational failures:

Failure may result from: (1) Inadequate development of the spoken vocabulary; (2) Incorrect class placement; (3) Use of too difficult material (4) Neglect in providing for certain skills to meet the child's needs; (5) Insufficient practice; (6) Numerous changes in teachers; (7) Unsympathetic teachers.

In their efforts to solve reading problems, educators today are constantly assessing and evaluating educational factors and striving to improve the teaching of reading.

Reading difficulties range all the way from minor, temporary disabilities to complete disabilities. Research indicates that reading disabilities usually have multiple causes, and rarely, can they be traced to one particular cause. In attempting to discover the causes of disabilities,

the teacher should seek the cooperation of parents, and make use of professional services. The next section of this chapter will deal with diagnosing these causes.

## II. LITERATURE ON DIAGNOSIS OF THE CHILD'S DIFFICULTIES

The last section described the many complicated characteristics of the child and his learning environment that have a bearing on his reading growth.

Learning to understand this child and the possible contributing factors to his reading disabilities is the next logical and essential step in giving him aid. This can best be done through a thorough diagnosis.

This section will be divided under these main headings: "Diagnostic Point of View," "Specific Principles of Diagnosis," "General Diagnosis," "Analytical Diagnosis," "Case Study Diagnosis," "Informal Diagnosis," and "Classification of Individuals After Diagnosis."

Diagnostic point of view. A physician normally spends five to seven years in professional preparation, and then frequently specializes on the diagnosis and treatment of illnesses involving only a few cubic inches of the human anatomy. He does not attempt to cure, in groups, people who have widely differing illnesses; he knows that illness is personal in nature and that he must prescribe

for each individual the particular type of treatment which is needed.

The teacher, like the physician, uses tests as instruments to obtain evidence for making a better diagnosis of pupil difficulties. The causes of each child's educational ills must be diagnosed, just as truly as physical illnesses if they are to be properly treated and eliminated. The teacher uses intelligence, achievement, informal and diagnostic tests; like the physician, observes the pupil's behavior in various situations.

The Diagnostic Point of View indicates that behavior is caused and that the teacher attempts to understand, rather than blame, poor behavior or inadequate performance. If a child is a poor reader, the thoughtful teacher does not describe his behavior as "lazy" or label him as "dumb". Rather she seeks to understand the causes behind the inadequate reading. . . . More and more teachers are adopting the Diagnostic Point of View and getting as much information as they can about a child so that they can help him effectively. (24:517)

This next section will deal with some specific principles of diagnosis.

Specific principles of diagnosis. Although most teachers are familiar with various tests and ways of assessing reading status, they also need to understand certain basic principles of diagnosis and how to apply these principles in the classroom. Sheldon (27:2) categorizes these Specific Principles in the following way:

1. Diagnosis is an essential aspect of teaching and is a preliminary step to sound instruction.
2. Diagnosis should be continuous because child growth in reading depends upon the sequential development of skills, which is promoted through the teacher's knowledge of each child's progress.
3. Diagnosis is an individual task and reflects the fact that each child is different.
4. Diagnosis of reading status demands far more than an assessment of reading because reading difficulties are symptomatic of many causative factors.
5. Because reading is but one aspect of language, teachers must understand the listening, speaking, and writing status of children to fully understand their reading ability.
6. Because the instruments of diagnosis have not been perfected the limitation of each instrument must be thoroughly understood.

If children are to be properly taught, they must be diagnosed accurately. Teachers can diagnose the reading status of their children to a limited degree by adhering to a few basic principles. When the limited diagnostic ability of teachers needs supplementing, then teachers must be well enough informed to call in the necessary help in order to obtain a more accurate estimate.

The diagnosis must be efficient and, therefore, it should proceed as far as is necessary to formulate a remedial program. The procedures in diagnosis are much like successive "screening" in which only the more complex and subtle cases are retained for further measurement and study. Bond and Tinker (2:128) classify the various levels of diagnosis:

1. Appraisals which are routinely made for all children in the schools or for all children referred for special study.

2. Appraisals which are more detailed in character and are made only in those instances in which more analytical study is warranted.
3. Appraisals which are highly individual in nature which are made only when confronted by more subtle cases.

Many children's learning problems may require only a general study of their educational achievement and intellectual capacity. Other children's difficulties may require more differential or analytical study in order to locate the specific areas of limitation. Some of these children's problems may be so subtle or complex that a detailed case study is required before a remedial program can be designed. Informal procedures may also be used for obtaining information.

For these reasons, then, we know, that every reading disability case, whether simple or complex, needs diagnosing. Let us consider the first category which is general diagnosis.

General diagnosis. General diagnosis is made by studying the results of general survey or achievement tests in order to locate areas of weakness. Such a diagnosis is used to identify children who are doing relatively poor work in reading.

A record of a child's school career often contains information of considerable value. The information recorded in the cumulative folders of the pupil could be helpful in making a general diagnosis.



The child's age at entering school should be noted, as poor progress may be partly a result of starting too young. His report card marks indicate when his poor progress in reading was first noticed by his teachers, and the evidence about repeating grades shows how serious his retardation was estimated to be.

His attendance record should be looked over, for long absences that may have handicapped him. If he has changed schools frequently, the reasons for the changes should be investigated. Failure to acquire good reading habits is sometimes the direct result of frequent changes of teachers with consequent confusion of teaching methods.

Ratings on conduct, effort and personality traits may be highly significant. The health record may give valuable information about sensory or physical defects. Each of these pieces of information can help the teacher begin to round out a picture of the child.

When the general information has been reviewed, then it is important to become more analytical.

Analytical diagnosis. The analytical diagnosis separates the reading act into some of its more specific skills and abilities. It enables the diagnostician to detect the areas in which the child's difficulty lies. This level of diagnosis will show whether the child's

difficulty is in a specific type of comprehension, in word-recognition techniques, in reading efficiency, oral reading or basic study skills. (2:159)

As an illustration, let us assume a hypothetical case. Barbara is, in general, a competent reader. Her profile shows that she is low in one type of reading--reading to follow directions. She is more than a year and a half lower than would be expected of a girl with her mental capability and general reading ability. It is probable that a short period of emphasis on this type of reading would make Barbara proficient in this area.

Analytical diagnosis has two important contributions to make to the correction of reading disability. First, it locates those areas of limited ability that need to be explored more fully; and, second, it is often sufficiently diagnostic to indicate by itself the instructional adjustments required.

There are many tests which give the type of information needed for analytical diagnosis. These will be listed in the appendix.

Many cases will need more detailed study than can be achieved through general diagnosis or an analytical diagnosis. Then we must get into a case study diagnosis which will be discussed next.

Case study diagnosis. All disabled readers who have not been adequately diagnosed by general or analytical diagnosis will need more careful case study diagnosis. They may need appraisals of their mental, physical and sensory characteristics, their environmental surroundings, their attitude toward reading and their emotional reactions.

Harris (13:221) lists conditions that may detrimentally influence reading growth:

1. Uncorrected physical defects
2. Poor home environment
3. Extreme nervousness
4. Insufficient rest
5. Physical deficiencies
6. Gaps in the child's schooling
7. Inferior language equipment
8. Confusion of direction because of left handedness or change in handedness
9. Lack of effort
10. Too early introduction to reading

Bond and Tinker (2:138) also give types of information to look for in the Case Study Diagnosis.

The first type of information that is necessary to obtain is secured from standardized reading diagnostic tests or procedures. This phase of the case-study diagnosis is undertaken to find out the nature of the deficiency in reading. If in the analytical diagnosis, it was discovered if a child had poor ability in word-recognition, the case study would determine the nature of his word-recognition problem.

The second type of information necessary to obtain, requires a study of the child. Appraisals of his mental capability, vision, hearing, and physical characteristic may reveal corrections that should be made before successful re-education is likely to occur.

The third type of information needed, takes into account the child's reactions to his reading disability. If he has rejected reading, if he has found excuses for not learning to read, or if he demonstrates a keen aversion to anything involving print, the program of remediation must be carefully planned to provide immediate demonstrable success and strong motivation. If the child shows signs of emotional upset, regardless of whether they are the cause or the result of reading disability, he must be closely studied.

The fourth type of information that sheds light on the problems is derived from an evaluation of environmental factors bearing upon children, such as home conditions, school conditions, and community relationships which relate directly to the likelihood of successful re-education.

In Case-Study Analysis, the diagnostician must try to locate any condition within the child that might influence reading growth detrimentally. He should utilize other expert help whenever it is needed for diagnosis and correction.

Informal procedures may also be used as a valuable tool for gathering information.

Informal diagnosis. The use of standardized measurements is essential for reliable diagnosis of reading disability, but it may also be necessary to resort to informal procedures in order to obtain information.

Informal procedures have merit because they allow us to explore further some characteristics suspected from more standardized measurement situations. It permits us

to learn something about how the child attacks words. It acquaints us with his comprehension skills and his techniques for sounding and blending. Furthermore, informal tests give clues to the child's attitude toward reading and his willingness and desire to succeed.

Smith and Dechant (28:417) discuss other merits of informal testing:

As a part of our informal procedures, we look for discrepancies between silent and oral reading abilities. Frequently a child with high ability and an interest in reading understands words in his silent reading that he cannot pronounce. Also we may identify failures in understanding that are due to the child's ignorance of certain words that are important to sentence meaning. Actually, one of the most important uses of oral reading in our classroom is for the informal diagnosis of silent reading problems.

Observation of the child's oral reading, whether formal or informal in nature, has other advantages in diagnosis. It encourages us to find out why he pronounced a word in a peculiar way, why he reversed letters, or why he skipped a word. In diagnosing we are especially interested in the causes of errors. Our interest does not cease with a yes--no answer. We want to know why and how the child got his answer. It is, for example, quite common at the first-grade level for a child to recognize a word by means of irrelevant clues (e.g. identification of words with an erasure mark or a fly speck on the book or word card).

As to the reliability and validity of informal procedures, Hitchcock and Alfred found that teacher's observations can be reliable and valid. They made suggestions of what teachers should observe in their students:

1. Pupil interest in school work that requires reading as a skill.
2. Pupil concentration on reading material--that is, his ability to resist distractions.
3. The degree of pupil vigor--or apathy--in attacking assignments involving reading.
4. Behavioral attitude--the pupil's interest, or lack of interest, in the work of the class.
5. Speed in completing work involving reading.
6. Willingness to read orally. (The poor reader is less likely than the good reader to volunteer.)
7. Desire to hear others read. (The poor reader is more likely to wish to hear others read than is the good reader.)
8. Ability to follow written directions. (15:422)

Kottmeyer (16:355-366) found that the most experienced teachers made the most accurate predictions. And, in general, teacher prediction was more accurate than scores on the Metropolitan and Detroit Readiness tests.

These and other studies suggest, then, that informal testing does have merit and validity.

Because of the vast differences found among remedial readers, it is important for the teacher to look for some means of identifying or classifying these cases. The next section will discuss these classifications.

#### Classification of individuals after diagnosis.

Heilman (14:404) presents another aspect of diagnosis as an aid for identifying and classifying disabled readers,

and providing a framework for leading teachers to a better understanding of reading problem cases. He states there are four main categories into which children fall. He does not imply that all cases which fall under a given type are alike.

However, it is undoubtedly true that cases falling logically into one or another of these types are more alike than would be cases taken at random from the total population of remedial cases. (14:405)

He describes Type I as being fairly uncomplicated as far as the pupil-learning situation is concerned. The child may have failed to master important steps or skills in the reading process because of non-readiness to read, poor educational practices or absence from school at critical periods. Systematic work on those weaknesses would be the most logical approach to the removal of the reading difficulty.

Type II cases are similar to those of Type I in that a frontal attack on reading is the logical approach; but they differ in that the antecedent conditions or experiences which produced the reading problem should be considered when attempting remedial work. In these cases, to ignore these antecedent conditions in working with the problem may be wasteful or even harmful. (14:406)

Heilman cited the example of two boys diagnosed as being handicapped by very poor phonic analysis skill, but had acquired these weaknesses under different circumstances. The first boy attempted to sound words as a whole. He would not follow through on a word, nor divide unknown

words into syllables. In early stages of reading, he had been put under pressure by his parents not to hesitate or stall in pronouncing words. As a result, he learned the habit of "saying something" instead of relying on the slower method of analyzing the sounds. Many of his rapid responses were correct and the habit became reinforced.

The second boy knew a considerable number of sight words, but was completely incapable of sounding syllables or letters in combination. His spelling was a rote memory process.

At the time of diagnosis, both boys had shown a weakness in phonic analysis, but the way in which each boy's problem had developed called for different approaches or solutions.

Type III includes those reading cases where the child's reaction to his failure in reading is a significant factor. . . . We are assuming that no matter how obvious the reading problem may be, it is difficult to come directly to grips with it through instructional techniques alone. We must deal with the child's reaction or attitude toward himself and toward reading. (14:407)

Heilman illustrated Type III in the case of Robert, a third grade child of above average intelligence, who had difficulty reading at primer level. He had been drilled at home by both parents, neither of whom had any patience with helping him overcome his difficulty. As a result, his self confidence was destroyed, the pressure in the reading situation mounted, his effectiveness as a reader decreased,



and he became an extremely frustrated child. The first step in helping Robert deal with his problem was a series of conferences with his parents in which it was agreed that they would give up all their efforts to teach him reading themselves. As the pressures at home diminished, he was gradually able to bring his energy to bear on the reading task and he did begin to learn.

Type IV is very similar to, and possibly just an extension of, Type III. Here, pupils have severe reading problems and may even be non-readers. The majority of these cases show an unresolved emotional problem, the origin of which may be quite unrelated to the reading situation itself. These cases are apparently much more complicated than Type III. Here, the unresolved emotional problems are such strong barriers to learning that the child is at the moment uneducable (as far as learning to read is concerned). And yet, the lack of reading ability is only a symptom of some larger problem. Results cannot be expected from working with the symptoms alone. In most instances of this nature, it is necessary to inaugurate a program of therapy prior to attempting to work directly with the reading problem. (14:408)

Heilman concludes that his aim in identifying these four types is to provide a structure for leading teachers to a better understanding of reading problem cases.

The aim has also been to suggest that different approaches are indicated in attempting to deal successfully with different types of readers, even though their reading problems may appear on the surface to be similar. (14:410)

Finally, the only justification for a diagnostic program is that the results of diagnosis will be used in guiding learners to optimum development. The best diagnosis is useless unless it is used as framework for instruction.

The pupil does not reveal all there is to know about his reading in any one sample of his reading behavior. Therefore, diagnosis has to be continuous.

In this chapter the writer has examined specific principles of diagnosis; general, analytical, case study, informal methods of diagnosis and classification after diagnosis.

### III. LITERATURE ON PROCEDURES IN HELPING DISABLED READER

A thorough diagnosis of the child's difficulties will establish the framework on which to start his remedial program. This diagnosis will reveal his academic potential, interests, difficulties and their causes. The teacher must then determine her plan of attack. One such plan is suggested by Gray and Reese (11:358):

1. The child should be given the opportunity to read considerable material based on his own experiences and recorded by the teacher at his dictation, not only to start him off, but also to add variety to the remedial work later.
2. A sight vocabulary should be developed. Independence in reading rests on this ability.
3. The pupil should be given a secure method of word attack. After the child understands that reading is engaged in solely to get meaning from the printed page, he is ready to use his stock of sight words for purposes of comparison in learning to recognize new words through serial substitution, structural analysis, and phonetic analysis.

4. Easy reading a grade below the child's basic reading level should be provided to develop interest and fluency. This should not be forced on the child. When he is successful in basic reading, he usually takes a voluntary interest in independent reading.
5. The child's basic reading ability should be built up by every means possible. Starting at the level at which he is now successful, he should be led gradually toward increased power and fluency in reading--the goal, of course, being to bring him up to standard.

From these generalizations the writer will proceed to the more specific aspects of instruction and will develop them in this order:

1. Put child on own reading level
2. Work to build sight vocabulary
3. Give child a method of word attack
4. Develop comprehension
5. Provide much interesting reading material

Put child on own reading level. A child grows in reading by reading; therefore, the material that is used for remedial instruction should be at the level that enables him to read comfortably and with enjoyment.

For the very seriously disabled reader the use of experience charts is often a good place to start.

Many of these children who can read only primary materials scorn the "baby stuff" of most primary books. Their inner insecurity makes it difficult for them to acknowledge and accept the low level at which they can actually function in reading. Creative writing, then, can be both a way of building self-respect and an avenue to reading for these children.

This approach starts with conversation. The child is encouraged to talk about his recreational outlets--hobbies, sports, television programs, or anything with which he has pleasant association. Careful note is made of anything about which he displays enthusiasm. Selecting one such topic, the teacher suggests that maybe he would like to make up a story about it, which the teacher will record. (11:348)

As an illustration (11:348): Miss Wright noted that Ronny had been on a neighborhood baseball team in one of the towns in which he lived. By skillful prompting, she "drew" a four line story from him, and offered to write it on the chalkboard, using the child's exact words.

I was on a baseball team.  
We played baseball in a sandlot.  
I was the best at batting.  
I miss that team.

In order to focus Ronny's attention, she said each word aloud as she wrote. Then she invited him to read it back. When he could not read all the words she gave him context clues.

With this story as her starting point, she went on to develop look and say methods of remembering words, use of repetition with foils, use of serial substitution and use of alphabetizing.

"The priceless ingredient of this approach is its ability to motivate many children who are resistive or antagonistic to easy printed materials." (13:289) In

addition, this type of reading contains the pupil's own speaking vocabulary, thus, minimizing comprehension difficulties.

Going back to his own reading level will give the student a feeling of success and confidence and his growth can continue from this point.

Working to build sight vocabulary. The term sight words is used to denote those words that children learn to recognize by sight without aid of any other identification. (29:171) The ability to recognize words quickly and accurately is fundamental to success in reading.

Smith (29:171) reports:

Modern psychology and philosophy support the contention that it is advisable for beginning readers to work with meaningful word wholes rather than to memorize phonic elements. . . . In this capacity, recognizing words by sight may serve its largest function during the early stages of learning to read.

Sight recognition has another service to render, however, at other levels of development. There are several frequently recurring words which do not lend themselves to phonic analysis or other methods of attack, such as what, where, would and was. Unless a child can recognize such words instantly by sight, he is apt to be quite frustrated in reading almost any page of print . . . concentrated effort to fix recognition of these words by sight "opens up" the pages of print for them immediately. Under these conditions teaching such words by sight is justifiable at higher levels as well as at the beginning stage.

The child who fails to build a large sight vocabulary and who does not have the habit of recognizing these at a glance, cannot hope to become an able reader.

He will not only be limited in his ability to group words into thought units, so necessary for comprehension and fluency, but he will also be seriously handicapped in identifying new words. (2:269)

The child with a limited sight vocabulary is easily detected. He may be a word by word reader, he may fail to phrase well in oral reading, he may tend to make more mistakes on small common words than he does on polysyllabic words; or he may have a tendency to make about an equal number of errors regardless of the difficulty of the material he is reading. (2:269) The teacher can easily measure sight vocabulary by rapid exposure of words on printed cards or the use of the tachistoscope.

The status of his sight vocabulary is readily checked by means of the Dolch 220 service words. (31:550) Children with second grade reading capacity should know about half of these words and those with third grade capacity should know practically all of them.

The basic character of the 220 service words is revealed by the frequency with which they occur. About two-thirds of the words that occur in the reading material of the primary grades are from this list, and close to sixty per cent of the running words in most of the books examined in grades four to six are in the basic list of 220. (31:551)

While children are developing a sight word vocabulary the teacher gives guidance in helping them notice word

form clues. For example, they should notice the difference in height of such words as wee and little, the up and down characteristics of tall and ball, the length of the word something and shortness of in. In other words, the teacher directs their attention to size, shape and contour of words.(11:323)

If the word is first presented as an isolated word, it is desirable for the learner to encounter it in context soon thereafter. Most words are remembered better if studied in context.

In addition to building a sight vocabulary, word recognition skills should be taught as a further aid to independence.

Giving the child a method of word attack. The next major step in aiding the disabled reader is giving him a secure method of word attack, with the ultimate goal of developing understandings and skills and abilities that will enable him to attack unfamiliar words independently.

In general, the procedures that are most effective for the normal reader are the same that can be recommended for individual needs of the retarded reader.

Skill in word recognition is a fundamental part of the equipment of a reader at any level. It is the foundation upon which the skills in all growth areas are laid.

The very first initial step is to teach the child to build the habit of attempting to recognize words as words.

There are many different ways in which children may work out the pronunciation of words. One technique may be effective in one situation and a different technique in another; or, it may take a combination of two techniques to work out a certain pronunciation. Therefore, the judicious thing to do is to teach children several methods of attack. Flexibility is the watchword. (29:167)

The early training of the disabled reader entails the use of context clues and picture clues. Pictures provide interesting and attractive media with which to work; and they offer the child valuable assistance in making the transition from recognizing an object and recognizing a symbol which stands for an object. The remedial teacher makes the most of illustrations which supplement information given in the text and aid in word identification.

Then the child is taught to note similarities in elements and gradually the chain of interwoven word-recognition techniques is developed.

These skills and knowledges fall roughly into five types:



1. The ability to recognize many words at sight and to associate meanings with printed symbols
2. Skill in using context clues and other meaning aids to anticipate the words to be recognized and to check on their accuracy
3. Skill in employing a flexible and efficient set of techniques in visually analyzing words into usable recognition elements
4. Knowledge of a wide variety of visual, structural, and phonetic elements
5. Skill in both auditory blending and visual synthesis of word parts into word wholes. (2:301)

The major source of word recognition difficulty will be found in the child's failure to establish any of these basic learnings, or his over emphasis on them. In other words, there must be a balance maintained.

First, a balance between the establishment of word-recognition techniques and the development of meaning vocabulary is desirable for reading growth. If there is too much isolated drill on word parts, the child may become a capable word-caller but he may not understand what he is reading.

Second, a balance between the acquisition of sight vocabulary--words the child knows at a glance--and the establishment of word-recognition skills is essential.

Third, there must be a balance between the meaning clues and the analytical aids. The child who depends too much upon meaning clues to recognition will make a great number of errors that have little relationship to the looks of the word he miscalls.

Fourth, a balance between the analytical techniques must be maintained. If the teacher places too much emphasis on phonetic training, the child may fail to develop the ability to use larger elements in recognizing words.

Fifth, there must be a balance between the emphasis placed on knowledge of word parts and the orderly inspection of words along the line of print from left to right and from the beginning of the word to the end. (2:263)

As is indicated from the above excerpt, word recognition is much more complex than is often assumed. "Word recognition entails too many related learnings to allow the program to be narrow or to be incidental." (2:263)

In order to help the poor reader, the teacher should be clear in his own mind about the sequence of skills he will follow. He should know which skills the pupil has, and which are still lacking. Thus he can use every opportunity to teach skills that are needed. (23:200)

Developing comprehension. The development of word recognition skills is intimately related to development of vocabulary and comprehension. To read with understanding there must be comprehension of words, thought units, sentences, paragraphs and longer units. Identifying words without understanding is not reading.

Typical comments made by students are: "I am not able to concentrate as I read." "I have difficulty in figuring out the meaning of a selection because there are so many words that I do not recognize." "I often have trouble getting the meaning of the first page or two when I start reading. Often I have read for a few minutes without really knowing what I am reading before it makes sense to me." "I can understand what I read but I cannot give a satisfactory summary of it." (6:119)

The teacher must understand the causes of difficulties in comprehension if she is to help individuals overcome their shortcoming in understanding what they read.

Overemphasis on word recognition, overemphasis on oral reading, insufficient background to interpret a selection and intelligence may all be contributing factors to lack of comprehension.

The linguistics have another theory. They say that reading-cripples miss patterns of meaning because they miss the meaning-bearing patterns of language.

Lacking a sure grasp of the printed sentence as a common building block of the paragraph and of the more extended forms of written discourse, the crippled reader cannot comprehend what he "reads" as organized, coherent form. Instead, he tends to register only arbitrary, random elements, and even to miss important language structures altogether in the material the writer sets before him. He sees a subject without its verb, a verb without its subject; he combines subjects with the wrong verbs and verbs with the wrong subjects; he attaches expanding phrases to the wrong sentence elements, or "reads" them by themselves, without any structural context. In this process he may retain a large number of isolated words, particularly if his basic reading instruction stressed memorization of single words: he will do better on the vocabulary than on comprehension of a test passage. (17:23)

As an aid for developing comprehension abilities, the teacher may start with very simple techniques.

Ask the child to read a paragraph and then, tell what he has read. If he cannot, have him read it again and repeat if necessary. The material may be read aloud to be sure that he recognizes the vocabulary. Go on to

the succeeding paragraph and ask what it is about. He will read with the purpose of knowing that he has to repeat the thought of the paragraph. Start with easy non-fiction material and work up to regular text book material. Next practice on sequence of thoughts in a paragraph. This will let him see that as he reads, he should notice how ideas belong together. (8:24-30)

Succeeding lessons may have the child read to select the important idea of a paragraph. Since comprehension means thinking and interpreting, ask the child what he thinks of a paragraph or story.

The Harvard Report on Reading in Elementary Schools has this to say about comprehension:

When asked what reading skills need greater emphasis in the elementary school program 30 per cent of those teachers interviewed stated comprehension. Observations by the study staff confirmed the need on the part of all schools to continue to strengthen this aspect of the teaching of reading. A few examples of poor practice were blatant: failure to help pupils establish purposes for reading the assigned selections, failure to relate story content to pupil experiences, overemphasis upon facts to the exclusion or neglect of higher level comprehension skill, limited discussion opportunities to explore inferences and possible discrepancies, failure to identify strengths and weaknesses of individual children and to adapt instruction according to their needs, and others. (1:37)

Provide much interesting reading material. By this time the teacher is leading gradually to the development of permanent reading habits and interests for the child. The type of reading material is of utmost importance.

There are some obvious reasons why a great variety of materials are needed when working with seriously impaired readers. Each reading failure case in the elementary grades has failed while using the conventional classroom materials, composed of basal readers, workbook-type materials, and textbooks in the various curricular areas. Thus, in many instances, they develop an aversion for these materials. (14:388)

Since these children are reading at a level below their grade placement, their experience level is often in advance of their reading abilities. These readers have a special need for materials which are easy to read from the standpoint of mechanics and yet have a high interest value. Pamphlets, short stories and books containing a few pages that can be read in a short time are desirable for they give a pupil a greater feeling of accomplishment.

In selecting books for these children, the teacher should be aware of the format, noticing the length of sentences, number of unusual words, complexity of the ideas and the number of prepositional phrases. (2:222)

Books with colorful jackets, or books opened to interesting pictures, may be left where they will be noticed. The teacher can observe the child's reactions to see which books he rejects and which ones hold his attention. The teacher might discuss or read from one that captured the pupil's attention.

Other criterion for the selection of remedial reading material are:

1. First and most important consideration is that it must be of the proper level of difficulty.
2. Material should be abundant.
3. There should be material for his remedial instruction and also material for his independent reading.
4. The material for independent reading should be easier than his instructional material, and should fulfill an existing interest which the child already has.
5. It should be interesting in format and meet the interest level of the child. (2:225)

Frequently the retarded reader lacks interest in reading. Repeated failure and inability to read as well as his fellow students is not conducive to the development of much interest; consequently, one of the most difficult problems is to inspire the child to want to read.

One of the first things a teacher can do to introducing such a child to pleasurable reading is to locate a book that is easy, brief, has many pictures and comparatively few pages. In introducing the book, the teacher can show the illustration, read part of the story aloud to arouse interest and ask the child if he would like to continue reading by himself. If this can be a successful venture for him, the next problem is mainly one of keeping the child supplied with a succession of suitable books.

As long as progress depends entirely on what the student reads in the classroom, progress is likely to remain slow.

Let us assume the disabled reader has been motivated to read books, which have interested him, in the classroom. He must now begin to read outside the classroom instruction period to build up his strengths in the reading program. This is an important stage in his reading growth and he needs the most careful guidance from his teacher.

Time should be spent in helping him select his first book. Several books of appropriate difficulty and high interest should be examined. At this stage of development the right book is crucial. After he has chosen the right book the remainder of the class period should be used to begin the book, to get acquainted with the characters and move to a point of interest or suspense where the child is anxious to know what comes next. Then he is ready to take the book home. (20:235)

The teacher must take time to listen to the pupil's reactions to the book when it is completed. A few notes of the reactions are useful in guiding further reading. They also serve as a means for evaluating progress in free-reading over a period of time.

Finally, the second, third and all following books must be chosen with nearly as much care as the first. With the cooperation of a good librarian, the pupil may gradually come to rely on his guidance. However, immediate transfer of responsibility is not recommended because

pupils often fail to continue reading without regular assistance from the teacher. If satisfaction accompanies each book, the beginning of the habit of reading is established. The values of developing lifetime reading habits for retarded readers are similar to the values for all pupils. (20:235)

One of the most fascinating and strongly motivating activities in which any child can engage is that of watching himself grow by means of an achievement record. Book reading lends itself readily to record keeping. This can act as a further stimulus for the retarded reader.

As soon as any degree of independent reading is reached, the child should be encouraged to read at home. The teacher should enlist the cooperation of the parents in the following ways:

1. Encourage parents to supply their child with an abundance of books selected in terms of the child's interest and his level of readability.
2. Encourage parents to read aloud often to their younger children.
3. Encourage parents to work out a time budget with children which allows for physical recreation, studying (if the child is at the age at which he has homework), television viewing, and reading.
4. Suggest to the parents that they devote a stated period each evening to their own reading, with the child also participating by reading in his books or magazines at the same time. (29:415)



Independence in reading is the final goal for all children. When a child begins to understand what it means to be a good reader, takes an active interest in learning to read better and, most important, finds in being able to read a source of personal satisfaction, he is well on his way toward the mastery of reading skills.

TABLE I  
 READING LEVEL TO BE EXPECTED FOR  
 VARIOUS IQ'S AND AGES (Based on MA)

	5.6	6.6	7.6	8.6	9.6	10.6	11.6	12.6	13.6	14.6	Age
	K	1	2	3	4	5	6	7	8	9	Usual
IQ 165	4	5	7	8	10	12	beyond 12th			Grade	
155	3 <sup>1</sup>	5	6	8	9	11	12	beyond 12th			
145	2 <sup>2</sup>	4	5	7	8	10	11	12	beyond 12th		
135	1	3 <sup>2</sup>	5	6	7	9	10	11	12	12+	
125	pp	3 <sup>1</sup>	4 <sup>2</sup>	5	6	7	9	10	11	12	
115	pp	2 <sup>1</sup>	3 <sup>2</sup>	4 <sup>2</sup>	5	6	7	9	10	11	
105	R	P	2 <sup>1</sup>	3 <sup>2</sup>	4	5	6	7	8	10	
95	R	PP	2	2 <sup>1</sup>	3 <sup>2</sup>	4 <sup>2</sup>	5	6	7	8	
85	R	R	PP	1	2 <sup>2</sup>	3 <sup>2</sup>	4 <sup>1</sup>	5 <sup>2</sup>	6	7	
75	R	R	R	PP	1	2	3 <sup>1</sup>	3 <sup>2</sup>	4 <sup>2</sup>	5	
65	R	R	R	R	PP	p	2 <sup>1</sup>	3 <sup>1</sup>	3 <sup>2</sup>	4	

Figures given are approximate reading levels to be expected. 2<sup>1</sup> means first half of second grade, 2<sup>2</sup> means second half of second grade; PP means pre-primer; P means primer; R means readiness for reading instruction.

Children with very high IQ's often are capable of even better reading, and children of very low IQ's seldom can achieve at all.

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## CHAPTER IV

### SUMMARY AND CONCLUSIONS

#### I. SUMMARY

Like susceptibility to colds, reading disabilities have always been apparent. Retarded readers have not developed in the last decade, as the abundance of current reading material might seem to suggest. Rather, we are more aware of the problem because of more intensive research.

In the remedial reading program a disabled reader is thought to be a student who can not participate profitably in classroom learning activities involving reading. The new approach to helping the disabled reader is many faceted involving a thorough investigation into causes of reading differences and careful study of diagnostic techniques.

The possible causes of reading disability are numerous. No single factor is responsible but rather, a composite of related conditions. These contributing factors interact as part of a pattern.

Both inborn characteristics and environmental conditions such as inadequate diet, insufficient rest, or improper exercise, affect energy output.

Eye defects appear among good and poor readers and handicap both groups. Farsightedness, nearsightedness,

astigmatism and muscular imbalance produce eyestrain, blurred vision, poor depth perception and other defects which may contribute to reading disabilities. An alert teacher may discover these defects by observing signs of visual discomfort. Eye examinations are essential to diagnosing reading difficulties. Many new screening devices are now available for school use.

Hearing loss can be a handicap in learning to read, especially where hearing loss is severe. In some cases deafened children are a full year behind normal children. The teacher can help these cases by seating them in favorable positions for hearing or by standing next to them. Emotional maladjustments often result from hearing impairment.

Speech defects often complicate word discrimination and recognition and may cause reading disability. Structural defects or inadequate language backgrounds may cause wrong speech habits.

Reading difficulties can also result from neurological difficulties. Surprisingly, authorities have evidence to suggest that such difficulties as: difficult births, poor equilibrium or convulsive seizures can be contributing factors associated with reading difficulties. These defects obviously should be referred to specialists.

Generally, students with low I. Q.'s find reading difficult, while those with high I. Q.'s are generally

better readers. One must be careful, however, not to draw conclusions but to round out his analysis in relation to other causes.

Reading difficulties, like indigestion, may be aggravated by emotional factors. Overprotection; severe discipline and indifferences of family members; overanxiety by parents, siblings or teacher; and unfavorable home conditions all affect the child's emotional balance.

Educational factors influencing poor reading are many and varied. Some educators feel that teaching performance itself is not as good as it should be. Teacher and pupil mobility, problems of large class size and inappropriate teaching materials, all enter into the picture. Lack of sufficient time to teach basic requirements because of expanding curriculum, extra curricular activities and clerical chores are other hindrances to good education.

Since no two cases of reading difficulties are exactly alike, it should be apparent that all remedial instruction be based on adequate diagnosis. Diagnosis should be directed toward improvement of instruction. It involves appraisal of reading skills and assessment of mental, physical, emotional, environmental and educational processes which could impede progress. Some appraisals can be made by general diagnosis, others by a more thorough

analytical approach. Finally, in many severe cases, complete clinical case studies are required.

The remedial program should be planned by taking into account all background data and judging it objectively and accurately. Reappraisal should continue through the remedial process so that diagnosis is continuous.

Material used in remedial instruction should be at the level which allows the reader to read comfortably. Work to build sight vocabularies--working with meaningful word wholes. Give the child a method of word attack. He should get into the habit of attempting to recognize words. He should also be armed with more than one means of attack. Use of context clues, picture clues and word analysis are examples with which he should be familiar.

To read with understanding, there must be comprehension of words and thought units. Reading to select important ideas is a good exercise to build this skill. The child must comprehend at all times or he is not reading.

Finally, and perhaps most important, teachers must provide much interesting reading material.

Independence in reading is the final goal.

## II. CONCLUSIONS

The recommendations and conclusions that follow pertain not only to the instructional program for the disabled reader, but to the reading program in general. Many of them are not new, but are the opinion of the writer and generalizations made from the study.

The recommendations are:

1. That the disabled reader be identified early and given special instruction before his problems become multitudinous.
2. That teachers of reading should use a variety of approaches to word recognition and comprehension techniques and develop a balance between them, thus, avoiding many faulty habits that can be detrimental to the child's reading growth.
3. That there is need for strengthening the reading readiness program. In the writer's research it was found that at present approximately one-fourth of the school systems in the United States do not provide kindergarten programs. This is indeed unfortunate since research indicates that such programs affect favorably the child's ability to learn. The kindergarten year should no longer be considered a detached and isolated unit, but considered in its true importance and relationship to the rest of the elementary school.
4. That teachers should be more aware of the concept of individual differences--that no two children are exactly alike. Although they may be of similar chronological age, they often differ in intellectual ability, growth rate, backgrounds and experiences.
5. That teachers and administrators alike must possess both perspective and flexibility so that children coming under their guidance will benefit from a reading program that is appropriate for today and tomorrow. Because of the tremendous changes taking place in our society, this is an absolute necessity.

6. That more emphasis needs to be placed on comprehension and meaning, rather than developing word recognition skills without attention to the meaning of the words being identified. In other words, understanding the meaning of the printed material, and not word calling.
7. That teachers at all levels of instruction need a better background on the principles and teaching of reading since all phases of education involve reading. Reading should not be the concern of the elementary school alone.
8. That further study needs to be made of the present practice of using chronological age as the exclusive criterion for admission to kindergarten or the first grade. Other factors, including mental, social and physical maturity, should enter into the picture. Also, there is a need for further experimental research to determine when a child should start reading.
9. That it be realized that many undesirable attitudes, behavioral problems and even delinquency may arise from failure to achieve in reading.



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A P P E N D I X

## APPENDIX

### TESTS

#### Durrell Analysis of Reading Difficulty: New Edition

A battery of diagnostic tests for intensive analysis of reading problems. Includes a wirebound set of Reading Paragraphs, a cardboard Tachistoscope with a series of word lists, and an individual record blank. Provides tests of oral and silent reading, listening comprehension, word analysis, phonics, faulty pronunciation, and writing and spelling.

#### Durrell-Sullivan Reading Capacity and Achievement Tests

Primary, grades 2.5--4.5; Intermediate, grades 3--6. The Capacity test is a non-reading group test of ability to understand spoken language as a measure of potential reading ability; the Achievement test is a test of reading comprehension with two parts, paragraph meaning and vocabulary.

#### Gates Reading Diagnosis Tests, Revised

Tests for Individual diagnosis of retarded readers from nonreader up through grade 5 level. Includes paragraphs for oral reading; phrase perception test; word lists for testing word recognition, word analysis skills, and spelling; tests of syllabication, reversible words, recognition of syllables, phonograms, and letter names and sounds; blending letter sounds. Forms 1, 2.

#### Gates Reading Survey

Grades 3--10. Provides separate measures of vocabulary, level of comprehension, rate of reading, and accuracy of comprehension. Working time, 60--90 min.

#### Iowa Every-Pupil Test of Basic Skills

Elementary, grades 3--5; advanced, grades 6--8. Test A, Silent Reading Comprehension, includes paragraph comprehension and vocabulary. Time, about 70 min. Test B, Work-study Skills, includes map reading, use of references,

and reading of graphs, charts, and tables. Series also includes language and arithmetic tests.

Iowa Silent Reading Tests: New Edition

Elementary Test, grades 4--8; Advanced Test, high school and college. Analytical silent reading tests including rate, comprehension, word meaning, and several skills in locating information. Working time, Elementary, 49 min., Advanced 45 min. Forms Am, Bm, Cm, Cm, each level.