Diagnosis, as applied to reading, is defined as a systematic and rational explanation of an individual's inability to make anticipated progress in learning to read. And, it is noted that diagnosis can be made at four levels: (1) identification of difficulty, (2) classification of disability, (3) determination of specific reading needs, and (4) detection of causal factors underlying the individual's disability. Application of diagnosis to the classroom is shown through the use of school history, objective data, informal inventories, and observation of individuals requiring remediation. An explanation is given of the nature of disability cause and of the techniques of diagnosis. Diagnostic techniques are applied to a group of second-grade children, and means of identifying their reading needs are shown. Application of procedures in the individual diagnosis of a second-grade child with a reading disability is also explained. (WB)
The Teacher's Diagnosis of the Disabled Reader

Session: The Disabled Reader in the Classroom
Friday, May 2, 1969, 10:45-11:45 a.m.

Remediation of the disabled reader in both classroom and clinic requires careful diagnosis. This paper defines diagnosis and shows its application in the classroom. It explains the nature of cause and the techniques of diagnosis. It illustrates the use of school history, objective data, informal inventories, and observation of individuals requiring remediation. It applies
diagnostic techniques to a group of children and shows means of identifying their reading needs. It illustrates application of procedures in the diagnosis of a second grade child with a reading disability and sets forth the specific acts of diagnosis.

**Definition of Diagnosis**

Diagnosis, as applied to reading, is a systematic and rational explanation of an individual's inability to make anticipated progress in learning to read. Diagnosis can be made at four levels such as identification of difficulty, classification of disability, determination of specific reading needs, and detection of the various causal factors underlying the individual's disability. The writer has described in detail these levels in a paper presented at a meeting of the International Reading Association in Boston in 1968. At all levels diagnosis is an interpretation of an individual's performance in reading and not merely an evaluation. This interpretation is manifest in identification of an
individual with reading maladjustment, classification
of his disability, determination of his reading needs,
and in the detection of the causal factors affecting
his performance.

Diagnosis at the fourth level is primarily
concerned with cause-effect relationships as related
to reading disability. The diagnostician tries to
identify causal factors which are relevant, material,
and consequential in the remediation of the reading
maladjustment. Causes may be primary, constitutional,
exciting, predisposing, and secondary in nature.
A primary cause is the principle or original cause
of reading disability. It is consequential and
leads directly to the effect. A constitutional
cause is within the body and is not local. An
exciting cause leads directly to maladjustment and
is consequential in nature. A single factor or
group of factors which renders a person liable to
maladjustment without actually producing it is a
predisposing cause. A secondary causal factor is
one which, along with others, helps to bring on
maladjustment. It is contributory in nature.
Means of Studying Child

Teachers in the classroom and clinicians in the laboratory have available four sources of information in studying the child with a reading disability. These approaches make it possible to determine not only the individual's reading needs but why they may have developed.

The student's academic history, for example, can show grade placement, years and frequency of attendance, performance in various subjects, areas of interest, cooperation of parents, and goals set up by parents for the child to achieve. Anecdotal records and comments by teachers can provide "hunches" which can be useful in understanding the child and his instructional and personal needs. Not all facts, however, will be found relevant and material in nature.

Carefully selected tests are of value in determining the reading needs of children and are also helpful in appraising their expectancy levels of attainment. The teacher, however, should understand that group scores are more valid and significant
than a single score of an individual. Furthermore, test data should be interpreted in terms of all the known facts concerning the child and as only one aspect of his performance in his environment. No single test of reading can be regarded as a comprehensive and adequate measure of his reading achievement. Test scores, however, are of value in determining fairly well the reading level of the student and the range of achievement within the group.

Informal reading inventories which provide an appraisal of the student's independent, instructional, frustration, and capacity levels furnish an excellent opportunity for the teacher to observe the child as he reads. Furthermore, they furnish qualitative information of marked value in the diagnosis of the disabled reader. They can provide information concerning specific reading skills such as word recognition, location of data, identification and interpretation of main ideas and supporting detail, and the ability to answer why and how questions. Informal inventories, for example, can be designed,
for both silent and oral reading situations, to investigate the child's ability to read for a purpose, to identify main ideas, to draw inferences, to locate and define key words, and to follow directions. The child's attitude toward reading can be appraised, and manifestations of visual defects may become apparent. In using informal inventories the teacher is chiefly concerned in securing "hunches" which, when verified by other data, can be useful in diagnosis.

Observation is an excellent means of studying the child for every act of the individual is a projection of the inner self. In observing the individual the teacher is primarily concerned in securing "hunches" related to his reading needs and to the underlying causal factors affecting his achievement. It is necessary for her to differentiate between facts and inferences. Furthermore, she must identify that which is only relevant, that which is material or essential to the diagnosis, and that which is consequential and leads directly to the effect. In other words, she
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must understand that not all facts observed are of equal significance. She must focus her attention upon the child in both a free ranging and analytical attempt to discover causes contributing to his behavior.

Determining the Reading Needs of Thirty Second Grade Children

Miss Rose, a second grade teacher in a midwestern town, has in her class thirty pupils whose achievement in reading ranges from that of two boys who are nonreaders to that of a little girl reading at fifth grade level. Miss Rose has observed and studied her students continuously for a six weeks period as she has made use of three basal readers and an informal approach to the teaching of reading. She has not been content in "just teaching" but has attempted to identify the reading needs of her pupils. She has been concerned with diagnosis at all levels.

After studying school records and administering a survey test in reading, she found it advisable to
conduct informal reading inventories with eight children in her class. Observations were made daily, and anecdotal records were recorded for those children of immediate concern to her. Miss Rose listed the reading needs of her pupils as follows.

* Sight reading
* Word attack skills
* Reading for main ideas
* Development of concepts
* Reading silently to answer questions
* Asking questions and reading to find answers
* Following printed or written directions to color, draw, or play a game
* Identification of details
* Reading to others for their satisfaction
* Development of background for stories and activities
* Development of interest in books
* Development of self concept of five boys and one girl.

Miss Rose was not only acquainted with the group needs of her boys and girls but she was aware of their individual needs as well. These objectives for each child were listed briefly on 3" x 5" cards and systematically filed. She believed that these goals were essential in the planning of instructional procedures and remediation.

Stephen, a nine-year-old boy in her class who disliked reading and who was becoming a behavior problem was referred to a team for clinical study. This group of specialists is made up of individuals with backgrounds in psychology, sociology, as well as education. A teacher referring a child for study becomes a temporary member of the team.

An Individual Diagnosis

Stephen who is well liked by his associates has been retained in the kindergarten and has spent
two years in the first grade. He is reading at first grade level and is not interested in books unless they contain stories of animals and of the out-of-doors. His parents point out that Wendy, his sister younger by two years, reads much better than Stephen. The school principal adds that Stephen is "rapidly becoming a disciplinary problem" and that "he is showing evidence of social maladjustment." The problem, briefly stated, is, why is Stephen a disabled reader?

**Home Background**

Stephen's parents are high school graduates with business training who are interested in the academic success of their two children, Stephen and Wendy. Both parents report that they have little time for reading. They add, however, that many books and magazines have been provided for their children. Both father and mother have repeatedly pointed out that Wendy who is only seven is a much better student than her brother Stephen. In attempting to improve Stephen's performance in reading they have conducted
'reading sessions' in which oral reading is emphasized. Wendy is cited as an example of attainment in all of the language arts. It is reported that the children attend church school but fail to understand why they are required to do so. The parents are interested in sports, especially bowling, and live in a large home in an upper middleclass neighborhood. Home life is reported to be happy.

**Developmental History**

According to the mother's "baby book" Stephen weighed six pounds ten ounces at birth and was very "eager for food." Developmental history is normal in all respects. Stephen, a happy and well developed child, was able to sit alone at seven months and was walking at twelve months. It is reported that he is well coordinated in his movements and that he is right handed and right eyed. There is a history of reversals.
School History

Stephen, a four-year-old white male, exhibits behavior that of a child approximately ten years in the second grade. The school history indicates that Stephen has had formal instruction in reading for three years. One basal text and "work in phonics" have been utilized. Attendance has been regular. He accepts his teachers but is not interested in the activities of the classroom. It is reported that he likes stories by Dr. Seuss and books about animals. It is said that he writes interesting sentences and does excellent work in arithmetic. In an interview, Stephen said that he "likes a good fight."

Medical History

The examining physician reports physical growth, nutrition, and development to be normal in all respects. No abnormalities of function, glands, nervous system, gait, posture, or speech were observed. It was recommended that Stephen be referred to the Psycho-Educational Clinic for study.
Summary of Clinical Findings

The Wechsler Intelligence Scale for Children furnishes verbal, performance, and full scale IQs as follows: 87, 103, and 94, respectively. Stephen's performance on each of the subtests was well within the average range. Memory was reported as excellent. He reversed several pieces of the manikin and auto while completing the object assembly subtest. In the opinion of the psychologist, Stephen appeared to lack confidence in himself and to be dependent upon the examiner for assistance and direction.

Six correct responses were made on the Detroit Word Recognition Test, and this is equivalent to the performance of a child three months in the first grade (1.3). The Morrison-McCall Spelling Scale provides a grade score of 1.7. A measure of arithmetic computation indicates that Stephen performs as well as a child four months in the third grade (3.4). The Healy Pictorial suggests superior ability to identify, interpret, and evaluate concepts expressed in picture form. His percentile was 92. An informal reading inventory
provided only instructional, frustration, and
capacity levels. His instructional, frustration,
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evaluations of achievement in reading were not as
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could be drawn from his performance. It may be
inferred from the inventory that Stephen made good
use of contextual clues, that ineffective use was
made of phonics, that sight reading was inadequate,
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Stephen was stimulated by this activity, and it may
be inferred that when adequately motivated his
responses to the learning of symbols was unusually
successful. Visual survey tests were negative in
all respects.
Acts in Preparation of Diagnosis

After the problem had been identified, the following hypotheses have been tentatively assumed.

1. Reversal tendencies may be a factor.

2. Sibling rivalry can be significant.

3. Mental set against reading may be a cause.

4. Premature instruction can be a causal factor.

5. Inadequate choice of teaching method may be significant.

6. An inadequate self concept should be considered.

Each of these hypotheses has been evaluated in terms of the total situation so as to determine whether or not each is relevant, material, or
consequential. Hypothesis 1, reversal tendencies, was assumed to be only relevant. Hypothesis 2, sibling rivalry, was judged to be contributory in nature. Hypothesis 3, mental set against reading, and hypothesis 4, premature instruction, have been accepted, and hypothesis 3 has been assumed to be material and essential to the diagnosis. Hypothesis 6, inadequate self concept, was rejected as irrelevant. It was the consensus that hypothesis 4, premature instruction, was consequential when it was discovered that formal instruction in reading had been provided during his second year in kindergarten and later continued in the first grade. Stephen's lack of readiness and the use of one basal text for two consecutive years developed a marked dislike for reading. As a result of this discovery and explanation it was assumed that premature instruction in reading was the consequential factor leading directly to the effect. It was then predicted that if Stephen's attitude toward reading was changed so that he could enjoy the learning process adequate progress would be made. This prediction
led later to verification, and the acts of diagnosis were complete. The diagnosis could then be stated as follows.

Stephen is a boy of average intelligence who has achieved at a low level in the language arts, especially reading, primarily because of a mental set against reading which has resulted from formal instruction before he had reached a sufficient degree of readiness. Sibling rivalry can be a contributing factor.

Suggested Treatment

The staff of clinical workers including Miss Rose made the following recommendations.

* In order to stimulate an interest in reading, it was suggested that a visual-visual-auditory approach be utilized.
* Sibling rivalry which has been manifest in the home should be reduced to a minimum.

* Oral reading should not be required by teacher and parents. It should be voluntary.

* The use of why and how questions should be emphasized in developing purposeful reading.

* Parents should aid Stephen only when he asks for help. There should be no more reading "sessions" at home.

* Desired responses on the part of Stephen should be reinforced by praise and commendation.

Summary

This paper has defined diagnosis and shown its application to a group of thirty second grade children and to the clinical study of a member
of the class. It suggests that the classroom teacher can make and assist in formulating diagnosis at all levels. An attempt has been made to bring to a sharp focus the eight acts preparatory to the statement of diagnosis.
conduct informal reading inventories with eight children in her class. Observations were made daily, and anecdotal records were recorded for those children of immediate concern to her. Miss Rose listed the reading needs of her pupils as follows.

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Stephen has been four years in the public schools, and his grade placement is that of a child approximately two months in the second grade. The school history indicates that Stephen has had formal instruction in reading for three years. One basal text and "work in phonics" have been utilized. Attendance has been regular. He accepts his teachers but is not interested in the activities of the classroom. It is reported that he likes stories by Dr. Seuss and books about animals. It is said that he writes interesting sentences and does excellent work in arithmetic. In an interview, Stephen said that he "likes a good fight."

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