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Diagnosis and instruction of reading disability cases of fourth grade pupils

Elise Palmer Wolfe
Atlanta University

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DIAGNOSIS AND INSTRUCTION OF READING DISABILITY
CASES OF FOURTH GRADE PUPILS

A THESIS
SUBMITTED TO THE FACULTY OF THE SCHOOL OF EDUCATION,
ATLANTA UNIVERSITY IN PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE
DEGREE OF MASTER OF ARTS

BY
ELISE PALMER WOLFE

SCHOOL OF EDUCATION

ATLANTA, GEORGIA
MAY, 1967
DEDICATION

To

My husband - Roy Wolfe

and

My daughter - Rolise Wolfe

for their patience and inspiration given which aided me to continue the research until it was completed.

E.P.W.
ACKNOWLEDGEMENTS

The writer wishes to express sincere thanks and appreciation to the personnel of Area IV the Atlanta Public School System; my principal, Mrs. M. A. Jacobs; teachers and pupils of the Margaret Pain Elementary School.

My sincere appreciation is extended to Mrs. M. H. Jellins, Dr. A. S. Mitchell and Dr. L. S. Gaines, for their generous counseling, helpful criticisms, and encouragement through the many stages of the research project.

E.P.W.
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CHAPTER I

INTRODUCTION

Rationale.---Reading, spelling and writing had their origin hundreds of years ago when man began to use pictures and other forms of objects to communicate and record events. As he continued communication in this form, man began to find new ways of expressing himself which developed into various systems for spelling and writing these symbols.

Since reading is a medium for learning, thinking, and problem-solving in all areas of human concern, it can be made an art of great utility in the most subtle types of thinking, discriminating, reasoning, judging, evaluating, and problem-solving. If the individual is able to pronounce words correctly, knows how to write, spell, and understand the meaning and use of these words, he can communicate more wisely and effectively. There is more awareness today than in the past of the complexity of the problem of communication.

At present, all educational levels are giving increasingly greater attention to reading. Its importance is clearly recognized by the elementary schools. In the primary grades, more time and effort are spent on teaching reading than on any other phase of the school program. In the past, high schools and colleges took for granted the reading ability

of their students. Today, an increasing number of secondary schools, colleges, and universities recognize that many of their students cannot do the quantity or quality of reading expected of them. More and more of these schools have come to the conclusion that they too must provide for the teaching of reading, and in one way or another are attempting to do so.

For beginners, reading is concerned mainly with learning to recognize the printed symbols which represent speech and to respond intellectually and emotionally as they would if the material were spoken rather than printed. The reasoning side of reading becomes increasingly important as recognition is mastered. As proficiency in reading increases, the individual learns to adapt his method of reading to his purpose for reading and the restrictions imposed by the nature of the material. The nature of the reading task, therefore, changes as the learner progresses from less mature to more mature levels. Reading is not one skill, but a constellation of interrelated skills which develop gradually over a period of many years.

The teacher of reading wants his pupils to be able to read, to use it effectively as a learning tool, to enjoy and appreciate reading, and to develop into lifetime readers. This may be expressed in more technical language, as the goals of developmental reading, functional reading, and recreational reading. "Developmental reading" activities are those in which the main purpose of the teacher is to bring about the improvement in reading skills—activities in which learning to read is the chief goal. "Functional reading" includes all types of reading in which the primary aims are to obtain information; in other words,
reading to learn. "Recreational reading" consists of those reading activities which have enjoyment, entertainment, and appreciation as major purposes. A sound reading program must achieve a fine balance among these major types of reading.¹

Developmental reading involves the teaching of skills in the mechanics of reading which should include development of a large sight vocabulary, identifying unfamiliar words, utilizing good eye-movement habits and proper habits of posture. Speed and fluency in silent reading, oral reading skills—phrasing, proper expression, pitch, volume and enunciation are all desirable reading goals. Skill in reading comprehension depends upon the acquisition of a rich, extensive, and accurate vocabulary, developing the ability to grasp the meaning of word groups of increasing length, such as phrases, sentences, paragraphs, whole sentences. Ability to find answers to specific questions, to select and understand main ideas, to understand a sequence of events, to note and recall details, to grasp the organization of the author's plan, to follow directions accurately, and to evaluate what one has read comprise but a few of the several facets of comprehension skills and abilities.

Functional reading involves the ability to locate reading materials through use of index, table of contents, dictionary, encyclopedia, library card files, other bibliographic aids and skimming in search for information. The ability to comprehend informational materials developing specific skills needed by special subject matter

as reading of arithmetic problems, reading of maps, charts, graphs, organizing what to read, summarizing and outlining are study skills which should be taught and reinforced periodically.

Recreational reading involves the choice of reading as a voluntary leisure-time activity, success in reading interesting and enjoyable reading matter as well as satisfaction of present recreational interests and tastes with regard to literary merits of reading matter.

These three types of reading purposes can not and should not be kept entirely separate. In a developmental lesson, children must read materials which are either recreational or functional in character. The writer takes the position that children grow in all respects, physically, mentally, emotionally and spiritually, at different rates. Therefore, differentiated instruction must be provided.

The teaching of reading requires that the teacher be able to plan and carry out a program in which children with widely varying abilities can be effectively guided to achieve the goals of reading instruction, in accordance with their individual learning capacities. The need for such a program is generally recognized and teachers are more worried about how to accomplish this than they are about any other aspect of the reading program.

The more that is known about a child the better a teacher can decide when he will need and use certain skills, when these skills will be most meaningful, and how his interests and attitudes are influenced. "Diagnosis" is the foundation of an effective instructional program which can deal adequately with these decisions. It is nothing more than the application of a straightforward, common sense, problem-
solving approach to the study of children who have difficulties in reading. When diagnosing a difficulty, the teacher will want to find out what is wrong, what caused it, and what can be done for it.¹

Children differ in their potentialities for learning, and the achievement of a child should be judged in relation to the child's learning capacity. In determining capacity, for reading, verbal intelligence is of major importance. Other factors which must be taken into account are the child's experimental background, his attainment in the other language arts, his freedom from inhibiting physical handicaps, and his motivation for reading.

There are some children whose reading growth is so different from the usual child that they constitute a troublesome instructional problem. These children need, not a developmental reading program, but a corrective or re-educative program of reading so that they can continue to progress in reading growth. The "Corrective reading program" is one in which training and re-educative procedures are carried on by a regular classroom teacher within the framework of regular instruction. A "Remedial reading program" involves intensive and clinical procedures outside the framework of class instruction.

Children who are in need of corrective or remedial programs of reading instruction may be characterized as reading disability cases. Bond and others state that, the "disabled reader" is, in general one who has had an opportunity to read but who is not reading as well as could be expected by his aural verbal ability, his mental capacity, and his

¹Albert J. Harris, Readings on Reading Instruction (New York: David McKay Company, Inc., 1963), p. 129.
success in nonreading learnings. He is, in reality, the child who is at the lower end of the reading distribution for a variety of reasons. Children who have been classified as disabled readers can be grouped as simple retardation cases, specific retardation cases, limiting disability cases and complex disability cases.

"Simple retardation cases" are those disability readers who lack general maturity in reading. They are retarded in reading when compared with other children of their general reading expectancy, but there is no unusual or limiting characteristic about their reading pattern.

"Specific retardation cases" are those children who have specific limitations in their reading profiles. They are low in one or more types of reading but are competent in basic reading skills and abilities.

"Limiting disability cases" are those disabled readers who have serious deficiencies in their basic skills and abilities which limit their entire reading growth.

"Complex disability cases" are those who cannot grow further in reading because of deficiencies in basic reading abilities, complicated by their rejection of reading, accompanying personality problems, and frequently by sensory or physical handicaps.

The possible causes of reading disabilities are numerous, hence


2Ibid., p. 83.

3Ibid., p. 83.

4Ibid.
a single factor seldom causes reading disability. In all but the mildest cases, the difficulty is due to a composite of related conditions. The contributing factors interact as parts of a pattern.

The program of instruction most effectively designed to relieve a case of reading difficulty is based upon a knowledge of these factors as causes of reading disabilities:

1. Visual deficiencies
2. Hearing deficiencies
3. Motor, speech, and glandular disturbances
4. Lateral dominance
5. General health
6. Brain damage and congenital "Word-blindness"
7. Emotional
8. Intellectual

The effects of reading disability are numerous and frequently tragic for the person involved. Normal progress in school is blocked for the disabled reader. Evidence shows that a major proportion of remedial training produces desirable results. A remedial program based upon proper analysis of a child's difficulties brings improvement in reading ability in nearly every case. Frequently, the child can be brought up to his potential learning capacity. Of equal importance are the desirable changes in personality that occur with correction of reading difficulties.

In today's world of rapidly expanding knowledge, the individual student must be enabled to absorb, comprehend, and retain more and more
ideas and handle more complex information, otherwise, he may become a member of the large mass of the uneducated and unemployed segment of our society. The major burden of this responsibility falls upon our schools and our educators.

Evolution of the problem.—The writer's interest in the area of reading disability evolved out of a desire, as a teacher of fourth grade, to investigate this problem area. There was a desire to help those pupils who have the ability to perform more efficiently in the area of reading and yet are not operating at their potential levels. Too frequently, no real attempt is made to ferret out the causes of the disability beyond the level of "because he can't read very well, he has a reading problem." In some cases, certain selected factors are investigated, perhaps vision or hearing—while others, possibly intelligence or emotional status, are for all practical purposes, ignored. In either case, the result is a gross misrepresentation of a thorough diagnostic study which blocks effective planning of an adequate treatment program for the child. The measurement of reading performance itself must, of course, be a part of any evaluation of a reading problem. Out of this must come, however, not merely a comparison of a child's achievement with that of others of his own age or grade, but also a determination of the levels at which he is operating in reading, how these compare with the potential levels indicated and the particular strengths and weaknesses evident in his performance. To obtain this kind of information requires a highly trained teacher capable of observing accurately and objectively the child's performance as he deals with materials at varying levels of
difficulty. This writer considers reading to be an essential factor in modern life, intermingled with work, recreation, and other activities of young people and adults. Improvement in reading should be continuous.

Contribution to education.—It was the writer's belief that this study might contribute the following to educational knowledge:

1. Stimulate teachers to an awareness of proper diagnostic techniques in order not to increase reading difficulties.

2. Suggest the types of materials which will aid in alleviating the reading difficulties that remain problems for many teachers and clinicians.

3. Provide examples for those who are actively engaged in reading diagnosis and remedial instruction.

4. Aid educators in devising a more expeditious system of analyzing the basic reading difficulties of pupils who face certain disadvantages and deprivations.

Statement of the problem.—The problem involved in this study was designed to diagnose reading difficulties of the most seriously retarded reading cases in the fourth grade of the Margaret Fain Elementary School, Atlanta, Georgia, and to provide remedial instruction based on the findings from the diagnosis of two groups of fourth grade pupils: one with higher intelligence scores and others with lower intelligence scores as measured by the Kuhlmann-Anderson Intelligence scores. The study further aimed to note any differences between the responses and reactions of the two groups.

Purpose of the study.—The purposes of this study were:
1. To discover reading difficulties among fourth grade pupils at the Margaret Fain Elementary School.
2. To diagnose pupils with most serious difficulties.
3. To identify from the latter group, two sets of fourth grade pupils: one with higher intelligence levels and others with lower intelligence.
4. To determine the level of reading expectancy.
5. To determine the general reading status.
6. To analyze the difficulties.
7. To determine the possible cause or causes of reading disabilities as determined by the diagnoses.
8. To provide remedial instruction based on the diagnoses.
9. To retest to measure pupils' progress, if any.
10. To compare differences in responses and reactions of the two groups to corrective or remedial procedures.
11. To make recommendations from the findings, conclusions and implications derived from the analysis and interpretation of the data.

Limitations of the study.—This study was limited to fourth grade pupils of the Margaret Fain Elementary School who are deficient in reading as determined by the Kuhlmann-Anderson Intelligence scores. Cases were diagnosed only as far as needed by a reading specialist. These pupils were given remedial instruction five days a week for nine weeks. (About forty-five minutes per day).

Definition of terms.—For the purpose of clarity in this study, the following terms have been defined:
1. "Retarded reading" cases are here considered to be those who are so disabled in reading that they cannot meet the reading requirements at their school placement and cannot keep pace with their peers, although they have the mental capacity to do so.

2. Remedial reading is reserved for seriously disabled readers who are operating on levels roughly two or more years below their capabilities.

Locale of the study.--The Margaret Fain Elementary School is located at 3415 Del Mar Lane in the northwest section of Atlanta, which is the capital of Georgia. The total enrollment in the school was 907 pupils from kindergarten through seventh grade. The majority of the pupils lived in apartments on Del Mar Lane and Gordon Road, in which the families were of average and below average income. However, some families were home owners and a little above average in income, some were skilled workers.

The primary department of the school was organized according to the non-graded plan. This method dispenses with grade levels, and the pupils complete the curriculum of the first three grades at a rate commensurate with their learning rates. The year in which this study was conducted was the second year that the program had been in operation; therefore, the success of the program had not been determined.

The reading program of the school was planned to help the pupils who were in need of special attention in reading, as well as those who had the ability to progress rapidly, having already acquired the
skills needed for them to advance.

Method of research.—The descriptive-case study method of research was utilized. Attention was directed toward the seriously retarded readers, thus requiring techniques of testing, interviewing, analysis of records, observation, and remediation.

Subjects and materials.—The subjects were the fourth grade pupils of the Margaret Fain Elementary School, Atlanta, Georgia. More specifically, the cases were selected according to chronological age, number of years in school and group intelligence scores. The subjects were organized for remedial instruction into two groups: one with higher intelligence scores ranging from 94 to 108 and the other with lower intelligence scores ranging from 84 to 90.

Materials that were needed for this study were tests, interview schedules, and cumulative records.

To measure the subjects intelligence, the Kuhlmann-Anderson Test, Form D, was administered. Buros states that the Kuhlmann-Anderson Tests are among the best all-round group intelligence tests.

The achievement test is a test that measures pupil's accomplishment, such as acquisition of information or mastery of skills in a given area, resulting from specific instruction. The Durrell-Sullivan Achievement Test, Form A, was used because this test measured the students performance in silent reading in the areas of word and paragraph meaning. This test is designed for grades 3-6.

Durrell Analysis of Reading Difficulty, Form A, was used to discover the specific kinds of difficulties involved in the reading

disability. This test has diagnostic features in that it consists of a series of individual tests in oral and silent reading, word perception, visual memory of word forms, and auditory analysis of word elements.

The Gilmore Oral Reading Test has been developed to provide classroom teachers, reading supervisors, and others particularly concerned with reading instruction, with a means of analyzing the oral reading performance of pupils in Grades 1 through 8. The test provides measures of accuracy in oral reading, comprehension of material read, and rate of reading.

The Wepman Auditory Discrimination Test measured the ability to hear differences in similar sounding words.

The Boyd Test of Phonetic Skills measured the extent to which reading difficulty was affected by the ability to handle phonetic and structural analysis skills in unlocking new words.

To determine whether there were any physical factors interfering with reading progress, an auditory screening test with the Maico Audiometer and a visual screening test with the Keystone Visual Survey Test were used. The "Maico Audiometer" is a machine for screening hearing. The "Keystone Telebinocular" is a machine for measuring visual efficiency.

The Strang's Open End Questions is an informal diagnostic record of various interests, attitudes, and experiences of a student.

The instruments used for post testing following instruction were the Durrell Sullivan Achievement Test, Form A and the Gilmore Oral Reading Test, Form A.
Procedural steps.—This study was conducted through the following procedural steps:

1. Permission to conduct the study was obtained from the proper authorities.

2. The related literature pertinent to this study was reviewed, summarized, and presented in the final thesis copy.

3. Case history information was obtained from the pupil's school record, parents, and students in the form of an interview. The interview was of the diagnostic type, to discover details and related facts, opinions, attitudes, and personal experiences about the individual being studied.

4. All data were studied and analyzed for the purpose of determining possible inhibiting factors contributing to reading disability.

5. The pupils were provided remedial instruction for nine weeks based on the diagnosis.

6. The pupils were retested at the end of nine weeks to measure progress.

7. Recommendations were made for each case instructed.

8. The data obtained through the instruments of this study are assembled into appropriate tables and statistically treated as directed by the purposes of this study.

9. Findings, conclusions, recommendations, and implications as derived from the data are presented in the final thesis copy.

Survey of related literature.—The literature pertinent to this
study was reviewed by the writer. The significant aspects of this literature as they relate to reading disability are discussed here under the following headings: (1) survey of diagnosis and correction of reading difficulties, and (2) identification of reading disability in regard to vocabulary, comprehension and oral reading skills.

Survey of diagnosis and correction of reading difficulties.—

Guy L. Bond and Leo Fay conducted a remedial reading clinic at the University of Minnesota and initiated analysis of reading difficulties as a diagnostic step. Twenty-three children, one girl and twenty-two boys were enrolled for diagnostic and clinical treatment. The clinic was in operation two hours a day for five weeks, during which time through diagnosis was made of each child's difficulties. The difficulties discovered were analyzed as follows:

1. Over-emphasis on phonetic analysis
2. Faulty word recognition techniques and no systematic method of word analysis
3. A number of difficulties related to poor reading habits
4. A negative attitude toward school and reading
5. Constant tiredness and listlessness.

A comparison of the gains for the pupils with average expected gain may be used as an indication of the effectiveness of the clinic for the group as a whole. The average for the pupils was 5.0. Thus the group gained five times as much as their previous achievement indicated that it could be expected to gain.1

---

Perhaps the most impressive case-study research in the area of diagnosis and remediation of reading difficulties is Robinson's report of her clinical study of thirty children at the University of Chicago Reading Clinic. The chief purpose of her study was to extend understanding relative to the causes of severe forms of reading difficulty and to consider the nature of appropriate therapeutic procedures. To accomplish the purpose of this study, each child was diagnosed by the following specialists; a social worker, a pediatrician, a neurologist, three ophthalmologists, a speech correctionist, an otolaryngologist, an endocrinologist, a reading clinician.

The findings of each specialist were recorded and tentative recommendations were made. When all the medical data were available concerning a given child, these data were summarized and interpreted by the pediatrician. The investigator then summarized all data concerning the child and organized them into a tentative report which was purely analytical. Recommendations for treatment were made on the basis of the report and systematic remedial reading instruction proved successful as could be evidenced by the result of post testing.¹

Hearing impairment can be a handicap in learning to read. This is particularly true when the hearing losses are severe enough to interfere with normal auditory discrimination. Research reveals that hearing impairment may be associated with reading disability as a contributing cause when (a) the hearing loss is severe, (b) the child has high tone deafness, and (c) the pupils with hearing loss are taught

reading by predominantly auditory methods.

As early as 1922, Gray and others recognized the effect of auditory limitations on reading, when they said that some pupils are unable to hear, therefore they must be taught by methods suitable for deaf children. Others who hear indistinctly frequently fail in reading because they are not properly seated so as to hear words clearly.¹

Monroe felt that lack of precision in discrimination of speech sounds might impede progress in reading and was often associated with articulatory speech disorders. She thought that inability to differentiate between similar sounds might be due to a defect in the auditory mechanism for some ranges of pitch and sound qualities. The result was confusion of certain similar words, such as "sand" and "send", "bit" and "bet."² In preparing her reading aptitude test, Monroe included a test of auditory discrimination designed to measure a difficulty which was frequent among poor readers and seemingly prevented the adequate mastery of phonetics as aid in learning to read.

The degree to which poor hearing is a handicap in learning to read depends on the amount of emphasis given to oral instruction in reading. In a careful study, Bond found significant differences in hearing between good and poor readers in the second and third grades, and reported that partly deaf children were seriously handicapped in

¹Robinson, op. cit., p. 50.

classes where oral-phonetic methods were stressed, but made normal progress in classes which stressed visual teaching materials and silent reading.¹

Lack of co-ordination between the two eyes may contribute to reading disability. Many writers including Betts, Harris, Taylor, Farris and Robinson, and Huelsman emphasize the lack of binocular coordination as a handicap in reading activities. Eames discovered a significantly greater degree of exophoria (lack of co-ordination in which the eyes turn outward from the desired position) in reading disability cases than in his control group. Blurred vision and double images produce confusion and fatigue in a pupil's attempts to identify letters and words. In addition to binocular co-ordination, there must be precision of accommodation or focus of the eye lens, if there is to be fusion of the image in the two eyes so that the object or word is seen clearly. Taylor reports that 25 per cent of reading failures and only 12.4 per cent of the normal controls had difficulty in fusing retinal images. The most extensive study was done by Eames, who reported that 44 per cent of poor, in comparison with 26 per cent of good readers in his study, experienced fusion difficulties.² Witty and Kopel found that 29 per cent of their poor readers and 1 per cent of the normal controls exhibited slow fusion, but these investigators tended to minimize the relation of poor

¹Harris, op. cit., p. 240.

vision to reading disability.

Smith states that, the question of the relationship of lateral dominance and reading is one of the most controversial issues in reading. Dominance can only be inferred from tests of laterality or preference of hand, foot, eye.\(^1\) Dearborn has been one of the most vigorous exponents of a relationship between laterality and reading disability. Among his clinical cases, he found a greater incidence of left dominance, crosses dominance, and lack of dominance than among good readers. Dearborn suggests that to avoid difficulties in reading, one should be either left-eyed and left-handed, or right-eyed and right-handed, preferably the latter.\(^2\) In a number of more recent investigations, no relation of lateral dominance to reading disability was found.

Various conditions associated with poor health can be detrimental to normal progress in reading. Brain damage is seldom a cause of reading disability, but when it is present a very difficult instructional problem exists. Congenital word-blindness, inability to learn to read, sometimes called dyslexia, has been defined as an extreme difficulty in learning to recognize printed or written language on the part of persons otherwise normally endowed mentally. Such cases are without defect of vision or other physical defect of such gravity as to constitute an interference with the process of learning to read. Dechant concluded that physical factors are contributing factors to reading disability rather than causal.

---


\(^2\)Bond and Tinker, *op. cit.*, p. 100.
factors. Spache reports that most of the evaluation of various physical factors as causes of poor reading have been essentially negative.\(^2\)

Lower than normal intelligence need not be a cause of reading disability. But when instructional procedures are not adjusted to a child's slow learning ability, an accumulation of partial learnings will eventually make it impossible for the pupil to profit from regular classroom instruction.

Martin states, that, retardation in reading does not correlate highly with low mental ability, nor should it be construed to be synonymous with mental retardation. In many cases, the pupil of superior intelligence is not performing up to his capability. Should such be the case, he may be a retarded reader. He is retarded in light of his own ability. For example, an eleven-year-old pupil who has an achievement age of eleven, but a mental age of thirteen if properly classed as a retarded reader. Conversely, a nine-year-old child with an achievement age of eight and a mental age of eight is not a retarded reader, since it would be correct to assume that he is performing to the best of his ability.\(^3\)

The apparent relationship between intelligence and reading has been expressed by most writers as follows:

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\(^1\) Lester L. Van Gilder, "Improving the Comprehension of the Emotionally Disturbed," International Reading Association Conference Proceedings, X, p. 206.

\(^2\) Ibid., p. 206.

\(^3\) John Martin, "Using Test Results to Improve Reading Instruction," National Elementary Principal, XL, No. 7 (May, 1961), 43-44.
First, inadequate intelligence appeared to cause inability to learn in all school subjects, of which reading was but one phrase; and, second, in children who had specific reading disabilities intelligence seemed to be distributed essentially as it is in the general population. In other words, severely retarded readers may be found with low, average, or superior intelligence. Witty and Kopel have stated that 'idiots (IQ below 25) and imbeciles (IQ 25-50) cannot learn to read.' They also pointed out that morons (IQ 50-70) rarely achieve better than fourth-grade proficiency. The dull child (IQ 70-85) is poorly equipped to meet the demands of the typical school, because the standards set for all children are unattainable by these youngsters when academic books are first introduced; at a later time, after these youngsters have failed again, and again, the same tasks are no longer appropriate in terms of the children's maturing interests and needs.1

The per cent of poor readers of both elementary-and high-school ages, had IQ's from 80 to 110, with about equal numbers between 80 and 90, 100 and 110. Thus, Witty and Kopel concluded that most poor readers have sufficient mental ability to read satisfactorily if appropriate and attainable goals are set up, and if there is proper motivation.

McDonald administered the Wechsler Adult Intelligence Scale to fifty disabled readers of high school age and an equal number of disabled readers at college level. These disabled readers did better in tasks involving social comprehension, in attention to details, and in simple manipulative tasks than they did in tests reflecting attention, concentration, memory and school-like tasks.2 Frequently, reading disability is largely due to educational factors. An administrative policy which prevents proper individualization of

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1 Robinson, op. cit., pp. 66-68.
2 Gilder, op. cit., p. 206.
of instruction, including emphasis upon reading readiness, will prevent effective progress in reading. Failure to acquire the necessary learnings or the acquisition of family learnings is most frequently due to ineffective teaching which brings about reading disability; too rapid progress in the instructional schedule, isolation of reading instruction from other school activities, inappropriate emphasis upon some technique or skill, or treating reading as a by-product of content studies. Frequently, the difficulty occurs because the instructional program has failed to maintain a proper balance in the growth of a larger number of skills and abilities.

Tillman, in her study of the diagnosis and treatment of reading difficulties of eight pupils, concluded that the pupils in this group had low intelligence and were unfortunately in competition with children of normal intelligence. Their educational backgrounds were not rich enough to enable them to cope effectively with regular classroom instruction in formal reading. They had not been given thorough preparation for beginning reading before they were introduced to it. ¹

Smith suggests that, ineffective school practices which interfere with progress in reading are sometimes difficult to identify. Such factors as class size, lack of adjustment of instruction to the learner, inappropriate materials, poor teaching, over-emphasis on any one area of reading (oral reading, phonics, the teacher's failure

to identify and correct confusion, and lack of emphasis on the meaning of what is read or on the application of skills being learned many interfere with the progress of some children. Prolonged absences, frequent changes of schools, failure or sometimes acceleration may have interfered with reading.\(^1\)

It is of great importance that the child should develop favorable attitudes toward his teacher. Witty and Kopel found that the teacher's personality was considered important as a possible cause of failure to progress in reading. Preston reported that 78 per cent of the teachers studied could not refrain from expressing their annoyance at slow, stumbling failures. However, there was no means of measuring or estimating the effect of these factors.

Bettis stated, aversion to reading on the part of the children is built up by forcing them into situations for which they are too immature, by questionable teacher and parental attitudes, by failure on the part of teachers to analyze learning gaps and make necessary provisions, and by a general lack of understanding of problems encountered by a child with language disabilities.\(^2\)

The relationship between a child's emotional pattern and his reactions in the learning situation is being studied with increasing frequency by psychologists. These studies have led investigators such as Sherman to say:

In many instances a given emotional pattern may be a


distinct hindrance to learning a specific task or skill, whereas in others the emotionality of an individual may be a motivating force to greater effort. Thus the emotions must be taken into account in evaluating success and failure.¹

A common cause for both is suggested by Blanchard, who pointed out that the reading disability often arises from the same source of difficulty inherent in emotional development, and in the same manner as the accompanying personality, behavior problems or neurotic symptoms, such as fears, illness without physical basis, infantile regressions, and the like.²

A wide variety of factors have been suspected as being basic to reading disability and emotional maladjustment. Wells pointed out that sometimes reading difficulties are means used by children when reacting to difficulties in home adjustment, just as stealing and temper tantrums may also be means of striking back.³

Johnson's conclusions from a study of the research on the relationship of emotions to reading disability seem to indicate:

1. There is no single personality trait or combination of traits invariably associated with either success or failure in reading. Variability of personality structure will be great within groups of both achieving and disabled readers.

2. Personal maladjustments which lead to inability to attend and concentrate will have a negative effect on the development of reading ability.

3. The presence of many of the serious symptoms of personal maladjustment is more frequently associated with


²Ibid., p. 87.

³Ibid.
failure in reading than with success in reading.

4. Emotional problems and reading disability, when they occur together, are apt to aggravate each other. Both must be considered in the treatment of the whole problem.

5. The influence of home conditions is strong in determining both personal adjustment and achievement in reading.

In a study conducted by McCauley for the purpose of determining the level of reading abilities among fifty-seven pupils from the second and third grades, it was found that there is an appreciable tendency for pupils who are rating relatively high on tests of reading achievement to rate relatively high on tests of reading capacity and vice versa.²

Ume, in his study of the analysis of reading difficulties of fifty college freshmen, concluded that the limiting difficulties which affected the group were poor comprehension, inadequate vocabulary, lack of interest in reading, unsystematic study habits, faulty oral reading in which there were poor syllabication, faulty voice inflection, inaccurate enunciation and pronunciation, omissions, and certain visual defects.³

In regard to the identification of reading disability as reflected in vocabulary, comprehension and oral reading skills, Russell discovered that lack of adequate vocabulary causes severe reading

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¹Gilder, op. cit., p. 207.


deficiency. He further expounded his findings as follows:

Lack of adequate vocabulary obstructs reading in all dimensions. Knowing words is a great asset in all school work which involves reading of any description. Difficulty in vocabulary affects students scholastic achievement in social science, natural science, and humanities. A student's ability is generally conditioned by his vocabulary and total reading achievement at all levels.¹

A recent study by Lampard based on longitudinal studies of general achievement in reading comprehension and vocabulary development concludes that by the age of six, a child has attained one-third of the general achievement pattern which he will exhibit at age eighteen.²

From this survey of the available literature reporting research pertinent diagnosis and instruction of reading disabilities in a wide variety of situations, it may be concluded that a multiplicity of factors may be operative to contribute to reading failure rather than a single factor. Further, it may be concluded that most disabled readers, those revealing a significant discrepancy between reading achievement and level of reading expectancy, can improve their reading substantially when remedial reading techniques are properly applied, under conditions which are conducive to learning.

¹Ume, op. cit., p. 34.
CHAPTER II

PROCEDURES, PURPOSE AND INTERPRETATION OF DATA

The purpose of this chapter is to present a report of data collected pursuant to the purposes of the study. The data are organized in four sections which contain accounts of:

1. The identification and classification of reading disability cases to be used in the study
2. Background information and results of clinical tests for each of eight reading disability cases
3. The instructional objectives, procedures and activities relevant to the remedial programs of the group of cases
4. The results of two tests administered following remedial instruction.

Using a systematic diagnostic plan, each pupil, once identified as disabled reader, was given the same set of analytical tests. The instructional reading analysis required the period between November 16, 1966 and November 30, 1966. Only the Kuhlmann-Anderson Intelligence Test, Test D, and the Durrell-Sullivan Achievement Test, Form A, used for purposes of identifying the disabled readers, were administered as group tests. The instruments used for the analysis were individually administered. These instruments were:

1. The Gilmore Oral Reading Test, Form B
2. Sections of the Durrell-Analysis of Reading Difficulties
3. The Boyd Test of Phonetic Skills
4. The Wepman Auditory Discrimination Test, Form B

27
Identification and Classification of Reading Disability Cases

During the first semester of the school year, in November, 1966-67, a class of twenty-five pupils were administered the Kuhlmann-Anderson Intelligence Test, Test D, and the Durrell-Sullivan Achievement Test, Form A. These test results were used to determine the subjects to be used for the study. In determining the pupils to be assigned to a higher achievement group and a lower achievement group, upon identification as disabled readers, the writer obtained reading and intelligence scores from the results of the Durrell-Sullivan Achievement Test (Form A), and the Kuhlmann-Anderson Test (Test D). The writer was then able to determine those pupils who were disabled in the area of reading by computing a reading expectancy grade score based on the formula for calculating reading expectancy according to Bond and Tinker (Years in school x I.Q. / 1.0). Only those pupils who were retarded at least one year or more in reading were selected. Out of a class of twenty-five pupils who were tested, there were only eight pupils who were retarded at least one year in reading. These eight pupils comprised the total group of subjects for the study.

Table 1, page 29, will show the performance of the twenty-five pupils who made up the class from which the disability cases were

---

TABLE 1
INTELLIGENCE, READING ACHIEVEMENT AND EXPECTANCY
FOR ALL TWENTY-FIVE PUPILS

<table>
<thead>
<tr>
<th>Cases</th>
<th>Age</th>
<th>IQ</th>
<th>Average Reading Grade Equivalent</th>
<th>Reading Expectancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>9</td>
<td>117</td>
<td>4.4</td>
<td>4.5</td>
</tr>
<tr>
<td>2</td>
<td>9</td>
<td>116</td>
<td>4.4</td>
<td>4.5</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>110</td>
<td>4.0</td>
<td>4.2</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>108</td>
<td>3.0</td>
<td>4.2*</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>108</td>
<td>4.3</td>
<td>4.2</td>
</tr>
<tr>
<td>6</td>
<td>9</td>
<td>107</td>
<td>3.8</td>
<td>4.2</td>
</tr>
<tr>
<td>7</td>
<td>9</td>
<td>104</td>
<td>4.2</td>
<td>4.2</td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td>103</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>9</td>
<td>8</td>
<td>101</td>
<td>3.0</td>
<td>4.0*</td>
</tr>
<tr>
<td>10</td>
<td>9</td>
<td>101</td>
<td>3.8</td>
<td>4.0</td>
</tr>
<tr>
<td>11</td>
<td>9</td>
<td>100</td>
<td>4.1</td>
<td>4.0</td>
</tr>
<tr>
<td>12</td>
<td>8</td>
<td>99</td>
<td>2.9</td>
<td>3.9*</td>
</tr>
<tr>
<td>13</td>
<td>9</td>
<td>94</td>
<td>2.7</td>
<td>3.8*</td>
</tr>
<tr>
<td>14</td>
<td>9</td>
<td>93</td>
<td>3.6</td>
<td>3.7</td>
</tr>
<tr>
<td>15</td>
<td>9</td>
<td>93</td>
<td>3.6</td>
<td>3.7</td>
</tr>
<tr>
<td>16</td>
<td>8</td>
<td>93</td>
<td>3.7</td>
<td>3.7</td>
</tr>
<tr>
<td>17</td>
<td>9</td>
<td>90</td>
<td>3.2</td>
<td>3.7</td>
</tr>
<tr>
<td>18</td>
<td>9</td>
<td>90</td>
<td>2.5</td>
<td>3.7*</td>
</tr>
<tr>
<td>19</td>
<td>9</td>
<td>87</td>
<td>3.3</td>
<td>3.6</td>
</tr>
<tr>
<td>20</td>
<td>8</td>
<td>88</td>
<td>2.4</td>
<td>3.6*</td>
</tr>
<tr>
<td>21</td>
<td>9</td>
<td>84</td>
<td>2.2</td>
<td>3.5*</td>
</tr>
<tr>
<td>22</td>
<td>9</td>
<td>84</td>
<td>2.3</td>
<td>3.5*</td>
</tr>
<tr>
<td>23</td>
<td>8</td>
<td>84</td>
<td>3.0</td>
<td>3.5</td>
</tr>
<tr>
<td>24</td>
<td>9</td>
<td>76</td>
<td>3.0</td>
<td>3.2</td>
</tr>
<tr>
<td>25</td>
<td>9</td>
<td>75</td>
<td>3.1</td>
<td>3.2</td>
</tr>
</tbody>
</table>

\[ X = 267 \quad \bar{X} = 2405 \quad X = 84.5 \quad X = 96.5 \]

\[
\begin{align*}
\text{Mean} & \quad M = 96 \\
\text{Mean} & \quad M = 3.5 \\
= & \quad 1.2 \\
& \quad 10.2 \\
= & \quad .6 \\
& \quad .3 \\
m = & \quad .2 \\
m = \quad 2.1 \\
m = \quad .12 \\
m = \quad .06
\end{align*}
\]

*Cases identified as remedial or severely retarded readers.

selected.

It may be observed that the pupils indicated a range in chronological
ages from a high nine years to a low eight years, with a mean age of nine, standard deviation of 1.2 and standard error of the mean of .2. Nineteen pupils or 76 per cent of the group were older than the mean age and eight or 24 per cent were younger than the mean age. The distribution of chronological ages of the eight pupils selected for the study ranged from eight years nine months to nine years six months with a mean age of nine years which shows a satisfactory sampling of ages for this study.

The intelligence quotients of the twenty-five pupils ranged from a high of 117 to a low of 75, with a mean IQ of 96. The standard deviation was 10.2 with a standard error of the mean of 2.1. Twelve pupils or forty-eight per cent of the group had IQ's above the mean and thirteen or fifty-two per cent evidenced IQ's below the mean. The subjects included in this study evidenced a general range of intelligence levels from bright average to borderline. Since each subject should be able to profit to some extent from instruction it was the task of the investigator to identify reading disability cases as well as functional causes of the disabilities in reading.

The grade equivalent scores of the twenty-five pupils for reading achievement ranged from a high of 4.4 to a low of 2.2, with a mean score of 3.5. The standard deviation was .6 with a standard error of the mean of .12. Twelve pupils or forty-eight per cent of the group scored above the mean and thirteen or fifty-two per cent scored below the mean.

The reading expectancy grade equivalent for the twenty-five pupils ranged from a high of 4.5 to a low of 3.2, with a mean score of 3.9. The standard deviation was .3 with a standard error of the mean of .06.
Eleven pupils or forty-four per cent of the group scored above the mean and fourteen or fifty-six per cent scored below the mean.

Thus, it may be observed that seventeen pupils or sixty-eight per cent of the group are developmental or corrective readers while eight pupils or thirty-two per cent are retarded in reading and may be classified as "remedial" disability cases. This study was concerned only with pupils who could be classified as remedial cases. Cases 4, 9, 12, 13, 18, 20, 21, and 22 who were identified as disabled readers comprised the total group of subjects for this experimental study.

One purpose of this research was to determine whether reading disability cases who were achieving at a higher level when the disability was discovered would benefit from instruction less than the benefits accrued by disability cases who were achieving at a lower level when the disability was discovered. To facilitate this comparison between the eight pupils selected were divided into two groups, X and Y. Evidence concerning differences between the groups is reported in the following paragraphs. Table 2, page 32, presents data concerning the intelligence levels of pupils in the two groups.

Intelligence levels of the reading disability cases before instruction.—Data concerning intelligence were obtained from performances on the Kuhlmann-Anderson Test, Test D. It may be observed that in Table 2 that the scores of the subjects in Group Y ranged in intelligence test performance from a high of 108 to a low of 94, with a mean of 100, a standard deviation of 5.1 and a standard error of the mean of 3. Two pupils or fifty per cent of the subjects scored above the mean, two or fifty per cent scored below the mean.
**TABLE 2**

INTELLIGENCE QUOTIENTS THE DISABLED READERS ACHIEVING HIGHEST AND LOWEST WITHIN THE GROUP

<table>
<thead>
<tr>
<th>Group Y</th>
<th>Group X</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 13</td>
<td>94</td>
</tr>
<tr>
<td>Case 12</td>
<td>99</td>
</tr>
<tr>
<td>Case 9</td>
<td>101</td>
</tr>
<tr>
<td>Case 4</td>
<td>108</td>
</tr>
</tbody>
</table>

\[
\begin{align*}
X &= 402 \\
M &= 100 \\
\sigma &= 5.1
\end{align*}
\]

\[
\begin{align*}
X &= 346 \\
M &= 86.5 \\
\sigma &= 2.6
\end{align*}
\]

- **Standard Deviation**: 5.1
- **Standard Error of Mean**: 3
- **Standard Error of Difference**: 3.2
- **Difference of Means**: 6
- **Degrees of Freedom**: 6
- **"t"**: 4.2

The scores of the subjects in Group X ranged from a high of 90 to a low of 84, with a mean score of 86.5. The standard deviation was 2.6 and a standard error of the mean of 1.2. Two or fifty per cent of the subjects scored above the mean and two or fifty per cent below the mean.
A performance of Groups Y and X on the Kuhlmann-Anderson Test indicated a difference between the means of .6. Computations to determine the significance of the difference between the means yield a "t" ration of 4.2, with 6 degrees of freedom. A "t" greater than 3.707 is necessary at the one per cent level of confidence, thus there is a significant difference between the intelligence of the groups.

The Group Y, higher achievers may be classified as average in intelligence while Group X, the lower achievers may be classified as dull normal in intelligence. An inspection of the intelligence quotients revealed that no member of Group Y had an I.Q. lower than the highest intelligence level of a member of Group Y. In terms of IQ, the two groups should satisfy the required status for the proposed comparison.

Reading levels of the reading disability cases before instruction.—Data concerning reading achievement from results of performances of Group Y and Group X on the Durrell-Sullivan Achievement Test, Form A may be observed in Table 3, page 34. The subjects in Group Y indicated a range in average reading level scores from a high of 3.0 to a low of 2.7, with a mean score of 2.9, standard deviation of .12 and standard error of the mean of .07. Two or fifty per cent scored above the mean, one or twenty-five per cent equal to the mean and one or twenty-five per cent below the mean.

The scores of the subjects in Group X ranged from a high of 2.5 to a low of 2.2, with a mean score of 2.4. The standard deviation was .12 with a standard error of the mean of .07. Two or fifty per cent of the subjects scored above the mean, one or twenty-five per cent
### Table 3

**Average Reading Levels For Disabled Readers Achieving Highest and Lowest Within the Group**

<table>
<thead>
<tr>
<th>Group Y</th>
<th></th>
<th>Group X</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 13</td>
<td>2.7</td>
<td>Case 21</td>
<td>2.2</td>
</tr>
<tr>
<td>Case 12</td>
<td>2.9</td>
<td>Case 22</td>
<td>2.3</td>
</tr>
<tr>
<td>Case 9</td>
<td>3.0</td>
<td>Case 20</td>
<td>2.4</td>
</tr>
<tr>
<td>Case 4</td>
<td>3.0</td>
<td>Case 18</td>
<td>2.5</td>
</tr>
</tbody>
</table>

\[
X = 11.6 \\
M = 2.9
\]

\[
X = 9.4 \\
M = 2.4
\]

- Standard deviation: .12
- Standard error of mean: .07
- Standard error of difference: .01
- Difference of means: .5
- Degrees of freedom: 6
- "t": 5.0

Of the subjects scored equal to the mean and or twenty-five per cent below the mean.

**Comparison of the results of Group Y and X on the Durrell-Sullivan Achievement Test.**—The data as shown on Table 3, indicated a difference between the means of .5. The use of a t-test to determine significance difference between the means yielded a "t" ratio of 5.0, with 6 degrees
of freedom. A "t" greater than 3.707 is necessary at the one per cent level of confidence, thus, there is a significant difference between the groups' reading achievement.

As a result of the above comparison, it can be stated that Group X is achieving in reading at a significantly lower level than Group Y. Both groups, however, are below the level of expectancy in average reading achievement.

Analysis of Difficulties

In an attempt to remedy a child's reading defect through carefully planned instruction not only must the extent of his retardation in reading be known, but the nature of his difficulties must be determined. Errors in reading give an indication of particular difficulties. If it is found that a child evidences a certain type of error persistently at a given stage of reading development, it may be assumed that this factor has interfered with the normal process of learning to read. The following tests were used to determine the specific types of errors characteristic of the groups selected for this study: The Gilmore Oral Reading Paragraphs, Wepman Auditory Discrimination Test, Durrell Analysis of Reading, Boyd Test of Phonetic Skills, Strang's Open End Questions, Keystone Visual Survey Tests and the Maico Audiometer.

The following section of this thesis presents a case-study diagnostic report of the eight reading disability cases selected for this study. Each case study will be organized as follows: (1) A case history containing developmental, socio-economic, educational and
personality data (2) ana analysis of reading skills, which will include (a) results of diagnostic tests, (b) measures of inhibiting factors and (c) a definitive statement concerning the primary reading difficulties, and (3) recommendations for treatment. Each case was given an identifying letter:

1. Case 21 - A
2. Case 22 - B
3. Case 20 - C
4. Case 18 - D
5. Case 13 - E
6. Case 12 - F
7. Case 9 - G
8. Case 4 - H

CASE A

Case History

Case A walked and talked about one year of age. His birth history revealed a normal nine month period with a normal delivery. He had no serious accidents or illnesses.

He has three brothers and four sisters who are reported to have problems of reading. His father completed high school and is working as a mechanic. The mother attended three years of high school. Case A spends his free time playing and watching television. He plays well with other children at home and school. He likes to read comic books about people and their adventures.

There is a daily newspaper in the home along with current magazines such as Life, Look and Ebony. There is a set of World Book Encyclopedias
along with comic books and a few other books which may be read by
the child.

Case A attended kindergarten at five years of age and entered
first grade at six years of age. His performance on the Metropolitan
Readiness Tests was a low normal indicating a degree of immaturity for
reading upon entering first grade. Grade equivalent scores on the
Gates Primary Reading Tests at second grade level were as follows:
Word Recognition 1.5, Sentence Reading 2.1 and Paragraph Reading 2.1.
His performance on this test was equivalent to the performance of a
pupil who had completed one month in the second grade. The basal
reading approach was used for beginning reading instruction. He has
remained in the same school and attended regularly. The mother of
Case A revealed that the child seemed to have lost interest in reading
about second grade and just wouldn't apply himself.

Case A was nine years six months when examined for this study.

Results of the diagnostic testing

Capacity - He was administered the Kuhlmann-Anderson Intelligence
Test for the purpose of establishing a level of reading expectancy. He
scored on the Kuhlmann-Anderson Test a mental age of eight years and
one month which yielded an IQ of 84. His reading expectancy was cal-
culated according to the Bond and Tinker expectancy formula, (years
in school x I.Q.) / 1.0. These computations yielded an expectancy of
3.5. This expectancy level means that A can be expected to read as
well as the average pupil who has spent five months in the third grade.

Achievement - To evaluate his general silent reading achievement
he was given the Durrell-Sullivan Achievement Test, Form A. His scores
were as follows:

<table>
<thead>
<tr>
<th>Area</th>
<th>Grade Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Meaning</td>
<td>2.1</td>
</tr>
<tr>
<td>Paragraph Meaning</td>
<td>2.4</td>
</tr>
<tr>
<td>Average</td>
<td>2.2</td>
</tr>
</tbody>
</table>

These scores show that Case A's silent reading performance on this test was equivalent to the performance of a pupil in second month of second grade. The scores indicated that his major problem is one of word recognition. Retardation in reading was calculated by subtracting the average reading grade equivalent score from the reading expectancy score (3.5 - 2.2 = 1.3), showing the pupil to be one year and three months retarded in reading.

**Analysis of reading difficulties.** Case A was given several tests to determine specific strengths and weaknesses in his reading and to explore the results of the general reading achievement.

The Gilmore Oral Reading Test, Form B was used to appraise his oral reading skills. His score was 1.7. His errors were vowels, omitting of sounds, and addition of sounds. Examples of his errors were as follows: "Man" read "men," "like" read "Lake"; "boys" read "boy", "play" read "playing." Words aided or refused were: "floor", "sitting", "almost", "fourth and found."

The Boyd Test of Phonetic Skills was given to explore knowledge and application of phonetic and structural analysis skills. Case A showed signs of difficulty in recognizing consonant and vowel sounds, consonant blends, consonant digraphs, vowel controllers, open syllables, beginning vowels and words affected by final e. Results of this test indicated a very limited command of phonetic principles needed to
develop independent reading skills.

The Wepman Auditory Discrimination Test was administered. This test measures ability to hear differences in similar sounding words. He made ten errors which indicated difficulty in the area of auditory discrimination. Examples of his errors were: "oaf - oath", "woke - yoke", sounding alike, "man - man", "pat - pat" sounding differently. These errors showed difficulty in initial sounds, terminal and vowel sounds in words.

To determine more accurately the extent of word recognition difficulties, portions of the Durrell Analysis of Reading Difficulty were administered. The pupil was administered a rapid-exposure words-in-isolation recognition test to check his sight vocabulary. Performance on this test was at level 2.0. Such a sight vocabulary is only adequate for handling first grade reading materials. When given an untimed period for the purpose of attacking the same list of words through analysis a similar level of performance resulted (2.0). Such results indicated both a weak sight, and a insufficient means of independently attacking these words through analysis. His errors pointed up the types of difficulties encountered. Examples of errors were: "know" read "now", "believe", read "belong" and "bridge" read "bird."

To evaluate the ability to perceive and discriminate word forms Case A was given the Visual Memory of Word Test. He scored at level 1.5. His perceptual responses suggested difficulties with attention and concentration, reflected in a general inability to remember words visualized.
On the Spelling test he scored 1.9. His errors gave further indication of difficulties in associating sound and symbol. His errors were: "draw" written "dray", "thin" written "than" and "money" written "mom."

Inhibiting factors - To discover whether there were any factors interfering with progress in reading, hearing was tested with the Audiometer. The test for auditory acuity was passed at all frequencies. The Keystone Visual Survey Test was employed for visual screening. He passed this test satisfactorily demonstrating no apparent acuity or fusion deficiencies.

Case A was asked to complete the Strang's Open End Questions. This was an individual diagnostic device for recording of various interests, attitudes, and experiences of a pupil which may relate to his reading performance. This questionnaire revealed a desire to be helped in the area of reading. It also seemed to indicate that there were some factors that may be inhibiting his reading progress. For example, a negative attitude toward teachers, fear of people following him, and certain feelings of insecurity relating to his reading.

Summary - In summarizing the diagnostic test results, Case A was found to be characterized by the following factors:

1. Low normal intelligence functioning
2. A significant amount of retardation in reading and spelling
3. Inadequate oral reading at sight
4. Inadequate performance on all standardized tests of silent reading
5. Inadequate discrimination skills
6. Difficulties with attention and concentration indicated by poor visual memory of words

7. Normal visual and auditory acuity

8. Mild emotional problem principally associated with areas of academic difficulty.

This pattern of test results is commonly associated with reading disability. The prognosis in such a case is favorable. It appears that causes of reading disability is failure to master the early elements of reading. Case A's progress will be primarily dependent upon attitudinal changes toward his own ability to be successful in reading and acquiring of independent skills for word analysis.

Recommendations.—The specific recommendations made as a result of this evaluation will not be included in detail here. Two general areas of need were considered and the suggestions made are summarized as follows:

Case A has definite feeling of insecurity particularly in relation to school activities. He needs patience and understanding from both his parents and teachers. There should be opportunities for him to become more self-reliant. It was suggested that the child be given home responsibilities within his ability to execute successfully. Responsibilities assumed were to be rewarded by praise for a job well done. It was suggested that he try to develop richer peer relationships and be encouraged to take a part in social events and organized activities such as cub scouts. He should entertain his friends at home and occasionally go to movies together or take supervised tours of the city and other interesting places.

It is recommended that reading instruction be adjusted to second
grade level with emphasis on learning the most frequent sounds; namely the sounds of the consonants, the short vowels and the sounds of ee, sh, oo, ch, tch, ar, etc., then advance to prefixes, suffixes and syllabication. His independent reading material should be at first grade level.

CASE B

Case History

Case B, walked at about ten months of age and talked at about eleven months. Birth history revealed a normal term of nine months and a normal delivery. Case B, a girl, has had no serious accidents or illnesses.

She has four brothers and three sisters. Three brothers and one sister are older. One brother is having a problem of reading. The mother is a high school graduate. The father attended one year of high school. Case B enjoys playing with her brothers and sisters but she doesn't like them to assist with her homework because they refer to her as being dumb when she doesn't respond. She is very timid although she plays well with other children. It appears to the mother that she is happy at home. Case B spends much of her free time playing and watching television. She likes most children's TV programs. She would like to become a housewife upon graduating from college.

There is a daily newspaper in the home. Examples of the magazines are Life, Look, Reader's Digest and Ebony. The family owns about twenty children's books.

Case B, attended kindergarten at five years of age and began first grade at six years of age. She scored a low-normal on the
Metropolitan Readiness Test indicating signs of immaturity at the beginning of first grade. At second grade level her performances on the Gates Primary Reading Test were equivalent to the performances of a child first grade seven months. Her mother stated that she became aware of her having a problem of reading about second grade. She attempted to aid by reading along with the child but wasn't successful. Case B has remained in the same school and was never retained in grade.

Case B, was nine years six months of age when examined for the study.

Capacity - Case B was administered the Kuhlmann-Anderson Intelligence Test for the purpose of establishing a level of reading expectancy. Her mental age was eight years two month yielding an I.Q. of 84. Reading expectancy was computed to be 3.5. This means that this pupil may be expected to read as well as the average third grade pupil in the fifth month of school.

Achievement - To evaluate Case B's general silent reading achievement level, she was administered the Durrell-Sullivan Reading Achievement Test, Form A.

Her scores were as follows:

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<thead>
<tr>
<th>Area</th>
<th>Grade Equivalent</th>
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</thead>
<tbody>
<tr>
<td>Word Meaning</td>
<td>2.1</td>
</tr>
<tr>
<td>Paragraph Meaning</td>
<td>2.4</td>
</tr>
<tr>
<td>Average</td>
<td>2.2</td>
</tr>
</tbody>
</table>

The scores show that Case B's silent reading performance on this test were equivalent to that of a pupil in the second month of second grade. These scores indicated that her major problem is in the major area of word recognition. The amount of retardation in reading was
calculated by subtracting the average reading grade equivalent score from reading expectancy score \((3.5 - 2.2 = 1.3)\). She is one year, three months retarded in reading.

**Analysis of reading difficulties.** Case B was given several other tests to determine specific strengths and weaknesses in reading.

**Gilmore Oral Reading Test, Form B** was used to appraise oral reading skills. Her score was a grade equivalent of 1.1. Specific errors were reversal, additions of sounds and repetitions of one or more words. Examples of errors are: dark and bark, can read can't.

The **Boyd Test of Phonetic Skills** was given to explore knowledge and application of phonetic and structural analysis skills. This test requires the application of word attack skills to nonsense words. Case B showed no signs of recognizing initial consonants, vowel sounds, consonant blends, consonant digraphs, vowel controllers, open syllables, beginning vowels, and words affected by final e. Results of this test indicated that she did not possess the knowledge and application of phonetic and structural analysis skills needed to develop independence in attacking unfamiliar words.

The **Wepman Auditory Discrimination Test** was administered. This test measures the ability to hear differences in similar-sounding words. Eight errors were made which indicated difficulty in the area of auditory discrimination. Examples of errors were: "room - room", "socking - socking", sounded differently to Case B. "Nabbing - nagging" and "bend - bed" sounded alike to Case B.

To analyze further specific word recognition difficulties, she was administered portions of the **Durrell Analysis of Reading Difficulty**.
To determine more accurately the extent of her sight vocabulary she was shown isolated words under conditions of rapid exposure. Her score was at level 2.0, which indicated an extreme limited sight vocabulary. Upon being allowed sufficient time for analysis of the same words, she did not show a sufficient command of independent word analysis skills for dealing with unknown words. Her principal method of word attack was an over-dependence upon general configuration of words. She had extreme difficulty with medial vowels, vowel digraphs and diphthongs, letter consonant blends, and she made no use of syllabication skills. Some errors were "birdge" read "bring" and "strong" read "still."

To further evaluate her ability to perceive and discriminate word forms she was given the Visual Memory of Words Test. She scored at level 1.5. Her errors consisted of omitting letters, adding letters and inadequate use of syllabication. Examples of her errors were: part read party and secure read scare. This test also reflects a low level of attention and concentration.

On the Spelling Test the score was less than second grade. Her errors gave further indication of having difficulties with auditory discrimination and sound-symbol correspondence. Examples of her errors were: "run" written "ran", "work" written "wok", and "back" written "black.: She confused vowel sounds and added sounds.

Inhibiting factors - To explore factors which may interfere with her progress in reading, hearing was tested with the Audiometer. The test was passed at all frequencies.

The Keystone Visual Survey Test was administered. She passed
this test satisfactorily demonstrating no apparent visual deficiencies.

Case B was given the Strang's Open End Questions to obtain a recording of various interests, attitudes, and experiences of a pupil. This information is relevant to performances in reading. She revealed a favorable attitude toward reading but a negative attitude toward reading at school. Her responses reflected insecurity and lack of confidence in the area of reading.

Summary - In summarizing the diagnostic test results, Case B's difficulties in reading were found to result in part from the following factors:

1. Low normal intelligence

2. A significant difference between her visual and auditory comprehension of verbal materials.

3. Mild emotional problems principally associated with the area of academic difficulty.

4. Inadequate auditory discrimination skills.

5. Difficulties with attention and concentration as reflected by the visual memory test.

6. Inadequate oral reading.

7. A significant amount of retardation in spelling.

The pattern of test results indicated above is commonly associated with the type of case referred to as a limiting disability case. The prognosis in such a case is favorable. It appears that causes of reading disability is (1) lack of readiness, immaturity at beginning instruction in reading and failure to master the early elements of reading. Progress will be dependent primarily upon the acquisition of independent skills for word analysis.
Recommendations.---Two general areas of need are apparent. Recommendations are summarized as follows:

Case B has feelings of insecurity particularly with relationship to her school activities. She needs to develop self-esteem and confidence in her ability to succeed in all academic areas. It is suggested that parents caution against showing their concern about her progress at home on applying pressure of any kind at this time. Case B should be awarded by praise for any job well done. She should be allowed freedom to associate with girls her own age, to develop new friends and a wider range of interests. This will give her the sense of belonging that she needs. There is a need for parental love and affection. It is recommended that there should be no comparison made of her academic performance with that of her brothers and her peers. Such enriching experiences as tours, visits to new and exciting areas of the city and a systematic program of wholesome recreation should be rewarding.

It is recommended that reading instruction be adjusted to second grade level, with emphasis on the development of auditory discrimination skills, word analysis techniques, and confidence in her ability to achieve in reading. A strong approach in spelling was to be considered with the word recognition program to reinforce attention and concentration. Also, a wide range of independent reading was suggested with materials at first grade level.

CASE C

Case History

Case C, walked at fourteen months and talked at two years.
Birth history revealed a normal full-term delivery. This case was in an automobile accident when he was three years of age, but the only injury was to his left ankle. He has had no serious illness, but suffers frequently with common colds.

He has six sisters and three brothers, all of whom have had problems in reading. Father and mothers completed high school. The father is a minister and operates a dry cleaning business.

Case C spends much of his free time playing and watching television. He helps his father in the business on weekends. He relates well with his family and children at school. He would like to become a doctor.

There is a daily newspaper in the home but no current magazines. The mother reads the Bible occasionally to the children. There is a set of encyclopedias in the home and some books which the child may be able to read. Case C likes to read comic books, but no particular kind.

Case C entered school at six years of age with no nursery school nor kindergarten training. His performance on the Metropolitan Readiness Tests was a low normal which might indicate immaturity for beginning reading instruction. There were no other school test data available.

Case C was eight years nine months of age when tested for this study.

Results of diagnostic tests

Capacity - Case C was administered the Kuhlmann-Anderson Intelligence Test Form D, for the purpose of establishing a level of
reading expectancy. He scored a mental age of seven years nine months and an I.Q. of 88. His reading expectancy was computed to be 3.6. This means that he may be expected to read as well as the average third grade pupil in the sixth month of school.

Achievement - To evaluate his general silent reading achievement the Durrell-Sullivan Achievement Test, Form A was administered. His scores were as follows:

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<thead>
<tr>
<th>Area</th>
<th>Grade Equivalent</th>
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<tr>
<td>Word Meaning</td>
<td>2.4</td>
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<tr>
<td>Paragraph Meaning</td>
<td>2.4</td>
</tr>
<tr>
<td>Average</td>
<td>2.4</td>
</tr>
</tbody>
</table>

These scores show that Case C's silent reading performance on the test was equivalent to the performance of a pupil in the fourth month of second grade. These scores indicated problems in the major area of word recognition. Retardation in reading was calculated by subtracting the average reading grade equivalent score from reading expectancy score (3.6 - 2.4 = 1.2).

It appears that Case C is retarded one year two months in reading.

Analysis of reading difficulties. -- Case C was given several tests to determine specific strengths and weaknesses in reading.

Gilmore Oral Reading Test, Form B was administered to appraise oral reading skills. He scored 1.9. His errors of substitutions showed difficulties with vowel and medial sounds. Examples of his errors are: "has" read "his" and "maple" read "mable."

The Boyd Test of Phonetic Skills was given to explore his knowledge and application of phonetic and structural analysis skills.
He showed signs of recognizing initial consonant sounds, but confused and terminal sounds. He showed signs of difficulty with consonant blends, consonant digraphs, vowel controllers, open syllables, beginning vowels and words affected by final e. Results of this test indicated that he has a very limited command of phonetic principles needed to develop independent reading skills.

The Hepman Auditory Discrimination Test was administered. This test measures ability to hear differences and similarities in sounds. He made twenty-one errors showing a definite weakness in the area of auditory discrimination. Greater difficulty was observed with the medial and final sounds of words than with initial sounds. For example, when "cob - cog", "fit - feat" were pronounced for him his response was that they sounded like the same words. "Chase - chase" sounded differently to him.

Portions of the Durrell Analysis of Reading Difficulty were administered.

To determine more accurately the extent of his sight vocabulary, Case C was shown a list of isolated words for a period of five seconds for each word. He scored at level 2.0. He appeared to have an adequate sight vocabulary for handling reading materials through the first grade reader level. However, at second grade reader level, and above, his sight vocabulary was limited. Insufficient command of independent word analysis skills for dealing with unknown words was evidenced. His principal method of word attack was the use of initial consonants and consonant blends. He had difficulty with medial vowels, vowel digraphs and diphthongs, and made little use of syllabication
skills. Case C was given an opportunity to analyze the same words that were used for rapid exposure identification for an untimed period. The errors further pointed up the difficulties that were presented on the flash exposure. Examples of the errors were: "forgotten" for" on flash and untimed exposures, and "disturb" read "dish" on flash and untimed exposures.

To further evaluate his ability to perceive and discriminate word forms he was given the Visual Memory of Words Test. He scored at level 1.5. His responses suggested difficulties with attention and concentration. Examples of errors were: omitting letters, adding letters and poor syllabication.

On the Spelling Test he scored 2.0. His errors gave further indication of having difficulties with auditory discrimination as well as sound symbol association. Examples of his errors were: "draw" written "drank", "spend" written "speed","minute" written "mented."

Inhibiting factors - Hearing acuity was tested with the Audiometer. He passed the test at all frequencies ruling out any relevant auditory acuity interference with learning to read.

The Keystone Visual Survey Test was administered. He passed this test satisfactorily, demonstrating no apparent visual deficiencies.

Case C was given Strang's Open End Questions. This is an individual diagnostic record for the recording of various interests, attitudes, and experiences of a student which relate to his reading performance. Responses reflected a lack of self-confidence in his ability to read.

Summary - In summarizing the diagnostic test results, Case C's
case was found to be characterized as follows:

1. Low normal intelligence.

2. A very mild emotional problem principally associated with the area of academic difficulty.

3. Inadequate auditory discrimination skills.

4. Difficulties with attention and concentration.

5. Inadequate oral reading.

6. A significant amount of difficulty with spelling.

This pattern of test results indicated above is commonly associated with the type of case referred to as a limiting disability case. The prognosis in such a case is favorable. It appears that the genesis of the reading disability is failure to master the early elements of reading. Progress, however, will depend a great deal upon attitudinal changes toward his own ability to be successful in reading.

Recommendations.--Two general areas of need were considered and the recommendations made are summarized as follows:

Case C has a lack of self-confidence particularly in relation to his school activities. He needs to develop assurance and faith in his ability to succeed to some degree in all academic areas. It is suggested that the parents be less protective. There should be opportunities for him to become more self-reliant. It is probable that providing him with home responsibilities might help. He should be praised for accomplishing these tasks. He should be allowed freedom to associate with boys his own age and to develop new friends and a wider range of interest. This will give him the sense of belonging
which he needs. Such enriching experiences as tours, visits to new and exciting areas of the city and a systematic program of wholesome recreation might hold possibilities for increasing learning.

A remedial program was recommended, with instruction adjusted to second grade level, with independent reading on second grade level. He should receive "ear-training" to relieve difficulties in auditory discrimination. A more visual approach to reading ought to be used since it appears that he is very weak in auditory word discrimination. He should first review all the letter sounds. He should master the technique of blending individual letter sounds to form words. After gaining some skill in sounding blends, he should learn: (1) the sounds for common consonant and vowel digraphs, (2) the rules governing long vowel sounds in words, (3) prefixes and suffixes, and (4) rules for syllabication.

CASE D

Case History

Case D, walked and talked at about one year of age. His birth history revealed a normal nine month delivery. He has had no serious illnesses or accidents.

He has two brothers and three sisters, all of whom have problems of reading. The father attended three years of high school and is employed as a custodian. His mother completed one year of college and works as a clerk. Case D relates well with his family and playmates. He spends much of his free time playing and watching television. He would like to become a doctor.
There is a daily newspaper in the home as well as current magazines such as *Life*, *Jet* and *Reader's Digest*. The family owns a number of books that may be read by the child.

Case I attended kindergarten at five years of age and entered first grade at six years of age. His performance on the Metropolitan Readiness Test was low normal indicating immaturity for initial reading instruction upon entering first grade. His sub-scores on the Gates Primary Reading Tests at second grade level were as follows: Word Recognition 1.5, Sentence Reading 1.7, and Paragraph Reading 1.7. His performances on these tests was equivalent to the performance of a pupil first grade six months.

Case D was nine years and two months of age when examined for this study.

Results of the diagnostic testing

Capacity - Case E was administered the Kuhlmann-Anderson Intelligence Test for the purpose of establishing a level of reading expectancy. He scored a mental age of eight years three months yielding an I.Q. of 90. His reading expectancy was computed to be 3.7. This means that he may be expected to read as well as the third average grade pupil in the seventh month of school.

Achievement - To evaluate his general silent reading achievement he was given the Durrell-Sullivan Achievement Test, Form A. His scores were as follows:

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<tr>
<th>Area</th>
<th>Grade Equivalent</th>
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<tbody>
<tr>
<td>Word Meaning</td>
<td>2.2</td>
</tr>
<tr>
<td>Paragraph Meaning</td>
<td>2.9</td>
</tr>
<tr>
<td>Average</td>
<td>2.5</td>
</tr>
</tbody>
</table>
These scores show that Case D's silent reading performance on his test was equivalent to the performance of a pupil in the fifth month of the second grade level. These scores indicated that his major problem is in the major area of word recognition. His retardation in reading was calculated by subtracting the average reading grade equivalent \((3.7 - 2.5 = 1.2)\). Therefore, Case D is retarded one year and two months in reading.

**Analysis of reading difficulties.**—Case D was given several tests to determine specific strengths and weaknesses in his reading and to explore the results of the reading achievement tests.

**Gilmore Oral Reading Test**, Form B, was used to appraise his oral reading skills. His score was 1.3. His errors were vowels, consonants, omission of sounds and repetitions. Examples of his errors were: "said" read "sit", "lost" read "last", "Like" read "look", "picnic" read "picnic" and "also" read "so."

The **Boyd Test of Phonetic Skills** was given to explore knowledge and application of phonetic and structural analysis skills. He showed signs of recognizing initial consonant sounds, but confused medial and terminal sounds. He experienced difficulty with consonant blends, consonant digraphs, vowel controllers, open syllables, beginning vowels and words affected by final e. Results of this test indicated that he had a very limited command of phonetic principles needed to develop independent reading skills.

The **Wepman Auditory Discrimination Test** was administered. This test measures ability to hear differences where words are only slightly different in sounds. Eight errors were scored indicating difficulty in
the area of auditory discrimination. Greater difficulty was observed with the medial and final sounds of words than with initial sounds. He identified "cob - cob", "mouser - mouter" when pronounced for him as sounding just alike. He identified "seed - seed", and "tame and tame" as being different sounds.

Portions of the Durrell Analysis of Reading Difficulty were administered.

To determine more accurately the extent of his sight vocabulary, he was shown a list of words using a rapid-exposure technique. He scored at level 2.0. He appeared to have an adequate sight vocabulary for handling reading materials through the first grade reader level. However, at second reader and above his sight vocabulary was limited and he did not have sufficient command of independent word analysis skills for dealing with unknown words. The principal method of word attack was the use of initial consonants and over-dependence on configuration. He had difficulty with medial vowels, vowel digraphs and diphthongs, and made little use of syllabication skills. These difficulties were discovered when Case D was given an opportunity to analyze the same list of words that were used in the rapid-exposure test for an untimed period. He scored at level 2.0. The errors made further corroborated the difficulties that were presented on the flash exposure. Examples of the errors on both exposures were: "ground" read "grow" and "know" read "now."

To further evaluate the ability to perceive and discriminate word forms Case D was given the Visual Memory of Words Test. He scored at level 1.5. His perceptual responses suggested difficulties
with attention and concentration. He omitted letters, added letters and evidenced poor syllabication skills.

On the Spelling Test he scored 1.9. His errors gave further indication difficulties with auditory discrimination and sound-symbol associations.

Inhibiting factors - To discover whether there was an auditory factor interfering with his progress in reading, hearing acuity was tested with the Audiometer. He passed the test at all frequencies.

The Keystone Visual Survey Test was administered to obtain a screening of his vision. He passed this test satisfactorily, demonstrating no apparent visual deficiencies.

Case D was given the Strang's Open End Questions. This is an individual diagnostic record for obtaining information about various interests, attitudes, and experiences of a pupil which may relate to his reading performances. Case D's responses reflected a feeling of insecurity.

Summary - In summarizing the diagnostic test results, Case D was found to be characterized by the following constellations of factors:

1. Low on normal intelligence.

2. Very mild emotional problems principally associated with the area of academic difficulty.

3. Inadequate auditory discrimination skills.

4. Difficulties with attention and concentration reflected in a poor visual memory span.

5. Inadequate oral reading.

6. A significant amount of retardation in spelling.
The pattern of test results indicated above is commonly associated with the type of case referred to as remedial. The prognosis in this case is favorable. It appears that cause of reading disability is failure to master the early elements of reading. His progress will primarily depend on his own ability to be successful in reading and acquiring independent skills for word analysis.

**Recommendations.**—Two general areas of need were considered and the suggestions made are summarized as follows:

Case D has exhibited a lack of interest in school activities. He feels that he lacks the ability to succeed. His esteem and self-reliance should be developed and enhanced. He should be urged to read in his spare time, commencing with material well within his mastery and continuing to the more difficult. He should acquire friends and develop a feeling of belonging.

A remedial program was recommended with instruction to begin at second grade level, and with emphasis on development of auditory discrimination skills and word analysis techniques. His independent reading should be in the first grade.

**CASE E**

**Case History**

Case E, walked and talked at about one year of age. Birth history revealed full term normal delivery. He has had no serious accidents or illnesses. He had measles and chickenpox but without complications.

There are older brothers and one older sister in the home. His father and mother both attended two years of college. The father works
as an attendant on the railroad.

Case E relates well with his family and peer group. He is a member of the Cub Scouts where he works faithfully to earn badges. His special interest is in art and assembling model cars. He spends much of his free time drawing, assembling model cars, playing and watching television. He would like to become a doctor upon graduating from school.

There is a daily newspaper in the home and current magazines such as Look, Ebony, Life, Pageant and Reader's Digest. Case E is a member of the Beginner's Book Club-Random House. There are other books in the home that may be read by the child.

Case E attended kindergarten at the age of five years of age. His scores on the Metropolitan Readiness Test at grade one were average. At second grade level his performances on the Gates Primary Readiness Test were as follows: Word Recognition 1.8, Sentence Reading 1.6 and Paragraph Reading 1.9. His mother stated during an interview that she noticed his having difficulty with attacking words independently at about the second grade level. She tried to help but was unsuccessful. Case E has remained in the same school since kindergarten. The basal reader approach was used for initial reading instruction.

He was eight years and eleven months when examined for the study.

Results of the diagnostic testing

Capacity - Case E was administered the Kuhlmann-Anderson Intelligence Test for the purpose of establishing a level of reading expectancy. He scored a mental age of eight years seven months and
an I.Q. of 94. His reading expectancy was computed to be 3.8. This means that he may be expected to read as well as the average third grade pupil in the eighth month of school.

Achievement - To evaluate his general silent reading achievement he was given the Durrell-Sullivan Achievement Test, Form A. His scores were as follows:

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<thead>
<tr>
<th>Area</th>
<th>Grade Equivalent</th>
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</thead>
<tbody>
<tr>
<td>Word Meaning</td>
<td>2.3</td>
</tr>
<tr>
<td>Paragraph Meaning</td>
<td>3.1</td>
</tr>
<tr>
<td>Average</td>
<td>2.7</td>
</tr>
</tbody>
</table>

These scores show that Case E's silent reading performance on this test was equivalent to the performance of a pupil in the seventh month of second grade level. Retardation in reading was calculated by subtracting the average reading grade equivalent score from reading expectancy score which is (3.8 - 2.7 = 1.1).

Analysis of reading difficulties.—Case E was given several tests to determine specific strengths and weaknesses in his reading and to explore the results of the reading achievement tests.

Gilmore Oral Reading Test, Form B, was used to appraise oral reading skills. His score was 2.1. His errors were vowels, consonants, omissions of sounds and repetitions. Example of his errors were:

"Ned" read "Ted", "fond" read "fun", "brother's" read "brother" and "picnic" read "picture."

The Boyd Test of Phonetic Skills was given to explore his knowledge and application of phonetic and structural analysis skills. He recognized initial consonant sounds, but confused medial and terminal sounds. He showed signs of difficulty in consonant blends, consonant
digraphs, vowel controllers, open syllables, beginning vowels and words affected by final e. Results of this test indicated that he had a very limited command of phonetic principles needed to develop independent reading skills.

The Wepman Auditory Discrimination Test was administered to measure ability to hear differences in sounds. He scored seven errors which indicated difficulty in the area of auditory discrimination. Greater difficulty was observed with the medial and final sounds of words than with initial sounds. He confused "mating - making", "soddy - soggy" pronounced for him orally were just alike, as were also, "sing - sing" and "tame and tame" sounding differently.

Portions of the Durrell Analysis of Reading Difficulty were administered.

To determine more accurately the extent of his sight vocabulary he was shown a list of words to be read under rapid exposure conditions. He scored at level 3.0. He appeared to have an adequate sight vocabulary for handling reading materials through the second grade reader level. However, at third reader and above his sight vocabulary was limited and he did not have sufficient command of independent word analysis skills for dealing with unknown words at this level. He had difficulty with medial vowels, vowel digraphs and diphthongs, and made little use of syllabication skills. Case E was then given an opportunity to analyze the same words that were used in the Flash Words for an untimed period. Errors made on this list further pointed up the difficulties that were presented on the flash exposure. Examples of the errors on the flash exposure which he was unable to correct in the untimed presentation were: "believe" read (flash "be" -
analysis "bel y") and "bridge" read (flash "br" - analysis "brook").

To further evaluate his ability to perceive and discriminate word forms he was given the Visual Memory of Words Test. He scored at level 2.5. His perceptual responses suggested difficulties with attention and concentration. He omitted letters, added letters and used poor syllabication skills and techniques.

On the Spelling Test he scored 2.1. His errors gave further indication of having difficulties with auditory discrimination and associating sound with symbol. Examples of his errors were: "spend" written "speted", "minute" written "minit" and "promise" written "pows."

Inhibiting factors - To discover whether there were any factors interfering with his progress in reading, hearing was tested with the Audiometer. He passed the test at all frequencies.

The Keystone Visual Survey Test was administered to obtain a screening of his vision. He passed this test satisfactorily, demonstrating no apparent visual deficiencies.

Case E was given the Strang's Open End Questions. This is an individual diagnostic record for the recording of various interests, attitudes, and experiences of a student which relates to his reading performances. His responses reflect insecurity, lack of confidence, and concern over his inability to meet the adult demands made of him. Case E, worries about what people think of him and fears rejection by his peers. There is evidence that some of this rejection stems from his not being able to successfully read as well as he wishes.

Summary - In summarizing the diagnostic test results, Case E's
case is found to be characterized by the following constellations of factors:

1. A group test of general capacity indicates average intelligence functioning.

2. There is a significant difference between his visual and hearing comprehension of verbal materials. He is retarded one year and one month in reading.

3. Mild emotional problems principally associated with the area of academic difficulty.

4. Inadequate auditory discrimination skills.

5. Visual memory of words test indicated difficulties with attention and concentration.

6. Inadequate oral reading.

7. Spelling results pointed to a significant amount of retardation in the skills.

The pattern of test results indicated above is commonly associated with the type of case referred to as remedial. The prognosis in such a case is favorable. It appears that cases of reading disability is failure to master the early elements of reading. His progress will primarily depend upon attitudinal changes toward his own ability to be successful in reading and acquiring independent skills for word analysis.

Recommendations.—Recommendations are summarized as follows:

Case E has feelings of insecurity particularly in relation to his school activities. He needs to develop self-esteem and confidence in his ability to succeed in all academic areas. It is suggested that parents caution against evidencing their concern about his progress within the home environment and applying academic pressure of any kind at this time. The establishment of home
responsibilities which were well within his abilities to execute successfully were suggested. Each responsibility fulfilled was to be rewarded by praise for a job well done. Also, to foster richer peer relationship, it was suggested that he be encouraged to take a more active part in social events and club activities. He should cultivate a practice of entertaining his friends at home as well as occasionally staying over night at a friend's house.

A remedial program was recommended with instruction to begin at second grade level, and with emphasis techniques, and confidence in his ability to achieve in reading. The teaching of spelling should be coordinated with the word recognition program to reinforce attention and concentration. Also, a wide range of independent reading was suggested, with materials at second and first grade levels.

CASE F

Case History

Case F, walked about eight months and talked about two years of age. Birth history reveals normal term of nine months and a normal delivery. She has had no serious accidents or illnesses.

She has three brothers and one sister. A brother is older and he also has a problem of reading. The father attended two years of high school and works as a stock clerk. The mother only attended elementary school. Case F enjoys playing with brothers and sisters. Mother states that the child appears to be happy at home. The child very seldom gets to play with other children outside the home, but
her relationship with them is good. She also relates well with her classmates.

The mother does provide the children with extra reading materials. There is a daily newspaper in the home and a few magazines and children's books. Case F expressed special interest in playing and watching television. She is interested in becoming a nurse upon graduation from school. She likes to read about animals.

She has been enrolled in the same school since first grade. Gates Primary Reading Tests, was administered the first semester of the second grade. She scored an average grade equivalent of 1.5. Her performances were equivalent to the performances of a pupil first grade five months.

Case F, was eight years, ten months and in the fourth grade when examined for this study.

Results of diagnostic tests

Capacity - She was administered the Kuhlmann-Anderson Intelligence Test, Form D, for the purpose of establishing a level of reading expectancy. She scored on the Kuhlmann-Anderson Test a mental age of eight years seven months and an I.Q. of 99. Her reading expectancy was computed to be 3.9. This means that she may be expected to read as well as the average third grade pupil in the ninth month of school.

Achievement - To evaluate her general silent reading achievement she was given the Durrell-Sullivan Achievement Test, Form A. Her scores were as follows:

<table>
<thead>
<tr>
<th>Area</th>
<th>Grade Equivalent</th>
</tr>
</thead>
</table>

These test scores show that Case F's silent reading performance on this test was equivalent to the performance of a pupil in the ninth month of second grade. These scores indicated that her major problem was in the major area of word recognition. Her retardation in reading was calculated by subtracting the average reading grade equivalent score from reading expectancy score which is \( (3.9 - 2.9 = 1.0) \). Therefore, it appears that she is one year retarded in reading.

**Analysis of reading difficulties.** Case F was given several tests to determine specific strengths and weaknesses in her reading and to explore the specific nature of reading difficulties.

**Gilmore Oral Reading Test, Form B,** was used to appraise oral reading skills. Her score was 1.6. Errors were vowels, consonants, reversals and repetitions. She confused words which contained similar speech sounds. Frequent errors found in articulatory defects were vowels, consonants, additions and omissions of sounds. Some of the errors made were: "quick" read "quack", "speed" read "spread", "floor" read "door" and "boy" read "toy."

The **Boyd Test of Phonetic Skills** was given to explore knowledge and application of phonetic and structural analysis skills. This test requires the application of word attack skills to nonsense words. She recognized initial consonant sounds, but confused medial and terminal sounds. She had difficulty with consonant digraphs, vowel controllers, open syllables, beginning vowels and words affected by final e. Results of this test indicated that she had very limited
command of phonetic principles needed to develop independent reading skills.

The Wepman Auditory Discrimination Test was administered to measure ability to hear differences in speech sounds. She made eight errors which indicated difficulty in the area of auditory discrimination. This fact is important since a student must hear the differences in words before she can apply many of the phonetic skills in an independent attack on unfamiliar words. Examples of errors were: "upper" - "utter", "came" - "tame" sounding alike and "nap" - "nap", "needing" - "needing" sounded differently.

Portions of the Durrell Analysis of Reading Difficulty were administered.

To determine more accurately the extent of her sight vocabulary she was given the Word Recognition Skills (Flash Words Test). These words on the list comprise the majority of those words found in primary level reading material and occur frequently at the higher levels. Her score was at level 2.0, which indicated a performance equal to the performance of a pupil first month second grade. Her difficulties are low sight vocabulary, inadequate handling of word endings and over-dependence on configuration clues. It appeared that her score was significantly influenced by successful guessing of words. She then was given an opportunity to analyzes the same words that were used in the Flash Words Test for an untimed period. She scored at level 2.0 on the analysis. This test revealed that word analysis techniques were poor. She was unable to combine sounds into words, enunciate words properly, her silent word study was not
not beneficial and she would not try difficult words.

To evaluate her ability to perceive and discriminate word forms visually she was given the **Visual Memory of Words Test**. She scored at level 1.5, which indicated a poor visual memory span. She omitted letters, added letters and did not recognize syllables in words.

Since there is a close relationship between errors in word analysis in reading and errors in spelling the spelling test was administered. She scored less than second grade level. This gave an indication of retardation in spelling. She omits sounds, adds sounds and was very slow at handwriting.

Inhibiting factors - To discover whether there were any auditory acuity factors interfering with her progress in reading, hearing was tested with the Audiometer. She passed the test at all frequencies.

The **Keystone Visual Survey Test** was administered. She passed this test satisfactorily, demonstrating no apparent visual deficiencies.

Case F was given the **Strang's Open End Questions**. Her responses reflected her desire to be helped in the area of reading. Responses also reflected that there might be some factors that might be interfering with her reading progress—for instance her negative attitude toward her teachers, her fear of taking her grades home and her fear of reading at home. These responses reflected feelings of insecurity and lack of confidence in the area of reading.

Summary - In summarizing the diagnostic test results, Case F's specific reading difficulties were as follows:

1. Mild emotional problems principally associated with the area of academic difficulty.
2. Visual memory of words test indicated difficulties with attention and concentration.

3. Auditory discrimination skills are inadequate.

4. Inadequate performance was observed on all standardized tests of reading achievement.

5. Inadequate oral reading.

6. Retardation in spelling.

The pattern of test results indicated above is commonly associated with the type of case referred to as remedial. The prognosis in such a case is favorable. It appears that the causes of reading disability is failure to master the early elements of reading. Her progress will be primarily dependent upon attitudinal changes toward her own ability to be successful in reading and acquiring independent skills for word analysis.

**Recommendations.**—Case F has feelings of insecurity, particularly in relation to school activities. She needs sympathy and understanding from both teachers and parents. Both should be patient and always ready to praise her progress. It is suggested that the parents not be so rigid when it comes to studying and other tasks that may be undertaken in the home. There is a need for continued parental love and affection. She should be encouraged to associate more with girls her own age and take part in organized organizations as Girl Scouts or Blue Birds this should give her the sense of belonging which she needs. Such enriching experiences as tours, visits to new and exciting areas of the city—all these might hold possibilities for increasing learning.

It is recommended that a remedial program of reading be initiated
with reading instruction adjusted to second grade level, with emphasis on the development of auditory discrimination skills, word analysis techniques and confidence in her ability to achieve in reading. No oral reading should be used initially except where absolutely essential to identify word recognition problems. A strong approach in spelling was to be coordinated with word recognition program to reinforce attention and concentration. Also, a wide range of independent reading was suggested at grade levels one and two.

CASE G

Case History

Case G walked and talked at about one year of age. Her birth history revealed a normal full-term delivery. She had had no serious accidents or illnesses.

She has one older brother, and one younger sister. Her brothers has a reading problem. The father attended college one year and is a postal clerk. Her mother completed three years of high school.

Case G spends her free time playing and watching television. She relates well with other children at home and school.

There is a daily newspaper in the home along with current magazines such as *Life, Look, Reader's Digest* and *Ebony*. There is a set of *Child-Craft Encyclopedias* along with a few other books that may be read by the child. Case G likes to read stories such as *Alice in Wonderland, Cinderella* and *Walt Disney stories*.

Case G attended kindergarten at the age of five years of age. There were no previous test data available, however, the mother stated she had not detected any problem of reading. The child never asked
Case G was eight years eleven months of age when examined for the study.

Results of diagnostic testing

Capacity - Case H was administered the Kuhlmann-Anderson Intelligence Test, Form D, for the purpose of establishing a level of reading expectancy. She scored a mental age of eight years and one month and an I.Q. of 101. Her reading expectancy was computed to be 4.0. This means that she may be expected to read as well as the average fourth grade pupil in the beginning of fourth grade.

Achievement - To evaluate general silent reading achievement she was given the Durrell-Sullivan Achievement Test, Form A. Scores were as follows:

<table>
<thead>
<tr>
<th>Area</th>
<th>Grade Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Meaning</td>
<td>2.6</td>
</tr>
<tr>
<td>Paragraph Meaning</td>
<td>2.4</td>
</tr>
<tr>
<td>Average</td>
<td>3.0</td>
</tr>
</tbody>
</table>

These scores show that Case G's silent performance on this test was equivalent to the performance of a pupil in the first month of third grade. Her retardation in reading was calculated by subtracting the average reading grade equivalent score from reading expectancy score which is (4.0 - 3.0 = 1.0). She is one year retarded in reading. These scores indicated that her major problem in reading is in the area of word recognition.

Analysis of reading difficulties.—Case G was given several tests to determine specific strengths and weaknesses in her reading and to
determine the more specific nature of difficulties in the area of word recognition.

**Gilmore Oral Reading Test, Form B**, was used to appraise oral reading skills. Her score was 2.2. Errors were consonants, vowels, addition of sounds and insertions. Examples of her errors are: "Ned" read "Nell", "real" read "near", "maple" read "mable" and "year" read "years." Insertions were: Text: They all like the pretty room. Read: They all like a the pretty room.

The **Boyd Test of Phonetic Skills** was given to explore her knowledge and application of phonetic and structural analysis skills. She confused medial and terminal sounds. She had difficulty with consonants digraphs, vowel controllers, open syllables, beginning vowels and words affected by final e. Results of this test indicated a limited command of phonetic principles needed to develop independent reading skills.

The **Wepman Auditory Discrimination Test** was administered to measure ability to hear differences in speech sound. She made eight errors involving the ability to distinguish between voiced and unvoiced consonants and consonant digraphs. Greater difficulty was observed with the medial and final sounds of words than with initial sounds.

Portions of the **Durrell Analysis of Reading Difficulty** were administered.

To determine more accurately the extent of her sight vocabulary, the **Word Recognition Skills (Flash Words Test)** was administered. Her score was at level 3.0. She appeared to have an adequate sight vocabulary for handling materials at first and second reader level. However, at
third reader level and above her sight vocabulary was extremely limited. She did not have a sufficient command of word analysis skills for independently dealing with unknown words at this level. She evidenced an over-dependence upon general configuration and was limited to the recognition of initial consonants and consonant blends. She had difficulty with medial vowels, vowel digraphs and diphthongs, and made little use of syllabication skills.

To further evaluate her ability to perceive and discriminate word forms she was given the Visual Memory of Words Test. She scored at level 3.5. Her perceptual responses suggested no serious difficulties with attention and concentration.

On the Spelling Test she scored 2.4. Her errors gave further indication of having difficulties with auditory discrimination and sound-symbol association.

Inhibiting factors - To discover whether there were any auditory acuity factors interfering with progress in reading, hearing was tested with the Audiometer. She passed the test at all frequencies.

The Keystone Visual Survey Test was administered. She passed this test satisfactorily, demonstrating no apparent visual deficiencies.

Case G was given the Strang's Open End Questions. This informal diagnostic questionnaire revealed that she desired to be helped in the area of reading. Her responses also reflected feelings of uncertainty in relation to her academic performances.

Summary - In summarizing the diagnostic test results, Case G's case was found to be characterized by the following constellations of factors:
1. Very mild emotional problems principally associated with the area of academic difficulty.

2. Inadequate auditory discrimination skills.

3. Inadequate oral reading.

4. Retardation in spelling.

The pattern of test results indicated above is commonly associated with the type of case referred to as a limiting disability. Its prognosis in such a case is favorable. It appears that the reading disability has developed because of failure to master the early elements of reading. Her progress in reading will depend upon her ability to successfully acquire independent skills for word analysis.

Recommendations.--Two general areas of need were considered and the suggestions made are summarized as follows:

Case G has feelings of inadequacy and insecurity with regards to school activities. She needs to develop confidence and self-reliance in her ability to succeed in all academic areas. It is that the parents devote as much time as needed to improve her reading skills. She should be encouraged to read as often as possible. She should be provided with varied reading materials. She should be allowed to associate more with girls her own age and develop new friends and a wider range of interests. This will give her a sense of belonging which she needs.

A remedial program was recommended, with instruction adjusted to third grade level, with independent reading on second grade level. She should be taught the auditory approach to reading since it appears that she is weak in auditory word discrimination. Her instruction
should begin with substituting beginning consonant sounds, then hearing short vowel sounds in words noting the differences in long and short sounds. She should progress to vowel and consonant digraphs, blending these sounds to make words. Common prefixes, suffixes and rules for syllabication should be mastered.

**CASE H**

**Case History**

Case H walked and talked at about one year of age. Her birth history revealed a normal nine month period with a normal delivery. She has had no serious accidents or illnesses.

Case H is an only child. The father completed high school and is now working as a shipping clerk. The mother attended college two years. Case H spends her free time playing and drawing pictures. She plays well with other children at home and at school. Her mother states that Case H appears to be happy at home.

There is a daily newspaper in the home and a set of *World Book* Encyclopedias, along with current magazines such as *Life*, *Ladies Home Journal* and *Look*. There are a few children's books such as *Snow White* and other fairy tales. Case H likes to read about animals.

She entered kindergarten at five years of age. Her first grade school performance was average. Her mother stated that she was informed of Case H having a problem of reading about third grade when her teacher informed her of the child suddenly complaining of a stomach-ache or a headache when called upon to perform in class.

Case H was nine years old and in the fourth grade when examined for this study.
Results of diagnostic testing

Capacity - She was administered the Kuhlmann-Anderson Intelligence Test for the purpose of establishing a level of reading expectancy. She obtained a mental age of nine years nine months and an I.Q. of 108. Her reading expectancy was computed to be 4.2. This means that she may be expected to read as well as the average fourth grade pupil in the second month of fourth grade.

Achievement - To evaluate her general silent reading achievement level she was given the Durrell-Sullivan Achievement Test, Form A. Her scores were as follows:

<table>
<thead>
<tr>
<th>Area</th>
<th>Grade Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Meaning</td>
<td>2.5</td>
</tr>
<tr>
<td>Paragraph Meaning</td>
<td>3.5</td>
</tr>
<tr>
<td>Average</td>
<td>3.0</td>
</tr>
</tbody>
</table>

These scores show that Case H's silent reading performance on this test was equivalent to the performance of a pupil in the first month of third grade. Retardation in reading was calculated by subtracting the average reading grade equivalent score from reading expectancy score which is ($4.2 - 3.0 = 1.2$). She was one year two months retarded in reading. These scores indicated that her major reading problem was word recognition.

Analysis of reading difficulties.—Case H was given several tests to determine specific strengths and weaknesses in her reading and to determine specific difficulties in the general area of word recognition.

Gilmore Oral Reading Test, Form B, was used to appraise oral reading skills. Her score was 2.5. Errors were consonants, vowels and omission of sounds. Examples of her errors were: "has" read "was", 
"pond" read "pony", "Ned read "Red", "road" read "read." Words aided and refused were: "often", "shady" and "maple", all containing two syllables.

The *Wepman Auditory Discrimination Test* was administered to measure ability to hear differences in speech sounds. She made eight errors which indicated difficulty in the area of auditory discrimination. Examples of her errors were: "Mating" - "making", "maiming" - "naming" sounded alike; "seed - seed", "tenting - tenting" sounded differently. These errors showed difficulty in medial consonant and vowel sounds in words.

Portions of the *Durrell Analysis of Reading Difficulty* were administered.

To determine more accurately the extent of her sight vocabulary, she was given the *Word Recognition Skills* (Flash Word Test). Her score was at level 2.0. She appeared to have an adequate sight vocabulary for handling reading materials through first grade reader level. However, at second reader and above, she did not have sufficient command of independent word analysis skills for dealing with unknown words at this level. Her principal method of word attack was an over-dependence upon general configuration and the use of initial consonants. Her greatest difficulties were inability to combine sounds into words and omitting endings on words.

To further evaluate her ability to perceive and discriminate word forms she was given the *Visual Memory of Words Test*. She scored at level 2.5. Her perceptual responses suggested difficulties with attention and concentration. She omits sounds and adds letters to words with
poor syllabication skills.

The **Spelling Test** score was 2.0. Her errors gave further indications of having difficulties with auditory discrimination and the association of sounds with symbol. Examples of her errors were: "draw" written "darw", "spend" written "sen" and "question written "qurctear."

**Inhibiting factors** - To discover whether there were any factors interfering with her progress in reading, auditory and visual screening tests were administered. She passed both tests, the **Keystone Visual Survey Test** and the **Maico Audiometer "sweep-test"**, demonstrating no apparent visual or auditory deficiencies.

Case H was given the **Strang's Open End Questions**. Her responses reflected conflicting feelings of doubt and fear in relation to her academic performances. She worries about her mother and her relationship with her peers.

**Summary** - In summarizing the diagnostic test results, Case H's specific difficulties in reading appear to be:

1. Difficulties with attention and concentration.
2. Inadequate auditory discrimination skills.
3. Inadequate oral reading.
4. Spelling results revealed retardation in spelling.

The pattern of test results indicated above is commonly associated with the type of case referred to as limiting disability in reading. The prognosis in such a case is favorable. It appears that the cause of reading disability was failure to master the early elements of reading. Her progress will depend upon attitudinal changes toward her own ability to be successful in reading and acquiring of
Independent skills for word analysis.

Recommendations.—Two general areas of need were considered and the suggestions made are summarized as follows:

A complete physical examination is suggested because Case H complains of having headaches and stomach-ache quite frequently.

A remedial program of instruction was recommended, with instruction to begin at third-grade level, with independent reading in second grade. She should first review all the letter sounds. Then she should master the blending of individual letter sounds to form words. After acquiring the skill of blending she should learn the sounds of the common consonant and vowel digraphs (ng, wh, th and ay, ee, ie, oa) and also the two rules governing long vowel sounds in words (the double vowel rule and vowel consonant final e rule). She should learn prefixes and suffixes and rules for syllabication.

Description and explanation of purposes and procedures used in the teaching of remedial reading.—Objectives for the remedial teaching of reading for this study were:

1. To improve word recognition skills.

2. To read a variety of materials suited to the independent reading level.

3. To develop an awareness to the usefulness of reading for information and enjoyment.

4. To overcome faulty habits in oral reading.

5. To use study skills necessary for reading for informational purposes.

6. To develop some facility in using basic comprehension skills.

7. To improve accuracy in spelling.
General procedures for the instruction of remedial reading—

The following outline of procedures were used to achieve the purposes of the study. The subjects' needs were carefully analyzed as has been described in the first section of this chapter. The pupils comprised a major group of eight for instruction of word recognition skills because they exemplified common weaknesses. For silent and oral reading they were given instruction in small groups according to level of reading. On appropriate occasions individualized instruction was given. The interests of the pupils were carefully studied and used insofar as possible, as topics for selecting materials. Reading instruction was systematic with the reading skills introduced in sequential order of difficulty. The lessons started with what the pupils were familiar with and progressed to the unfamiliar.

A flexible instructional period for forty-five minute periods was divided into smaller time segments as follows: (1) Instruction and practice with the sound blending material (ten minutes); (2) Use of drill material in analysis and blending (five minutes); (3) Dictating words for spelling or complete workbook exercises (ten minutes); (4) Oral reading (ten minutes); (5) Practice to develop sight vocabulary (ten minutes).

In order to do an effective teaching job the writer structured specific objectives for each of six stages of instruction. The specific objectives were:

Stage I. To associate sounds with single consonant letters and to apply this ability in attacking new words.

Stage II. To be able to recognize consonant blends and final consonant sounds and to apply this ability in attacking new words.
Stage III. (a) To be able to recognize the short vowel sounds and long vowel sounds and to apply this in attacking new words.

(b) To be able to recognize visually and auditorally consonant-vowel patterns and to apply this skills in independently attacking new words.

Stage IV. (a) To recognize certain vowel combinations and to apply this ability to attacking new words.

(b) To be able to apply rules for determining vowel sounds in polysyllabic words.

Stage V. To use common endings and prefixes in attacking unknown words.

Stage VI. To be able to use syllabication in attacking new words.

Stage I: The purpose of these lessons was to establish a basic background for continuing the instruction. The pupils were taught to associate sounds with single consonant letters and to apply this ability in attacking new words.

First: The pupils were taught how to form sounds:

Examples of exercises:

To make the m sound your lips are shut tight and make a little humming sound through your nose. But when it is in words you do it fast. Say m-m-m—now say move, match, mark. Notice the little humming sound they begin with. The m sound was then stressed in words such as mailman, milkman, minister, magician.

Sentence completion exercises were given. The proper word was also written on a card to be shown. These exercises were designed to offer practice in initial consonants and to reinforce word meanings.

Examples:

Directions: Complete the sentence with a word beginning with "m."

A. When you stir a lot of things together you ___ them.

(The word "mix" is shown)
B. You get letters and postcards in the mail.
(The word "mail" is shown)

Games such as this were played. The instructor tells the pupils, "If you will show me the beginning of the word mail I will finish the word for you on the chalk board."

These exercises were continued until all the initial letters sounds were taught and the pupils knew how to form each letter with his lips and to attack new words.

Stage II: The pupils were taught the final consonant sounds and blends and how to apply this ability in attacking new words.

Purpose: Teach pupils final consonant sounds in words and the letters that stand for these sounds.

Step 1. A list of words were placed on the chalk board such as:

| cup | out | good | trees | dog |
| stop | not | yes | book | bed |
| can | big | us | week | bag |
| fun | did | has | took | cap' |

Step 2. Say the words listed on the board and listen for their ending sounds.

Step 3. Say another word that ends with the same sound as up and stop.

Step 4. Look at the words and see the letter that stands for the last of each one. (p)

Step 5. The next time you see a word ending with the letter p, what word will you think of that has the same last sound? (up)

The same procedure was used for the other consonant sounds.

Step 6. To insure the pupil's perception of each word introduced sentences were placed on the chalk board and the pupils read them orally and inserted a word from the list in step 1.

Examples: a. A ___ cannot climb a tree. (dog)
b. This ___ has a story about a cat. (book)
c. A big ___ can hold many things. (bag)

Purpose: To teach the pupils to recognize consonant blends in words and to know the letters that stand for the blended sounds.

Step 1. A list of words were placed on the chalk board such as:

<table>
<thead>
<tr>
<th>stairs</th>
<th>brave</th>
<th>climb</th>
</tr>
</thead>
<tbody>
<tr>
<td>stand</td>
<td>bread</td>
<td>clock</td>
</tr>
<tr>
<td>stop</td>
<td>bright</td>
<td>clothes</td>
</tr>
<tr>
<td>still</td>
<td>bring</td>
<td>clean</td>
</tr>
<tr>
<td>stood</td>
<td>broken</td>
<td>cloud</td>
</tr>
<tr>
<td>step</td>
<td>brown</td>
<td></td>
</tr>
<tr>
<td>store</td>
<td>brush</td>
<td></td>
</tr>
</tbody>
</table>

Step 2. Say the first list of words after me and listen for beginning sounds. Continue with all the columns in this fashion.

Step 3. Say finish this sentence: "The first sound of the word still is the blending of the sounds of the letters ___ and ___." (s and t)

Step 4. The activities were continued by presenting orally (in mixed order) other words beginning with two-letter blends until all the initial blends were taught.

Purpose: To teach the pupils to blend final sounds in words and to know the letters that stand for the blended sounds.

Step 1. List of words were placed on the board such as:

<table>
<thead>
<tr>
<th>n / t - nt</th>
</tr>
</thead>
<tbody>
<tr>
<td>ran</td>
</tr>
<tr>
<td>eat</td>
</tr>
<tr>
<td>went</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>n / d - nd</th>
</tr>
</thead>
<tbody>
<tr>
<td>An</td>
</tr>
<tr>
<td>good</td>
</tr>
<tr>
<td>around</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>l / d - ld</th>
</tr>
</thead>
<tbody>
<tr>
<td>school</td>
</tr>
<tr>
<td>feed</td>
</tr>
<tr>
<td>hold</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>nk - ngh</th>
</tr>
</thead>
<tbody>
<tr>
<td>then</td>
</tr>
<tr>
<td>book</td>
</tr>
<tr>
<td>thank</td>
</tr>
</tbody>
</table>
Step 2. Say the word and listen for its last sound (ran). What letter stands for the last sound ran? (n)

Step 3. Say the second word and listen for its last sound. (eat) What letter stands for the last sound of eat? (t)

Step 4. Blend the last sounds of ran and eat to make the last sound of the third word. What is the word? (went)

Step 5. Finish the sentence: The last sound of went is made by blending the last sounds of ____ and ____. (ran) (eat)

Step 6. Columns I, II, and III were taught as:

Column I. Which two words are names of things that can be seen? (school, book)

Which word tells what you do for a hungry pet? (feed)

What will the pet do when he gets his dinner? (eat)

Column II. Which words name people (aunt, child, Frank)

Which word means the opposite of lost? (found)

Column III. Which word is the name of an animal? (skunk)

Which word means the same as untamed? (wild)

Which word means a part of a tree? (trunk)

Additional blended last sounds were taught in the same manner.

Follow-up activities were selected from workbooks.

Stage III: The pupils were taught (1) short vowel sounds, (2) long vowel sounds, and (3) blending the consonants with the vowels to make words. When they recognized these sounds, exercises were given so that they could use the skill in attacking new words.

Purpose: To teach the pupils to hear and say the short sounds of the letters a, e, i, o, u in words and to help them generalize that a single letter a, e, i, o, and u in a mono-syllabic word usually has its short sound.
Step 1. List of words containing the short sounds of the vowels were placed on the board as:

- at is yes not fun
- and in tell doll sun
- can big went lot mud
- man it help stop bug

Step 2. Look at the first word. What vowel letter do you see in it? (a)

Step 3. What is the sound you are likely to hear when you see a single vowel letter a? (short a)

Step 4. What is the short sound of a? /a/

Step 5. Say the word (had). Use had in a sentence.

Vowel rules were taught one step at a time. For example: The pupils were taught to make a generalization about the sound of a in at, and can, etc. before teaching him to make generalizations about the sound of e in red, get, tell, etc.

Follow-up activities were selected from workbooks.

Purpose: To teach the pupils to hear and say the long sounds of letters a, e, i, o, and u.

Step 1. List of words containing the long sounds of the vowels were placed on the chalk board as:

- place like stove
- cage ride nose
- cape line note
- grade nine home

Step 2. Say the first column of words after me and listen to their vowel sounds that contains one of the vowel sounds you know. What letter is it? (a) When the vowel a sounds like its name, it is called "long." What is the long sound of a? (a). Since vowel sounds can be said in isolation the pupils said the sounds of the vowels.

Pupils were taught to make a generalization about the sounds of each vowel at a time before generalizations were made for the other
vowels.

Purpose: To teach the pupils to blend vowel sounds with beginning and final consonant sounds.

Examples: A chalk board introduction to the blends used.
Write s and the vowels on the board in this manner:

s
  a
  e
  i
  o
  u

The children were asked to give the short sounds of each letter. Then ask which letters are vowels and which is a consonant. Say, "I know most of you like the playground slide. Today I want to show you a new way to slide, and you can do it with your voice, using consonants and vowels. We slide from the consonant to join the vowel sound. We'll start this sliding game using the (sound) s (circle on the board). "Listen carefully so that you can learn how to slide with (sound) s to each of the vowels, using one breath." Now, say s as you draw a line from s to a say a when the chalk line touches the vowel. Continue to slide from s to e, s to i, s to o and s to u. The chalk board will look like this:

s
  a
  e
  i
  o
  u

Each pupil was instructed to slide from each of the vowels.

It was explained that each sa, se, si, so, and su are called helpers because they help to make the words.
When the helpers were mastered the final consonants were added to form words. Blends were dictated in the following manner: su-sun, se-set, sa-sad, etc. The child would listen and respond by writing the proper word.

Stage IV. The sounds of certain vowel combinations were taught as were the rules for determining the sounds of vowel combinations. Opportunities were provided for applying these skill in independently attacking new words.

Purpose: To teach the pupils to apply the final e rule in pronouncing mono-syllabic words ending in an e. The following steps were used to introduce and develop the final e rule.

1. What do you see in the picture? (cake)
2. What vowel sound do you hear in the word cake? (long a)
3. What is the long sound of a? /a/
4. Say these words - make - came - take - gave. (all have long sound of a.)
5. Look at the words beside the picture of the cake and decide in what ways they are alike. (Each word has two vowel letters - a and i)
6. Which vowel letter is heard in each word? (a)
7. Which vowel letter is silent in each word? (e)
8. Where is the silent vowel in the word? (at the end)
9. State a rule that will help you pronounce the vowel sound in a word like, make, came, take, or gave. (When the two vowels in a word are a and final e, the long sound of a is heard and the final e is silent.)

The same procedure was used for each of the other long vowel sounds where the silent e rule is applied.

Purpose: To teach the pupils the usual sounds of two-vowel phonograms. The following steps were used to develop the rule:
1. What do you see in the picture? (Three)

2. What vowel sound do you hear in the word three? (long e)

3. What is the long sound of e? /e/

4. Say the first pair of words - sleep, feed. In what way do the two words sound alike? (Both have the long sound of e)

5. Look at the first pair of words beside the three and decide in what way they look alike (Both have the same two letters, ee.)

6. What do you think is the sound of letters ee seen side by side in a word? (long e) What is the sound? /e/

Lessons were continued in the same manner to help pupils hear the sounds of the phonograms, ay, ea, oa, ai, and see the letters representing them. The pupils were helped to make the generalization that when two vowel letters are seen side by side the long sound of the first vowel is usually heard and the second vowel is silent.

Stage V: Certain common endings and prefixes were taught. Provisions were made for applying this recognition skill to unlocking new words.

Purpose: To teach pupils to hear and to know syllables formed by adding the endings-ing, -s, -es, -est, and -ed.

1. Listen to the words I am going to say and decide which one has two parts: work, working. As soon as the pupils can identify two parts ask: What is the first part of the word working? (work) What is the second part? (ing)

The term syllables was then introduced by saying: The parts of words that you hear are called syllables. Working has two syllables. Look at the first pair of words on the chalk board. (go-going) Which word looks longer? (going) Say the two words and decide which one has two syllables. (going)

A similar procedure was used to develop the use of s, es, est, ed, etc.
Purpose: To teach the pupils to recognize common prefixes and suffixes and to know their meanings.

1. The pupils were taught the meanings of prefix and suffix.

2. A chart was prepared in this manner:

<table>
<thead>
<tr>
<th>Prefixes</th>
<th>Meaning</th>
<th>Word</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>re</td>
<td>again</td>
<td>refill</td>
<td>to fill again</td>
</tr>
<tr>
<td>re</td>
<td>back</td>
<td>replaceq</td>
<td>to place back</td>
</tr>
<tr>
<td>un</td>
<td>not</td>
<td>unhappy</td>
<td>not happy</td>
</tr>
<tr>
<td>un</td>
<td>opposite act</td>
<td>uncover</td>
<td>to take off the cover</td>
</tr>
</tbody>
</table>

Suffix -
en
ful

made of golden made of gold
enough of cupful enough to fill a cup

Pupils were taught to analyze the words on the chart and their meanings.

Exercises were used to help the pupils apply what they gave learned:

John's said that she would help John learn the vowel rules. (teacher)

The directions stated that for every of sugar, Jane should use one pat of butter. (cupful)

Stage VI. Rules for syllabication were taught. Practice for applying the rules was provided.

Rule 1. When two like consonants stand between two vowels, the word is usually divided between the consonants.

Examples: pup/py, stag/ger, bar/ren, pep/per, shud/der, com/mon

Rule 2. When two unlike consonants stand between two vowels, the word is usually divided between the consonants.

Examples: wal/rus, cir/cus, mem/ber, pic/nic.

Rule 3. When one consonant stands between two vowels
Rule 3. When one consonant stands between two vowels the consonant usually goes with the second syllable.

Example: pi/rate, si/lent, pa/per.

A brief summary the procedures for teaching the phonics approach to reading is presented below:

1. Phonics training was given to all the pupils because they possessed enough silent words of fifty to one hundred.

2. Sounds were derived from the same words which the child already knew. These sounds were applied to words that could not be recognized at sight but were within the meaningful vocabulary.

3. Phonics training was given outside the regular reading periods. Applications were made during the reading situation.

4. The pupils were taught to blend sounds.

5. Emphasis was placed on the sounds of words that appeared in the reading lessons.

6. Context clues were used to aid the pupils in recognizing many new words in reading.

7. "Phonics" were taught systematically to avoid simultaneous introduction to too many new symbols.

Materials used.—

1. **Speech-To-Print Phonics** by Donald D. Durrell and Helen A. Murphy. New York: Harcourt, Brace & World, Inc., 1964. "Speech-To-Print" phonics lessons are designed to assure success in beginning reading and in the teaching of remedial reading. These lessons combine established linguistic principles with high efficiency learning techniques to increase both quality and amount of learning in each class period. The lessons enabled the child to move rapidly and securely through the phonics abilities that promote word power.

II. **Learning to Read with Phonics**, Teaching Aids Institute,
Hawthorne, California: 1962. (Records) The Record Players and Listening Station were used. The pupils were provided with a copy of the book which accompanied the records. The instructions for the lessons were given by the instructor on the records. These records were played during a free activity period. The record player was attached to the listening station where listening and practice could proceed without disturbing others in the class.

III. Chalk board - The chalk board was used for demonstrations of various skills.

IV. Reader's Digest Skill Builders. Dorothy E. Cook, et al. Pleasantville, New York: Reader's Digest Service, Inc., 1959. Book 2, part 1 and Book 3, part 1 were used because the booklets presented adapted stories at several grade levels. Training in several typical aspects of comprehension was stressed.

V. Tachistoscope (Teacher made) was used to flash words and phrases to increase sight vocabulary.

VI. The Practice Workbook of Reading by Charles E. Merrill Books, Inc., 1962. The practice exercises which follow each reading unit are calculated to test important reading skills; (1) ability to comprehend facts (2) ability to do independent thinking (3) vocabulary development and word mastery and (4) ability to find the main ideas in a selection.


VIII. Group Word Teaching by E. W. Dolch. Garrard Press, Publishers, 1945. This is a form of bingo and varies the practice with
the cards. The game was used by the pupils during non-training time.

X. Study Books from the:


X. Recreational Reading - For recreational reading books were secured with high interest-low vocabulary such as:


Procedures for teaching silent reading comprehension skills.—
The lessons were presented in terms of specific kinds of reading and planned lessons were designed to improve a particular skill. One lesson was designed to give practice in finding the central idea of a selection, another to improve ability to locating answers to specific questions, a third to develop ability to remember the sequence of events.
Procedures for oral reading took varied approaches: (1) the pupils did individual reading to the teacher. This exercise gave the teacher an opportunity to observe the pupils' errors and oral reading habits, (2) oral responses in directed reading lessons were required in some lessons. Pupils were required to locate in a selection answers to specific questions. The answers, when found, were read aloud, (3) audience reading was used to motivate the pupils to practice reading orally certain selections. When prepared, the pupil read the selection before the group.

Spelling - The following procedure was used to teach spelling to the remedial group. After all the vowel sounds had been taught, the instructor began dictating spelling to the group. This dictation required written responses.

Examples are as follows:

I hope you remember that we have a special name for these letters. (Write a, e, i, o, u.) We call them vowels. (Write vowels.) Each vowel has more than one sound. In the word (write cap on chalkboard we see a vowel a. Listen as I say cap. Did you hear the sound "a"? Listen as I say hit, hat. In which word did you hear the short a sound? Let's prove that you are right. (Write hat under cap and direct attention to a. Now you are going to use "a" and write the following words for me: man, too, bad, had, gas, fat, can, back, etc.
Description of Test Results of the Post-Testing Period of the Descriptive Case Study

Post Instructional Test Results for Groups Y and X

Group Y in response to remedial procedures showed gains in average reading achievement as measured by the Durrell-Sullivan Achievement Intermediate and Primary Forms A. Table 4 shows the scores made by the four members of Group Y on pre and post-instructional measures.

**TABLE 4**

PERFORMANCE OF GROUP Y ON PRE-INSTRUCTIONAL AND POST-INSTRUCTIONAL READING ACHIEVEMENT AS MEASURED BY TWO FORMS OF THE DURRELL-SULLIVAN TESTS

<table>
<thead>
<tr>
<th>Pre-Test Primary, Form A</th>
<th>Post-Test Intermediate, Form A</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.7</td>
<td>3.6</td>
</tr>
<tr>
<td>2.9</td>
<td>3.4</td>
</tr>
<tr>
<td>3.0</td>
<td>3.8</td>
</tr>
<tr>
<td>3.0</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Mean 2.9 Mean 3.7

Mean of Difference .75
Standard Deviation .15
Standard Error of Difference .09
"t" 8.3
These data indicated a mean difference of .75, standard deviation of .15, standard error of the difference between the two means of .09 and a "t" ratio of 8.3 with 6 degrees of freedom. A "t" greater than 3.707 was necessary at the one per cent level of confidence. There is a significant gain in group Y's reading achievement as measured by this test.

Group X in response and reaction to corrective or remedial procedures showed gains in achievement in each case as shown on Table 5.

**TABLE 5**

PERFORMANCE OF GROUP X ON PER-INSTRUCTIONAL AND POST-INSTRUCTIONAL READING ACHIEVEMENT AS MEASURED BY TWO FORMS OF THE DURRELL-SULLIVAN TEST

<table>
<thead>
<tr>
<th>Pre-Test</th>
<th>Post-Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary, Form A</td>
<td>Intermediate, Form A</td>
</tr>
<tr>
<td>2.2</td>
<td>2.8</td>
</tr>
<tr>
<td>2.3</td>
<td>2.9</td>
</tr>
<tr>
<td>2.4</td>
<td>3.4</td>
</tr>
<tr>
<td>2.5</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Mean 2.4  
Mean of Difference .68  
Standard Deviation .17  
Standard Error of Difference .1  
"t" 6.8

These data shows a difference between the mean of .68, standard deviation of .17, standard error of the difference between the two means of .1 and a "t" ratio of 6.8 with 6 degrees of freedom. A "t" greater
than 3.707 is necessary at the one per cent level of confidence, thus, there is a significant gain in group X's reading achievement.

A comparison of the results of Groups Y and X on the Durrell-Sullivan Achievement Test, as found in Table 6, indicated a difference in percentage of 2.5 per cent, standard error of the difference between the sample percentages of 31 per cent and a "t" ratio of .08, with 6 degrees of freedom. A "t" greater than 3.707 is necessary at the one per cent level the groups' reading gain.

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test</th>
<th>Post-Test</th>
<th>Gain</th>
<th>Per Cent Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group Y</td>
<td>2.9</td>
<td>3.7</td>
<td>.8</td>
<td>27.5</td>
</tr>
<tr>
<td>Group X</td>
<td>2.4</td>
<td>3.0</td>
<td>.6</td>
<td>25.0</td>
</tr>
</tbody>
</table>

Difference in Percentage 2.5 .025
Standard error of the Difference Between Sample Percentages 31
"t" .08

Post Instructional Test Results for Each Case

Case A.—The post-instructional testing of Case A's revealed growth in average reading achievement although he did not reach his reading expectancy level of 3.5.

Case A was re-tested at the end of the instruction with standardized measures. He was given the Gilmore Oral Reading Test, Form A,
to appraise his oral reading skills. His score on the retest was 2.6. This represented a gain of nine months from the initial test administered in November, 1966.

The retest Case A's general silent reading achievement, he was given the Durrell-Sullivan Achievement Test, Intermediate, Form A. The outcomes of this test may be compared with the initial test as follows:

<table>
<thead>
<tr>
<th>Test November 21, 1966</th>
<th>Test March 13, 1967</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Durrell-Sullivan Achievement Test</strong></td>
<td><strong>Durrell-Sullivan Achievement Test</strong></td>
</tr>
<tr>
<td>Primary, Form A</td>
<td>Intermediate, Form A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Grade Equivalent</th>
<th>Area</th>
<th>Grade Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Meaning</td>
<td>2.1</td>
<td>Word Meaning</td>
<td>2.7</td>
</tr>
<tr>
<td>Paragraph Meaning</td>
<td>2.4</td>
<td>Paragraph Meaning</td>
<td>2.9</td>
</tr>
<tr>
<td>Average</td>
<td>2.2</td>
<td>Average</td>
<td>2.8</td>
</tr>
</tbody>
</table>

There was a gain of six months in his silent reading skills as measured by this test. Case A has progressed to a level in reading achievement where he may be instructed in a small group as a part of his regular class. He may be classified corrective.

Case B.—Case B was re-tested at the end of the instructional with standardized measures. She was given the Gilmore Oral Reading Test, Form A, to appraise her oral reading skills. Her score on the retest was 1.4. This represented a gain of three months from the initial test administered in November, 1966.

To retest Case B's general silent reading achievement, he was given the Durrell-Sullivan Achievement Test, Intermediate, Form A. The outcome of this test may be compared with the initial test as follows:
There was a gain of six months in her silent reading skills as measured by this test. Case B's reading expectancy was computed at 3.5. She has progressed to within six months of expectancy on the silent reading test but still requires special help in oral reading skills. Possibly some silent reading tasks could be performed in small corrective groups.

Case C—Case C was re-tested at the end of the instruction with standardized measures. He was given the Gilmore Oral Reading Test, Form A, to appraise his oral reading skills. His score on the retest was 3.7. This represented a gain of one year eight months from the initial test administered in November, 1966.

The retest Case C's general silent reading achievement, he was given the Durrell-Sullivan Achievement Test, Intermediate, Form A. The outcome of this test may be compared with the initial test as follows:

<table>
<thead>
<tr>
<th>Area</th>
<th>Grade Equivalent</th>
<th>Area</th>
<th>Grade Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Meaning</td>
<td>2.3</td>
<td>Word Meaning</td>
<td>2.9</td>
</tr>
<tr>
<td>Paragraph Meaning</td>
<td>2.4</td>
<td>Paragraph Meaning</td>
<td>3.0</td>
</tr>
<tr>
<td>Average</td>
<td>2.3</td>
<td>Average</td>
<td>2.9</td>
</tr>
</tbody>
</table>

There was a gain of one year in his silent reading skills as
measured by this test. On the oral reading test and the silent reading test, Case C, progressed to his level of expectancy (3.6). He may be classified as developmental and is able to work at a normal pace, in terms of his own potential, with his regular class.

Case D.—Case D was re-tested at the end of the instruction with standardized measures. He was given the Gilmore Oral Reading Test, Form A, to appraise his oral reading skills. His score on the retest was 2.1. This represented a gain of eight months from the initial test administered in November, 1966.

To retest Case D's general silent reading achievement, he was given Durrell-Sullivan Achievement Test, Intermediate, Form A. The outcome of this test may be compared with the initial test as follows:

<table>
<thead>
<tr>
<th>Test November 21, 1966</th>
<th>Test March 13, 1967</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durrell-Sullivan Achievement Test</td>
<td>Durrell-Sullivan Achievement Test</td>
</tr>
<tr>
<td>Primary, Form A</td>
<td>Intermediate, Form A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Grade Equivalent</th>
<th>Area</th>
<th>Grade Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Meaning</td>
<td>2.2</td>
<td>Word Meaning</td>
<td>3.1</td>
</tr>
<tr>
<td>Paragraph Meaning</td>
<td>2.9</td>
<td>Paragraph Meaning</td>
<td>3.0</td>
</tr>
<tr>
<td>Average</td>
<td>2.5</td>
<td>Average</td>
<td>3.0</td>
</tr>
</tbody>
</table>

There was a gain of five months in his silent reading skills as measured by this test. Although this case progressed to within seven months of his expectancy (3.7) on the silent reading test, he will have to receive special help in oral reading skills and the stabilization of newly learned word recognition skills. This need is evidenced by an oral reading score of 2.1. He should continue to receive instruction.

Case E.—Case E was re-tested at the end of the instruction with
standardized measures. He was given the **Gilmore Oral Reading Test**, Intermediate, Form A, to appraise his oral silent reading skills. His score on the retest was 3.7. This represented a gain of one year six months from the initial test administered in November, 1966.

To retest Case E's general silent reading achievement, he was given the **Durrell-Sullivan Achievement Test**, Intermediate, Form A. The outcome of this test may be compared with the initial test as follows:

<table>
<thead>
<tr>
<th>Test November 21, 1966</th>
<th>Test March 13, 1967</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Durrell-Sullivan Achievement Test</strong></td>
<td><strong>Durrell-Sullivan Achievement Test</strong></td>
</tr>
<tr>
<td>Primary, Form A</td>
<td>Intermediate, Form A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Area</th>
<th>Grade Equivalent</th>
<th>Area</th>
<th>Grade Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Meaning</td>
<td>2.3</td>
<td>Word Meaning</td>
<td>3.3</td>
</tr>
<tr>
<td>Paragraph Meaning</td>
<td>3.1</td>
<td>Paragraph Meaning</td>
<td>4.0</td>
</tr>
<tr>
<td>Average</td>
<td>2.7</td>
<td>Average</td>
<td>3.6</td>
</tr>
</tbody>
</table>

There was a gain of nine months in silent reading skills as measured by the test. Case E's gain was such that he may be classified developmental. He may resume instruction as a member of his regular class because he is reading up to his expected grade equivalency of 3.8.

**Case F.**—Case F was re-tested at the end of the instruction with standardized measures. She was given the **Gilmore Oral Reading Test**, Form A, to appraise the oral reading skills. His score on the retest was 2.2. This represented a gain of six months from the initial test administered in November, 1966.

To retest Case F's general silent reading achievement, she was given the **Durrell-Sullivan Achievement Test**, Intermediate, Form A. The outcome of this test may be compared with the initial test as follows:
There was a gain of five months in silent reading skills as measured by the test. Although silent reading showed a fairly substantial gain, Case F's reading scores indicate a need for further remedial instruction.

Case G.--Case G was re-tested at the end of the instruction with standardized measures. She was given the Gilmore Oral Reading Test, Form A, to appraise her oral reading skills. Her score on the retest was 3.7. This represented a gain of one year two months from the initial test administered in November, 1966.

To retest Case C's general silent reading achievement, she was given the Durrell-Sullivan Achievement Test, Intermediate, Form A. The outcome of this test may be compared with the initial test as follows:

<table>
<thead>
<tr>
<th>Area</th>
<th>Grade Equivalent</th>
<th>Area</th>
<th>Grade Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Meaning</td>
<td>2.6</td>
<td>Word Meaning</td>
<td>3.8</td>
</tr>
<tr>
<td>Paragraph Meaning</td>
<td>3.4</td>
<td>Paragraph Meaning</td>
<td>3.9</td>
</tr>
<tr>
<td>Average</td>
<td>3.0</td>
<td>Average</td>
<td>3.8</td>
</tr>
</tbody>
</table>

There was a gain of eight months in silent reading skills as measured by the test. This case may be classified developmental and
should participate in regular classroom reading activities. Her reading expectancy score of 4.0 was nearly achieved in both oral and silent reading tests.

**Case H.**—Case H was re-tested at the end of the instruction with standardized measures. She was given this Gilmore Oral Reading Test, Form A, to appraise her oral reading skills. Her score on the retest was 3.2. This represented a gain of one year from the initial test administered in November, 1966.

To retest Case H's general silent reading achievement, she was given the Durrell-Sullivan Achievement Test, Intermediate, Form A. The outcome of this test may be compared with the initial test as follows:

<table>
<thead>
<tr>
<th>Test November 21, 1966</th>
<th>Test March 13, 1967</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Durrell-Sullivan Achievement Test</strong></td>
<td><strong>Durrell-Sullivan Achievement Test</strong></td>
</tr>
<tr>
<td>Primary, Form A</td>
<td>Intermediate, Form A</td>
</tr>
<tr>
<td><strong>Area</strong></td>
<td><strong>Grade Equivalent</strong></td>
</tr>
<tr>
<td>Word Meaning</td>
<td>2.5</td>
</tr>
<tr>
<td>Paragraph Meaning</td>
<td>3.5</td>
</tr>
<tr>
<td>Average</td>
<td>3.0</td>
</tr>
</tbody>
</table>

There was a gain of eight months in silent reading skills as measured by the test. Case H's reading expectancy was computed at 4.0. She progressed to within four months of expectancy on the silent reading test but still requires special help in oral reading skills. Possibly some oral reading tasks could be performed in small corrective groups.

**Summary**—To facilitate a comparison between two groups of reading disability cases, one group achieving at a higher level differences between the groups were determined as follows:

1. Group Y - higher achieving
a. Mean IQ - 100
b. Mean expectancy - 4.0
c. Mean reading achievement - 2.9

2. Group X - lower achieving
a. Mean IQ - 86.5
b. Mean expectancy - 3.6
c. Mean reading achievement - 2.4

Each case was given a diagnostic battery of reading tests where
the eight pupils were found to share similar weaknesses in the major
areas of word recognition. An instructional program of a remedial
nature was planned and executed. Retesting with an intermediate form
of the Durrell-Sullivan Test showed significant gains for each group
as indicated below:

1. Gains in oral reading
   Group Y - 9 months
   Group X - 8 months

2. Gains in silent reading
   Group Y - 8 months
   Group X - 6 months

A statistical test was utilized to determine if the gains made
between the two groups were significantly different. A "t" of .08
was not significant at the one per cent level of confidence. These
results indicated that reading disability cases who achieved at a higher
level could not benefit from instruction to a greater degree than the
reading disability cases who achieved at a lower level.
CHAPTER III

FINDINGS, CONCLUSIONS, AND IMPLICATIONS

Introduction

Authorities state that diagnosis is the foundation of an effective instructional program in reading. Diagnosis as a tool, if properly used, will provide information that should aid the teacher to guide the pupil toward: (1) improvement of his attitude toward reading, (2) an increase in his level of achievement in reading, and (3) more favorable personal-social adjustment. Diagnosis should help the teacher to recognize the nature of the problems of the individual pupil with reading disabilities and to explore ways in which she can contribute to the growth of the pupil. It should help parents to understand the underlying dynamics of learning problems of their children and to give their active cooperation in an effort to help them. The school should be able to communicate through reports and conferences pertinent insights obtained through these diagnoses.

General Design

This study was designed to diagnose reading difficulties of the most seriously retarded reading cases in the fourth grade of the Margaret Fain Elementary School, Atlanta, Georgia, and to provide remedial instruction based on the findings from the diagnosis of two groups of
fourth grade pupils: one with higher intelligence scores and others with lower intelligence scores as measured by the Kuhlmann-Anderson Intelligence scores.

The study was conducted at the Margaret Fain Elementary School, 3415 Del Mar Lane, Atlanta, Georgia, for a period of nine weeks. Permission was obtained from the proper authorities to conduct the study. The descriptive-case study method of research was employed, utilizing techniques of testing, interviewing, analysis of records, observation, and remediation.

The Kuhlmann-Anderson Intelligence Test, Test D, and the Durrell Sullivan Achievement Test, Form A, used for purposes of identifying the disabled readers, were administered as group tests. The instruments used for the diagnosis were individually administered. These instruments were:

1. The Gilmore Oral Reading Test, Form B
2. Sections of the Durrell-Analysis of Reading Difficulties
3. The Boyd Test of Phonetic Skills
4. The Wepman Auditory Discrimination Test, Form B
5. The Keystone Visual Survey
6. The Maico Audiometer
7. Strang's Open End Questions

Summary of Procedures

A flexible instructional period for forty-five minute periods was divided into smaller time segments as follows: (1) Instruction and practice with the sound blending material (ten minutes); (2) Use of drill material in analysis and blending (five minutes); (3) Dictating words for spelling or complete workbook exercises (ten minutes); (4) Oral
reading (ten minutes); and (5) Practice to develop sight vocabulary (ten minutes).

In order to do an effective teaching job the writer structured specific objectives for each of six stages of instruction. The specific objectives were:

Stage I. To associate sounds with single consonant letters and to apply this ability in attacking new words.

Stage II. To be able to recognize consonant blends and final consonant sounds and to apply this ability in attacking new words.

Stage III. (a) To be able to recognize the short vowel sounds and long vowel sounds and to apply this in attacking new words.

(b) To be able to recognize visually and auditorily consonant-vowel patterns and to apply this skill in independently attacking new words.

Stage IV. (a) To recognize certain vowel combinations and to apply this ability to attacking new words.

(b) To be able to apply rules for determining vowel sounds in polysyllabic words.

Stage V. To use common endings and prefixes in attacking unknown words.

Stage VI. To be able to use syllabication in attacking new words.

Summary of Related Literature

The review of related literature made distinct contributions to this study. The literature revealed that:

1. Reading may be improved with proper diagnosis and instruction.

2. Hearing can be a handicap in learning to read.

4. Lack of co-ordination between the two eyes may contribute to reading disability.

5. Lateral dominance may or may not cause reading disability.

6. Poor health can be detrimental to normal progress in reading.

7. Lower than normal intelligence need not be a case of reading disability.

8. Ineffective school practices which interfere with progress in reading are sometimes difficult to identify.

9. It is of great importance that the child develops favorable attitudes toward his teachers.

10. Numbers of factors have been suspected as being basis to reading disability and emotional maladjustment.

11. There is an appreciable tendency for pupils who are rating relatively high on tests of reading achievement to rate relatively high on tests of reading capacity and vice versa.

12. Lack of adequate vocabulary obstructs reading in all dimensions.

Many authorities agree there is a growing need for continued research in the area of reading and the causes and correction of reading disability.

The survey of literature and the overall summary aided the writer in the presentation and interpretation in reporting the materials in this research study.

Major Findings of the Study

The summary of the basic findings of this study is reported as follows: selection of subjects according to reading achievement and intelligence; analysis of difficulties; causes of reading disabilities and results of remedial instruction.
The findings regarding the subjects reading achievement, intelligence, and accuracy for oral reading are summarized as follows: In each instance the differences were tested against a "t" ratio of 3.707 which is required for significance at the one per cent level of confidence with six degrees of freedom.

1. On the Durrell-Sullivan Achievement Test, Form A, Groups Y and X indicated a difference between the mean of .5, standard deviation .12 and .12, respectively, and the "t" ratio of 5.0, with 6 degrees of freedom. Thus, there were some significant differences between the groups' reading achievement, with both groups achieving below level in reading.

2. On the Kuhlmann-Anderson Test, Form D, Groups Y and X indicated a difference between the means of .6, standard deviation of 5.1 and 2.6, respectively; and the "t" ratio of 4.2, with 6 degrees of freedom. Thus, there were some significant differences between the groups' intelligence.

3. The findings regarding the performance of Groups Y and X on the Gilmore Oral Reading Paragraphs indicated a difference between the means of .25; standard deviation, .32 and .31, respectively; and "t" ratio of 2.4 with 6 degrees of freedom. Thus, there was no significant difference between the groups' oral reading performance.

4. On the Durrell-Analysis of Reading Difficulties, Groups Y and X indicated weakness in the areas of sight vocabulary, word analysis, visual memory of words and spelling. On the Boyd Phonetic Skills Test, Groups Y and X revealed a very limited knowledge and application of phonetic and structural analysis skills.

5. Keystone Visual Survey Test, Groups Y and X passed the test satisfactorily revealing no cases who represented visual problems that needed referring to a refractionist.

6. An Audiometer record showed no less of hearing recorded in either case.

The Strang's Open End Questions revealed mild emotional problems associated with reading.

7. As a result of the reading analysis it appeared that a primary cause of reading disability was a failure to master
the early elements of reading.

8. On the Durrell-Sullivan Achievement Test, Primary and Intermediate, Forms A after instruction, Group Y showed a significant gain in reading achievement with a range of scores from a high 3.0 and 3.8, a low of 2.7 and 3.4, mean scores of 2.9 and 3.7 and standard deviations of .12 and .17, respectively.

9. Group X indicated on the Durrell-Sullivan Achievement Test, Primary and Intermediate, Forms A after instruction, showed a significant gain in reading achievement with a range of scores from a high 2.5 and 3.4, a low of 2.2 and 2.8, means of 2.4 and 3.0, standard deviations of .12 and .23, respectively.

10. Difference between mean scores of both groups upon post-test shows no significant differences in gain of the reading disability cases.

Conclusions

From the analysis and interpretation of this data the following conclusions were:

1. Pupils of average and low normal intelligence can improve in reading.

2. Skills and techniques in word recognition, silent and oral reading can improve if instruction is based on proper diagnosis, analysis and recommendations.

3. When causes of reading disability have been identified, methods of correction and prevention may be more specifically determined.

4. Reading disability cases vary in levels of intelligence and in levels of achievement.

5. The same remedial instructional procedures can yield varying degrees of gain in achievement in different pupils.

6. Reading disability at fourth grade level characterized by limited knowledge and application of phonetic and structural analysis skills.

7. Inhibiting factors such as mild emotional problems and vision, or hearing deficiencies did not comprise major determinants of reading disability for these pupils.
8. The reading disability cases who achieved at a higher level could not benefit from instruction to a greater degree than the reading disability cases who achieved at a lower level.

Implications

From the analysis of findings and conclusions of this research, the following implications seemed feasible:

1. Since it was revealed that pupils with average and low normal intelligence can improve in reading, it appeared that the reading diagnosis should be a comprehensive one if the factors involved in the learning disability are to be identified. There must be provisions for: (1) evaluation in psychological areas such as general capacity, association, memory span, personality, and perception, (2) screening for vision, hearing, speech anomalies, (3) observation data and case history data on general health, and physical development, oral language development, (4) records of educational progress and adjustment, and (5) analysis of present achievement status in auditory and visual discrimination and actual levels of reading performance and specific strengths and weaknesses in reading, spelling and other related areas.

2. Implementation of the findings of the diagnosis must result in specific recommendations for treatment or referral for further evaluation.

3. Instructional facilities must be available for full-time school treatment designed to meet the individual child's needs.

4. It may be possible if the study had been extended over a longer period of time and treatment of reading disability might have resulted in more significant improvement.

Recommendations

The findings, conclusions and implications of this study seemed to provide a basis for the following recommendations:

1. Teachers may consider earlier than fourth grade diagnosis as preventive measures for reading disability.
2. More emphasis should be placed on the realization of pupils' individual potential and less concern given a particular grade level as the achievement criterion.

3. Teachers' main focus should be on developmental reading and the prevention of reading difficulties, rather than on remedial work per se.

4. The reading materials for "remedial" reading instruction should be geared to the specific needs, maturity levels, and interests of the pupils.
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Periodicals


BOOKS USED WITH INSTRUCTION


VITA

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APPENDICES
DURRELL-SULLIVAN
READING CAPACITY AND ACHIEVEMENT TESTS

READING ACHIEVEMENT TEST

By Donald D. Durrell
Professor of Education and Director of the Educational Clinic
Boston University

and Helen Blair Sullivan
Associate Director of the Educational Clinic
Boston University

INTERMEDIATE TEST: FORM A
For Grades 3 to 6

Name........................................Grade.............Teacher...............Boy or girl...........

Age........When is your next birthday?................How old will you be then?...........

Name of school..............................City............................Date...............;

<table>
<thead>
<tr>
<th>Test</th>
<th>Score</th>
<th>Grade Equivalent</th>
<th>Age Equivalent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Word Meaning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Paragraph Meaning</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Total</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Optional Tests

3. Spelling

4. Written Recall Rating
## TEST 1. WORD MEANING

### Samples.

**An apple** is a kind of — 1 paint 2 metal 3 animal 4 fruit 5 chair

**Large** means — 1 angry 2 big 3 hurt 4 little 5 like

To **shut** means to — 1 help 2 give 3 take 4 run 5 close

1. A **dog** is an — 1 answer 2 elephant 3 animal 4 excuse 5 orange
2. A **robin** is a — 1 crow 2 bird 3 bug 4 flower 5 leaf
3. To **bring** is to — 1 find 2 carry 3 think 4 lose 5 fall
4. **Small** means — 1 hurry 2 large 3 little 4 like 5 help
5. To **fall** is to — 1 pay 2 lift 3 touch 4 drop 5 face
6. To **bake** is to — 1 break 2 lose 3 cook 4 speak 5 copy
7. A **dollar** is — 1 copper 2 money 3 business 4 healthy 5 clothing
8. A **voice** is used to — 1 clamp 2 speak 3 point 4 write 5 mark
9. A **potato** is a — 1 song 2 planet 3 vegetable 4 table 5 postman
10. **Beef** is a kind of — 1 horse 2 boat 3 maze 4 ranch 5 meat

11. To **chop** means — 1 roll 2 note 3 come 4 chide 5 cut
12. If a thing is **above**, it is — 1 glad 2 pleasant 3 short 4 higher 5 between
13. A thing that is **bent** is — 1 warm 2 sharp 3 crooked 4 straight 5 tight
14. **Travel** means — 1 trouble 2 journey 3 serious 4 prepare 5 junction
15. **Oil** is used for — 1 fuel 2 water 3 fun 4 writing 5 presents
16. **Quarrel** means — 1 stop 2 travel 3 fight 4 forget 5 throw
17. A **hall** is a — 1 horn 2 road 3 tooth 4 room 5 field
18. An **island** is surrounded by — 1 sugar 2 gardens 3 earth 4 salad 5 water
19. **Remain** means — 1 ride 2 measure 3 happen 4 stay 5 accompany
20. **Salt** is used on — 1 holidays 2 water 3 food 4 birds 5 flowers
21. **Marriage** means — 1 image 2 civil 3 bitter 4 obtain 5 wedding
22. A **carpenter** makes things of — 1 iron 2 stone 3 cement 4 wood 5 grass
23. A **maid** is a — 1 smile 2 father 3 girl 4 heart 5 fruit
24. A **palace** is a — 1 crown 2 storm 3 land 4 building 5 policeman
25. A **helmet** is worn on the — 1 knees 2 breast 3 feet 4 elbows 5 head
26. When you **miss school**, you are — 1 tardy 2 absent 3 present 4 taught 5 fair
27. A person is **alone** who is without — 1 money 2 food 3 company 4 shelter 5 danger
28. A **stomach** is part of the — 1 sea 2 sky 3 body 4 country 5 world
29. A man’s **daughter** is his — 1 parent 2 child 3 sister 4 son 5 niece...
30. **Ill** means — 1 sick 2 hungry 3 well 4 safe 5 sorry..............
31. **Excellent** means very — 1 weak 2 good 3 happy 4 poor 5 tired...
32. A **hive** is for — 1 oil 2 school 3 robbers 4 peaches 5 bees......
33. To **tumble** is to — 1 type 2 ask 3 knock 4 fall 5 tickle............
34. A **grandparent** is an — 1 antagonist 2 elephant 3 ancestor 4 impostor 5 umpire
35. A **smell** is an — 1 amount 2 answer 3 office 4 odor 5 idea......
36. An **elm** is a — 1 mold 2 helm 3 bug 4 tree 5 tool.................
37. A **mule** is a — 1 splinter 2 pearl 3 beast 4 ditch 5 handle.....
38. **Costly** things are — 1 expensive 2 pliant 3 scorched 4 liberal 5 domestic
39. An **author** is a — 1 patron 2 policeman 3 statesman 4 treasurer 5 writer
40. A **mayor** is an — 1 expert 2 animal 3 invalid 4 umbrella 5 official
41. A **zone** is a — 1 number 2 stepson 3 region 4 sliver 5 habit......
42. To **injure** is to — 1 slump 2 insure 3 wound 4 sell 5 splash.......
43. To **rouse** means to — 1 waken 2 rule 3 roast 4 throw 5 love.....
44. **Mild** means — 1 gentle 2 price 3 wild 4 new 5 behind.............
45. **Wicked** means — 1 generous 2 grateful 3 unselfish 4 evil 5 brilliant
46. To **make preparations** is to get — 1 over 2 measles 3 ready 4 upon 5 cloudy
47. A **selection** is a — 1 bullet 2 capital 3 desire 4 choice 5 folder....
48. To **tour** is to — 1 prepare 2 toast 3 lean 4 travel 5 trust...........
49. **Twinkle** means — 1 wrinkle 2 ringing 3 pitiful 4 glisten 5 feeble...
50. **Coarse** cloth is — 1 smooth 2 fine 3 rough 4 cold 5 short..........
51. A **bough** is a — 1 limb 2 leaf 3 pail 4 crest 5 trunk.................
52. To **welcome** means to — 1 endure 2 persist 3 receive 4 believe 5 practice
53. A blunt thing is — 1 dull  2 sharp  3 disagreeable  4 black  5 thin
54. Circular means — 1 careless  2 familiar  3 round  4 square  5 jealous
55. Skillful means — 1 laborious  2 excited  3 radical  4 expert  5 kindly
56. Interior means — 1 inferior  2 above  3 empty  4 dreary  5 inside...
57. Stupid means — 1 studious  2 false  3 stylish  4 cowardly  5 dull...
58. To surrender is to — 1 surround  2 soften  3 colonize  4 yield  5 dance...
59. Destruction causes — 1 discipline  2 ruin  3 government  4 scandal  5 satisfaction
60. To convince means to — 1 declare  2 design  3 combine  4 nourish  5 persuade
61. A sign is an — 1 offering  2 agreement  3 acquaintance  4 indication  5 address
62. A portion is a — 1 gate  2 home  3 wall  4 riddle  5 share
63. To overcome is to — 1 discover  2 happen  3 anticipate  4 defeat  5 worry
64. An insult is an — 1 instinct  2 insertion  3 announcement  4 embrace  5 offense
65. To confirm is to make — 1 angry  2 equal  3 trouble  4 certain  5 time
66. Valiant means — 1 valid  2 lenient  3 brave  4 royal  5 loyal ...
67. To kindle means to — 1 pick  2 range  3 light  4 soil  5 assist ...
68. Abrupt means — 1 exclude  2 neutral  3 recent  4 sudden  5 rugged
69. Fatigue means — 1 fatal  2 faithful  3 conflict  4 dodge  5 weariness
70. A durable thing is — 1 fantastic  2 courteous  3 modified  4 lasting  5 moist
71. Fourscore is the same as — 1 fourteen  2 fortnight  3 eighty  4 twenty  5 four
72. To ratify is to — 1 confuse  2 approve  3 assist  4 report  5 poison
73. To rebel is to — 1 realize  2 pledge  3 justify  4 resist  5 flourish
74. Sullen means — 1 sultry  2 satisfied  3 credulous  4 harmful  5 surly
75. Probability means — 1 disheveled  2 originality  3 likelihood  4 sincerity  5 enthusiasm

Score...
TEST 2. PARAGRAPH MEANING

Sample.

One warm, sunny day Helen and her brother went on a trip to the beach. Their mother and aunt went with them. They took their bathing suits so that they could all go into the water. When noontime came, they had lunch on the sand. After lunch the children gathered sea shells. They saw a starfish and some funny little crabs.

A. What did Helen and her brother do?
1. went to see their aunt 2. went to the seashore 3. went on a train
4. went for crabs 5. went fishing

B. The weather was —
1. quiet 2. funny 3. fair 4. gloomy 5. rainy

C. The best name for this story is —
1. Helen and Her Aunt 2. Gathering Shells 3. Eating Lunch Outdoors
4. One Warm Day 5. A Trip to the Beach

Mary and John go to camp as soon as school closes in the summer. They go on the train and stay until it is time for school to open again in the fall. They have a happy time at camp because there are many other boys and girls there too. They ride, swim, and play games together every day.

1. When do Mary and John go to camp?
1. before school 2. when school is over 3. in the fall
4. when school starts 5. every day

2. Which word tells what kind of a time the children have at camp?
1. lonesome 2. sad 3. joyous 4. funny 5. weary

3. How do the children travel to camp?
1. on a train 2. on a bus 3. in an automobile
4. on a car 5. in an airplane

4. The best name for this story would be —
4. A Summer at Camp 5. The Boys at Camp

5. Mary and John enjoy camp life because they —
1. are glad to be away for the summer 2. like the ride on the train
3. are glad to be out of school 4. like to study nature
5. have fun playing games with the other children
II

Jack had a new fish line. His father took him fishing in a little brook at the back of his grandfather's house. Jack was the first to feel a bite. There was a strong pull at his line. He tried hard to pull the fish out of the water, but it pulled so hard his father had to help him. He was happy when he saw his fish lying on the grass near the stream.

6. Jack went —
   1 to his grandfather's house  
   2 into the water  
   3 fishing with his father  
   4 to buy a fish line  
   5 to the ocean to fish  

7. The fish —
   1 helped  
   2 struggled  
   3 ate  
   4 tried  
   5 fell  

8. Jack tried to —
   1 fish near the stream  
   2 pull his father back  
   3 land his own fish  
   4 put fish in the brook  
   5 lie on the grass  

9. The best name for this story is —
   1 A Trip to Grandfather's  
   2 Catching Some Fish  
   3 Jack's Fishing Trip  
   4 Buying a New Fish Line  
   5 How Father Fished  

10. Jack enjoyed his trip because —
    1 the fish got away  
    2 the brook was near grandfather's  
    3 he caught a fine fish  
    4 he went to a stream  
    5 his father helped him  

III

In the cold northlands many animals go to sleep for the whole winter. They have to store up enough fat on their bodies in the summertime to last them all winter while they are sleeping. These animals grow huge in the summer. Bears, which are among the animals which sleep all winter, get so large in the summer that they can hardly move about. All these animals which sleep during the winter crawl into caves or hollow trees when winter nears and stay until spring comes once more. When they come out, they are very thin and are starving.

11. How do the animals which sleep through the winter get their winter food?
    1 by carrying their food in with them  
    2 by getting fat in summer  
    3 by coming out for food as they need it  
    4 by eating the bark of trees  
    5 by living on small animals  

12. The climate where these animals live is very —
    1 windy  
    2 warm  
    3 breezy  
    4 cold  
    5 hot  

13. How do the animals look when they come out of the cave?
    1 huge and fat  
    2 lean and hungry  
    3 thin and tired  
    4 large and strong  
    5 huge and starving  

14. The best title for this story would be —
    1 Bears Which Go into Caves  
    2 Thin and Hungry Animals  
    3 Animals Which Sleep through the Winter  
    4 Large Animals Sleep in Winter  
    5 While They Are Sleeping  

15. The animals which sleep through the winter make winter dens —
    1 in the summertime  
    2 in the open woods  
    3 when spring comes  
    4 in caverns or hollow logs  
    5 while they are sleeping
IV

The St. Bernards are among the bravest of dogs. They are large and very strong. In Switzerland these dogs are trained to go out and find travelers who are lost in the snowdrifts on the high mountains. A first-aid kit containing food and medicine is hung about their necks, and a warm blanket is strapped on their backs. When they find worn-out travelers, they dig them out of the snow and help them if they are awake and able to move. If the traveler is injured and helpless, the dog is trained to go back to the town below and bring aid. Many lives are saved every year by these fearless animals.

16. What is the most valuable thing that St. Bernard dogs do?
1 They can climb over snowdrifts. 2 They are good mountain climbers.
3 They are trained to rescue lost travelers. 4 They are large and strong.
5 They carry first-aid kits.

17. The St. Bernard dog is —
1 cowardly 2 speedy 3 courageous 4 rough 5 fierce

18. How does the dog assist worn-out travelers?
1 by digging large holes in the snow 2 by climbing the drifts to the traveler
3 by bringing first aid 4 by covering him with a blanket 5 by his great strength

19. The best title for this story is —
1 Training Dogs 2 The Heroic St. Bernard 3 A Strange St. Bernard Dog
4 People Lost in Mountains 5 Traveling through Snowdrifts

20. What do the dogs do for the travelers they cannot help?
1 stand the man on his feet 2 give him food and medicine
3 return to the village for aid 4 carry him down the mountain 5 give him the first-aid kit

V

The camel possesses a most uncommon body, which almost seems made to order for the many purposes he fills in the life of the desert people. His mouth is peculiarly fitted for securing food. The strong membrane and powerful teeth enable him to tear off the dry shrubs and stiff, prickly cactus of the desert. His huge nostrils allow him to breathe deeply. They close tightly when a sandstorm arises, thus shutting out the choking sands. His hump, a mere lump of fat, is of great use if food fails, for he can obtain nourishment from it for many days. He is also provided with inside reservoirs which hold enough water to last him for four or five days. Unfortunately the camel is dull. To kneel down at a given signal is about the only trick he ever learns. Although the camel is homely he is nevertheless valuable, for without him many portions of the earth would remain untraveled.

21. The camel is —
1 more intelligent than the horse 2 capable of learning a great deal
3 rather unintelligent 4 poorly taught 5 friendly and intelligent

22. The body of the camel is —
1 unfortunate 2 unusual 3 graceful 4 evil 5 inspiring

23. The mouth of the camel —
1 is harmed by thorny cactus 2 is small and tough
3 is well suited for procuring food 4 tightens when a sandstorm arises
5 provides an inside reservoir

24. The best title for this story is —
1 The Homely Body of the Camel 2 Why the Camel Is Useful
3 The Stupidity of the Camel 4 Sandstorms on the Desert 5 How the Camel Eats

25. The camel is —
1 unsuited for desert travel 2 helpless in a sandstorm
3 a tricky animal 4 well adapted for desert travel 5 friendly and intelligent
VI

Bill vaulted the fence into the corral and faced the bucking pony. At his approach the little animal struck out with his forefeet, but Bill was quick and avoided him. The boy caught the pony close to the head and with a rapid movement sprang into the stirrups. Then began the real task. With head down, back up, and whinnying loudly, the animal reared into the air, bouncing back to earth with terrific force. He tried every trick possible to throw his rider, plunging and rearing in all directions, but Bill held on. Finally, after many minutes, the exhausted pony, wet with perspiration, stood still. His nostrils trembled, but one felt that though his body had been subdued, his spirit was still unbroken.

26. When Bill approached, the pony was — 1 tired and broken 2 quieted in spirit 3 impatient to be ridden 4 disturbed and angry 5 thrown to the ground

27. The pony was finally — 1 overbalanced 2 exultant 3 overpowered 4 distracted 5 restored

28. The little pony tried to — 1 outlive his rider 2 aid the boy 3 unseat his rider 4 exhaust the animal 5 butt Bill

29. The best title for this story is — 1 Riding the Range 2 An Exhausted Pony 3 Breaking a Pony 4 A Perspiring Pony 5 Bill Approached a Pony

30. The article illustrates — 1 how to enter a corral 2 a whinnying pony 3 trickery in riding 4 leading a pony 5 skill in horsemanship

VII

Studying bird life with a camera is certainly an entrancing sport. One can engage in it without destroying life, yet get great satisfaction from the thrilling activities it offers. The sport is appropriate for any time or place. From it one can derive all sorts of adventures, for to be a good photographer of birds in their native haunts it is necessary to climb trees and cliffs as well as travel on land and water. How interesting it is to find their nests, learn where they stay at various times during the day, how the young are fed and cared for, and procure photographs of the birds in various attitudes. Hiking with the camera through the woods is always an enjoyment. There is a feeling of excitement and expectancy present, for one never knows at what moment he may come upon some unusual bird activity.

31. Making studies of bird life is interesting because — 1 they haunt native places 2 of the various activities one can observe 3 it is always done on water 4 the young are fed and cared for 5 the sport is appropriate

32. Using a camera in place of a rifle encourages wild life by promoting — 1 destruction 2 conservation 3 dissatisfaction 4 conversation 5 haunts

33. Bird study is a satisfying sport because — 1 the young are fed 2 the birds like it 3 one can get eggs out of nests 4 it can be enjoyed during all seasons 5 one can use a rifle

34. The best title for this story is — 1 Interesting Birds 2 The Excitement of Adventure 3 Taming Wild Birds 4 Photography of Wild Birds 5 Destroying Bird Life

35. Taking pictures of bird life is fascinating because — 1 it is helped by a camera 2 it takes much time 3 it gives more bird pictures 4 it brings adventure without destruction of life 5 it scatters the birds about
VIII

In the part of our country which gets very little rain in the summer the ground must be wet by irrigation to make the plants grow. Otherwise all the crops would be spoiled by dry weather. This form of agriculture is carried on in states where snow is found high up in the mountains the entire year. A large reservoir is made by damming up the mountain streams. The snow, melting in summer, rushes into a stream. This, in turn, is joined to a large ditch. At the head of the ditch is an intake gate. This can be opened and closed at will. In this way water is drawn off and the various fields are irrigated. The water can be turned on whenever the fields need it. The parts of our country where irrigation is possible seldom have crop failures, because water can be secured when it is needed.

36. This form of agriculture is carried on where —

1. crops are grown in summer
2. mountain streams make it possible
3. cities are near
4. there are large reservoirs
5. there are crop failures

37. Because irrigation is possible crop failures are —

1. increased
2. reduced
3. possible
4. permitted
5. eliminated

38. They stop the water from flooding the fields by —

1. damming the ditch
2. use of gates
3. opening the reservoir
4. irrigating the fields
5. drawing off the water

39. The best title for this story would be —

1. Damming Up Streams
2. Supplying Water for Irrigation
3. Crops in Dry Weather
4. Building Huge Dams
5. Supplying Water for Colorado

40. Land that is irrigated yields better harvests because —

1. in summer it gets little rain
2. it is high up in the mountains
3. water may be applied as needed
4. the water can be turned off
5. agriculture is carried on

IX

Sugar beets must be raised where cheap labor can be secured because the plants require a great deal of cultivation, most of which must be done by hand. First the plants are thinned and then blocked to get the correct number in the rows. The roots from which the sugar is extracted are not like the red beets which are eaten as vegetables, but are more like the common turnips. These roots are washed, sliced, and soaked in water. The water is later drawn off and boiled into beet syrup. Then the syrup is changed to a brown sugar called raw sugar. The last step is to send the raw sugar through the refinery, where it is cleaned and whitened. Then the white sugar is ready to be boxed and sold for use in our homes.

41. Sugar beets must be raised where labor is not expensive because they require —

1. much care
2. much washing
3. many plants in a row
4. soaking in water
5. much boiling

42. What kind of labor is most used in the raising of sugar beets?

1. machine
2. manual
3. difficult
4. easy
5. unusual

43. The raw sugar is —

1. made into syrup
2. refined and whitened
3. boxed and sold
4. left as it is
5. changed to brown sugar

44. The best title for this story is —

1. Blocking and Thinning Beets
2. Colorado Sugar Beets
3. How Beet Sugar Is Obtained
4. Cleaning Raw Sugar
5. How Beet Sugar Is Whitened

45. Raising sugar beets requires —

1. inexpensive labor
2. syrup changed to sugar
3. sugar to be cleaned
4. many common turnips
5. raw sugar
Airplanes are growing more important every year. Today they have
traveled to almost every part of the world and into many places that would
otherwise have remained unexplored. Daring pilots have been responsible
for many outstanding feats. They have gone to the aid of dying men when
there was no other opportunity of reaching them. At one time serum was
carried to Alaska by plane and saved the lives of many children who were
seriously ill of diphtheria. Every day of the year, and in all kinds of weather,
Uncle Sam’s pilots carry the mail through the air. Practically every day one
reads of some new achievements of airplanes.

46. Airplanes have rendered valuable service to humanity by —
1 carrying many diseases
2 having no other opportunity
3 aiding the sick and dying
4 helping boys to become pilots
5 taking passengers in the air

47. The life of an airplane pilot is —
1 lonesome
2 easy
3 hazardous
4 happy
5 high

48. Airplanes are used for a variety of services such as —
1 exploring, carrying mail, and aiding the sick
2 carrying mail in all sorts of weather
3 bringing serum to diphtheria patients
4 serving humanity
5 traveling in all kinds of weather

49. The best title for this story is —
1 Mail Pilots
2 Exploring with Airplanes
3 Value of Airplanes
4 Life of an Air Pilot
5 A Trip to Alaska

50. The accomplishments of airplanes are —
1 unimportant
2 understanding
3 trivial
4 significant
5 serious

The mode of living on the plantations of the South was vastly different from
that of the early New England people. The spacious Southern mansions,
surrounded by the many slave cabins, gardens, and poultry yards, were often
in themselves small villages. While many of these planters were living in
wasteful extravagance, the Puritans of New England were living in modest
two-room homes. They were thrifty people who were not in favor of the
riotous living and entertaining of the planters. The New England people were
more interested in the establishment of good common schools for all people,
while the rich planters did not favor this idea. They had tutors at home for
their children, or sent them to Europe to be educated.

51. The New Englanders were interested in —
1 having tutors for their sons
2 organizing good public schools
3 educating their children in England
4 living in two rooms
5 riotous living and entertaining

52. Which word best describes a Southern planter?
1 lavish
2 gallant
3 brave
4 weak
5 frugal

53. Which word best describes a New England home?
1 magnificent
2 insignificant
3 unpretentious
4 extensive
5 valuable

54. The best title for this story is —
1 A Story of Education
2 A Comparison of the Life of the Planters
3 Northern and Southern Modes of Living
4 The Thrifty New England People
5 Good Schools for All

55. The Southern gentlemen desired —
1 common education for all
2 the organizing of good public schools
3 good education for members of his own family
4 tutors for children in New England
5 good free schools for planters’ sons
XII

The pulmotor, a device for the resuscitation of persons suffering from gas poisoning, drowning, or electric shock, consists of a tank of compressed oxygen which is thinned with air and pumped into the lungs of the patient. It must be remembered that if breathing is to be produced artificially the process must be begun within ten minutes after the breathing has stopped or the person may not revive. Therefore it is not safe to wait to begin to revive the person until the pulmotor arrives. Some other method of restoring consciousness should be attempted in order to avoid a fatality. While the pulmotor can be of great advantage, it is also a very dangerous instrument in the hands of an inexperienced person. There is great peril, if the instrument is not properly handled, of drawing the air out of the small air cells in the lungs and collapsing them.

56. The pulmotor is an instrument for —
1 collapsing the lungs 2 avoiding drowning 3 inducing artificial respiration 4 administering electric shock 5 inducing carbon monoxide

57. What is conveyed to the patient by means of the pulmotor?
1 concentrated oxygen 2 a device of great advantage 3 air cells which collapse 4 a mixture of oxygen diluted with air 5 a combination of oxygen and nitrogen

58. If the person is to be resuscitated, artificial respiration should be started —
1 by a dangerous instrument 2 for collapsing the lungs 3 within ten minutes 4 by a tank of oxygen 5 by an inexperienced person

59. While waiting for the pulmotor one should —
1 attempt to avoid the instrument 2 apply another type of resuscitation 3 pump oxygen from a tank 4 draw air out of the lungs 5 dilute the air

60. The pulmotor is a menace in the hands of a novice because —
1 of the danger of injuring the stomach 2 it might not arrive on time 3 it can be of great advantage 4 it should be properly handled 5 of the danger of collapsing the lungs

Score. . . . . .
TEST 4. WRITTEN RECALL

I

Blackie was a little kitten. One day a big dog chased him. He became frightened and ran up a tree. After he got high up in the branches, he was afraid to come down. The little girl who owned him came and stood beneath the tree. She called to Blackie and showed him his dish of milk, hoping he would want his supper enough to try to come down. But he would not come. Finally her father called the fire chief. He sent a fireman with a ladder. The man went up the tree and carried little Blackie down. The little girl was happy to have her kitten again.

II

John could hardly wait, so anxious was he to try the new canoe he had received for his birthday. As soon as he finished his breakfast he raced with his brother and sister to the lake. Here they examined his splendid new gift. John's father showed him how to use the paddle and told him that he might take his brother and sister for a short ride in the canoe, but warned him that he must not go too far from shore before he was thoroughly familiar with handling the new craft. All went smoothly, and gradually John forgot his caution and drifted farther from shore. Suddenly there came a great gust of wind. In a moment the lake was filled with heavy waves. John struggled to keep the little canoe upright. Luckily they were not far from a small island. He steered for this and reached the shore just as a particularly large wave turned the canoe bottom side up. The three children scrambled from the water out onto the island just as another huge wave came in. The canoe floated away, and John feared he had lost his precious gift. But a party in a little steamer presently came to the aid of the stranded children and rescued the canoe, which had blown a distance away.
Gilmore Oral Reading Test

by John V. Gilmore
Associate Professor of Psychology
Boston University

RECORD BLANK

NAME__________________________________DATE________________________________GRADE__________

SCHOOL________________________________AGE______________________YEARS MONTHS__SEX__________

CITY______________________________STATE________________________EXAMINER__________

Summary Check List of Difficulties

From an analysis of the pupil's oral reading performance, complete the check list below.

- Many substitutions
- Habitual mispronunciations
- Many words pronounced by examiner
- Habitual disregard of punctuation
- Habitual insertions
- Habitual hesitations
- Habitual repetitions
- Habitual omissions

Check the following immediately after completion of the testing:

- Word-by-word reading
- Reads in monotone
- Strained, high-pitched voice
- Volume too loud
- Volume too soft
- Poor enunciation

Comments:______________________________________________________________

Test Summary

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<th>PARAGRAPH</th>
<th>ACCURACY</th>
<th>COMPREHENSION</th>
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ACC. SCORE (TOT. "10 MINUS NO. ERRORS" COLUMN)

COMP. SCORE (TOT. NO. RIGHT OR CREDITED)

(1) \( \div (2) \) \( \times 60 \)

GRADE EQUIV.

RATING

*Do not count "ceiling" paragraph or paragraphs below "basal."

Silent Reading Test Data

DATE__________________TEST_________________

WORD MEAN. (VOCAB.) GRADE EQUIV.________

PARA. MEAN. (READ.) GRADE EQUIV.________

AVG. READ. GRADE EQUIV.________

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PRINTED IN U.S.A. G: cort: RB: B-10
1. I see two boys.
   Here is a man.
   I can see Mother.
   She looks at the boys.
   They look at the toys.
   I see a flower.

TIME _______ Seconds

1. How many boys are there?
2. What is Mother doing?
3. What are the boys doing?
4. What other person do you see?
5. What do you see that grows?

NUMBER RIGHT ______

---

2. Look at the big room.
   The room has some toys.
   The boys are in the room.
   They play on the floor.
   The man is in the big chair.
   He is looking at the two boys.
   Mother is sitting in a chair, too.
   They all like the pretty room.

TIME _______ Seconds

1. Is the room little or big?
2. Where are the boys playing?
3. Where is the man?
4. What is the man doing?
5. Where is Mother?

NUMBER RIGHT ______

---

3. On Saturday the two boys do things they enjoy. For them this is the nicest day of the week. Sometimes they help with different household duties. In warm weather Tom and Father mow the lawn. If Mother is especially busy cooking for Sunday, Ned is glad to run errands for her before lunch. The family does not always spend the day working. In summer they often visit a lake near the city, where they spend happy hours swimming and boating. In winter the boys sometimes attend a movie; or, in freezing weather, they skate with their parents. The family takes real pleasure in Saturday activities.

TIME _______ Seconds

1. What is the most pleasant day of the week for the boys?
2. What do Tom and Father do on Saturdays in warm weather?
3. What does Ned do for Mother?
4. Where does the family go in summer?
5. What do the boys do with their parents in the winter?

NUMBER RIGHT ______

---

4. The month of August brings a treat for Tom and Ned. Their uncle and aunt own a prosperous dairy farm which is situated about one hundred miles from the city. They usually invite their nephews for a two weeks' visit. Farm life is crowded with excitement for the two boys. Shortly after sunrise they are already out in the barn, where they observe the fascinating process of milking. After breakfast, they generally go out to the hayfield. Occasionally, they help their pretty Cousin Anne when she searches the pasture thoroughly for blueberries. To Tom and Ned country life is so very attractive that at present they think they will become farmers.

TIME _______ Seconds

1. In what month do Tom and Ned go to visit their uncle and aunt?
2. How far is their uncle's farm from the city?
3. How long does their visit usually last?
4. Where do they go after breakfast?
5. With whom do they gather blueberries?

NUMBER RIGHT ______

---
3. Tom is almost ten years old. His brother's name is Ned. Tom is in the fourth grade. Ned is in the second grade. Both boys like to go to school. They are also fond of playing ball. When Mother and Father have time, they aid them with their studies.

4. Tom and Ned live near a large city park. They often visit it with their playmates. In the park are many shady maple trees. There is a pleasant picnic ground on the hill, and the valley below has a pretty little pond. The girls always enjoy watching the boys while they sail their tiny boats in the water. Mother and Father enjoy picnics in the park.

5. Tom and Ned live near a large city park. They often visit it with their playmates. In the park are many shady maple trees. There is a pleasant picnic ground on the hill, and the valley below has a pretty little pond. The girls always enjoy watching the boys while they sail their tiny boats in the water. Mother and Father enjoy picnics in the park.

6. Tom and Ned live near a large city park. They often visit it with their playmates. In the park are many shady maple trees. There is a pleasant picnic ground on the hill, and the valley below has a pretty little pond. The girls always enjoy watching the boys while they sail their tiny boats in the water. Mother and Father enjoy picnics in the park.

7. The average boy often likes to work with his hands. At school, besides studying regular classroom subjects, Tom and Ned are developing certain skills in woodwork. They are learning to use various carpenter's tools; they are taught to paint their products attractively. In order to encourage and foster this interest and skill, Father has built them a little workshop in the basement. There they spend hours of their leisure time tinkering. Tom has already constructed a picturesque birdhouse, and later he hopes to make his mother a bookcase. Although Ned is still too young to handle many tools, he has nevertheless learned to use a light hammer. Father is helping him build a little footstool. Their parents realize that hobbies are valuable throughout life.

8. For a great many months Father had promised Tom and Ned that they could accompany him on his next airplane trip. When the day eventually arrived, their excitement was boundless. As Mother drove them to the airport, they asked endless questions which were largely too technical for their parents to answer. While waiting at the field for their passenger plane to arrive, they watched with interest the activities of other aircraft. Their hearts quickened as they scrambled aboard the plane. A few moments later, when the heavy craft wobbled slightly, they realized that they were off the ground. Unfortunately, the huge wing obstructed the view of familiar landmarks below. They traveled in luxurious comfort; the airline's personnel were consistently courteous. The trip seemed incredibly short. Tom and Ned decided afterward that they would always travel by air. No thrill is comparable to that of your initial airplane trip.
9. Tom and Ned are living in a constantly changing world. The complex society which surrounds them is never static. All its phases — whether political, economic, scientific, or artistic — are ever shifting. Science, most powerful of all influences on contemporary life, is daily producing new machines, more rapid communications, and improved modes of transportation, which are making nations of the world more closely interdependent and are constantly creating new problems for mankind. As they become adults, the boys will face a world profoundly different from the present one. They are now preparing for citizenship in it; an important part of this preparation is a basic education. Knowledge of history, for example, should enable them to judge contemporary events in light of the past, while mathematics will help them develop logical thought habits. They will need some familiarity with different languages and cultures, for as world citizens they must be alert to the problems confronting their own country and also its neighbors. Equipped, in addition, with vocational training, Tom and Ned will make valid contributions not only to their immediate communities but also to society as a whole.

TIME—Seconds

—1. In what kind of world are Tom and Ned living?
—2. What is one of the most powerful influences on modern life?
—3. What knowledge will later help Tom and Ned judge the present?
—4. What subject will help them develop logical thought habits?
—5. What other kind of training must they have?

NUMBER RIGHT ———

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10. Building on an interest first stimulated in high school, Tom and Ned will strive throughout adulthood to serve as responsible participants in a world citizenry. To develop and sustain an awareness of the world’s multitudinous problems requires both training and unremitting effort on the part of every individual; it calls for use of all our educational facilities. Formal institutions of learning naturally lead in the task of laying the foundations of good citizenship; interest in world affairs is normally encouraged in secondary school through the department of social studies. The college curriculum provides opportunities for the extension and deepening of this interest by giving students a historical perspective; a broad view of the humanities; a knowledge of psychology; and especially, a sound understanding of political science. Such a program concerns itself both with the etiology of past world conflicts and with circumstances which have given rise to present ideologies. Once graduated from secondary school or college, the individual must not relinquish his interest in world affairs though he is necessarily preoccupied with earning a livelihood. Informal adult educational programs offer him opportunities by which he can remain cognizant of current issues. He may attend excellent forums and panel discussions devoted to clarification of differing viewpoints and to formulation of constructive programs aimed at promoting world peace; he may remain in close touch with daily news developments through such media as radio and television. But most important of all his educational opportunities is the selective reading program which he should follow concomitantly with all these other activities.

TIME—Seconds

—1. What type of institution lays the foundations of good citizenship?
—2. At what educational level is a student’s interest in world affairs usually first fostered?
—3. Name one college course that will further encourage an interest in world affairs.
—4. What kind of educational programs will be available to the student after graduation?
—5. What is the most important activity in which one can engage in order to keep abreast of current events?

NUMBER RIGHT ———
Profile Chart

Grade | Reading Analysis Tests | ADDITIONAL TESTS |
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Durrell-Sullivan Capacity | Achievement | Revised Stanford-Binet

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# Check List of Instructional Needs

## NON-READER OR PREPRIMER LEVEL

**Needs help in:**

1. Listening comprehension and speech
   - Understanding of material heard
   - Speech and spoken vocabulary
2. Visual perception of word elements
   - Visual memory of words
   - Identifying letters named
   - Matching letters
   - Copying letters
3. Auditory perception of word elements
   - Initial or final blends
   - Initial or final single sounds
   - Learning sounds taught
4. Phonic abilities
   - Solving words
   - Sounds of blends — phonograms
   - Sounds of individual letters
5. Learning rate
   - Remembering words taught
   - Use of context clues
6. Reading interest and effort
   - Attention and persistence
   - Self-directed work
7. Other

---

## PRIMARY GRADE READING LEVEL

**Needs help in:**

1. Listening comprehension and speech
   - Understanding of material heard
   - Speech and spoken vocabulary
2. Word analysis abilities
   - Visual memory of words
   - Auditory analysis of words
   - Solving words by sounding
   - Sounds of blends, phonograms
   - Use of context clues
   - Remembering new words taught
3. Oral reading abilities
   - Oral reading practice
   - Comprehension in oral reading
   - Phrasing (Eye-voice span)
   - Errors on easy words
   - Addition or omission of words
   - Repetition of words or phrases
   - Ignoring punctuation
   - Ignoring word errors
   - Attack on unfamiliar words
   - Expression in reading
   - Speech, voice, enunciation
   - Security in oral reading
4. Silent reading and recall
   - Level of silent reading
   - Comprehension in silent reading
   - Attention and persistence
   - Unaided oral recall
   - Recall on questions
   - Speed of silent reading
   - Phrasing (Eye movements)
   - Lip movements and whispering
   - Head movements Frowning
   - Imagery in silent reading
   - Position of book Posture
5. Reading interest and effort
   - Attention and persistence
   - Voluntary reading
   - Self-directed work Workbooks

---

## INTERMEDIATE GRADE READING LEVEL

**Needs help in:**

1. Listening comprehension and speech
   - Understanding of material heard
   - Speech and oral expression
2. Word analysis abilities and spelling
   - Visual analysis of words
   - Auditory analysis of words
   - Solving words by sounding syllables
   - Sounds of syllables, word parts
   - Meaning from context
   - Attack on unfamiliar words
   - Spelling ability
   - Accuracy of copy Speed of writing
   - Dictionary skills: Location, pronunciation, meaning
3. Oral reading abilities
   - Oral reading practice
   - Comprehension in oral reading
   - Phrasing (Eye-voice span)
   - Expression in reading
   - Speed of oral reading
   - Security in oral reading
   - Word and phrase meaning
4. Silent reading and recall
   - Level of silent reading
   - Comprehension in silent reading
   - Unaided oral recall
   - Unaided written recall
   - Recall on questions
   - Attention and persistence
   - Word and phrase meaning difficulties
   - Sentence complexity difficulties
   - Imagery in silent reading
5. Speeded reading abilities
   - Speed of reading (Eye movements)
   - Speed of work in content subjects
   - Skimming and locating information
6. Study abilities
   - Reading details, directions, arithmetic
   - Organization and subordination of ideas
   - Elaborative thinking in reading
   - Critical reading
   - Use of table of contents References
7. Reading interest and effort
   - Voluntary reading
   - Variety of reading
   - Self-directed work

---

[2]
# General History Data

## SCHOOL RECORD
- Age at school entrance
- First-grade absences
- Recent absences
- School report (or classroom visit)
- Onset of difficulty
- Schools attended
- Reading method used
- Poor discipline
- Discouraged

## MEDICAL RECORD
- Latest examination of eyes
- Clinic examination suggests:
  - Nearsightedness
  - Farsightedness
  - Astigmatism
  - Coordination difficulty
  - Source
  - Hearing
  - Auditory discrimination
  - Pertinent medical history

## PSYCHOLOGICAL FACTORS — HOME HISTORY
- Siblings — where in school?
- Handedness change
- Emotional reactions
- Special interests
- Tutoring possibilities
- Previous tutoring

## REMEDIAL PLANS
(Individual tutoring — small group work — remedial class)
1. Level of reading materials
2. Motivation type — interests
3. Word work
   - Word analysis — level, type
   - Immediate recognition
   - Phrase work
4. Oral reading plans
   - Mechanics
   - Comprehension
5. Silent reading plans
   - Mechanics
   - Comprehension
6. Study skills
   - Thoroughness
   - Flexibility
   - Association
Oral Reading

1. Time Errors Comprehension

<table>
<thead>
<tr>
<th>GRADE</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME</td>
<td>50</td>
<td>38</td>
</tr>
</tbody>
</table>

Muff is a little yellow kitten.
She drinks milk.
She sleeps on a chair.
She does not like to get wet.

--- 1. What color was the kitten?
--- 2. What does she drink?
--- 3. Where does she sleep?
--- 4. Why doesn't Muff like to go out on rainy days?

2. Time Errors Comprehension

<table>
<thead>
<tr>
<th>GRADE</th>
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<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME</td>
<td>90</td>
<td>75</td>
</tr>
</tbody>
</table>

A little black dog ran away from home. He played with two big dogs. They ran away from him. It began to rain. He went under a tree.
He wanted to go home, but he did not know the way. He saw a boy he knew. The boy took him home.

--- 1. Who ran away from home?
--- 2. How many other dogs did he play with?
--- 3. Why did the dog go under the tree?
--- 4. What did the dog want then?
--- 5. Whom did he see?
--- 6. How did he get home?

3. Time Errors Comprehension

<table>
<thead>
<tr>
<th>GRADE</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME</td>
<td>65</td>
<td>50</td>
</tr>
</tbody>
</table>

Six boys put up a tent by the side of the river. They took things to eat with them. When the sun went down, they went into the tent to sleep. In the night, a cow came and began to eat grass around the tent. The boys were afraid. They thought it was a bear.

--- 1. How many boys went camping?
--- 2. Where did they put up their tent?
--- 3. What did they take with them besides their tent?
--- 4. What did the boys do when the sun went down?
--- 5. What came around their tent in the night?
--- 6. What was the cow doing?
--- 7. What did the boys think the cow was?

INSTRUCTIONS. Make a record of time, errors, phrasing, and comprehension according to the directions in the Manual.

4. Time Errors Comprehension

<table>
<thead>
<tr>
<th>GRADE</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME</td>
<td>70</td>
<td>40</td>
</tr>
</tbody>
</table>

Henry goes to a large lake in summer. Last summer, a motorboat sank near his house. The boat had ten men in it. The man who was running the boat brought it very close to the shore when the water was low. He hit a big rock under water. It made a hole in the bottom of the boat. The water came in very fast. All of the men swam to shore.

--- 1. Where does Henry go in summer?
--- 2. What happened near his house?
--- 3. What kind of boat was it?
--- 4. What did the boat hit?
--- 5. How fast did the water come in?
--- 6. How many men were on the boat?
--- 7. What happened to the men on the boat?

5. Time Errors Comprehension

<table>
<thead>
<tr>
<th>GRADE</th>
<th>3</th>
<th>4</th>
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<tbody>
<tr>
<td>TIME</td>
<td>70</td>
<td>50</td>
<td>22</td>
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</tbody>
</table>

In 1807, Robert Fulton took the first long trip in a steamboat. He went one hundred and fifty miles up the Hudson River. The boat went five miles an hour. This was faster than a steamboat had ever gone before. Crowds gathered on both banks of the river to see this new kind of boat go by. The fishermen did not like the boat. They were afraid that its noise and splashing would drive away all the fish.

--- 1. What did Robert Fulton do in this story?
--- 2. What kind of boat was it?
--- 3. What river was the trip made on?
--- 4. How far did the boat go?
--- 5. How fast did it go?
--- 6. Who did not like the boat?
--- 7. What were the fishermen afraid would happen?
The richest diamond field in the world is in South Africa. Deep pits yield a hard substance called “blue ground” which contains the diamonds. The blue ground is spread over the drying fields for a year. The weather gradually crumbles it. Then it is taken up and run through washing machines which sort out the stones and the diamonds. The value of the diamonds is determined by color, size, and purity. Blue, yellow, orange, brown, and green diamonds have been discovered. The most valuable ones are pure white. The largest diamond ever found weighed almost two pounds.

1. In what country is the richest diamond field of the world?  
2. What is the substance containing the diamonds called?  
3. Why is the blue ground spread over the drying fields?  
4. What do the washing machines do?  
5. What are some of the colors of diamonds?  
6. Which diamonds are the most valuable?  
7. How heavy was the largest diamond ever found?

Golf originated in Holland as a game played on ice. The game in its present form first appeared in Scotland. It became unusually popular and kings found it so enjoyable that it was known as "the royal game." James IV, however, thought that people neglected their work to indulge in this fascinating sport so that it was forbidden in 1457. James relented when he found how attractive the game was, and it immediately regained its former popularity. Golf spread gradually to other countries, being introduced in America in 1890. It has grown in favor until there is hardly a town that does not boast of a private or public course.

1. Where did golf originate?  
2. How was it first played?  
3. Where did it first appear in its present form?  
4. Why was golf forbidden by James IV?  
5. Why did he change his mind?  
6. When was golf first introduced in America?  
7. What evidence have we of its popularity?
**Silent Reading**

**INSTRUCTIONS.** Make a record of time, errors, number of unaided memories, inaccurate memories, and prompted memories according to the directions in the Manual.

### PARAGRAPH 1
1. Time
   - GRADE: L M H
   - TIME: 45 35 27
   - MEMORIES: 4

Peter is ... 

- a big white rabbit.
- He has long ears.
- He has a little tail.
- He can jump and hop.

### PARAGRAPH 2
2. Time
   - GRADE: L M H
   - TIME: 81 60 53
   - MEMORIES: 7

A hen had ... 

- six little yellow chickens.
- One morning...
- she took them for a walk.
- They looked for...
- They found some seeds and sand.
- A dog came to play with them.
- The hen did not like the dog.
- She flew at the dog and made him run away.

### PARAGRAPH 3
3. Time
   - GRADE: L M H
   - TIME: 62 50 35
   - MEMORIES: 7

Three boys ...

- built a house.
- in the woods.
- They put a table.
- and two old chairs in it.
- There was a basket.
- full of apples.
- under the table.
- One afternoon...
- they went away.
- and left the door open.
- When they came back,
- they found two little pigs.
- eating the apples.

### PARAGRAPH 4
4. Time
   - GRADE: L M H
   - TIME: 45 35 30
   - MEMORIES: 12

A little girl ...

- got off the train
- all alone.
- There was nobody at the station...
- to meet her.
- She asked the man inside the station...
- where her mother was.
- He said that her mother could not get the car started.
- A man was trying to fix it.
- The little girl sat down to wait.
- A few minutes later a big car came around the corner with her mother in it.
- The little girl got in and they drove home.

### PARAGRAPH 5
5. Time
   - GRADE: L M H
   - TIME: 62 40 36
   - MEMORIES: 10

About one hundred and fifty years ago, in France, the first man went up in a balloon. His balloon was made of paper covered with strips of cloth to make it strong. A long rope kept it from going too high. Later this man took a friend up in the balloon with him. On this trip they rose over five hundred feet. The trip lasted thirty minutes. They came down several miles from where they started.

### Imagery Questions (Optional)

**PARAGRAPH 3**
1. Did you see in your mind the three boys who built the house in the woods? Tell me how they looked to you. Then ask: How old were they? How were they dressed? etc.
2. Did you see the house in your mind? Tell me about how it looked to you. Then ask: How big was it? Did it have any windows? How many? What kind of roof did it have? Could you draw a picture of how the house looked to you? etc.

**PARAGRAPH 4**
1. Did you see in your mind the little girl who got off the train? Tell me how she looked. (How dressed; various articles of clothing; color; hair; age; size; luggage; etc.)
2. Did you see any other people? Tell me how they look.
3. Did you see the station and the surroundings? Tell me what you saw.

**RESPONSE TO IMAGERY QUESTIONS**

- Rich flow of imagery
- Hesitant, indefinite
Early settlers in America found that Indians would sell skins and land for glass beads. Many men earned their living by making glass beads and bottles.

In 1827 a man invented a way to press molten glass into iron molds. The most famous glass works was in the town of Sandwich in Massachusetts. The Sandwich glass had a bright silvery appearance and it could be molded into very elaborate and attractive patterns. Beautiful lamps and candlesticks as well as all sorts of dishes were made from this glass. In many New England homes pieces of Sandwich glass are still found on display.

CHECK LIST OF DIFFICULTIES

Mechanics of Silent Reading

- Low rate of silent reading
- High rate at the expense of mastery
- Lip movements; constant — occasional
- Whispering; constant — occasional
- Lacks persistence in hard material
- Marked insecurity evident
- Poor attention necessitates rereading

Recall

- Unaided recall scanty
- Poorly organized recall
- Inaccurate memories and guesses
- Response labored and slow
- Avoids use of new words in recall
- Recalls details badly in questions
- Very scanty recall on hard material

Basketball is one of the more recent games. It was devised by a college instructor who desired a game to intersperse between the football and baseball seasons. The game demands precision of movement, concentration, and great endurance. It is more popular in those localities where it does not compete with hockey.

Opinion differs as to whether it is a satisfactory game for girls. It has been modified to make it less strenuous for them by restricting the playing area of each player. Some of the large Western universities have audiences of over twenty thousand at their conference games.

Eye Movements

Range of eye movements per line ——— to ———
Irregular pauses
Regressive movements

Comparison with Oral Reading (Underline)

Speed: higher — same — lower
Recall: better — same — poorer
Security: better — same — poorer

<table>
<thead>
<tr>
<th>Paragraph No.</th>
<th>Grade Level</th>
<th>COMPREHENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<tr>
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<td></td>
<td>Fair</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Poor</td>
</tr>
</tbody>
</table>

Median Grade: [7]
Listening Comprehension

INSTRUCTIONS. Make a record of the comprehension questions answered correctly according to the directions in the Manual.

Grade 1 Reading Level

The Cat and the Dog

1. What did the boy have?
2. What was he going to give her?
3. What happened when he called to her?
4. Where was the cat?
5. What was she doing?
6. What did the boy do then?
7. What happened next?

Grade 2 Reading Level

Dick's Birthday Present

1. What did Dick do when he woke up?
2. What day was it?
3. What did he find on his chair?
4. What did Dick hear?
5. What did Dick do then?
6. What was in the basket?
7. What happened?

Grade 3 Reading Level

The Accident

1. What was this story about?
2. What had the boy been doing?
3. What was he riding?
4. What came down the road?
5. Why didn't he see the car coming?
6. How fast was the car going?
7. What happened to the boy?
8. What happened to the bicycle?

Grade 4 Reading Level

Peter Cooper's Engine

1. What did Peter Cooper build?
2. What was it used for?
3. How far away was the town?
4. What was the engine hooked to?
5. How fast did it go?
6. How long did the trip take?
7. What surprised the people?

Grade 5 Reading Level

Uses of Kites

1. What was this story about?
2. What have kites been used for in war?
3. What did one general use kites for?
4. What was he going to build?
5. What do some people in China make?
6. What are these kites supposed to do?
7. What has the weather bureau used kites for?
8. How high has a string of kites gone?
9. How much can some kites lift?

Grade 6 Reading Level

History of Baseball

1. What is called the national sport?
2. What were some of its early names?
3. When was it first played in colleges?
4. What is said about its equipment?
5. What was responsible for its growth?
6. What happened to baseball after the Civil War?
7. What happened in the countries where the soldiers were stationed?
8. Who is said to welcome the baseball season?

Above Grade 6 Reading Level

General St. Clair's Defeat

1. What accounted for defeat in the first war waged by the United States?
2. How many men did General St. Clair have?
3. What were they going to do?
4. What did they neglect to do?
5. Where did the Indians attack?
6. What did General St. Clair do then?
7. How many men escaped uninjured?
8. How did President Washington feel about it?

Listening Comprehension Level Equal to Silent Reading Level of Grade ________

CHECK LIST OF DIFFICULTIES IN WORD RECOGNITION AND WORD ANALYSIS

Word Recognition Skills (Flashed Words)

- Low sight vocabulary
- Will not try difficult words
- Can spell but not pronounce
- Ignores word endings
- Guesses at word from general form

Word Analysis

- Word-analysis ability poor
- Will not try difficult words
- Has no method of word analysis
- Sounds aloud by: single letters — blends — syllables
- Unable to combine sounds into words
- Looks away from word after sounding
- Sounding slow or inaccurate
- Spells words: successful — inadequate
- Silent word study: successful — inadequate
- Enunciates badly when prompted
- Systematic errors (See tabulation)
- Names of letters not known
- Sounds of letters not known
- Blends not known

* Grade 1 — Lists A & B; Grades 2-6 — Lists 1 & 2.
**INSTRUCTIONS.** Make a record of correct responses and mispronunciations according to the directions in the Manual.

### Grade 1 Reading Level — List A

<table>
<thead>
<tr>
<th>Flash</th>
<th>Analysis</th>
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<tbody>
<tr>
<td>1. you</td>
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<tr>
<td>2. look</td>
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</tr>
<tr>
<td>3. little</td>
<td></td>
</tr>
<tr>
<td>4. me</td>
<td></td>
</tr>
<tr>
<td>5. day</td>
<td></td>
</tr>
<tr>
<td>6. tree</td>
<td></td>
</tr>
<tr>
<td>7. all</td>
<td></td>
</tr>
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<td>8. come</td>
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<td>9. away</td>
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<td>10. are</td>
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<td>11. run</td>
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<tr>
<td>12. father</td>
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<td>13. children</td>
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<td>14. morning</td>
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<td>15. sleep</td>
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<td>16. fish</td>
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<td>17. around</td>
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<tr>
<td>18. name</td>
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</tr>
<tr>
<td>19. chair</td>
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<tr>
<td>20. live</td>
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</tbody>
</table>

### Grade 1 Reading Level — List B

<table>
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<td>21. rain</td>
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<td>23. breakfast</td>
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</tr>
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<td>24. other</td>
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<td>25. hole</td>
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<td>26. cry</td>
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<tr>
<td>27. love</td>
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<td>28. sister</td>
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<td>29. lost</td>
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<td>30. joy</td>
<td></td>
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<tr>
<td>31. bark</td>
<td></td>
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<tr>
<td>32. blow</td>
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<td>33. please</td>
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<td>34. sand</td>
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<td>35. tall</td>
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<td>36. cover</td>
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<td>37. dark</td>
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<td>39. place</td>
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### Grades 2-6 Reading Level — List 1

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<td>1. road</td>
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<td>2. ground</td>
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<td>3. know</td>
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<tr>
<td>4. drink</td>
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<td>5. turkey</td>
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<td>6. elephant</td>
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<td>7. different</td>
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<td>8. inch</td>
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<td>9. strong</td>
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<td>10. stamp</td>
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<td>11. fair</td>
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<tr>
<td>12. quickly</td>
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<td>13. believe</td>
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<td>14. handle</td>
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<td>15. bridge</td>
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<td>16. speed</td>
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<td>18. cleaned</td>
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<td>21. guard</td>
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<td>23. crawl</td>
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<td>24. tongue</td>
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<td>25. single</td>
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### Grades 2-6 Reading Level — List 2

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<tr>
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<tbody>
<tr>
<td>26. drawn</td>
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<td>27. chapter</td>
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<td>28. broadcast</td>
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<td>29. invent</td>
<td></td>
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<tr>
<td>30. photograph</td>
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<td>31. blunt</td>
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<td>32. imagine</td>
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<td>33. disturb</td>
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<td>34. carpenter</td>
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<td>35. provide</td>
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<td>36. battery</td>
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<td>37. ceiling</td>
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<td>40. freight</td>
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<td>41. championship</td>
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<td>42. crowned</td>
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<td>43. advertisement</td>
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<td>44. prairie</td>
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<td>45. blundering</td>
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<td>46. shingle</td>
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<td>47. wrenches</td>
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<tr>
<td>48. circumstances</td>
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</tr>
<tr>
<td>49. triumphant</td>
<td></td>
</tr>
<tr>
<td>50. thorough</td>
<td></td>
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</tbody>
</table>

**INSTRUCTIONS.** Make a record of errors according to the directions in the Manual.

### Letters Named — Identified by Name — Matched

| 1. D F J H | t m s c |
| 2. S W G O | f j w d |
| 3. M L B T | p n l k |
| 4. C A K V | r h g x |
| 5. N Y E R | u e o i |
| 6. I U P X | a y b v |
| 7. Q Z A C | z q o p |

**Errors in**

1. Naming Letters
   - CAPITAL
   - SMALL
2. Identifying Letters Named
   - CAPITAL
   - SMALL
3. Matching Letters
   - CAPITAL
   - SMALL
4. Writing Letters
   - CAPITAL
   - SMALL

---

**Visual Memory of Words — Primary**

**INSTRUCTIONS.** Ask the child to draw circles around certain letters and words according to the directions in the Manual.

| 1. y b d g f |
| 2. m h n r t |
| 3. no on imp in nip |
| 4. saw war as was waste |
| 5. girl dog boy dig day |
| 6. won no now mow was |
| 7. lack clock black block dark |
| 8. frost first fast firm trust |
| 9. slat last lost lot blast |
| 10. jump jest just jot must |
| 11. clear clean close climb lean |
| 12. par park trap party quart dark part |
| 13. quiet quick quack point quite question quit |
| 14. state elation tasted station stationed started skating |
| 15. nomination notion mention mountain mountains motion mentioned |
| 16. quarter portion bracelet particle practice practical poultice |
| 17. obscure advice above advise advances dance advance |
| 18. sure obscure scare secure second server cure |
| 19. contact contain contract contracts contacts capital convict |
| 20. immediate meditates mediate mistake meditate material meditative |

**Score**

**Grade**

**Norms for Visual Memory of Words — Primary**

<table>
<thead>
<tr>
<th>Score</th>
<th>Grade</th>
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<tr>
<td>15</td>
<td>2.5</td>
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<tr>
<td>18</td>
<td>3.5</td>
</tr>
</tbody>
</table>
### Hearing Sounds in Words — Primary

**INSTRUCTIONS.** Ask the child to draw circles around certain words according to the directions in the Manual.

<table>
<thead>
<tr>
<th>A. padlock</th>
<th>vegetable</th>
<th>bacon</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. tranquil</td>
<td>familiar</td>
<td>vagabond</td>
</tr>
<tr>
<td>2. matter</td>
<td>rapidity</td>
<td>separated</td>
</tr>
<tr>
<td>3. geyser</td>
<td>capitulate</td>
<td>petal</td>
</tr>
<tr>
<td>4. deck</td>
<td>temperature</td>
<td>highway</td>
</tr>
<tr>
<td>5. wisdom</td>
<td>yacht</td>
<td>volcano</td>
</tr>
<tr>
<td>6. gasoline</td>
<td>yacht</td>
<td>lariat</td>
</tr>
<tr>
<td>7. fault</td>
<td>vein</td>
<td>weight</td>
</tr>
<tr>
<td>8. thorough</td>
<td>favor</td>
<td>tattered</td>
</tr>
<tr>
<td>9. broadcast</td>
<td>blizzard</td>
<td>domestic</td>
</tr>
<tr>
<td>10. choice</td>
<td>confer</td>
<td>classic</td>
</tr>
<tr>
<td>11. thistles</td>
<td>whirled</td>
<td>wisdom</td>
</tr>
<tr>
<td>12. senator</td>
<td>department</td>
<td>stimulant</td>
</tr>
<tr>
<td>13. specimen</td>
<td>caravan</td>
<td>suffer</td>
</tr>
<tr>
<td>14. roster</td>
<td>diamond</td>
<td>drydock</td>
</tr>
<tr>
<td>15. document</td>
<td>poster</td>
<td>plentiful</td>
</tr>
<tr>
<td>B. forehead</td>
<td>crimson</td>
<td>different</td>
</tr>
<tr>
<td>16. crowd</td>
<td>grasp</td>
<td>job</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C. figure</th>
<th>fault</th>
<th>helmet</th>
</tr>
</thead>
<tbody>
<tr>
<td>17. flutter</td>
<td>blood</td>
<td>tug</td>
</tr>
<tr>
<td>18. loss</td>
<td>bantam</td>
<td>lynx</td>
</tr>
<tr>
<td>19. locust</td>
<td>hearty</td>
<td>grief</td>
</tr>
<tr>
<td>20. piccolo</td>
<td>fantastic</td>
<td>benefit</td>
</tr>
<tr>
<td>21. water</td>
<td>workbench</td>
<td>lurch</td>
</tr>
<tr>
<td>22. frontier</td>
<td>frozen</td>
<td>tradition</td>
</tr>
<tr>
<td>23. davenport</td>
<td>disease</td>
<td>protect</td>
</tr>
<tr>
<td>24. claimed</td>
<td>glistened</td>
<td>glee</td>
</tr>
<tr>
<td>25. bullet</td>
<td>farewell</td>
<td>bushel</td>
</tr>
<tr>
<td>26. helium</td>
<td>happiness</td>
<td>loomed</td>
</tr>
<tr>
<td>27. rusty</td>
<td>radish</td>
<td>foolish</td>
</tr>
<tr>
<td>28. noodles</td>
<td>margin</td>
<td>measles</td>
</tr>
<tr>
<td>29. dreamed</td>
<td>transfer</td>
<td>trampled</td>
</tr>
</tbody>
</table>

**SCORE** ____  **GRADE** ____

### Norms for Hearing Sounds in Words — Primary

<table>
<thead>
<tr>
<th>SCORE</th>
<th>17</th>
<th>22</th>
<th>28</th>
</tr>
</thead>
<tbody>
<tr>
<td>GRADE</td>
<td>1.5</td>
<td>2.5</td>
<td>3.5</td>
</tr>
</tbody>
</table>

### Learning to Hear Sounds in Words

**m**  **s**  **f**

**t**  **b**  **ch**

**l**  **p**  **r**

**LEARNs SOUNDS**

- Easily
- Slowly
- None

**NEEds Help On**

- Initial Sounds
- Final Sounds

**Learning Rate**

Number of Words Learned _____

### Sounds of Letters

**INSTRUCTIONS.** Ask the child to give the sounds of the letters (small) in the list on the opposite page. Point to each letter in turn and say: "What does this say?"

Errors in Sounds _______

Ask the child to give the sounds of the phonograms below. Point to each phonogram in turn and say: "What does this say?"

**st**  **ch**  **th**  **wh**  **sh**  **dr**  **tr**  **cl**  **fr**  **sm**  **pl**  **tw**  **fl**  **sk**  **sw**  **gr**

Errors in Sounds _______
INSTRUCTIONS. For these tests ask the child to write certain words according to the directions in the Manual.

**Visual Memory of Words, Spelling, and Handwriting**

**Visual Memory of Words — Intermediate**

1. ____________________________
2. ____________________________
3. ____________________________
4. ____________________________
5. ____________________________
6. ____________________________
7. ____________________________
8. ____________________________
9. ____________________________
10. ____________________________
11. ____________________________
12. ____________________________
13. ____________________________
14. ____________________________
15. ____________________________

**Phonic Spelling of Words**

1. ____________________________
2. ____________________________
3. ____________________________
4. ____________________________
5. ____________________________
6. ____________________________
7. ____________________________
8. ____________________________
9. ____________________________
10. ____________________________
11. ____________________________
12. ____________________________
13. ____________________________
14. ____________________________
15. ____________________________

**Spelling Test**

1. ____________________________
2. ____________________________
3. ____________________________
4. ____________________________
5. ____________________________
6. ____________________________
7. ____________________________
8. ____________________________
9. ____________________________
10. ____________________________
11. ____________________________
12. ____________________________
13. ____________________________
14. ____________________________
15. ____________________________
16. ____________________________
17. ____________________________
18. ____________________________
19. ____________________________
20. ____________________________

**Score** ________ **Grade** ________

**Norms for Visual Memory and Phonic Spelling of Words**

<table>
<thead>
<tr>
<th>Grade</th>
<th>Visual Memory</th>
<th>Phonic Spelling</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>5</td>
<td>7</td>
<td>9</td>
</tr>
<tr>
<td>6</td>
<td>9</td>
<td>11</td>
</tr>
</tbody>
</table>

**Check List of Difficulties**

**Visual Memory**
- Omits letters; syllables
- Adds letters; syllables
- Marked insecurity

**Phonic Spelling**
- Omits sounds; syllables
- Adds sounds; syllables
- Incorrect sounds used
- Marked insecurity

**Check List of Difficulties in Spelling**
- Omits sounds; syllables
- Adds sounds; syllables
- Incorrect sounds
- Slow handwriting

**Norms for Spelling Test**

<table>
<thead>
<tr>
<th>Grade</th>
<th>List 1</th>
<th>List 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>8</td>
<td>—</td>
</tr>
<tr>
<td>3</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>4</td>
<td>16</td>
<td>9</td>
</tr>
<tr>
<td>5</td>
<td>—</td>
<td>12</td>
</tr>
<tr>
<td>6</td>
<td>—</td>
<td>15</td>
</tr>
</tbody>
</table>

**Score** ________ **Grade** ________

**Norms for Handwriting**

<table>
<thead>
<tr>
<th>Grade</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Letters Per Minute</td>
<td>25</td>
<td>35</td>
<td>45</td>
<td>55</td>
<td>65</td>
</tr>
</tbody>
</table>

**Check List of Difficulties in Handwriting**
- Speed too slow
- Poor letter formation
- Poor position: hand, pencil, paper, body
- Irregular: height, spacing, slant

**Hand Used** __________ **Right** __________ **Left**
How well can you hear?

swi      bab      ha

chi      clo      ri

pon      wi      twent

blo      we      do
A Baseball Field

1. Where does the catcher stand?
   next to third base
   at first base
   behind home base

2. Where does the player stand, who is ready to bat the ball?
   at first base
   at home base
   at second base

3. After a player hits the ball, where does he run?
   to first base
   into the field
   to the shortstop

4. Where does a player on first base run next?
   to the catcher
   to second base
   to first base

5. Where does he go from second base?
   to a fielder
   to third base
   to first base

6. To make a run, where is the last place a player must be?
   at home base
   at second base
   near the bandstand

Purpose: Comprehension—locating information from a diagram.

Directions: Study the picture of the baseball field. Notice the arrows showing how a player runs from the time he hits the ball until he scores a run. Then read each question below the picture and draw a line under the one answer to each question.

Use: With pages 186-194, Over a City Bridge. New Words: third, second, bandstand.
1. When the first vowel in a word of more than one syllable is followed by just one consonant, the first syllable often ends with that vowel. In many of these words, such as *report* and *lady*, the first vowel is long.

2. When the first vowel in a word of more than one syllable is followed by two consonants usually the first syllable ends with the first consonant. This first vowel is usually short as in *candy* and *dripping*.

In each word below draw a line between the first and second syllables of the word. Put the right number on the line. Put a 1 if you followed rule 1. Put a 2 if you followed rule 2. Notice whether the first vowel is long or short.

The first two are done for you.

<table>
<thead>
<tr>
<th>2</th>
<th>compete</th>
<th>humming</th>
<th>extra</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>tidy</td>
<td>mirror</td>
<td>bicycle</td>
</tr>
<tr>
<td></td>
<td>jumbo</td>
<td>notion</td>
<td>invite</td>
</tr>
<tr>
<td></td>
<td>success</td>
<td>circus</td>
<td>signal</td>
</tr>
<tr>
<td></td>
<td>fifty</td>
<td>scamper</td>
<td>Betsy</td>
</tr>
<tr>
<td></td>
<td>comma</td>
<td>confuse</td>
<td>protect</td>
</tr>
<tr>
<td></td>
<td>prepare</td>
<td>crazy</td>
<td>escape</td>
</tr>
<tr>
<td></td>
<td>timber</td>
<td>open</td>
<td>garden</td>
</tr>
<tr>
<td></td>
<td>notice</td>
<td>matter</td>
<td>messenger</td>
</tr>
<tr>
<td></td>
<td>stolen</td>
<td>army</td>
<td>curious</td>
</tr>
</tbody>
</table>
Ending Sounds You Should Know

Draw a line under the correct answer to each question.

Listen to hear the sound of ch or of tch as you
the words inch, hatch, reach, and much
yourself softly.

Take n from pin. Put in tch to make pitch.
In the picture who is ready to pitch the ball?
the boy the lady the girl
In what are the lady and the little girl
lying?
beach a couch a bench

Tear the sound sh at the end of each of these
words: cash, push, dish, and fresh.

Take ck from crack. Put in sh to make
cash.
What has crashed to the floor in this
picture?
basket a brush a jar of jam
Who will wash the jam from the floor?
the kitten Mother the girl

Tear the sound of st at the end of each of
these words: last, trust, best, and roost.

Take t from coat. Put in st to make coast.
Take t from waist. Put in st to make waist.
In this picture what are the boys doing?
coasting coasting making toast
What part of the big boy’s body are the little
boy’s arms around?

his chest his fist his waist

Tear the sound of th at the end of
words cloth, teeth, and with.

Add th to the word nor to make
north.

Take nd from sound. Put in th to
make the word south.

What are north, south, east, and
west the names of?
flowers cars directions
WORD ENDINGS: s, ed, ing

1. look 5. help 9. play 13. want
2. looks 6. helps 10. plays 14. wants
3. looked 7. helped 11. played 15. wanted
4. looking 8. helping 12. playing 16. wanting

1. My dog _____ the ball.

2. Baby is _____ with a ball.

3. Jack is _____ Father in the garden.

4. Janet _____ for the mailman every day.

5. Father and I _____ to go fishing this morning but we could not go.

6. Jane _____ her mother make a cake today.

7. We all _____ to go to the circus now.

8. Mary likes to _____ with her new friend every day.

9. Mother _____ Father in the yard today.

10. I will _____ in the yard with my dog.
<table>
<thead>
<tr>
<th>WHAT IS IT?</th>
</tr>
</thead>
<tbody>
<tr>
<td>![Picture 1]</td>
</tr>
<tr>
<td>1. It is something to eat.</td>
</tr>
<tr>
<td>![Picture 2]</td>
</tr>
<tr>
<td>2. Boys and girls like it.</td>
</tr>
<tr>
<td>![Picture 3]</td>
</tr>
<tr>
<td>3. Mother works with it.</td>
</tr>
<tr>
<td>![Picture 4]</td>
</tr>
<tr>
<td>4. Jane said, &quot;I like to play it.&quot;</td>
</tr>
<tr>
<td>![Picture 5]</td>
</tr>
<tr>
<td>5. It can run fast.</td>
</tr>
<tr>
<td>![Picture 6]</td>
</tr>
<tr>
<td>6. It can run up and down.</td>
</tr>
<tr>
<td>![Picture 7]</td>
</tr>
<tr>
<td>7. Bob put it on.</td>
</tr>
<tr>
<td>![Picture 8]</td>
</tr>
<tr>
<td>8. He comes to my house.</td>
</tr>
</tbody>
</table>
Little Jack Pumpkin Face

Little Jack Pumpkin Face
Lived on a vine,
Little Jack Pumpkin Face
Thought it was fine.
First he was small and green,
Then big and yellow,
Little Jack Pumpkin Face
Is a fine fellow.

—Country Song

Word Meanings

Classifying. Read each sentence below about Little Jack Pumpkin Face. Draw lines under the sentences which agree with the poem.

1. He lived on a vine. 5. He became big and green.
2. At first he was small. 6. He became big and yellow.
3. At first he was red. 7. He seemed to be happy.
4. He rolled down the hill. 8. He was a fine fellow.

Phonics and Ear Training

Consonants. Read each sentence below. Draw a line from the sentence to the word on the right that it makes you think about. Say the words and listen for the sound of f.

1. You eat with it.
2. The farmer lives on it.
3. It lives in water.
4. It is very hot.
5. It is a number.
6. It is red, white, and blue.

fish
fork
farm
flag
five
fire

Rhyming and Phonetic Elements. Say the words in each line. Write a word which begins with f and rhymes with these words.

1. well          bell          sell          tell
2. man          pan           can           ran
3. ball         call          tall          wall
4. cat          sat           pat           rat
Short Sounds

with Swing twins All the words have the short sound of __________.
But Just Plum All the words have the short sound of __________.
sad had man All the words have the short sound of __________.
got shop top All the words have the short sound of __________.
them pet get All the words have the short sound of __________.

Now put one of the words on each line. It must be the right word, and have the short sound of the letter at the right.

Go-go lived __________ seven i her monkeys in a park cage.

He __________ learned to like a bananas.

Each day a __________ came a feed the monkeys.

He took care of __________ and e ve them fruit to eat.

__________ the man never gave u bananas to the monkeys.

"How can I __________ a banana?" e

Go-go asked himself.

__________ then the Polaski twins came up to the cage.

"__________ over here, Go-go," i they said to him.

One of the __________ was i holding a big yellow banana.

Go-go __________ the fruit that o he wanted that morning.

Purpose: Phonic—short sounds of a, e, i, o, u.
Directions: Use the key words to review the short sounds of the vowels. Then say the three words in each row and write the letter that completes the sentence after the row. Use the same words to fill in the spaces in the sentences below. The word you write must have the short sound of the vowel letter given at the end of the line.

Used: With pages 94-99, Over a City Bridge. New Words: swing, plum, bananas, fruit, himself.
Pal Goes to Washington

Pal has gone away. He has gone to Washington, D. C. His mother and father went with him. They went in their automobile.

I wanted to go with them. But Pal said, "No, no, Wig Wags! You must stay at home." One of Pal’s friends is taking care of me. He is very kind, but oh, how I miss Pal! I look for him all the time. I look and look. I sniff and sniff. I do not care to eat any food.

Pal told me he wanted to see many things in Washington, D. C. He wants to see our President. He wants to go to the top of the Washington Monument. He wants to go to the Lincoln Memorial. He wants to go to Mount Vernon to see George Washington’s old home.

(A) Things To Do
Write the correct word in each blank.
1. Pal called ____________________________
2. Wig Wags ___________ to go with Pal.
3. Pal said, “No, you must _______ here.”
4. Wig Wags ___________ for Pal.
5. Wig Wags does not ___________ to eat.
6. Pal ___________ Wig Wags he wanted to see many things.
7. Pal wants to see our ___________
8. Pal wants to go to the ___________
   Memorial.

(B) Think About These
Draw a ring around the correct word.
1. Pal’s friend is
   wise, careful, good.
2. Pal wants to go
   up high, down low, inside.

(C) Words To Know
On each line write two words that end like the first word.
1. away______________________________
2. care______________________________
3. eat_______________________________
4. take______________________________
5. told______________________________
6. went_____________________________
7. see_______________________________
8. top_______________________________
9. kind_____________________________

(D) Main Ideas
Check the two sentences which tell the main ideas in the story.
1. Pal wants to see Washington.
2. Wig Wags cannot go away with Pal.
3. Wig Wags is very brave.

Perfect score is 21. My Score__________
Ride, COWBOY, Ride!

Key Words: cowboy, rodeo, rider, Black Star,
          five seconds, prize, yelling

"Here they come!"
Everyone at the rodeo stands up.
Everyone has come to see this horse and
this cowboy.
The cowboy is Big Bill Lee. He is a good
FINISH THE SENTENCE
Draw a line under the word that makes each of these sentences right.

1. Everyone at the rodeo
   yells.
   rides.
2. When the time is up,
   the horse wins.
   the horn blows.
3. The prize is
   money.
   a beautiful horse.
4. The best rider must stay on the horse
   for ten seconds.
   for ten minutes.

Best Score: 4
All Best Scores: 10

My Score: .......
All My Scores: .......

THINK THIS OVER
In a rodeo, why are the horses so hard to ride?
The Magic Eye

Key Words: Highway Department, zip, electric eye, beam of light, fantastic, record, signal, posted

1. "That's two," Mr. Gray said to himself. He made two lines in his notebook.
2. On this bright spring
III. WHICH MEANING FITS THE STORY?

The three meanings given for each word below are right. But only one meaning fits the word as it is used in the story. Put a check (√) before the right meaning.

1. **zip** (paragraph 3)  
   √ move with speed  
   √ full of life  
   ✗ fasten

2. **beam** (par. 8)  
   √ bright smile  
   ✗ ray of light  
   ✗ long piece of wood

3. **post** (par. 8)  
   √ pole placed in the ground  
   √ mail letters  
   ✗ name of a newspaper

4. **record** (par. 12)  
   √ make note of  
   ✗ fastest time in a race  
   ✗ something used on a machine to play back sounds

5. **signal** (par. 18)  
   √ flag  
   √ school bell  
   ✗ something that gives warning or notice

6. **marches** (par. 28)  
   √ moves along  
   ✗ music that helps soldiers keep step  
   ✗ long hard walks by soldiers

Best Score: 6  
My Score: .......

All Best Scores: 20  
All My Scores: .......

Reader's Digest Skill Builders, Book 3 part 1
First and Last Sounds

sh —

— sh

ch —

_ _ _ _

short  __________ 

push  __________

shout __________

Everyone began to _____, "Win, Red Oaks! Win! Win! Win!"

chair __________

much __________

each __________

Jack tied the puppy to a ______ in the back yard.

st —

— st

th —

— th

stood __________

steps __________

frost __________

"It is so hot that I'll be glad when _____ comes," said Mary.

Smith __________

third __________

thump __________

It was noon before the _____ bus from Mount Jolly got to the ball park.

Purpose: Phonics—first and last sounds and letters.
Directions: Study the key pictures at the upper left to help you hear the sound of sh both at the beginning and at the end of the words. Then say each word and write First if the sound is heard first. Write Last if the sound is heard last. Then underline the one word that belongs in the sentence. Do the rest of the page in the same way.

Use: With pages 188-184, Over a City Bridge. New Words: shout, win, tied, noon.