CALIFORNIA STATE UNIVERSITY, NORTHridge

THE PRESCRIPTION - ASSESSMENT - RESOURCE CENTER

INservice Education Program

A project submitted in partial fulfillment of the requirements for the degree of
Master of Arts in Education

by

Myra Morewitz

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The project of Myra Kalkin Morewitz is approved:

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# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>ABSTRACT</th>
<th>v</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHAPTER</strong></td>
<td></td>
</tr>
<tr>
<td>I INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>II RELEVANT LITERATURE</td>
<td>6</td>
</tr>
<tr>
<td>Inservice Education</td>
<td>6</td>
</tr>
<tr>
<td>Diagnosis and Prescription</td>
<td>14</td>
</tr>
<tr>
<td>III P-A-R CENTER INSERVICE EDUCATION PROGRAM</td>
<td>20</td>
</tr>
<tr>
<td>Program Planning</td>
<td>20</td>
</tr>
<tr>
<td>Program Outline</td>
<td>25</td>
</tr>
<tr>
<td>Implementation of the Class</td>
<td>33</td>
</tr>
<tr>
<td>IV EVALUATION</td>
<td>65</td>
</tr>
<tr>
<td>REFERENCES</td>
<td>71</td>
</tr>
<tr>
<td>APPENDIX</td>
<td>77</td>
</tr>
</tbody>
</table>

- Prescription-Assessment-Resource Center
- Inservice Education Packet
ABSTRACT

THE PRESCRIPTION - ASSESSMENT - RESOURCE CENTER

INSERVICE EDUCATION PROGRAM

by

Myra Morewitz

Master of Arts in Elementary Education
with
Specialization in Reading Improvement

June 1973

Research presented in this paper shows that a definite need exists for post-graduate inservice education in the area of the diagnostic and prescriptive teaching of reading.

This paper describes the planning, initiation and implementation of a reading inservice education program which served as the preliminary step in the introduction of a school-wide, ESEA Title III diagnostic and prescriptive reading program known as the Prescription-Assessment-Resource Center (P-A-R Center). This study is intended to serve as reference material for those
interested in presenting a similar class. Short term evaluation of the class by the participants showed it to be effective. Long term evaluation is not yet completed.
Chapter I

INTRODUCTION

It is generally believed that success in school depends to a large degree upon a child's ability to read. This relationship has been recognized and documented in many sources (Smith and Dechant, 1961, Strang, 1969, Vernon, 1971). Estimates of the number of elementary school students achieving below their potential ability to read varies from 25 per cent to 75 per cent of a total student body (Kavanagh, 1968). It seems obvious therefore that there is a need to improve the quality of reading instruction.

Speech development precedes the development of written language in all human societies. Most children learn to speak without any formal instruction, yet it is the rare child who learns to read without formal instruction (Langacker, 1967). Therefore it follows that some kind of teaching is needed in order for the child to learn to read.

In a review of research studies, Fay (1971)
indicates that the primary factor in teaching a child to read is the teacher, not the method, materials or equipment. These studies also note that the majority of teachers have had little formal training in teaching reading and that consequently they rely heavily on the teacher's manuals that accompany basal readers. This approach seems to be adequate for those children who experience no difficulty in learning to read, but it is apparently inadequate for those children who have difficulty in learning to read (Berg, 1971). Since the number of reading specialists is small, it is generally the classroom teacher who bears the primary responsibility for the teaching of reading. Most classroom teachers, however, have had so little training in this crucial area that it would probably prove beneficial to them and their students if they could learn more about the reading process and the interaction between the child and the printed symbol. Inservice* education can be a very effective way of helping the teacher in this endeavor.

A search of the literature revealed some variety in the nature of inservice education. The federal government has sponsored the NDEA Institutes as well as the U.S. Office of Education Teacher Fellowship Program in an
attempt to meet teachers' needs for reading education. It has been assumed that these programs have been effective, but unfortunately little has been done to evaluate the effects of this training on teacher behavior in their own classrooms (Austin, 1968). Thus further research in this specific area seems to be indicated before definitive statements of program effectiveness can be produced.

The inservice class described in this paper dealt with the use of assessment, diagnosis and prescription techniques in the teaching of reading. There are many and varied causes for reading difficulties (Barbe, 1968). Thus it would seem that a teacher should be cognizant of the more common causes of reading difficulties and be able to design a program to remediate these problems in the classroom.

In the late summer of 1972 a reading inservice class was conducted at Woodland Hills Elementary School under the auspices of the Los Angeles City Schools and ESEA Title III. This class was the first step in initiating a new Title III program in reading known as the Prescription-Assessment-Resource Center (P-A-R). The primary goal of P-A-R Center is to reduce the discrepancy between reading achievement and potential for all students
at Woodland Hills Elementary School who are achieving below that potential. The secondary goal is to reverse the downward trend in reading achievement in the Taft High School Cluster Area. The P-A-R Center program was designed and written by teachers at Woodland Hills Elementary School. A survey of the entire faculty in 1969 had established reading improvement as the first step in upgrading the educational program. A pilot project in reading was set up at the fifth grade level, and it was this class that eventually led to the Title III grant. Most of the teachers at the school had evidenced a desire to learn more about reading disabilities and the procedures necessary to correct them. The primary goal of the inservice class was, therefore, to present descriptions of the more common reading difficulties with techniques for their diagnosis, prescription and remediation. It was anticipated that these techniques would eventually become a part of most of the teachers' modes of teaching and would be used in the classrooms.

This project will endeavor to examine the P-A-R inservice process in depth. The first portion of this project will discuss some of the principles of effective teacher inservice education programs. The second portion
of this project will give a rationale for the use of diagnosis and prescription in the teaching of reading. The third portion will describe the implementation of the aforementioned class. The fourth and final portion will present the evaluation of the class.
Inservice Education

Many reading authorities have stated that preservice and inservice teacher education programs in reading have been both ineffective and inefficient. Austin (1961) conducted a study that established the fact that elementary school teacher preservice education in the teaching of reading was inadequate. Conant (1963) arrived at the same conclusion. McHugh (1972), nine years after Conant's well publicized report, feels that the situation today has changed very little. Many teachers who are presently teaching reading have had no formal courses in reading development and remedial reading techniques. Most available courses deal almost exclusively with beginning reading. Little attention has been paid to remedial reading or to the in-depth development of skills in comprehension and critical reading. Conant (1963) believed that undergraduate courses dealing with the psychology of learning and teaching techniques were almost meaningless
to the students. This material becomes meaningful only when the individual has struggled with the problems of a classroom. He felt that programs of this nature in the undergraduate school should be minimal, and that their proper place was in the summer schools of graduate education.

There are some indications, however, that a movement for change is slowly beginning to evolve. The passage of the Education Professions Development Act by Congress in 1967 was "designed to assist with the major problems bearing on attracting, preparing and maintaining an adequate supply of competent teachers." (Bosley, 1969, p. 7). The U.S. Office of Education's Educational Personnel Development Grants also focused attention on inservice teacher education. Dolan (1969) states that most participants in the NDEA Institutes as well as those in the Teacher Fellowship Program in Reading felt that the programs were worthwhile and deserved to be continued and expanded. Durrell (1969) felt federal funding encouraged the development of many innovative and creative approaches to teacher education, but that the over-all design of federal funding for this purpose was inadequate for no provision had been made for any kind of "objective
analytical comparison of the various approaches" (Durrell, 1969 p. 372).

Harris and Bessent (1969) give the following four key reasons for the necessity of inservice education.

1. Undergraduate preparation of staff members is usually inadequate.
2. The rapid pace of modern life creates an accelerated obsolescence of teaching techniques and practices.
3. The flexibility of and rapid changes in curriculum require the individual to be able to change his mode of teaching when necessary.
4. Other factors argue for inservice activities of rather diverse kinds. Morale can be stimulated and maintained through inservice education, and is a contribution to instruction in itself, even if instructional improvement of any dynamic kind does not occur.

Since the teaching of reading is a highly involved procedure, it seems obvious that good inservice education programs for teachers are an essential component of improving children's reading abilities. The specific
definition of "good" inservice education will vary from school to school depending upon the specific needs of the school and its staff. There seem to be, however, certain basic properties that are common to all "good" inservice education programs and which should be included in order to make the program effective (McHugh, 1972). These basic properties are:

1. teacher involvement in preparation and implementation.
2. relevance of the subject matter (to teachers).
3. specific goals and objectives.
4. an experienced effective leader.
5. preparation for follow-up activities.

The primary purpose for any reading inservice education program is to change teacher behavior and attitudes so that there will be a significant improvement in their students' reading achievement. Obviously teacher cooperation and involvement is essential to the success of such an enterprise. It seems logical that the greater the participation of the staff in the planning and implementation of any inservice education program, the greater will be its effectiveness. Otto and Smith (1970), who have had many years of experience in directing
in-service education programs, agree that staff involvement is the main factor in the success or failure of any program. Wherever they conducted programs that were superimposed upon the teachers, they found the result to be teacher apathy and occasionally even hostility. They also feel that the most successful approach to in-service planning and implementation is the team approach. The in-service leader acts as a guide, but shares the responsibilities with the principal and the teachers.

While staff involvement is important, another relevant issue is that of subject matter. In-service must be relevant to the teachers' needs. "A change agent who inflicts an unwanted program upon his staff will have to deal with unmotivated and disinterested teachers." (McHugh, 1972, p. 165) An excellent way of discovering teacher needs is through grade level and school-wide discussion groups, interviews, questionnaires and classroom observations.

The third criterion is that of formulating both long range goals and specific short range objectives. Harris (1969) feels that in many instances the only identifiable objective of an in-service program "is to have an in-service program" (p. 31). Harris continues and
describes goals by saying:

To help in clarifying outcomes, let us call the broad general outcomes of the inservice activity goals. These may be such things as "To improve the teaching of reading," or "To individualize instruction." These goals serve to give direction to the long-range inservice efforts and to assist in the selection of more specific objectives for planned activities.

Objectives, on the other hand, are more specific and refer to the "intended behavioral outcomes and how these outcomes are going to be measured." (Armstrong et al., 1970, p. 8) Without the guidelines of goals and objectives it would be possible to lose sight of the real objectives and omit essential material. In order to be effective, these goals and objectives must reflect the classroom teacher's goals and objectives. The objectives must be realistic in that they should be attainable and practical.

The fourth factor to be considered is the leadership of the inservice program. Dolan (1969 p. 379) describes this aspect of an inservice program very well when she states:

The director, the instructors, and the supervisors must be specially chosen for the roles they play in the programs. Proper educational background, teaching experience, openness to and sympathy with
the rationale of the program, willingness
to plan and to revise plans, and the
ability to produce and evaluate ideas
and skills, and to challenge and to be
challenged by students and professors
are all important qualities needed by
the instructional and supervisory team.
Since the participants in these programs
are experienced teachers in an en bloc
program, it is expected that a great
amount of learning will take place
through interaction of faculty and
participants, and the participants
with one another.

In addition to being knowledgeable in the subject
field, the inservice leader should be able to recognize
his areas of inadequacy and call upon outside experts to
supplement parts of the program. It is also helpful if
the teaching techniques the instructor uses are an example
of techniques the participants themselves can use in the
classroom. Harris (1969) describes ten teaching activities
that have a progressively greater impact on students. The
least effective activity on his list is lecture and the
activities proceed up the scale to illustrated lecture,
demonstrations, observations, interviewing, brainstorming,
group discussions, buzz sessions, role playing and finally
to guided practice which Harris feels has the greatest
impact of all. Ideally, therefore, an effective inservice
program would utilize many teaching strategies to accom-
iplish its objectives.

The fifth principle for effective inservice education is the necessity for follow-up activities. The enthusiasm generated by an effective program wanes as time passes, and old habits may reassert themselves. McCracken (1969, p. 395) states:

Programs should extend over long time periods. A combination of intensive short term study and extensive long term application works well. Short term programs are largely ineffective in changing teachers' classroom practices if there is no follow-up.

Thus, the original impetus can be maintained through the follow-up sessions or seminars where teachers can discuss their successes and failures and receive the encouragement that will allow them to continue using new techniques and programs.

The literature shows examples of many different types of inservice programs. These vary from federal and state supported programs to district and individual school programs (Bosley, 1969). New trends that are being incorporated in some of these programs are: released time for teachers; increased use of instructional and closed circuit television and video tape recorders; simulation techniques and computer-based instruction. McHugh (1972), Durrell (1969) and others reiterate that
The major flaw in all these programs is the lack of comparative studies of their effectiveness. Until such time as this defect is remedied, inservice education will continue to be an empirical program subject to controversy and conflict of opinion regarding its effectiveness.

Diagnosis and Prescription

The definitions of reading are many and varied. They range from an all encompassing definition that maintains that reading is the unique interpretation of one's environment, (Spencer, 1970) to the more limited definition that maintains that reading is decoding abstract symbols (Chall, 1967). Regardless of the definition, all authors feel that in order to read and understand abstract symbols, one must develop a certain body of specific skills in both decoding and comprehension.

Authorities in the field of reading (Strang 1969, Russell 1961, Smith 1967, Gray 1963 and Chall 1967) believe that there is a definite sequence to the development of reading skills. Most authorities would agree with this statement, but they do not agree on what that sequence is or should be. Others such as Veatch (1966) feel that each child has his own unique sequence.
According to Aaron (1969) there are at least two authorities who believe sequence is unimportant in the development of reading skills: Lee and Allen (1963) and Mill (1967).

Regardless of whether reading skills are sequential or not, no one seems to doubt their existence, nor has anyone taken issue with the fact that the child learns to read as a result of having somehow developed reading skills.

But what of the child who has not learned to read? Obviously he lacks certain essential reading skills. In order to effectively help such a student, teachers must learn what skills the child possesses as well as what skills the child lacks. This type of skill assessment lends itself to a diagnostic-prescriptive type of teaching. Strang (1969) feels that a curriculum based on diagnosis is essential to appropriate instruction. Diagnosis cannot be a static, one-time operation, for its most effective use is as part of an on-going teaching cycle. Strang (1969 p. 31-32) states:

Such teachers diagnose as they teach. They note individual pupil's reading performance. In their daily contact with children they also gain an understanding of how the individual acquires certain reading skills and why he
makes certain errors. In diagnostic teaching, reading difficulties are recognized, understood, and, as far as possible, remedied. This should be an intrinsic part of the teaching process.

Teachers therefore should be continuously assessing, diagnosing, prescribing and instructing. In order to use such a teaching technique the teacher must be familiar with the factors related to both reading development and reading difficulty.

Bond and Tinker (1969) believe that a diagnostic-prescriptive program which is designed to meet children's individual needs must consider the characteristics of each child's unique reading growth pattern as well as the range of reading ability found in a classroom. The diagnostic instruments used in such a program should be capable of detecting these characteristics and the program itself must be flexible enough to allow for these individual variations. Reading is a complex act. This fact when combined with the tremendous variation of children's growth patterns makes initiating an individualized reading program a difficult task. A reading profile which accurately records the strengths and weaknesses of the child is a necessity. Such a program can be successfully implemented only when the teacher is familiar
with the reading profile of each child and utilizes methods and materials which facilitate such an approach.

Wilson (1967) considers the classroom teacher to be the essential link between a child and his reading.

Who knows better than the teacher of a child with a reading problem, the importance of reading for school success? And who is in a better position than the classroom teacher to realize that the inability to read, coupled with the lack of desire to read, leads directly to school failure? A teacher knows the type of problems presented by the child who cannot or will not read, for he faces the reality of this situation daily. He must be armed with the diagnostic and remedial techniques necessary to meet these problems as effectively as he can each day, for the exceptional child is not included in the generalizations of most basal series teachers' manuals. (Wilson, 1967, p. 1)

In order to meet the professional responsibilities inherent in teaching reading, the classroom teacher must acquire these essential diagnostic and remedial techniques through some kind of teacher education program.

Children with inherent and organic reading problems are not the only kinds of reading problems a teacher must face. He must continuously deal with the transfer student. Most school systems seem to function under the assumption that a child will remain in the same school, or at least in the same school system for the duration of his education. Unfortunately, there is
often little provision made for an analysis of the reading skills of the transfer student. Avery (1972) found that the majority of elementary schools place students in classes with no attempt made to assess the child's reading development. It also follows that without some sort of inventory of reading skills, a child cannot be placed with a teacher and a reading program where he will have an optimum chance of success. The lack of such assessment techniques affects not only the transfer student, but also the long term resident who is experiencing frustration and failure in the reading process. It seems reasonable to expect that widespread utilization of reliable screening devices would promote the use of effective remedial techniques in the primary grades and consequently fewer children would suffer the damaging effects of reading failure.

It seems obvious that a definite need for diagnostic teaching of reading exists. Beldin (1969) states:

Diagnostic teaching is a precise teacher response to a child's specific instructional need. It is a specific reading instructional program for each child; it is not just putting a child through a given instructional program. Teachers often employ this latter practice because they are uncertain about their ability to analyze a child's reading
performance. These teachers lack skill in the use of diagnostic techniques even though they have acquired considerable knowledge about diagnostic techniques by studying texts, test manuals etc. (p. 473)

In order to teach reading effectively, therefore, a classroom teacher must be able to assess, diagnose and plan a program of instruction designed to provide his students with the skills they lack. One effective way of providing teachers with educational programs that will upgrade their ability to initiate and implement an effective diagnostic prescriptive reading program is through the use of inservice education. Indrisano (1969, p. 389) summed up the need for inservice training by saying:

Since the majority of teachers do not pursue formal graduate study before beginning their careers, their professional education must be continued in situations directly related to their teaching. This is inservice education. Even those who earn graduate degrees will find it necessary and desirable to update their knowledge in the light of current research. This, too, may be accomplished through inservice education. The very complexity of the teaching-learning process confirms the wisdom of the maxim "Who dares to teach must never cease to learn."
CHAPTER III

P-A-R INSERVICE EDUCATION PROGRAM

Program Planning

Most of the researchers in the area of inservice education (McHugh 1972, Otto & Smith 1970, etc.) agree that one of the most important components of a successful program is the involvement of the staff in both the preparation and implementation of the program. This requirement has been met in a variety of ways in the P-A-R Center program.

The initial impetus for the P-A-R Center program was generated in 1969 when the Woodland Hills Elementary School Advisory Council requested that a survey be taken of all teachers at the school to determine academic areas for improvement. Reading was considered to be the primary need with arithmetic the secondary need. The following year the staff in conjunction with the principal formulated a master plan for the school which included the formation of a reading laboratory. Thus we see that a framework of staff involvement in program planning had
already been established. In 1971 the staff discussed the possibility of obtaining federal funding for a reading program. This program finally evolved as the P-A-R Center Reading Program. The initial proposal, written by two teachers at the school was completed in January 1972 and accepted for funding later that same year.

Since it was the teachers who were responsible for the P-A-R Center Program in the first place, both the planning and implementation of the workshop naturally included all teachers who could participate. A total of six planning sessions were held with Dr. Katzman and the P-A-R Center personnel during July and August of 1972. Teachers were contacted and invited to attend the sessions. Ten staff members attended at least one of the planning sessions or helped in the preparation of materials for use in the class. The first step in preparing a successful inservice program had been met by the inclusion of the staff in the planning and preparation period.

The second requirement of relevant subject matter had also been met. The teachers had already signified that reading was the number one priority in the educational program and most of the teachers had expressed the desire to learn more about the teaching of reading, both
developmental and remedial reading. An experimental class had been established at the fifth grade level that utilized the prescriptive-diagnostic approach to the teaching of reading. The teachers were interested in this approach and wanted to know more about it. This diagnostic-prescriptive approach is also an integral part of the P-A-R Center program.

The goal for the inservice class was to acquaint the teachers with assessment, prescriptive and remedial techniques that could be used by them to improve the teaching of reading. The objectives were much more limited in nature and more specific. They dealt with familiarizing the teachers with the specific test instruments to be used in the program, understanding the principles of diagnosis, and acquainting them with some of the materials and equipment that can be used to remediate reading problems. Thus, the third requirement was met with the establishment of goals and objectives.

Most of the lecture sessions were conducted by Dr. Lawanda Katzman, Ph.D., a clinical psychologist and former school counselor at Woodland Hills Elementary School. The entire staff liked and respected Dr. Katzman and rapport was easily established. The workshops and
demonstrations were conducted by three members of the staff at Woodland Hills Elementary School who had extensive experience in those areas. Guest speakers were also scheduled and thus variety of personnel and a slightly different point of view was introduced to the group. Two of the speakers were clinical psychologists who deal primarily with children with learning disabilities, and they were able to reinforce the need for assessment, diagnosis and prescription as well as remediation. The other speaker was a speech therapist who was able to show how language development and particularly speech development was related to reading. The fourth requirement for a successful inservice program was met.

It was obvious that an intensive three day inservice class could provide only the introduction to the diagnosis, prescription and remediation of reading difficulties. Therefore it was necessary to plan for follow-up sessions such as seminars and workshops to be held during the school year. Provision was made for five shortened school days to allow seminars to be held after school from 1:30 to 3:30 P.M. In addition a sixteen hour inservice class and workshop was planned for spring 1973. It can be seen that the five necessary requirements for a
successful inservice education class had been met.

In addition to the planning of the course itself, it was necessary to plan for the physical environment and to make arrangements for all necessary materials and equipment. It was decided to use the kindergarten area for the class. This area is self-contained in that it has a small fence surrounding it and a large patio that could be used in several ways. The rooms were cool and large and had a minimum of furniture. One room was set up as a large lecture hall with long tables and chairs. An overhead projector and a portable blackboard were set up in the front of the classroom. The adjoining room was arranged as a workshop where materials and equipment could be examined and small group discussions held. It had been decided to alternate lectures with workshops and/or small group discussions and this arrangement worked out very well.

Materials and equipment for the class were ordered in late July and early August. Most items arrived in time. The Labor Day Weekend, September 2, 3, and 4 was spent in setting up the physical environment and borrowing additional material and equipment when necessary.
Outline of P-A-R Center Inservice Education Program

I. Planning:

A. Meeting the initial requirements for a successful inservice education program.

1. Teacher involvement in preparation and implementation

   All teachers at Woodland Hills Elementary School were invited to attend the planning sessions. Many came and made valuable suggestions regarding course content.

   Many of the teachers were involved in preparing the physical environment for the class.

2. Relevance of the subject matter (to teachers)

   In 1969, a survey of the Woodland Hills faculty showed that reading improvement had the first priority in the process of improving the general curriculum. The teachers were, therefore, interested in the subject matter and aware of its importance.

   Many of the teachers had expressed a desire to learn more about reading difficulties and their remediation.

3. Specific Goals and Objectives

   It is a requirement of all Los Angeles City School inservice programs that specific goals and objectives be presented with the initial application for permission to conduct an
in service class (See Appendix , page 6 for goals and objectives of P-A-R inservice education program).

4. Experienced effective leaders

The personnel directly involved in the planning and implementation of the inservice class were:

a. Dr. Lawanda Katzman, Ph.D., a former Los Angeles City Schools psychometrist and presently a practicing clinical psychologist.

b. The Director of P-A-R Center, Mrs. Audrey Spelman, a classroom teacher on leave from Los Angeles City Schools who has an M.A. in school administration.

c. A classroom teacher, Mrs. Myra Morewitz, a fifth grade teacher with Los Angeles City Schools, writer of the P-A-R proposal, who has graduate level training in the areas of reading disabilities.

d. A classroom teacher, Mrs. Frances Belaire, a fifth grade teacher with Los Angeles City Schools, co-writer of the P-A-R proposal, who has graduate level training and experience in the areas of learning disabilities.

5. Preparation for follow-up activities

Provision had been made for three shortened days at Woodland Hills Elementary School. The extra time available was devoted to seminars which discussed case histories plus any teacher problems in the areas of diagnosis, prescription and remediation. A second inservice education program had been scheduled for March, April and May, 1973. This class elaborated on the information presented in the first workshop.
B. Environment

The kindergarten area was chosen as the site for the class. These rooms were cool, large and had a minimum of furniture that had to be moved out. One room was arranged as a large lecture hall with long tables and chairs. The adjoining room was set up as a workshop where materials and equipment could be displayed and examined in detail by the teachers. This arrangement facilitated the scheduling of lectures alternating with workshops and small group discussions.

C. Collection of materials and equipment

1. Requisitions for materials and supplies were submitted during the last two weeks in July 1972. Most items were available in time for the inservice program.

2. Substitute materials and equipment were borrowed from the fifth grade classrooms in the pilot program so that the teachers could become familiar with the equipment that would be arriving later on in the year.

D. Outside Speakers

Arrangements were made with two clinical psychologists who specialize in treating children with learning disabilities, and with a speech therapist to present a lecture to the group on their specialties.

II. Implementation of the class

A. First Day (September 5, 1973)

1. Brief overview of the P-A-R Program

The Prescription-Assessment-Resource Center is a new reading program funded by ESEA Title III that is situated at
Woodland Hills Elementary School. This is a school-wide program whose primary objective is to reduce the discrepancy between reading achievement and potential. The program utilizes assessment, diagnostic, prescriptive and remedial techniques in an attempt to increase students' reading achievement levels. The Target Group consists of all students who are reading below potential. All remedial procedures are conducted in the child's classroom under the direction of his teacher.

Funds for the inservice education program were provided by Title III.

The entire student body at Woodland Hills Elementary School was tested in both reading achievement and potential. Discrepancies in scores were noted, and most of these children were given further testing and then placed in the target group where specific remedial prescriptions were issued for them. Initially the prescriptions came from P-A-R Center, but all remedial work was done in the child's classroom. It is the intent of the program that eventually the child's own teacher will be able to prescribe remedial activities for the child.

2. Brief overview of the inservice class

The inservice education program was intended to give teachers essential background information on the use of special assessment, diagnostic, prescriptive and remedial techniques in the teaching of reading.

The sessions were divided into periods of lecture, whole group discussion, small group discussions and workshops. The sessions were conducted by P-A-R Center personnel and/or guest speakers.

3. Discussion of some possible causes of learning disabilities.
Reading disabilities may be the result of an organic, physical, emotional or neurological involvement. A knowledge of the probable cause of the disability may enable the teacher to determine the appropriate remedial procedures.

4. Individual testing (Dr. Katzman)

a. Pros and cons of testing

The tests that were discussed are neither culture free nor culture fair, but they are considered adequate for a middle class school.

Testing is only one factor in diagnosis. Scores, particularly of I.Q. tests, should not be considered an absolute measure of potential.

b. Intelligence tests

1) Stanford Binet Test of Intelligence (McGraw-Hill Co.)

The Stanford Binet is considered an excellent instrument for determining either high intelligence potential (gifted) or low intelligence potential (mentally retarded). It is classed as a highly verbal test and should not be used with children who have problems in expressing themselves verbally.

2) Wechsler Intelligence Scales for Children (Psychological Corporation)

The WISC is considered to be an excellent diagnostic instrument for it measures both verbal and performance areas. This test has proved to be quite useful in determining some possible causes for reading disabilities.
c. Diagnostic tests

1) The Bender Gestalt
   (Grune & Stratton, Inc.)

   A useful test for determining possible visual perception problems as well as possible emotional problems.

2) The Illinois Test of Psycholinguistic Abilities.
   (The University of Illinois Press)

   A diagnostic test that examines areas dealing with possible communication disorders. The ITPA can be very useful in determining possible causes for reading difficulties.

5. Case Histories

   Techniques of case histories were explored and a sample case history was presented.

6. Small discussion groups and workshop

   The class separated into small discussion groups with teachers of the same grade levels forming a group. Common characteristics of children with learning disabilities were discussed. This then led to the development of a case study of a hypothetical child with a reading difficulty.

B. Second Day (September 6, 1972)

1. Group testing (Dr. Katzman)

   The pros and cons of group testing compared to individualized testing were discussed.

   a. Intelligence testing.

      Several group intelligence test instruments were presented to the class.
The teachers were given the opportunity to examine the tests in small grade level groups, and their findings were later reported back to the class.

b. Achievement testing

Several reading achievement test instruments were presented to the class and the same procedures followed as above.

2. Individual Reading tests

Several individual reading tests as well as some informal reading inventories were presented to the class and discussed.

3. Specific Reading Disabilities (James Gerth and Ruth Hoisch)

A presentation of several case histories of children with reading disabilities was made. Emphasis was placed on diagnostic and prescriptive techniques used in setting up the remedial program for each child.

4. Prescriptive techniques

Analysis of test data was explained and examples of conversion of diagnosis into prescriptions for remediation were presented and discussed.

5. Small discussion groups and workshop

The teachers examined all test instruments and discussed them. Their findings were presented to the entire group and their recommendations taken into consideration.

The hypothetical child in the group case studies was "given a battery of tests" and a diagnosis made of the child's difficulties.

C. Third Day (September 7, 1972)
1. Reading skills

The teachers were asked to meet in their grade level groups and devise a profile sheet of reading skills for their grade level.

2. Speech problems and auditory discrimination
(Mr. Gary Jacobs, Speech Therapist)

A lecture and group discussion of speech problems, auditory discrimination and the application of both to reading difficulties.

3. Demonstration of equipment and materials that can be used for remediation of reading difficulties.

a. Equipment

The following items of equipment were discussed and demonstrated: the Language Master (Bell and Howell), the Controlled Reader (Education Development Lab), a film strip projector, an overhead projector, various listening centers, a cassette tape recorder and a cordless headset system.

b. Materials

Some new sets of remedial materials had been received. Among those discussed were the Fountain Valley Teacher Support System in Reading (R. L. Zweig Associates), The Target Series (Field Enterprises Inc.), The Talking Alphabet (Scott Foresman and Co.), etc.

4. Remedial techniques

Various remedial techniques were discussed.

5. Small discussion groups and workshop

The teachers completed their case study of their hypothetical child by planning a
specific remedial program for him. The cases were then brought back to the larger group session and presented and discussed.

6. Evaluation

An evaluation sheet was given to each teacher.

Implementation of the Class

First Day - September 5, 1972

The P-A-R Center Inservice Education Program opened with a short speech of welcome given by Mr. Howard Nelson, the new principal of Woodland Hills Elementary School. This was followed by a brief overview of the P-A-R Center Program. Although most of the teachers had participated in planning portions of the P-A-R Center proposal and had read the completed proposal, certain changes had been made over the summer and it was necessary to briefly review the program and its proposed schedule of events. A summary of this overview follows.

The Prescription-Assessment-Resource Center is a new reading program funded by ESEA Title III that is located at Woodland Hills Elementary School. This is a school-wide program whose primary objective is to reduce the discrepancy between reading achievement and potential. The first step was the assessment of the reading achieve-
ment level of all students at Woodland Hills Elementary School (grades 1-6). The academic potential of these students was determined and a comparison made between the reading achievement and the academic potential of each student. Any student who achieved five months or more below his academic potential was considered as a possible candidate for the Target Group. Test data was not the sole criterion, for this data was presented to the child's teacher who was then asked for any pertinent observations and/or opinions. Children who were achieving at grade level were considered for the Target Group if their potential was above their grade level. All tests were administered by P-A-R Center personnel.

The reading achievement testing program began the second week of school. Sixth grade students were the first group tested, then fifth grade, etc. until all the grades had been tested. It had been assumed that older students need less orientation into a new school year, and consequently should perform adequately in the testing situation. In approximately six weeks, the achievement testing was completed and the ability testing begun. Most of the testing was completed before the Thanksgiving holiday and the Target Group had been determined before
the Christmas holiday. Each member of the Target Group received an individual diagnosis and prescription based on his own unique needs. The prescription was sent from P-A-R Center to the child's classroom where the teacher "filled" the prescription with materials and equipment provided by P-A-R Center. The evaluation of the program was based on post-testing conducted in May of 1973.

During the testing period the teacher's responsibilities consisted of:

1. distributing and collecting parental consent forms for the P-A-R Center testing program.
2. adjusting their teaching schedules so as to facilitate the P-A-R Center testing schedule.
3. visiting P-A-R Center to examine the new materials and equipment.
4. recording pertinent observations and assessing their pupils' reading achievement and ability.
5. arranging the classroom so as to accommodate P-A-R Center materials and equipment.
6. setting up a reading profile chart for the class.

When the main testing period was over and the Target Group selected, it was necessary for P-A-R Center
personnel to conduct further diagnostic tests to more accurately determine certain children's needs. As soon as these needs were determined, a prescription accompanied by the necessary materials was sent to the child's classroom. It is the classroom teacher who was responsible not only for the implementing of the remedial program, but also for communicating the child's reactions and further needs to P-A-R Center so that the next step in the remedial program could be taken.

Dr. Alan Crawford, Professor of Education and the Official Evaluator of the P-A-R Center Program, in a very short speech said that the inservice program would be evaluated by the teachers on the last day of the program.

A brief overview of the inservice class, its goal and objectives was presented to the group (see p. 4 Appendix).

Since it is the classroom teacher who implements the remedial program, it was necessary for that teacher to understand some of the common causes of reading disabilities, to be familiar with the development of reading skills, and to be aware of some well known and effective remedial reading techniques.
It was at this point in the program that some possible causes and effects of reading disabilities were presented and discussed. A description of this presentation follows.

There are many times when the knowledge of the probable cause of a reading disability can aid a teacher in determining appropriate remedial procedures. Since a reading disability may be caused by an organic, physical, emotional or neurological involvement, some research into a child's past history may be in order. A parent-teacher interview can be an excellent opportunity to discover information about a child's background and learn how he functions in his home environment. Once rapport has been established with the parent, a discussion of the following areas might provide useful information.

1. The incidence of reading problems in the family might be significant. Vernon (1971, p. 167) stated "It may be concluded that there is a hereditary disposition at least in some cases of dyslexia." A description of some specific remedial procedures that have helped other family members may be of benefit to the teacher.
2. The presence of physical or organic problems may be significant. (A history of vision or auditory problems might have determined the child's preferred learning modality. This same kind of history might indicate a need for a return visit to a doctor.)

3. A description of the child's behavior at home may also prove significant. (A history of emotional disturbance for instance, might indicate a need for a session with the school counselor.)

Adelman (1972) noted that learning and behavior problems occur with greatest frequency during the reading period. Although P-A-R Center is equipped to work with children with reading problems, not emotional problems, it has been noted that children with reading problems often develop emotional problems as a direct result of their inability to read and subsequent continuous school failure (Bond & Tinker, 1967). If the primary problem is emotional, then P-A-R Center may not be able to help. If, however, the emotional problem is secondary, then success in reading may alleviate it. For this reason a behavior rating scale has been included in the P-A-R Packet of Materials (p. 19,
Appendix). The Cook Behavior Rating Scale* was devised by Dr. Lawanda Katzman in conjunction with Dr. L. Peter of the University of Southern California. This scale may prove a helpful adjunct to a reading profile, for it describes various significant behaviors that may be found amongst children with combinations of reading and emotional problems. In addition to the behaviors noted in this scale, the reading teacher should be aware of the following characteristics.

1. The degree to which the child is willing to work: Is the child enthusiastic, eager and active, or is he disagreeable and extremely reluctant to work?

2. The degree of effort the child puts into his work: Does the child seem capable and desirous of doing his school work, or is he easily distracted and apathetic? A child may appear highly motivated and yet do nothing when the task is set before him.

3. The degree and type of reaction that the child has to the classroom situation: Is

* Permission was granted by Dr. Katzman for the P-A-R Center use of this scale.
the child self-conscious and tense or is he self-assured and relaxed?

4. The degree of understanding of and compliance with directions: Does the child follow directions readily or is it necessary to repeat and rephrase directions many times before the child seems to understand them?

5. The degree of self-confidence the child seems to exhibit: Can the child complete an assigned task quickly and efficiently or does he seem to need repeated reassurance that he is doing the work correctly?

6. The degree of initiative, independence and self-reliance displayed by the child: Does this child need continuous direction or is he so extremely self-assured that he precipitously plunges into his work without waiting for the explanation and consequently does it all wrong?

7. The degree of spontaneity shown by the child: Is he willing to take part in classroom activities, or does he wait for others to show him the way? Is this child volatile, explosive, quick and impetuous, or is he
8. The degree of distraction and length of attention span evidenced by the child: How does this child's attention span and degree of distractibility compare with those of his peers?

9. The degree of positive self-image plus the kind of reaction to failure shown by the child: Can this child accept criticism and failure and try again, or does he react negatively?

10. The degree and type of speech problem present: Does the child use immature phrasing and pronunciation; does he speak rapidly or hesitantly; does he interrupt frequently; are his comments pertinent to the subject under discussion, or are they unrelated?

11. The degree of physical activity level and the presence or absence of any physical defects in the child: Have the obvious physical tests been made (hearing, vision, etc.)? Is this child extremely active and unable to sit still, or is he lethargic and reluctant to
move about?

12. The degree of severity of early illness and the family history of this child. Has the child had a history of illness during the first and second grade? Does the family have a history of reading or other learning disorders?

Thus it becomes obvious that teacher observation of specific behavior patterns may provide information that is useful in determining appropriate remedial procedures.

There are still some students, however, who seem perfectly normal when judged by criteria such as the Cook's Behavior Rating Scale, etc., but who evidence great difficulty in learning to read. These children seem to have no defects in any physical, intellectual or emotional area, but they cannot read. In some instances, disabilities such as these are classed as "perceptual problems." Perception and its relationship to reading is still a new field and consequently many different and sometimes conflicting theories are emerging in this area.

There is, however, a basic vocabulary and common terminology in the area of perception with which teachers of reading should be familiar. (An overview of some
definitions, problems and corrective procedures in the areas of perception is presented on pp. 7-14 in Appendix.

Following is a summary of the field of perception as presented in the P-A-R Center Inservice.

Children who have normal hearing but who evidence difficulty in distinguishing between similar sounds or words may be diagnosed as having auditory discrimination problems. Children who have difficulty in remembering what they hear may be diagnosed as being deficient in auditory memory.

Both of these areas play an important part in reading development. A child who hears words inaccurately may be unable to recognize these words in print. A child who has difficulty in remembering what he hears may have difficulty in beginning reading where much of the instruction is oral. Difficulties in auditory discrimination or memory may result from organic involvement, and children with these problems should be referred for medical examination. However if the child has normal hearing, then his specific needs can be determined through a program of testing and then remediation can begin.

The Language Master* and cassette tape recorders

*"Language Master," manufactured by Bell & Howell
can be valuable teaching aids in remediating auditory discrimination and memory problems. In using a "Language Master," a child hears the instructor's voice, repeats the sounds, and can immediately hear and compare his performance with the instructor's voice. The tape recorder can be used for auditory memory training. It can give directions, tell short stories and ask questions about them, ask the child to recognize certain sounds, etc. Most children enjoy working with these machines, for they are working in a "one-to-one" relationship with the machine and can thus accomplish a great deal in a fairly short period of time.

Although auditory discrimination seems to be an important facet of reading development, most types of reading activities are primarily visual. (Pp. 9-11 in Appendix discuss problems in visual discrimination, visual memory and visual perception.)

Children who evidence problems in visual perception have normal vision (or normal vision when corrected by glasses), but they seem to see words and letters in confused order. Some common problems in this area are: letter reversals, such as reading "was" for "saw"; inability to remember a word from one story to another;
inability to copy a pattern correctly (may be a design or a word) etc. Children who have difficulty with spatial relations and who are unfamiliar with the concepts of up and down, or behind and before may be unable to differentiate between a "b," "d," "p" and a "q."

There is a difference of opinion regarding the effectiveness of visual training exercises. Frostig (1964) believes in the efficacy of visual training whereas Goldberg and Schiffman (1972) believe that visual training is effective only up to the age of six. They feel that the older child must learn to compensate in some way for their visual problem for it is too late for the difficulty itself to be remedied. (Some commonly used visual remedial procedures are described on pages 9 and 10 of Appendix.)

In addition to auditory and visual problems, a large percentage of children with reading difficulties seem to have poor muscle coordination. Barsch (1965) feels that movement efficiency and perceptual-motor learning are areas that are closely related to reading development. Fernald (1943) developed a widely used, multi-sensory technique for the teaching of reading. (Fernald's technique is described in detail on page 12.
Perceptual development seems to be closely related to the child's growth and maturation. Many children in the kindergarten and in the primary grades seem to evidence difficulties in aspects of perceptual development. A program designed to improve muscle coordination may have a positive effect on a child's reading ability. Most children seem to "outgrow" these difficulties by the third or fourth grade, but by then they are usually retarded in their reading development. (Pp. 13-14 in Appendix present a brief description of sensory-motor skill problems and possible remedial activities.)

Individual Testing

Many attempts have been made to design test instruments that will accurately assess intellectual ability and reading potential. No test has yet been developed that can measure native intelligence in a 100 per cent accurate, reliable and valid way. The best that has been accomplished so far is to measure an individual's developed ability at the time the test is administered (Strang 1969). The Intelligence Quotient or I.Q. is not an absolute quantity and should be considered only a frame of reference.
Individual intelligence tests such as the Stanford Binet Test of Intelligence (Terman, Merrill, 1960) and the Wechsler Intelligence Scales for Children (Wechsler, 1949) (WISC) can, however, give much useful diagnostic information when an analysis is made of the child's performance on the different sections of these tests. It is this diagnostic information when gathered by a skilled examiner that may provide some insight into the possible causes of the learning disability and thus provide some clues as to the remedial activities necessary to help the child.

The Stanford Binet can be used with children from the ages of two to twenty. From ages two to five the tests are spaced at semi-annual intervals, whereas from five to fourteen, the tests are spaced at yearly intervals. After age fourteen, there are four tests at the adult level. Very little reading is involved in the test, for the test questions are read to the child. The Stanford Binet is heavily weighted in the area of verbal abilities and is commonly used to identify exceptional children, the intellectually gifted as well as the mentally retarded. This test provides information regarding the following areas:
1. General Comprehension - knowledge gained through life experience.

2. Visual Motor Ability - the degree of facility with which the child uses hand-eye coordination.

3. Arithmetic Reasoning - the ability to deal with arithmetic concepts.

4. Judgment and Reasoning - the child's ability to use common sense in a problem situation.

Since the Stanford Binet measures many of the same abilities as do reading tests (See p. 38, Appendix), it is not considered to be as useful a diagnostic instrument as is the Wechsler Intelligence Scales for Children (WISC).

The WISC is composed of two main parts, a verbal scale and a performance scale. Although the two scales can be combined into one "global intelligence" score, the separate scores provide more diagnostic information than a single score. The verbal scale tests many of the same abilities as does the Stanford Binet. The performance scale however, tests many abilities not included in the Stanford Binet. The WISC therefore can be used to test children with language handicaps as well as children with
suspected neurological or psychological problems. (See p. 39, Appendix) It is extremely important from a diagnostic point of view to note the child's performance on each of the subtests as well as to compare the scores on these subtests. The performance test requires no reading and little verbal interaction between child and examiner so that this test may serve as an indicator of intellectual potential in children who have poor reading and verbal abilities.

Many individual test batteries include the WISC or Stanford Binet as the intelligence test, the Bender Gestalt (Bender, 1946) as a test for perceptual problems as well as possible emotional problems, the Illinois Test of Psycholinguistic Abilities (Kirk, 1968) and an individual reading test.

The Bender Gestalt (usually referred to as the Bender) consists of a series of diagrams which the subject is to copy. There is no time limit and the child may look at the design while he is copying it. A trained psychologist can tell many things about a child's motor coordination and visual perception by careful observation of the child as he copies these diagrams.

The Illinois Test of Psycholinguistic Abilities
(ITPA) has twelve subtests that attempt to isolate the various processes involved in communication (See p. 40, Appendix ). This test is designed for use with children from the age of two years four months to ten years three months, although it may be used with remedial readers of any age. The subtests of the ITPA and the abilities they claim to measure are:

1. Auditory Reception - the understanding of what one hears.
2. Visual Reception - the understanding of what one sees.
3. Auditory Association - the understanding of concepts that have been presented orally.
4. Visual Association - the understanding of relationships when presented visually.
5. Verbal Expression - the presentation of ideas in words.
7. Grammatic Closure - the correct use of the English language by the child.
8. Visual Closure - the ability to perceive a whole object when only a part has been
presented visually.


10. Visual Sequential Memory - the ability to remember a series of symbols presented visually.

11. Auditory Closure (Supplementary) - the ability to perceive an entire word when only a part has been presented orally.

12. Sound Blending (Supplementary) - the ability to combine parts of a word into a whole when the parts have been presented orally.

After the causes for a child's difficulties have been isolated on the ITPA, it is necessary to find remedial procedures. (See pp. 46-54, Appendix for suggested remedial activities.)

In order to properly assess a child with reading disabilities, it is necessary to gather data about that child. Data collection and compilation can be a lengthy and inefficient procedure unless one has some criteria to follow (Rothney, 1968). Therefore, a case study form (p. 26, Appendix) as well as a sample case study (p. 27, Appendix) were presented to the group and discussed.
Following this discussion, the group separated into small grade level groupings where characteristics of children with reading disabilities were compared. Each group had been asked to begin to formulate a fictional case study of a child with a reading disability. The portion of the case study to be completed at this section consisted of background material dealing with family history, social relationships, educational background and health history. The rest of the case history was to be completed on the following days.

Second Day - September 6, 1972

The P-A-R testing program required that all students be tested for reading achievement and academic potential. The only economic and practical system of testing eight hundred students in a two month period is to use standardized group intelligence and reading tests. Unfortunately most group intelligence tests require reading, and measure many of the same skills and abilities that reading tests measure. Some group tests, however, do include sections that measure nonverbal abilities as well as quantitative abilities. Strang (1969, pp. 218-219) states:
There is some value to measures of difference between nonverbal IQ and reading. If the nonverbal form of an intelligence test is used, the differences between mental ability and reading achievement are probably a little more meaningful but still unreliable enough to call for very tentative interpretation. Thus a child whose reading score is low relative to his nonverbal (or at least nonreading) IQ probably has problems specific to the mechanics of reading and is likely to respond to remedial reading.

One of the standardized group intelligence tests that does include a nonverbal section is the "Test of Cognitive Abilities" published by Houghton Mifflin Co. This test was selected as the measure of academic potential for grades three through six. This test consists of a battery of three subtests, the verbal, nonverbal and quantitative. As anticipated, the verbal test required the student to do a great deal of reading and examined the areas of vocabulary, sentence completion, verbal classifications and verbal analogies. The quantitative section required very little reading and purported to examine the child's knowledge of quantitative concepts and relationships. The third section is the nonverbal subtest which claims to measure "fluid intelligence" or the basic intelligence that is not supposed to be related to formal schooling. The entire battery of three tests will be given to each child and the test scores in the three areas will be
converted to grade level equivalents.

It was difficult to find an equivalent test for the primary grades and due to the pressures of time and other expedient factors, the Pintner Cunningham published by Harcourt-Brace-Janovich Inc. was selected as the measure of academic potential. It is hoped that further investigation into the field of standardized intelligence tests will produce an instrument more suited to the needs of the P-A-R Center testing program.

After the child's academic potential is assessed, it becomes necessary to determine his reading achievement level. Again the most expedient and economical way of assessing a large group is through the use of a standardized test instrument. The Stanford Diagnostic Reading Test published by Harcourt, Brace and Jananovich Inc. was selected as this instrument. This test was used for grades three through six and consists of comprehension and vocabulary subtests as well as subtests of specific reading skills such as blending, syllabication, etc. Although the comprehension subtest was used as the indicator of reading achievement, the data obtained from the other subtests could be analyzed and used for diagnostic purposes.
A similar dual purpose diagnostic test could not be located for use in the primary grades; therefore several reading achievement tests were presented to the primary teachers for analysis. Their recommendation was that the Metropolitan Reading Test published by Harcourt, Brace and Jovanovich be used. All tests were converted to grade level scores for ease in comparison of scores.

There are also a number of individual diagnostic reading tests that can provide useful information when administered by an experienced examiner. Ramsey (1969 p. 71) writes:

Spache's Diagnostic Reading Scales (Spache, 1963) is a fairly comprehensive battery of diagnostic reading tests of recent origin. It is designed for individual administration, contains tests of both oral and silent reading, and has six short supplementary phonics tests. A multi-level word recognition test of 130 words, spanning grade levels one through six, can be used to test sight vocabulary and establish a starting level for the oral and silent reading. A series of 22 reading passages at various grade levels from primer to eighth grade can be used for oral and silent reading testing. These range in length from thirty words at early first grade level to over two hundred at eighth grade level. Comprehension questions, with seven or eight questions per passage are given for checking understanding. The questions do not meet the comprehension criterion since they are chiefly of the variety that test memory for what is read, rather than testing understanding. The paragraphs themselves seem to be carefully written and the difficulty carefully established.
An experienced examiner will note the pupil's mannerisms during reading as well as his phrasing and fluency and the quality of answers given to the comprehension questions. Spache's paragraphs are interestingly written and it is quite simple to ask additional questions that can determine the child's ability to use higher level comprehension skills.

It is well known (Harmer, 1969; Ramsey, 1969) that scores on standardized tests do not result in a number that is an absolute indicator of achievement, but rather serve to focus attention on a more specific area of difficulty. The P-A-R Center testing program moved therefore from general testing to specific testing and analysis. The first step in determining the members of the target group was the survey testing of achievement and ability and the comparison of these two results. The second step was a more thorough analysis of children who evidenced a discrepancy between these two areas. Test scores were not the sole criterion! Teacher observation and recommendation were given equal weight with test scores.

Following the discussion of standardized group testing, the teachers were given the opportunity to meet
in small grade level groups and examine the test instruments. The results of these examination sessions were reported back to the larger group and played a part in determining the choice of some test instruments over others. (This was previously discussed.)

It was at this point in the program that two guest speakers were presented. They are two clinical psychologists who have had extensive experience in successfully treating children with learning disabilities. They presented several case histories from their files by role playing the parts of the individuals concerned.*

The relationships between, and necessity for, assessment, diagnosis, prescription and remediation became more apparent as these case histories were developed. The use of guest speakers who are actively working in the area that an inservice program encompasses, can be of great value, for here is "living proof" that theories can be successfully transformed into actions.

In the succeeding sessions a discussion was held on the techniques of converting test data into diagnoses. Samples of significant discrepancies between intellectual ability and reading achievement were presented. Examples

*Permission was not granted for publication of these case histories.
of diagnostic data were given (i.e., difficulties in blending, vowel discrimination, syllabication, comprehension, etc.) and possible diagnoses and prescriptions were elicited from the class. The teachers then met again in their grade level groups, discussed their hypothetical case histories, decided on the children's performance scores on a battery of tests and arrived at tentative diagnoses of the children's reading disabilities.

Third Day - September 7, 1972

Most elementary school reading programs assume the existence of a body of sequential reading skills that are necessary to the development of reading ability. There are differences of opinion as to the exact sequence of these skills, but no authority seems to doubt their existence. The first session of the inservice was devoted to a discussion of many of the cognitive abilities involved in the act of reading. (On pp. 15-18 of Appendix is a brief outline of reading skills. This is not a comprehensive list, but one that may be used as a guide to determine an approximate placement of a skill in one particular hierarchy. Many of the reading interpretation skills listed on pp. 17-18 of Appendix can be taught at
any grade level with the use of materials of appropriate difficulty.)

After this general discussion, the teachers again met in their grade level groups to review the reading skills described in basal reader teachers' manuals. These skills were carefully examined and a tentative reading profile chart developed for each grade level.* (See p. 25, Appendix for sample profile form.)

It was at this time that the guest speaker, a speech therapist, arrived and was presented to the group. He discussed the development of language acquisition, speech problems and auditory discrimination and their possible relationships to reading development. His comments were illustrated by examples from actual case histories.

Thus far the inservice course content had consisted of an intensive introduction to assessment and diagnosis. It now became necessary to demonstrate and discuss the techniques of, and the equipment and materials

*These profile charts are not included in this study for they served only to remind individual teachers of specific objectives in reading and were not intended to be a definitive list of reading skills. These profile sheets did prove to be of additional value later on in the school year when the implementation of the Stull Bill required teachers to state their specific objectives in the teaching of reading.
available for remediation of reading problems.

Demonstrations were therefore given in the use of the following pieces of equipment:

1. Language Master* - An audio card reading device that enables a student to hear an instructor's voice, allows the student to attempt to reproduce the sounds he has just heard and then permits him to listen and compare his rendition with the master voice. This device can prove useful in the remediation of difficulties in speech, spelling, auditory discrimination and auditory memory. (See p. 32, Appendix A for the sheet provided for teacher notes on the uses of the Language Master.)

2. Cassette tape recorder - a versatile piece of audio equipment that can be used for the presentation of many different types of lessons. In addition to listening to lessons, a student can record his own reading and then listen to himself and analyze his own errors. This piece of equipment lends itself well to

*Bell and Howell
either small group usage (with a listening center) or to individual usage. It can be used in conjunction with a slide projector, individual chalk boards, a tachistoscope, etc. to provide a multi-sensory learning experience. The cassette tape recorder can be adapted for remediation of many areas of reading difficulties. (See p. 34 Appendix for the sheet provided for teacher notes on the use of the cassette tape recorder.)

3. Reader-Mate* - a tachistoscope designed for small group or individual viewing. Special filmstrips are provided for use in the Reader-Mate. This machine may be used for the remediation of some difficulties in the areas of visual discrimination and memory as well as for improving eye-sweep and rate of reading. (See p. 33 Appendix for the sheet provided for teacher notes on the uses of the Reader-Mate.)

4. EDL Controlled Reader Senior** - a tachistoscope designed for viewing by large groups.

* Singer Graflex Co.
** EDL McGraw Hill Instrument
(The comments listed above apply also for this piece of equipment.)

5. Combination film-strip and slide projector - this type of machine is available in most classrooms and its use as a tool for motivation, reinforcement and other teaching activities is well known. (See p. 35, Appendix for the sheet provided for teacher notes on the uses of the film-strip, slide projector.)

6. Headsets and listening centers - the use of headsets and listening centers in conjunction with audio equipment enables the simultaneous teaching of many different lessons to proceed in a single classroom. Cordless headsets* plus around-the-room wiring enables students to be scattered over the entire classroom while listening to the same lesson.

In addition to the equipment, the following materials were demonstrated to and discussed with the inservice participants.

1. Fountain Valley Teacher Support System in Reading** - a series of cassette tapes that

*Murdoch Company manufactures the system used by P-A-R
**Published by R. L. Zweig Associates, Inc.
test skills in the areas of word analysis, vocabulary development, comprehension and study skills. The teacher's manual contains references to basal readers, workbooks, audio programs etc. where specific skills lessons are to be found. (See p. 36, Appendix for the sheet provided for teacher use in making notes on this system.)

2. The Target Series (Yellow, Red and Blue)* - three audio cassette kits that contain pre and post tests plus lessons in phonetic analysis, auditory and visual discrimination and structural analysis. (See p. 37, Appendix for the sheet provided for teacher use in making notes on this system.)

3. The Talking Alphabet** - a multi-sensory kit used for teaching the sounds of the letters of the alphabet. This kit is designed for use in the primary grades as a beginning reading tool as well as a remedial reading tool.

In conjunction with the equipment and materials

*Published by Field Enterprises Inc.
**Produced by Scott, Foresman and Company
demonstration was a discussion of multi-sensory teaching techniques such as the use of a "feeling box," a modified "Fernald" approach, etc. The teachers then met again in their grade level groups to examine the materials and equipment that had been demonstrated and to complete their hypothetical case histories by prescribing an appropriate remedial program for the "child."

The final session of the P-A-R inservice class was devoted to a discussion of the hypothetical case studies and to the completion of a written inservice evaluation form. (This evaluation will be discussed in detail in chapter four.)
Chapter IV

EVALUATION

Evaluation of the P-A-R Inservice Education Program will consist of examination of both its short term and long term effects on teachers and students. The short term evaluation was conducted at the close of the program on September 7, 1972 and involved participant completion of two rating scales. The long term evaluation will be an analysis of some of the subsequent behaviors of the teachers and target group members.

The inservice participants were asked to complete two separate rating scales. The first scale concerned program organization and dealt with evaluation of the following items:

1. planning and organization of the class
2. quality of leadership
3. opportunity for group participation
4. quality of materials distributed to the group
These items were to be rated on a scale ranked from zero to five. (See Table 1.) The zero "did not apply," one was "very low," and five was "very high." The median for all five qualities was 4.7. It is obvious that the participants felt that the administration and organization of the class was of high quality.

The second evaluation form dealt with the effectiveness of the class in meeting the individual needs of the participants. This scale was rated on a zero to four continuum, with zero again signifying "does not apply," but with four being "very high." The items rated were as follows:

1. How effective was the class in helping you: use standardized and informal tests in diagnostic and prescriptive teaching?
2. diagnose reading needs in auditory and visual discrimination, motor skills, listening skills, and vocabulary and comprehension skills?
3. in instructional use of audio-visual equipment?
4. prescribe instruction for children with reading problems?

The median score for all four questions was 3.55 (See Table 1). This again is a rating which signifies that
Table 1

Teacher Ratings of Inservice Education
Prescription-Assessment-Resource Center
Inservice Education Program

Please circle a number to the right of each question below to indicate your feelings concerning the inservice training class.

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does</td>
<td>Not Very</td>
<td>Very</td>
</tr>
<tr>
<td>Apply Low High</td>
<td>0 1 2 3</td>
<td>4 5</td>
</tr>
<tr>
<td>1. Planning and organization of the class.</td>
<td>0 0 1 0</td>
<td>6 24</td>
</tr>
<tr>
<td>2. Quality of leadership</td>
<td>0 0 1 1</td>
<td>4 25</td>
</tr>
<tr>
<td>3. Opportunity for group participation</td>
<td>0 0 0 2</td>
<td>6 23</td>
</tr>
<tr>
<td>4. Received materials helpful for classroom use</td>
<td>0 0 2 6</td>
<td>10 13</td>
</tr>
<tr>
<td>5. Quality of materials distributed to group</td>
<td>0 0 0 4</td>
<td>6 21</td>
</tr>
</tbody>
</table>

Please rate the following aspects of the Inservice Education Program in helping you:

<table>
<thead>
<tr>
<th>Item</th>
<th>Frequency</th>
<th>Median</th>
</tr>
</thead>
<tbody>
<tr>
<td>Does</td>
<td>Not Very</td>
<td>Very</td>
</tr>
<tr>
<td>Apply Low High</td>
<td>0 1 2 3</td>
<td>4</td>
</tr>
<tr>
<td>1. Use standardized and informal tests in diagnostic and prescriptive teaching.</td>
<td>0 0 4 11</td>
<td>15</td>
</tr>
<tr>
<td>2. Diagnose reading needs in auditory and visual discrimination, motor skills, listening skills, vocabulary and comprehension.</td>
<td>0 0 2 10</td>
<td>19</td>
</tr>
<tr>
<td>3. In instructional use of audio-visual equipment.</td>
<td>0 0 4 11</td>
<td>16</td>
</tr>
<tr>
<td>4. Prescribe instruction for children with reading problems.</td>
<td>0 0 2 13</td>
<td>16</td>
</tr>
</tbody>
</table>
the participants believed was most effective in helping them in these areas.

Space was provided on the rating forms for teacher comments on the strengths and weaknesses of the class. Positive comments emphasized the organization, use of guest speakers, quality of information and the use of small discussion groups. Suggestions for improvement mentioned shorter sessions with more time available for workshop use of materials and equipment. The need for additional information in the areas of learning disabilities was also mentioned.

Teacher behavior during the inservice seemed to indicate that most were interested, eager and cooperative. Many interesting and thought provoking questions were asked, a fairly good a-priori indication of participant involvement.

The long term evaluation of the inservice program involves a description of subsequent events and an analysis and tentative interpretation of significant teacher and student behaviors.

These subsequent and significant events consisted of:

1. the active participation of twenty-two
teachers out of a faculty of twenty-six (85 per cent) in the P-A-R program. These teachers visited P-A-R Center frequently and encouraged their target pupils to take advantage of the special prescriptive materials they were given. Three of the remaining teachers allowed their target pupils to participate in the program, but they did not actively support the program. The remaining teacher refused to accept prescriptions for his students and did not participate in any aspect of the program other than the testing.

2. A statistically designed sampling* of the target group in February 1973. (See Table 2) Nineteen per cent of the target group were given an alternate form of either the Metropolitan Reading Test (grades one and two) or the Stanford Diagnostic Reading Test (grades three through six). The results of this testing showed:

*This sampling was conducted at the request of the Title III Office and took place only two months after the inception of the program.
Table 2
READING ACHIEVEMENT SCORES
(Random Sample)

<table>
<thead>
<tr>
<th>Grade</th>
<th>No.</th>
<th>Test</th>
<th>Mean Pre-test</th>
<th>G'E</th>
<th>Mean Post-test</th>
<th>G'E</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>Metropolitan Ach. Test Primer Forms F &amp; H</td>
<td>17.0</td>
<td>(68)*1</td>
<td>26.0</td>
<td>(58)*2</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>Metropolitan Ach. Test Primary I, Forms F &amp; H</td>
<td>59.0</td>
<td>2.1</td>
<td>60.0</td>
<td>2.2</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>Stanford Diagnostic Reading Test, Level I Forms W &amp; X</td>
<td>27.0</td>
<td>2.4</td>
<td>36.2</td>
<td>3.0</td>
</tr>
<tr>
<td>4</td>
<td>9</td>
<td>Same as above</td>
<td>37.3</td>
<td>3.4</td>
<td>36.9</td>
<td>3.4</td>
</tr>
<tr>
<td>5</td>
<td>9</td>
<td>Stanford Diagnostic Reading Test Level II Forms W &amp; X</td>
<td>26.8</td>
<td>4.2</td>
<td>34.1</td>
<td>5.1</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>Same as above</td>
<td>33.7</td>
<td>5.1</td>
<td>31.8</td>
<td>4.8</td>
</tr>
</tbody>
</table>

*Grade equivalents not available; score converted to percentile rank

1 Norm group as of end of kindergarten        2 Norm group as of middle of first grade
Grade One - an increase of one stanine. (Grade equivalents could not be used here.)

Grade Two - an increase of one month

Grade Three - an increase of six months

Grade Four - same score

Grade Five - an increase of nine months

Grade Six - a decrease of three months

Examination of the random sampling shows a possible relationship between teacher behavior and test scores. All teachers in the first, second, third and fifth grades were enthusiastic supporters of the P-A-R program. Although most target group children had been receiving their prescriptions for only two months prior to the testing, these teachers had been using P-A-R materials with all children for the preceding four months. In addition, the significant increase in scores at the fifth grade level may have been due in part to the fact that two of the four fifth grade teachers are the primary authors of the P-A-R proposal and have been using a diagnostic and prescriptive approach to reading since the inception of school in September 1972.

The seeming lack of growth at the fourth and sixth grade levels may be due in part to the fact that at each
of these grade levels only half of the teachers had been actively involved in the P-A-R program. The two inactive fourth grade teachers have allowed their target children to receive and work on prescriptions in class, but with little help from the teachers. One of the inactive sixth grade teachers falls into this same category, but the other inactive teacher has refused to participate in the program in any way other than to allow his children to be tested.

The P-A-R program thus seems to have affected teacher behavior at Woodland Hills Elementary School. Twenty-five of the twenty-six teachers on the staff (96 per cent) are using the prescriptions sent out by P-A-R Center. Eighteen (approximately 70 per cent) of the teachers voluntarily enrolled in the second P-A-R Inservice Education Program which began in March 1973.

The P-A-R Inservice Education Program in conjunction with P-A-R Center itself seems to be having a significant positive effect on teacher performance and attitude at Woodland Hills Elementary School. It is yet too early to determine its effect on most of the members of the target group.
REFERENCES
REFERENCES

Aaron, Ira E. "Sequence of Reading Skills in Reading: Is There Really One." Current Issues in Reading: Proceedings of the Thirteenth Annual Convention, Newark, Del.: International Reading Association, 1969.


Wilson, Robert M. *Diagnostic and Remedial Reading for Classroom and Clinic*. Ohio: Charles E. Merrill, 1967.
APPENDIX
PRESCRIPTION - ASSESSMENT - RESOURCE CENTER
IN-SERVICE EDUCATION PROGRAM
SEPTEMBER 5-6-7, 1972
# Table of Contents

## Introduction

<table>
<thead>
<tr>
<th>Agenda</th>
<th>1 - 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff</td>
<td>4</td>
</tr>
<tr>
<td>Communication Failure</td>
<td>5</td>
</tr>
<tr>
<td>Goals and Objectives</td>
<td>6</td>
</tr>
</tbody>
</table>

## Learning Theory

<table>
<thead>
<tr>
<th>Auditory Difficulties</th>
<th>7 - 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visual Difficulties</td>
<td>9 - 11</td>
</tr>
<tr>
<td>Kinesthetic Method</td>
<td>12</td>
</tr>
<tr>
<td>Muscular Coordination Difficulties</td>
<td>13 - 14</td>
</tr>
<tr>
<td>Cognitive Abilities</td>
<td>15 - 18</td>
</tr>
<tr>
<td>Behavior Rating Scale</td>
<td>19 - 20</td>
</tr>
<tr>
<td>Guidance Teaching Prescriptions</td>
<td>21 - 23</td>
</tr>
<tr>
<td>Reading Check List</td>
<td>24</td>
</tr>
<tr>
<td>Class Reading Profile Sheet</td>
<td>25</td>
</tr>
<tr>
<td>Case Study Form</td>
<td>26</td>
</tr>
<tr>
<td>Sample Case Study</td>
<td>27</td>
</tr>
<tr>
<td>P-A-R Excerpt RE Seminars</td>
<td>28</td>
</tr>
</tbody>
</table>

## Materials and Equipment

<table>
<thead>
<tr>
<th>Values of A-V Media</th>
<th>29</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advantages of Overhead Projection</td>
<td>30</td>
</tr>
<tr>
<td>Equipment &amp; Materials Placement Diagram</td>
<td>31</td>
</tr>
<tr>
<td>Bell &amp; Howell Language Master</td>
<td>32</td>
</tr>
<tr>
<td>Reader-Mate &amp; Filmstrips</td>
<td>33</td>
</tr>
<tr>
<td>Sharp Cassette Tape Recorders</td>
<td>34</td>
</tr>
<tr>
<td>Graflex Filmstrip &amp; Slide Projector</td>
<td>35</td>
</tr>
<tr>
<td>Fountain Valley Reading Support System</td>
<td>36</td>
</tr>
<tr>
<td>Target Yellow, Red, and Blue</td>
<td>37</td>
</tr>
</tbody>
</table>

## Specific Test Data

<table>
<thead>
<tr>
<th>Stanford-Binet</th>
<th>38</th>
</tr>
</thead>
<tbody>
<tr>
<td>WISC</td>
<td>39</td>
</tr>
<tr>
<td>Illinois Test of Psycholinguistic Abilities</td>
<td>40 - 41</td>
</tr>
<tr>
<td>Activities for Strengthening ITPA Abilities</td>
<td>42 - 54</td>
</tr>
</tbody>
</table>
AGENDA
P-A-R IN-SERVICE EDUCATION PROGRAM
SEPTEMBER 5, 1972

MORNING

SPEAKERS:  MR. HOWARD NELSON - PRINCIPAL OF WOODLAND HILLS ELEMENTARY SCHOOL

MRS. AUDREY SPELMAN - DIRECTOR P-A-R CENTER

DR. ALAN CRAWFORD - PROFESSOR OF EDUCATION AND OFFICIAL EVALUATOR OF P-A-R CENTER

DR. LAWANDA KATZMAN - PSYCHOLOGIST AND P-A-R IN-SERVICE EDUCATION DIRECTOR

TOPICS:  TESTING PROGRAM

TYPES OF TESTS
PURPOSES OF TESTS
INTERPRETATION OF TEST RESULTS

AFTERNOON

WORKSHOP

SPEAKER

MR. JOHN PETERSON - 3M COMPANY

TOPIC

TESTING MATERIALS
AGENDA
P-A-R IN-SERVICE EDUCATION PROGRAM
SEPTEMBER 6, 1972

MORNING

SPEAKERS: DR. LANANDA KATZMAN - PSYCHOLOGIST AND P-A-R IN-SERVICE EDUCATION DIRECTOR

MR. JAMES R. GERTH - CLINICAL PSYCHOLOGIST SPECIALIZING IN LEARNING DISABILITIES

MRS. RUTH HOISCH - CLINICAL PSYCHOLOGIST SPECIALIZING IN LEARNING DISABILITIES

TOPICS

INDIVIDUAL DIAGNOSTIC TESTING
SPECIFIC READING DISABILITIES
CASE HISTORIES
NEW MATERIALS AND EQUIPMENT

AFTERNOON

TOPIC

DIAGNOSING READING DIFFICULTIES
AGENDA
P-A-R IN-SERVICE EDUCATION PROGRAM
SEPTEMBER 7, 1972

MORNING

SPEAKERS: DR. LAWANDA KATZMAN - PSYCHOLOGIST AND P-A-R IN-SERVICE EDUCATION DIRECTOR

MR. GARY JACOBS - SPEECH THERAPIST (TENTATIVE)

MRS. FRANCES BELAIRE - TEACHER AND ASSISTANT DIRECTOR P-A-R CENTER

TOPICS

DEMONSTRATION OF NEW EQUIPMENT AND MATERIALS

PRESCRIPTIVE TECHNIQUES IN READING

REMEDIAL TECHNIQUES IN READING

USE OF ABOVE WITH CASE STUDIES

AFTERNOON

TOPICS

CASE STUDY EVALUATIONS

EVALUATION OF P-A-R IN-SERVICE EDUCATION PROGRAM
INTRODUCTION
STAFF FOR P-A-R CENTER
IN-SERVICE EDUCATION PROGRAM

MRS. AUDREY SPELMAN  DIRECTOR, P-A-R CENTER
DR. LAWANDA KATZMAN  DIRECTOR, P-A-R CENTER IN-SERVICE EDUCATION PROGRAM
MRS. MYRA MOREWITZ  ASS’T DIRECTOR, P-A-R CENTER
MRS. FRANCES BELAIRE  ASS’T DIRECTOR, P-A-R CENTER

WE WOULD LIKE TO THANK THE FOLLOWING GROUPS AND INDIVIDUALS WHO HELPED PREPARE THE P-A-R CENTER IN-SERVICE EDUCATION PROGRAM:
THE STAFF MEMBERS AT WOODLAND HILLS ELEMENTARY SCHOOL
WOODLAND HILLS ELEMENTARY SCHOOL ADVISORY COUNCIL
WOODLAND HILLS ELEMENTARY SCHOOL P.T.A
DR. THERON ARNETT, DR. FRANK HODGSON, MRS. CHARLENE ROYER, MR. GORDON NEUMANN, MR. HOWARD NELSON, AND THE STAFF OF THE SURGE PROGRAM.
GOALS AND OBJECTIVES
GOALS AND OBJECTIVES OF P-A-R CENTER IN-SERVICE EDUCATION PROGRAM

GOAL: To familiarize the teachers with the assessment-diagnostic-prescriptive teaching cycle so that they may incorporate it into their own mode of teaching. The teacher will then use this cycle plus the resources of P-A-R Center to help students reduce their discrepancy between reading potential and achievement.

OBJECTIVES:

Assessment: That the teachers shall understand the purposes, advantages and limitations of the survey and diagnostic reading tests that will be used in the program.

Diagnosis: That the teachers shall become aware of the variety of factors involved in the diagnosis of reading difficulties.

Prescription: That the teachers shall understand the basis on which the reading prescription is written - its strengths and its limitations.

Teaching Techniques: That the teachers shall increase their repertoire of teaching strategies by incorporating effective techniques into their modes of teaching. That the teachers shall use the new equipment and the P-A-R Center materials to help their reading instruction meet the specific needs of each child.
LEARNING THEORY
ASSESSMENT
DIAGNOSIS
TREATMENT
AUDITORY DIFFICULTIES

I. Auditory Discrimination

A. Definition: Child has normal hearing but has difficulty:

1. distinguishing the difference between similar sounds, syllables or words.

2. following an auditory sequence.

3. blending sounds into words.

4. dividing words into syllables.

B. Some materials & equipment that may be used are:

1. Language Master and cassette tape recorders.

2. Developing Auditory Awareness and Insight Program, BASE program, Dubnoff program, Target programs.

C. Some corrective procedures are:

1. practice in whisper activities.

2. practice with rhyming words.

3. drill in distinguishing between minimal pairs (words with only one sound difference, i.e. sat-set, cap-cat, rap-tap).

4. identification of different sounds.

5. placement of sounds into categories (i.e. animal sounds, traffic sounds etc.)

6. imitation of sound models where minimal differences are exaggerated. (i.e. preparation of a Language Master card where differentiation is made between p and t.)

D. Notes & Comments:
II. Auditory Memory

A. Definition: Child has normal hearing but has difficulty:

1. remembering information he has heard.
2. putting syllables of words in order.
3. repeating a series of numerals, letters, or words.
4. retelling a story he has heard.
5. following oral directions.

B. Use same type of equipment and materials as for auditory discrimination problems.

C. Some corrective procedures are:

1. always begin with short simple units and gradually increase the length and complexity of the unit.
2. verbalize material as it is being presented.
3. have child repeat oral directions.
4. play games such as "I went to the store and bought bread, eggs ..... etc."
5. write phrases or sentences from dictation.
6. try to avoid nonsense words in the beginning, for the comprehension involved in the word or phrase will help the auditory span.

D. Notes & Comments:
VISUAL DIFFICULTIES

I. Visual Discrimination

A. Definition: Child has normal vision but has difficulty with and tends to:

1. confuse similar looking letters and words.

2. show reversal and/or inverval tendencies in reading and/or writing.

3. have difficulty in visual sequencing.

4. evidence a slow rate of perception.

B. Some materials and equipment that may be used are:

1. Controlled Reader or Reader-mate with readiness filmstrips, overhead projector and cassette tape recorders.

2. Dubnoff materials, Target series, Michigan Tracking Program, Sullivan Readiness Materials etc.

C. Some corrective procedures are:

1. practice in matching similar objects, pictures and designs.

2. sorting pictures and other materials into categories.

3. finding missing parts in designs and pictures.

4. working on puzzles, or dot to dot pictures.

5. tracing and copying designs, letters or words.

D. Notes & Comments:
II. Visual Memory

A. Definition: Child has normal vision but

1. has difficulty in remembering visual experiences.

2. has difficulty in remembering the sequence of a visual experience.

3. may omit relevant details in drawings.

4. cannot copy designs correctly.

B. Use same kinds of equipment and materials as mentioned in part B of Visual Discrimination.

C. Some corrective procedures are:

1. using the overhead projector, project a picture on the screen for a minute. Remove the picture and ask questions about obvious details (i.e. what was the man wearing, holding etc.) Then check with the picture.

2. using the overhead projector project a group of different objects. Remove the picture and ask the children to either draw the objects or write the names of as many objects as they can remember. Check.

3. The above techniques may be used with charts etc.

4. child is shown a story in pictures. Then using just a few key pictures, the child has to arrange them in the proper sequence. (Can also be done with simple stories and key words.)

5. Use the Fernald technique as the approach to the teaching of reading and writing.

D. Notes & Comments:
III. Visual Perception

A. Definition: The child has normal vision but has difficulty:

1. recognizing objects and their relationships to each other and to him in space. (limited understanding of concepts of up-down, in-out, behind-in front of etc.)

2. copying anything he looks at.

3. determining figure-ground relationships. He has trouble telling which is the figure and which is the background.

4. coordinating eye-hand movements. (Can't catch a ball etc. ) Will evidence great trouble in writing.

5. distinguishing between letters that have the same basic form but differ in position in space. (b,d,p)

B. Use similar materials and equipment to that mentioned in part B of Visual Discrimination.

C. Corrective Procedures:

1. Simplify the number and complexity of items on a single page.

2. Work with reading-readiness activities - much cutting, pasting, tracing and puzzle type activity.

3. Use cardboard marker under line of print, or a piece of cardboard with a window in it that exposes only one word at a time.

4. Color-code work (i.e. b,d,p in different colors)

5. Find hidden animals or symbols in pictures.

6. Reproduce designs on peg board, or nail board etc.

D. Notes & Comments: (Fernald Technique is very effective!)
FERNALD'S KINESTHETIC METHOD *

Stage I

1. Child chooses a word he wants to learn

2. Teacher writes the word in blackboard size script on either a small chalkboard or on paper with a felt-tip pen.

3. The child traces the word with his finger, saying each part of the word as he traces it.

4. The child continues to trace until he can write the word without looking at the master copy.

5. The word is then written into the story the child is writing.

6. The word is placed in the child's word box.

If a child has difficulty with the tracing, it may be necessary to use raised or textured letters of some sort (sandpaper, sand in glue, roving etc.)

Stage II

1. Tracing is no longer necessary, but the child must say each part of the word.

2. The teacher may use a smaller size script.

3. The child must still write the word and record it in his word box or dictionary.

Stage III

1. The child may now learn from the printed word without having to say the word or copy it.

2. When reading lesson is completed, the new words should be reviewed and written from recall.

* This is an adaptation of Fernald's technique. Several steps in stages II and III have been omitted as well as Stage IV. The omitted portions pertain to a Language Experience Approach.
MUSCULAR COORDINATION DIFFICULTIES
(Sensory-Motor Skill Problems)

I. Large Muscle Coordination

A. Definition: The child will have difficulty coordinating the basic motor activities that involve a large portion of the total muscle system of the body. This may be evidenced by the child having difficulty in:

1. balancing or walking a straight line.
2. dancing or moving to rhythm.
3. hopping, skipping or jumping.
4. identifying body parts.
5. immitating body movements.

B. Some materials and equipment that may be used are:

1. balance board.
2. ring toss, hoops, bean bags, balls.
3. climbing apparatus.

C. Some corrective procedures are:

1. play group games such as Farmer in the Dell, Duck, Duck, Goose etc.
2. play climbing, jumping and hopping games.
3. practice body activities such as duck walk and leap frog.
4. play games that identify body parts, such as Simon says touch your nose.
5. play games that immitate body position and movements such as Follow the Leader etc.
6. play games on the balance board that involve forward and backward movements.
7. engage in rhythmic activities such as rhythm bands etc.

D. Notes and Comments:
II. Fine Muscle Coordination

A. Definition: Child may have difficulty with

1. eye-hand coordination.
2. perceiving and manipulating forms.
3. copying geometric forms, and cutting and pasting activities.
4. distinguishing right from left.
5. any kind of writing task.

B. Use some of the following materials:

1. manipulative materials.
2. Dubnoff program
3. stencils, dot to dot pictures, tracing materials.
4. Michigan Tracking Program.
5. feeling box.

C. Corrective Procedures:

1. many and varied sorting activities.
2. finger painting, and working with clay.
3. tracing activities and Fernald technique.
4. string beads - play pick up sticks.
5. build models
6. many cutting and pasting activities

D. Notes and Comments:
Cognitive Abilities in Reading *

I. Word Attack Skills

A. Phonetic Analysis Skills

1. knowledge of alphabet
2. auditory perception
3. visual perception
4. knowledge of vowel & consonant sounds
5. blending ability
6. knowledge of vowel digraph & diphthong sounds
7. knowledge of the spelling patterns, regular & irregular

B. Structural Analysis

1. recognition of word configuration
   a. discriminates between words with similar letters
   b. can recognize and use base words with prefixes and suffixes
   c. makes use of syllabication
   d. can use compound and hyphenated words

2. is aware of word forms such as
   a. contractions
   b. plurals
   c. possessives
   d. abbreviations
   e. tense of verbs
   f. adjective forms

II. Mechanics of Reading

A. Oral Reading - rate, efficiency, and expression

B. Silent reading - rate and accuracy

* An adaptation of the Center for the Study of Evaluation Hierarchical Objectives Charts (Sections 28-31)
III. Comprehension Skills

A. Vocabulary Development

1. Extent of vocabulary
   a. sight vocabulary
   b. uses context clues
   c. develops dictionary skills

2. Quality of vocabulary
   a. understands multiple meanings
   b. recognizes implications

3. Understands vocabulary patterns
   a. uses prefixes and suffixes
   b. knows homonyms, synonyms and antonyms etc.

B. Comprehension Development

1. Understands organization of written materials
   a. recognizes the main idea
   b. can find supporting data
   c. is aware of sequential development
   d. realizes the interconnection of ideas

2. Grasps complex concepts
   a. is able to paraphrase and summarize information
   b. can synthesize data into an over-all scheme
   c. is able to follow written directions

C. Memory Development

1. can remember main ideas

2. can recall important characters and remember supporting details

3. can place events in sequence

4. can recall written directions accurately
IV. Reading Interpretation

A. Inference Formation

1. can interpret different types of reading material

2. comprehends non-literal statements and figures of speech

3. can interpret characters' motivations and other implied but
not explicitly stated details of character development

4. realizes implications, makes inferences and can foresee
developments

B. Awareness of Literary Devices

1. aware of stylistic devices
   a. can recognize figurative language and non-literal
      statement
   b. is aware of differences in style and setting
   c. can recognize devices used in poetry and poetic prose:
      i.e., onomatopeia, meter, alliteration etc.

2. aware of techniques of story development
   a. use and development of mood and emotion
   b. techniques of character development
   c. basic plot development

C. Able to Read Critically

1. uses logic
   a. can determine relevance from irrevelance
   b. notices unstated assumptions
   c. recognizes illogical thinking, can determine fact from
      fiction etc.

2. use of judgment
   a. aware of author's opinions
   b. recognizes author's purposes
   c. aware of differences between fact, opinion, hypothesis
      and value judgments
d. aware of propaganda devices

e. is able to judge accuracy of information based on comparison of references etc.

3. use of criticism and comparison

a. can compare basic literary components (plot development, point of view etc.)

b. can compare reading selections with each other and with reality

c. has developed techniques for comparison

d. can differentiate between subjective and objective criteria and evaluation
**COOK'S BEHAVIOR RATING SCALE**

**Student's Name** __________________________  **Teacher** __________________________

Please indicate with an X the extent to which each of the following has been observed.

<table>
<thead>
<tr>
<th>I. Conflict of values between home and school</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Aggressive, cruel, belligerent</td>
</tr>
<tr>
<td>b. Truant</td>
</tr>
<tr>
<td>c. Steals</td>
</tr>
<tr>
<td>d. Impulsive and hostile</td>
</tr>
<tr>
<td>e. Many instances of stubborn behavior</td>
</tr>
<tr>
<td>f. Dislikes both drill and abstract assignments</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>II. Withdrawal from social contact - infantile behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Daydreaming, alternating with hyperactivity</td>
</tr>
<tr>
<td>b. Explosive and unpredictable behavior (e.g. temper tantrums, screaming, squealing, biting himself)</td>
</tr>
<tr>
<td>c. Illogical responses (peculiar comments)</td>
</tr>
<tr>
<td>d. Difficulty reasoning things out logically</td>
</tr>
<tr>
<td>e. Cries often and easily</td>
</tr>
<tr>
<td>f. Seems generally unhappy</td>
</tr>
<tr>
<td>g. Often tells bizarre stories</td>
</tr>
<tr>
<td>h. Refusal to eat and/or talk</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>III. Anxious; guilt feelings; seems to feel inadequate</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Repeats himself (lacks variety of responses)</td>
</tr>
<tr>
<td>b. Difficulty shifting from one idea to another</td>
</tr>
<tr>
<td>c. Confused in following directions</td>
</tr>
<tr>
<td>d. Apprehensive about rightness of response; indecisive</td>
</tr>
<tr>
<td>e. Often withdraws quickly from group activities; prefers to work by himself</td>
</tr>
<tr>
<td>f. Often confused by punishment</td>
</tr>
<tr>
<td>g. Critical of himself</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IV. Overly suspicious and untrusting</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Constant seemingly purposeless difficulty with other children and/or adults</td>
</tr>
<tr>
<td>b. Blames others much of the time</td>
</tr>
<tr>
<td>c. Reacts negatively to approaches by peers and adults</td>
</tr>
<tr>
<td>d. Interprets gestures of friendship as attempts to put something over on him</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>V. Aggressive, acting-out or hyperactive</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Restless</td>
</tr>
<tr>
<td>b. Erratic, flighty</td>
</tr>
<tr>
<td>c. Cannot seem to control self</td>
</tr>
<tr>
<td>d. Upset by changes in routine</td>
</tr>
<tr>
<td>e. Seeks much attention</td>
</tr>
<tr>
<td>f. Tends to be destructive (especially regarding the efforts of others)</td>
</tr>
<tr>
<td>g. Finds it difficult to carry one task to completion</td>
</tr>
</tbody>
</table>

* Adapted from Prescriptive Teaching by Lawrence Peter*
VI. Seems to lack the capacity for anxiety or guilt
   a. Shallow feeling for others
   b. Little capacity to relate to others
   c. Unable to be critical of himself
   d. Deceives continually
   e. Learns little from experience

   Much       Some       None

COMMENTS

Describe behavior which suggests that any of the following physical factors may be contributing to learning difficulties:
1. Vision
2. Hearing
3. Speech impediment
4. Mental retardation
5. Neurological impairment
6. Confusion in spelling and writing (visual-motor)

What is easiest for the pupil to do well, academically or socially, and what is most difficult?

Describe his level of skill in reading, arithmetic, etc. as well as actual achievement; note any specific indications of ability which is not being utilized.

Indicate which techniques have (and have not) been effective, including those inconsistently effective.

Describe the specific behavioral changes which appear necessary for satisfactory adjustment.

List any attendance or home-family factors which appear to be relevant, including information gained from direct contact with the home.

Miscellaneous Comments:
**SUGGESTIONS FOR FORMULATING EDUCATIONAL AND GUIDANCE PRESCRIPTIONS**

A consistent psychological approach when combined with practical teaching techniques can formulate educational programs that should produce positive behavioral changes in students with learning disabilities. The following suggestions are based to a large degree upon copyrighted material and are intended to aid teachers when discussing a case with a counselor.

**Differentiated Psychological Approaches**

Dr. Laurence Peter of U.S.C. has found the categories listed below to be useful in determining an appropriate approach for students functioning inadequately in the normal classroom. More important that the nature of a specific approach is the necessity for teacher consistency. The behavior rating scale which follows this section is based upon the same six categories as discussed below.

<table>
<thead>
<tr>
<th>Description of Behavior</th>
<th>Recommended Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Values learned in the home conflict with those of the school (e.g. steals or is overly aggressive)</td>
<td>1. Balance between sympathy (which may viewed as weakness or stupidity) and firmness (which may be perceived as justification for retaliation); to set up and enforce limits is essential.</td>
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<td></td>
<td>2. Explanation that it is not the emotion itself which creates difficulties, but the child's difficulty in controlling that emotion (e.g. rage at injustice).</td>
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<td></td>
<td>3. A teacher's genuine feelings and experiences can be therapeutic when used in a positive way. (e.g. expression of annoyance at receipt of a parking ticket but without hostility towards police.)</td>
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<tr>
<td>Withdrawal from social contact (e.g. refusal to talk); infantile behavior (e.g. temper tantrums); illogical responses; hallucinations</td>
<td>1. Should be shown only acceptance regardless of response; have no predetermined level of expectation</td>
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<tr>
<td></td>
<td>2. Reinforce behavior in the direction of reality contact and communication; attempt to confront him with reality in a matter-of-fact manner.</td>
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<tr>
<td></td>
<td>3. Imagination can be channeled into art, literature, drama and music. (Expect that he will become suspicious and over-demanding or aggressive in order to gain attention; this is the beginning of reality testing and should be accompanied soon by improvements in learning.</td>
</tr>
</tbody>
</table>
**Description of Behavior**

Feelings of not being able to do anything worthwhile; fearful; seems to feel guilty; lacks varied responses.

**Recommended Approach**

1. Use a friendly and positive approach; it is preferable to give too much rather than too little praise or credit; call attention to the best parts of his work; arrange for recognition of accomplishments by an administrator.

2. Attempt to convey the understanding that a reprimand, when necessary is to help the student learn to control his behavior (i.e. criticize the performance, not the person.)

3. It will be necessary for him to be successful competing with himself before competing with others.

4. When failure is encountered, redirect the student's attention to the assignment and demonstrate the correct method of attack.

5. Seat him near the front of the room between two students with high peer acceptance—preferably two of his friends.

6. If he is tall, use his height to advantage (e.g. getting things off the shelf).

7. When the student tests the sincerity of the teacher's affection, it is important to remain accepting of him; however, do not condone the unacceptable behavior.

**Very suspicious - lacks trust; blames others much of the time.**

1. Make no move toward him, but be available if he reaches for support.

2. Be accepting, but not affectionate (i.e. passive friendliness)—responding with warmth only to the extent that he requests it; student must be allowed to initiate each step of a closer relationship and be expected to test the sincerity of the teacher's friendship.

3. Firm limits are necessary to take away the frightened sense of both power and helplessness.

4. Do not become caught up in blaming/self-exonerating episodes.

5. If behavior is inappropriate, redirect him to the task at hand.

6. Provide recognition commensurate with the degree of success, but do not overcredit his work.

7. Disciplinary action should be handled by an administrator who uses a matter-of-fact approach, providing opportunity for the student to express himself—and taking no action if he declines to respond.
<table>
<thead>
<tr>
<th>Description of Behavior</th>
<th>Recommended Approach</th>
</tr>
</thead>
</table>
| Restless, erratic - seldom completes any task; lacks self-control; is easily upset by changes in routine; seeks much attention | 1. The student should not be permitted to manipulate adults; he should be told in a firm manner to do a task, not asked if he wishes to do a task.  
2. Definite limits should be established and enforced in a kindly manner; this will show the child that the adults on whom he must depend can be trusted to make and carry out decisions that he is unable to make; try to keep personal feelings out of relationship.  
3. Keep the child occupied with work that he can successfully perform; allow little time for self-chosen activities.  
4. As often as possible assign classroom maintenance tasks in which progress can be readily noted.  
5. Praise for good work, but do not over-credit his work. (At first he can be expected to become angry with the teacher instead of himself.) |
| Seemingly unable to feel guilty or anxious; apparently lacking in conscience and seemingly profiting little from experience; limited ability to relate to others; deceives continually | 1. Be direct and forcefully confident in establishing and enforcing limits, use physical force when necessary; avoid idle threats.  
2. Explain and demonstrate what is to be done and then insist that it be done.  
3. Be accepting of warmth and responsiveness, but avoid being manipulated.  
4. Do not allow student to trap teacher into arguing a point.  
5. Avoid becoming emotionally involved in an incident and allowing these emotions to influence teacher-student relationships.  
6. If this approach is effectively implemented, the student can be expected to conform to avoid punishment and loss of privileges.  
7. Acceptable behavior must be established before more friendly approaches are attempted. (This approach may be used upon occasion with any student; its use with the student who seemingly lacks a conscience should only be for a sufficient length of time to establish a reasonable routine.) |
CHECK LIST OF TEACHER OBSERVATION OF READING

A. Reading Attitude
1. withdraws from reading
2. seems nervous, tense, insecure
3. reads with false confidence as if it were too easy
4. doesn't pay attention
5. lacks interest
6. lacks perseverance
7. fails to associate what he reads with his own experience
8. gives up easily

B. Physical Reading Habits
1. points when reading
2. moves his head
3. moves his lips
4. holds book at wrong angle or distance
5. loses place often
6. poor posture and position when reading
7. frowning, excessive blinking, scowling, squinting or other facial distortions when reading
8. mouth agape and drooling
9. compulsive, rhythmic movements

C. Rate and Comprehension
1. reads slowly, word by word
2. does not remember what he reads
3. doesn't seem to understand what he reads
4. shows no expression on face when he reads
5. reads rapidly, skipping or mispronouncing unfamiliar words

D. Oral Reading
1. poor phrasing and emphasis
2. reads in a monotone
3. reads in a high pitched voice
4. voice is low and indistinct
5. slurred enunciation

E. Pronunciation and Word Recognition Techniques
1. substitutes quickly and proceeds with reading
2. studies word carefully, aloud
3. uses configuration only
4. mainly uses syllabication
5. mainly uses phonograms
6. mainly uses letter sounds
7. gives up easily
8. very slow and deliberate
9. confusion in order is resulting in reversals
10. does not use context clues
11. does not use structural analysis
12. makes many initial errors
13. makes many middle errors
14. makes many final consonant or digraph errors
15. makes many errors on blends
16. makes many errors on phonograms
17. will not try unfamiliar words
18. lacks a consistent method of word attack
19. makes many errors on vowel sounds
NAME:  
ADDRESS:  
PHONE:  
DATE OF BIRTH:  
AGE:  
DATE OF REPORT:  
SCHOOL:  
GRADE:  
REPORTED BY:  
PARENTS' NAMES  

I. BACKGROUND INFORMATION
A. FAMILY BACKGROUND
B. SOCIAL RELATIONSHIPS
   1. AT HOME
   2. AT SCHOOL
   3. IN CLASSROOM
C. EDUCATIONAL BACKGROUND
   1. GRADES REPEATED OR SKIPPED
   2. PROBLEMS WITH BEHAVIOR
   3. ANY OBVIOUS INCONSISTENCIES
   4. ANY OTHER PERTINENT MATTER
D. HEALTH HISTORY
   1. PRE-NATAL & BIRTH
   2. CONTAGIOUS DISEASES
   3. PHYSICAL ABNORMALITIES
      ETC.

II. READING POTENTIAL: WHAT SPECIFIC FACTORS LEAD YOU TO BELIEVE THE CHILD IS READING BELOW POTENTIAL?

III. READING ACHIEVEMENT
A. FORMAL TEST DATA (STANDARDIZED TESTS)
B. INFORMAL TEST DATA
C. TEACHER OBSERVATION

IV. READING DIAGNOSIS: BASED ON THE ABOVE ITEMIZED DATA, WHAT DO YOU THINK THE CHILD'S PROBLEM IS? WHAT DO YOU THINK THE CAUSES MIGHT BE?

V. PRESCRIPTION: WHAT GENERAL PROCEDURES SHOULD BE FOLLOWED TO HELP THIS CHILD ACHIEVE HIS POTENTIAL IN READING?

VI. REMEDIAL PROCEDURES: WHAT SPECIFIC PROCEDURES WOULD YOU RECOMMEND TO HELP THIS CHILD?

VII. COMMENTS:
SAMPLE CASE STUDY

Name: Jack G.  
School:  
Date of Report 9/5/72  
Address:  
Grade: Entering 2nd.  
Reported by:  
Phone:  
Birthdate: 8/3/65  
Age: 7-1  
Parents' Names:  

I. Background Information:

Jack is the oldest of three children. He has a sister one year younger and a brother 3 years old. Although the family has lived in the same house for 8 years, Jack's parents have separated several times, and recently have moved back together again for the sake of the children.

Jack gets along well with the neighborhood children and seems to be quite popular. He and his sister fight frequently and do a great deal of tattling about each other's activities.

At school and in the classroom Jack is a very social child. He never lacks for a friend to eat lunch with or play with on the yard.

His mother says that her pregnancy was normal, but that instruments were used during Jack's delivery and that they had "squashed his head a bit."

According to Jack's teacher, he had great difficulty in following directions of any sort. She says that Jack always did what Jack wanted to do and didn't seem to care whether the teacher cared or not. He had difficulty in sitting still and had a very short attention span.

II. Reading Potential:

Jack has a minimal sight vocabulary. He knows initial consonant sounds, but if he doesn't recognize a word immediately, he will guess wildly. The word he chooses often doesn't make sense in the sentence. Jack often makes reversals, was for saw and vice versa.

When approached on a one to one basis, Jack pays attention to the teacher, has some intelligent questions to ask and will also answer questions intelligently.

III. Reading Achievement:

No I.Q. scores available

Cooperative Primary- Grade 1 - Stanine 2
The project will provide released time of (at least) five minimum days during the school year for an on-going in-service evaluation program. This program will include the following steps as steps towards achieving the project objectives:

1. A continuation of the seminars from the pre-school in-service program. These seminars will concentrate on learning theory related to reading, educational objectives for reading, diagnosis, analysis and prescription of reading skills, linguistic approaches to spelling, and self-evaluative techniques.

2. Time devoted to workshop activities for the purpose of development of additional materials, extending the use of existing materials, formulation of teacher made tests, etc.

MATERIALS AND EQUIPMENT
SOME VALUES OF A-V MEDIA

1. OFFERS CONCRETE, REALISTIC EXPERIENCES
2. OVERCOMES LIMITATIONS OF TIME, SIZE, AND SPACE
3. CHANGES AND DEVELOPS POSITIVE ATTITUDES
4. DEVELOPS COMMON DENOMINATORS OF EXPERIENCE
5. COMPELS ATTENTION
6. MOTIVATES
7. DECREASES VERBALISM
8. PRODUCES INCREASED LEARNING IN LESS TIME
9. ENRICHES MEANINGS
10. IMPROVES RETENTION
11. REDUCES FAILURES
ADVANTAGES OF OVERHEAD PROJECTION

1. INSTRUCTOR STANDS IN FRONT OF THE ROOM

2. PROJECTS LARGE IMAGES

3. INSTRUCTOR FACES THE AUDIENCE

4. ROOM CAN REMAIN LIGHTED

5. STUDENTS CAN RELATE EASILY TO THE INSTRUCTOR

6. PERSONALIZES REPRESENTATION

7. TEACHER CAN MAKE MATERIALS FOR SPECIFIC NEEDS

8. STUDENTS CAN MAKE MATERIALS FOR PRESENTATION TO CLASS

9. POINT SOURCE OF LIGHT HELPS FOCUS AND KEEP STUDENT ATTENTION ON SCREEN

10. OVER-LAYS HELP CLARIFY CONCEPTS

11. CAN PROJECT ON TO ANY SURFACE
CLASSROOM EQUIPMENT AND MATERIALS PLACEMENT DIAGRAM

1. LISTENING STATION
2. VIEWING STATION
3. SPEAKING AND WRITING STATION
4. LIBRARY AREA
5. STUDY SKILLS STATION
6. MANIPULATIVE GAMES STATION
READER-MATE WITH SPECIAL FILMSTRIPS
GRAFLEX
FILMSTRIP AND
SLIDE PROJECTOR
TARGET YELLOW
phonetic analysis kit

TARGET RED
auditory and visual discrimination kit

TARGET BLUE
structural analysis kit
SPECIFIC TEST DATA
<table>
<thead>
<tr>
<th>ITEM CLASSIFICATIONS (Vale)</th>
<th>DATE</th>
<th>DESCRIPTOR</th>
<th>REFERENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GENERAL COMPREHENSION:</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>The ability to conceptualize and integrate components into a meaningful total relationship.</td>
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<tr>
<td><strong>IL. 3.</strong></td>
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</tr>
<tr>
<td>Body of</td>
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<tr>
<td><strong>IL. A.</strong></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Identifying objects by name</td>
<td></td>
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<tr>
<td><strong>II-5.</strong></td>
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<td></td>
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<tr>
<td>Identifying objects by use</td>
<td></td>
<td></td>
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<tr>
<td><strong>II-6.</strong></td>
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<td>Body of</td>
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<tr>
<td>Simple commands</td>
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<tr>
<td><strong>III-6.</strong></td>
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<tr>
<td>Comprehension I</td>
<td></td>
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<tr>
<td><strong>IV. 4.</strong></td>
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<td></td>
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<tr>
<td>Picture identification</td>
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<tr>
<td><strong>IV. 5.</strong></td>
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<tr>
<td>Comprehension II</td>
<td></td>
<td></td>
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<tr>
<td><strong>IV. 6.</strong></td>
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<tr>
<td>Materials</td>
<td></td>
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<tr>
<td><strong>IV-6.</strong></td>
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<tr>
<td>Comprehension III</td>
<td></td>
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<tr>
<td><strong>IV-6. A.</strong></td>
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<tr>
<td>Picture identification</td>
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<tr>
<td><strong>VII. 2.</strong></td>
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<tr>
<td>Similarities 2</td>
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<tr>
<td><strong>VII. 4.</strong></td>
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<tr>
<td>Comprehension IV</td>
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<tr>
<td><strong>VII. 5.</strong></td>
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<tr>
<td>Opposite analogies III</td>
<td></td>
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<tr>
<td><strong>VISUAL MOTOR ABILITY:</strong></td>
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<tr>
<td>The ability to manipulate materials in problem solving situations usually requiring integration of visual and motor skills.</td>
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<tr>
<td><strong>IL.</strong></td>
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<tr>
<td>Form board</td>
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<td><strong>IL. 4.</strong></td>
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<tr>
<td>Key to</td>
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<tr>
<td><strong>II. 3.</strong></td>
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<tr>
<td>Stringing editing</td>
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<tr>
<td><strong>V. 1.</strong></td>
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<tr>
<td>Picture completion: man</td>
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<tr>
<td><strong>V. 2.</strong></td>
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<td></td>
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<tr>
<td>Folding triangle</td>
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<tr>
<td><strong>ARITHMETIC REASONING:</strong></td>
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<tr>
<td>The ability to make appropriate numerical associations and deal with mental abstractions in problem solving situations.</td>
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<td><strong>VI.</strong></td>
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<tr>
<td>Number concepts</td>
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<tr>
<td><strong>IX.</strong></td>
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<tr>
<td>Change</td>
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<tr>
<td><strong>XIV. 4.</strong></td>
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<tr>
<td>Ingenuity I</td>
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<tr>
<td><strong>XIV. A.</strong></td>
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<tr>
<td>Ingenuity II</td>
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<tr>
<td><strong>MEMORY &amp; CONCENTRATION:</strong></td>
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<tr>
<td>The ability to attend and retain. Requires motivation and attention and usually measures degree of retention of various test items.</td>
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<tr>
<td><strong>II. 2.</strong></td>
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<tr>
<td>Delayed response</td>
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<td><strong>II-6.</strong></td>
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<tr>
<td>2 digits</td>
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<td><strong>III. 4.</strong></td>
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<tr>
<td>Picture memories</td>
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<td><strong>III. A.</strong></td>
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<tr>
<td>2 digits</td>
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<td><strong>IV. 2.</strong></td>
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<tr>
<td>Objects from memory</td>
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<tr>
<td><strong>IV. A.</strong></td>
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<td></td>
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<tr>
<td>Memory for sentences I</td>
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<tr>
<td><strong>IV-6.</strong></td>
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<td>3 commissions</td>
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<td><strong>VII.</strong></td>
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<tr>
<td>5 digits</td>
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<tr>
<td><strong>VII. A.</strong></td>
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<tr>
<td>3 digits reversed</td>
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<tr>
<td><strong>XIII. 3.</strong></td>
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<tr>
<td>Memory for sentences III</td>
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<tr>
<td><strong>XIII. 6.</strong></td>
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<td></td>
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<tr>
<td>Copying a bead chain from memory</td>
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<tr>
<td><strong>VOCABULARY &amp; VERBAL FLUENCY:</strong></td>
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<tr>
<td>The ability to use words correctly in association with concrete or abstract material; the understanding of words and verbal concepts; the quality and quantity of verbal expression.</td>
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<tr>
<td><strong>II. 2.</strong></td>
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<tr>
<td>Picture vocabulary</td>
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<td><strong>II-6.</strong></td>
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<td>Picture identification</td>
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<td><strong>III-6. C.</strong></td>
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<td>Response to pictures</td>
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<td><strong>X. 5.</strong></td>
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<td>Word naming</td>
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<tr>
<td><strong>JUDGMENT &amp; REASONING:</strong></td>
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<td>The ability to comprehend and respond appropriately in specific situations requiring discrimination, comparison, and judgment in adaptation.</td>
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<td><strong>II-6.</strong></td>
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<td>Pictorial sim. &amp; diff. II</td>
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<td><strong>V. 6.</strong></td>
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<td>Patience: rectangles</td>
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<td>Differences</td>
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<td><strong>VI. 3.</strong></td>
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<td>Mutilated pictures</td>
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<td><strong>VI. 5.</strong></td>
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<td>Opposite analogies II</td>
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<td>Pictorial absurdist I</td>
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<td><strong>VII. 6.</strong></td>
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<td><strong>SA-I.</strong></td>
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<td>4 digits reversed</td>
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<td><strong>SA-II.</strong></td>
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<td>Passage I: Value of Life</td>
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<td><strong>SA-III.</strong></td>
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<td>Repeating thought</td>
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WISC TEST PROFILE

VERBAL SCALED SCORES

1. INFORMATION - general knowledge - long term memory based on experience and schooling

2. COMPREHENSION - practical knowledge and social judgment - tests reasoning and logical thinking

3. ARITHMETIC - concentration, arithmetic reasoning and sequencing

4. SIMILARITIES - tests relationships and abstract thinking - association of abstract ideas

5. VOCABULARY - tests word knowledge and verbal fluency

6. DIGIT SPAN - attention, concentration and rote and short term memory

PERFORMANCE SCALED SCORES

1. PICTURE COMPLETION - visual memory and alertness to details

2. PICTURE ARRANGEMENT - interpretation of a social situation, sequencing and general visual alertness

3. BLOCK DESIGN - visual perception, reproducing a pattern

4. OBJECT ASSEMBLY - reproduce an abstract design from memory - visual retention

5. CODING - immediate visual memory, motor control

6. MAZES - eye hand coordination, visual planning and foresight

VERBAL SCALED SCORE + PERFORMANCE SCALED SCORE =

FULL SCALE IQ
## The Illinois Test of Psycholinguistic Abilities

Adapted from Dr. Janet Switzer's Chart

<table>
<thead>
<tr>
<th>Sub-Test Name</th>
<th>Functions Covered</th>
<th>Notes</th>
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<tbody>
<tr>
<td>Auditory Reception</td>
<td>Receptive understanding of spoken word. Imagery, vocabulary and information tapped, also ability to attend.</td>
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<tr>
<td>Visual Reception</td>
<td>Ability to comprehend pictures and to form concepts. Functional identities are tapped.</td>
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<tr>
<td>Auditory Association</td>
<td>Ability to relate words meaningfully. Taps verbal concepts of a more automatic sort than Verbal Expression.</td>
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<tr>
<td>Visual Association</td>
<td>Ability to comprehend relationships between pairs—a pencil &quot;goes with&quot; a scratch pad. Also includes concepts.</td>
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<tr>
<td>Verbal Expression</td>
<td>Taps verbal fluency and number of concepts child can employ. Ability to express ideas in words.</td>
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<tr>
<td>Manual Expression</td>
<td>Ability to express ideas through movement and gesture.</td>
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<tr>
<td>Grammatic Closure</td>
<td>Ability to speak grammatically. This is automatic because child is not taught formally but learns through imitation. Taps imitative, memory functions.</td>
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<tr>
<td>Auditory Sequential Memory</td>
<td>Test of immediate recall for digits. Auditory memory tapped.</td>
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<tr>
<td>Visual Sequential Memory</td>
<td>Memory for a visual sequence.</td>
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<tr>
<td>ITPA SCALED SCORE PROFILE</td>
<td>ABILITY MEASURED</td>
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<td></td>
<td>Deriving meaning from verbally presented material</td>
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<tr>
<td>TORY</td>
<td>Deriving meaning from visual symbols</td>
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<td></td>
<td>Understanding of relationships when concepts are presented verbally</td>
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<tr>
<td>TORY</td>
<td>Understanding of relationships when concepts are presented visually</td>
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<tr>
<td>TAL</td>
<td>Expression of ideas by verbal communication</td>
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<tr>
<td>TAL</td>
<td>Expression of ideas by motoric (gestural) communication</td>
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<tr>
<td>TAL</td>
<td>Correct language usage involving syntax and grammatic inflection</td>
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<tr>
<td>TAL</td>
<td>Identification of a common object from an incomplete visual presentation</td>
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<tr>
<td>TAL</td>
<td>Memory for a symbol series following a verbal presentation (Digit recall)</td>
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</table>
12 subtests of the ITPA, the mean performance of any given age group is equal to a
36, with a standard deviation of 6. An individual child's performance on each subtest
is a deviation from the mean for his age group.

A scaled score for an individual child may also be established, and drawn as a vertical
d line across the profile. Deviations from this individual mean or median would reveal
abilities within the child's own frame of reference.

The above procedures, in comparing a subtest scaled score with a mean or median scaled
score of ±6 should not be considered an indication of a special ability or disability.
the range within which approximately 68% of children would score.

Score of ±7, ±8, or ±9 should be considered a borderline discrepancy.
Score of ±10 or greater is considered a substantial discrepancy.

Winer's Manual, Illinois Test of Psycholinguistic Abilities
SUGGESTED ACTIVITIES FOR STRENGTHENING LANGUAGE AREAS AS MEASURED BY THE ILLINOIS TEST OF PSYCHOLINGUISTIC ABILITIES (ITPA)

This summary which contains suggested activities for strengthening language areas measured by the ITPA subtests was prepared by the teachers and counselors in the Title VI, Summer 1968, workshop. It is hoped that this effort will be helpful to the workshop participants in prescriptive teaching, particularly as a follow-up for the ITPA videotape prepared during the Title VI workshop.

Activities are suggested that may be helpful in increasing competency in the abilities measured by each ITPA subtest. The nine areas of the test are treated separately, but it is anticipated that teachers using this material will combine activities as needed to utilize the child's strong points to help him overcome his weaknesses. For example if he is strong in visual areas, present pictures with auditory activities. When several children need remediation in the same area, they may be grouped for instruction.

In some instances these activities may be carried out at home by the parents with the cooperation of the teacher.

This is not intended to be a comprehensive plan, but a compilation of suggestions from which each teacher may make her own plans to fit individual children in her class. She may wish to consult with her school principal, the school counselor as to the child's needs and with the EMR supervisor or consultant as to method. Although better observation, listening and verbal expression may result, we also must remain aware that many of these language activities may not show carry-over into the academic areas unless specific teaching for transfer is included or academic materials are used as bases for the tasks.
Training for language development is an essential part of our EMR program. Most of these children can profit by this help and some of them may increase their competency to a great degree.

AUDITORY RECEPTION

This subtest is a controlled vocabulary test. (Do you eat? Do lanterns shine?) Child may answer yes or no.

Auditory reception is the ability of the child to understand the spoken word. Possible language barriers and listening habits may be variables.

Listening and Responding:

1. Give directions to be followed. Increase from one simple direction to a series of 3 or 4.
2. Listen to stories and answer questions.
3. Use listening center. Tape a story. Possibly use picture series with it to build vocabulary.
4. Child closes his eyes, listens and identifies a variety of familiar sounds.
5. Children may respond by using picture cut outs on a flannel board to illustrate a story they are hearing.
6. Use quick questions that can be answered with yes, no or maybe.

Differentiate and Compare:

1. Identify by drawing, naming or pointing to objects that start alike, sound alike or rhyme.
2. Differentiate between similar words.

Meanings:

1. Teacher reads story. Child locates word in story which teacher has defined.
2. Find words that describe or tell about a person, an animal, or a place. Find words that tell what someone did.

**Games:**

1. Guess what object is being described.

2. "May I?" Children may give directions such as "Hop three times on your left foot." The player called upon must say, "May I?" before complying.

3. Simon Says involves comprehending spoken words.

**Others:**

Use many vocabulary building activities such as trips, visits, talking about picture and slides, listening to others share experiences, discussing pets, making plans, gardening, science experiments, and singing.

**VISUAL RECEPTION**

Subtest requires choosing from among four pictures the one most nearly identical on a meaningful basis to one previously viewed.

**Visual Reception** has been defined as the ability of the child to understand what he sees. (According to Spache this is the single most important factor in promoting reading achievement.) In order to determine a child's skill in this area a checking device or response is needed. Responses may be verbal or non verbal:

**Suggested Remedial Procedures:**

1. Looking at a picture or object and pointing to one (in a left to right sequence) that is similar.

2. Identifying similar objects among groups of pictures. He may point to and/or verbalize the likenesses and differences.
3. Simply identifying by naming or pointing to objects in picture
dictionaries, magazines etc.

4. Explaining action pictures - "What is happening and why?"

**Peg Boards and Beads:**

1. Use a peg board. Copy simple designs with colored pegs or make first
   row red, second row green etc. or 5 blue pegs, 4 yellow pegs.
2. Use same directions as for peg board. Have child string beads.

**Others:**

1. Simple jig saw puzzles.
2. Use of maps, charts, graphs.
3. Child explains how objects differ or are similar.

**Grouping Games:**

1. Games to cluster various shapes of objects which vary in size and
color. "Put all the squares in this box."
2. Games to cluster objects of similar size. "Put all the big blocks
   in this corner, the small ones here."
3. Table with objects - find ones that are: rough or smooth; thick or
   thin; shiny or dull; tall or short; dark or light.
4. Scrap books - sections for pets, toys, flowers etc.

**Matching Games:**

1. Games, with any kind of picture cards, played like "Old Maid."
   You draw a card and if you have a matching card you may discard
   the pair. Player who runs out of cards first is winner.
2. "Blue circle" cards with shapes pasted on card. First player
   chooses a card and holds it up, others may discard into the pot
all of theirs that are like it etc. Winner is one who loses all cards first.

AUDITORY ASSOCIATION

This subtest attempts to assess ability to relate spoken words on a meaningful basis. (I sit on a chair. I sleep on a ____.) Child completes a sentence by supplying an analogous word.

In planning remediation for this area it is vital to remember that the "horse that goes before" is acquiring basic language. The culturally different child with little background will need a broad base of experience with language filled activities and concrete objects that help him learn meanings for words. He must hear the words many times in many ways and use them himself many times before he is ready for the "cart" of formal drills in auditory association.

He might practice some of the aspects which research has shown to be useful in dealing verbally with opposites, categories and other word associations and relationships. (Berester and Engelmann)

- If the stove is not hot, it is ____.
- When the airplane is not up, it is ____.
- When I am not sad, I am ____.
- A shirt is something you wear. Tell me something else that you wear.
- A hammer is a tool. Tell me something that is not a tool.

Activities

1. Teach synonyms, opposites, analogies, classifications.
2. Find other ways to express an idea.
3. Name all the birds, cars animals you can think of.
4. Ask how two things are alike (or different). At first, accept simple concrete answers; later, encourage more abstract thinking.
5. Ask "What would happen if" questions.

Activities that Requires Prepared Materials

1. Children pick out from a group of pictures two that are alike.
2. Pick one picture that is unlike others in the set.
3. Use manila folder with two rows or words. The teacher joins opposite words with foil on the back of the folder. Using a circuit tester the child touches one word in the first row and the opposite in the second row. If he chooses the correct word, the circuit is complete. (A more simple format would be to have answers on the back.)

VISUAL ASSOCIATION

In this subtest the child is asked to select an object or a picture which most meaningfully relates to the stimulus item.

Games:

1. Have objects or picture cards to classify under a particular heading (animals, toys, something to ride, food).
2. Children may cut out pictures to paste under a particular heading.
3. Have two rows of pictures. Let children select those that go together, such as cup and saucer. (Work paper, self checking game or flannel board with teacher.)
4. Have sets of four pictures to determine which one does not go with the others. Three must have something in common.
5. Encourage children to classify the same items in a variety of ways to determine the common element (size, color, use, material).
6. As children advance, they may associate printed words in the same way as they had used objects and pictures previously.

**VERBAL EXPRESSION**

Subtest determines the number of unique, meaningful ways a child can verbally characterize a simple object. The directions are: "Tell me all about it." Can he express ideas in spoken words?

**Interpreting Pictures:**
Child is encouraged to make up short story about a picture with no prompting from teacher. Other children listen for sequence of ideas. (Tape recorder or puppets may be used.)

**Show and Tell:**
The child brings a toy or some prized possession to "show and tell" about.

**Instructing Others:**
A child may teach a skill to the class. Child makes something and explains how he did it.

**Giving Directions:**
(May use Teletrainer Kit, tape recorder or talk directly to the class.) Child gives another child directions to his house, to the store, to the library etc. Children play the Directions Game. One child gives simple directions to another child, "Go to the back of the room; touch the blackboard then skip back to your seat." The number of assigned tasks may be increased as the children gain ability in giving directions.
Guessing – Rhyming Game:
The teacher points to a picture or to a child whose name is Bill and says
"This little boy is Bill." "He lives up on a high high _____." "Who can
 tell where Bill lives? It is a word that sounds like Bill." "Yes, it is
hill." The game continues in this manner.

Dramatization:
1. Dramatize a story, expressing meaningful ideas.
2. Use role playing to clarify something that has happened or to pre-plan anticipated activity.
3. Use finger plays, rhymes and riddles as language aids.

Other:
Encourage explanations of why things happen. Describe an object, tell a story about it. Have problem solving sessions. Tell new uses for a familiar object. Enrich ability to describe by considering words to use for size, shape, color, texture, use, weight, material. In descriptions, use sensory approaches. If subject is alive, include behavior and feelings.

MANUAL EXPRESSION
This subtest attempts to determine ability to supply gestures appropriate for the manipulation of given objects. Can he express ideas through action or gestures?

Manipulation:
Actual manipulation of many objects and observation of how things work could improve motor encoding. (Tools, musical instruments, household items.) Opportunities can be provided at home as well as at school.
Games:

1. Imitate the walk of animals.
2. Copy activity or body position observed in a picture.
3. Follow the leader.
4. Draw pictures depicting activities. Use art materials or blackboard.
5. Use puppets to act out roles.
6. Charades can be enjoyed by the group.
7. Games, songs, finger games and rhythms (such as Looby-Loo, Hokey-Pokey, Simon Says) can involve motor expression and dramatization.

GRAMMATICAL CLOSURE

This subtest uses sentences to be completed by a word requiring inflection. 

(Here is a bed. Here are two _________. This box is big. This box is even _________.) It samples the child's repertoire of grammatical rules that are usually acquired without conscious effort, plurals, verb forms, comparisons. Can he use the English language adequately?

Pattern:

The best help in this area is to provide a clear and accurate model of speech for the child to emulate.

Practice:

1. Work on suffixes, plurals, comparison terms, verb endings. Discuss appropriate pictures. Say "The boy is running. Can you run? When you run, you might be called a runner."

2. Children look at various objects. The teacher might say, "This is a pen. Now I have two pens." Children make similar statements about other objects.
3. Teach comparatives and superlatives. Some children may not have the experience with a variety of similar objects. "This ball is big. This one is bigger. This one is the biggest of all."

Activities:

1. Choral Reading.
3. Individual opportunities for oral language — sharing, story telling, describing activities.

AUDITORY SEQUENTIAL MEMORY

Subtest — Digit Repetition.

Explanation:

1. Ability to correctly reproduce a series of numbers, to recall and verbalize in correct sequence prior auditory information.

2. Children weak in this ability should be given many opportunities to imitate specific sound patterns, to remember and repeat digit and letter and word series. Attention is an important factor in auditory memory.

Rote learning:

1. Child learns his complete name, address, telephone number, names of his parents and siblings.

2. Teach days of the week, months of the year.

3. Teach songs and rhymes.

4. Have some children spell and repeat words before writing them.
Listen and Repeat:

1. Tape simple record, then complex sentences for child to hear and repeat.
2. Play a rhythm with a pattern on musical instrument. Child reproduces it. Tap a pattern for child to repeat.
3. Children say their telephone numbers. Others repeat.
4. Give series of places visited (or sequence of events) and have child repeat them in order.
5. Listen to recorded stories and retell in order of events.
6. Record jokes and riddles for children to tell later.

Recall Series:

1. Complete auditory series as 1 2 3 __ 5, or furnish the missing rhyming word of a poem.
2. Teacher says a sound. Child tells whether it is at the beginning, middle or end of the given word.

Adding to a Sequence:

1. Begin a story. Each child tells the story that far in sequence and then adds a line.
2. Game—"On the way to school I saw a dog." Next child repeats this and adds an item.

Helpful:

Auditory Training Games—"Play It By Ear" by Lowell. Available at the John Tracy Clinic, 806 W. Adams Blvd., Los Angeles, Calif. 90007.
VISUAL SEQUENTIAL MEMORY

This subtest requires the child to reconstruct a series of geometric forms from memory. The child must recall accurately prior visual experiences.

Activities encourage visualization or forming and maintaining a mental picture, so that the visual pattern and sequence can be reproduced or applied. Close attention is essential.

Recall Activities:

1. Show and Hide. Place coin, pencil, tack, button, chip, mail and pen on the table (probably less items at first). Count to 10 while child observes. Child turns back and one item is removed and placed in box with several other objects. The child turns around and selects the missing object from those in the box.

2. Arrange dotted perception cards in chalk tray. Briefly expose a model, remove and have child point out the duplicate.

3. Use large dominoes to expose and recall visual patterns.

4. Show a few simple objects or forms. Child draws them from memory or selects matching sequence.

5. Present several number cards. Briefly show a duplicate of one, then have child match by recall.

6. Have child complete visual series as 1 2 3, a b c ________.

7. Arrange pictures in sequence as recalled from a story.

Games:

1. Activities with assorted toys, geometric forms, colored disks, pictures or artificial fruit.
(a) Place objects of one category one at a time in row (left to right) in front of child instructing him to watch placement closely. Have child close eyes, rearrange objects, have child replace them in original positions.

(b) Using same objects, remove one item while child hides his eyes, have child select and replace the correct item from among several extras.

(c) Remove all the objects and place to one side with other objects. Have child select the original items and replace them in original order.

2. Have one child touch an item in the room. The next child touches that item and one more.

3. Have a center where children can reproduce bead, block, marble or geo-board and rubber band patterns first by copying, later from memory.