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THE CASE STUDY A TECHNIQUE FOR THE
DIAGNOSIS OF READING DISABILITY

A Thesis
Presented to
the Graduate Faculty
Central Washington State College

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

by
Barbara Jensen

June, 1967

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CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

One of the greatest concerns in the field of education today is the teaching of reading. This is evidenced by the following statement from Harris:

In the primary grades, more time and effort is spent on teaching reading than on any other phase of the school program . . . At the first and second grade levels, children are very rarely kept back for any reason other than failure in reading . . . Today an increasing number of secondary schools, colleges, and universities recognize that many of their students cannot do the reading expected of them (21:3).

Because reading is preserved by recorded printed symbols, it can be engaged in at the will of the reader. The finest of past and present may be considered, enjoyed, reread and deliberated upon when and where the reader desires and at his own rate of assimilation. Bamman, Bond and Tinker, Hildreth, DeBoer, Strang and others recognize the following as being some of the major needs and uses of reading in everyday life: (1) a tool for learning, (2) keeping abreast of timely topics, (3) requirements of industry and professions, (4) personal and social adjustment, (5) a prestige factor, and (6) recreation. What happens to one then that fails to learn to read well in our culture?

As he gets older, the poor reader is increasingly handicapped by his difficulty . . . He is almost sure to repeat grades and, if he gets into high school, he

is practically certain to leave without graduation. Many desirable occupations will be closed to him . . . to a large extent he is cut off from cultural activities and finds it difficult to mingle with educated people . . . he may progress by easy stages to truancy, and juvenile delinquency . . . the frustrations caused by years of unsuccessful effort and incidious comparisons with other children are practically certain to create severe feelings of inferiority which interfere with normal personality development (21:2,3).

The causes underlying reading disability are multiple and interrelated. This interrelation adds to the complexity of the disability. Effective remediation is dependent on accurate diagnosis of this complexity. The best procedure for this depth examination is the case study technique.

I. THE PROBLEM

Statement of the problem. On the basis of school-room observation a child will be selected who appears to be reading significantly below grade level. An informal inventory test will be given to determine the level he is actually reading. Pertinent diagnostic tests will be administered to determine the nature of his ability, his performance, and his disability. Remediation will be based on careful evaluation of diagnostic findings. The child will have remedial instruction for one-half hour a day for approximately four months. An eclectic program will be used appropriate to his needs. Post-tests will be given at the end of this period to establish the effects of the program.

Importance of the study. From a review of the literature, it appears that reading disability is a serious problem in the present educational picture. "There are far too many poor readers or even non-readers in both the elementary and the secondary schools. And too many of our children leave school with insufficient competence in this most important means for learning" (41:1-2). It is necessary to find approaches, methods or techniques that can be employed to effectively deal with cases of reading disability.

Although many children experience difficulty in learning to read, most of them can and do learn when they are provided with adequate remedial instruction. . . . Appropriate instruction is based on those needs identified through accurate diagnosis When a thorough diagnosis has been completed, a program of instruction can be developed which will enable the child to overcome his reading deficiencies and permit him to read at a level commensurate with his mental capabilities (36:29).

Diagnosis must establish the reason for a child's disability through careful analysis and then prescribe procedures for overcoming these difficulties. This paper is a descriptive presentation of the case study technique for this purpose.

Limitations of the study. Review of the literature in the field of reading was not intended to be complete but was confined to the areas of (1) what is a disabled reader, (2) diagnostic procedures, (3) causes of disability, and (4) the remedial program.

The total time involved in this study was limited to 14 weeks.

Scheduling of appropriate times to work with the subject had to be changed several times, as did a physical work area.

Only one subject was used.

A limited number of tests were used.

II. DEFINITION OF THE TERMS

Reading. The accurate and meaningful interpretation of visual symbols.

Eclectic program. Selection of specific material from various sources for individual progress based on individual needs and abilities.

Experience chants. Stories written by a pupil using his own personal knowledge and experience.

Kinesthetic method. A multi-sensory word study method involving sight, sound and touch simultaneously.

Remediation. Individual prescription of methods and materials for individual needs.

Disability. Reading skill which is significantly below expectancy for the child's mental ability.

CHAPTER II

REVIEW OF THE LITERATURE

Authorities do not agree on a given percentage of disability, however research substantiates that it is serious and requires immediate attention. Betts states "various authorities estimate that 8 to 15 per cent of the school population have varying degrees of reading disability" (6:7). Harris estimates between 10 and 15 per cent of elementary school children have reading disability (21:19) and Bond and Tinker find "The percentage of seriously retarded readers . . . range from about 10 to 25 per cent" (6:7). Regardless of whether the per cent is 10, 15, or 25, the problem of disabled readers is serious and remedial work is urgently needed. Reading disability is never the result of a single causal factor. Cohn and Cohn indicate:

There has been found no single pattern of causative factors underlying reading failure. Nor is there any evidence in the enormous literature on this subject to indicate a unitary cause. Continued difficulty in learning to read on the part of a student of normal intelligence is the outcome of many adverse factors within the child, his home, and his school environment. The student brings all of himself to the reading act . . . his strength and his limitations. It is important to assess them. It is this assessment which should determine the nature of the program to be developed for the individual pupil (9:6).

I. DEFINITION OF A DISABLED READER

Reading disability is a subtle and difficult condition to classify and identify since no two cases are exactly alike and no two cases are caused by the same set of circumstances. However, there seems to be enough in common to suggest guide lines for defining a child with reading disability. Most disabled readers will be significantly below grade level in reading achievement as well as in general achievement areas, especially in those areas which are related to or dependent on reading. It would seem that the major criterion is a significant discrepancy between the child's performance and his potential learning capacity. Smith and Dechant suggest that generally, retardation is defined in relation to level of general development with perhaps the greater emphasis being on mental development (41:420). Durrell and Harris both feel that a retardation of six months is significant at first grade level and a year or more in grade six (13:279), 21:299). Bond and Tinker state that:

The disabled reader is, in general, one who has had an opportunity to learn to read, but who is not reading as well as could be expected by his aural verbal ability, his mental capacity and his success in non-reading learning (6:79-80).

And Kottmeyer states that the child becomes remedial when the extent of the disability renders him unable to "par-

ticipate profitably in classroom learning activities which involve the use of textbooks" (29:1). The disabled reader then, is a child who "is so handicapped in reading that his educational career is in jeopardy" (6:68). The one exception is in the case of a slow learner who may be below grade level but functioning to capacity in accordance with his mental ability.

II. DIAGNOSIS

First the disabled reader is identified. The areas of weakness that are contributing to the problem then must be isolated before an effective program can be provided to overcome the difficulty. The earliest possible diagnosis and remediation of a reading problem will often prevent the development of more severe disability for the child. Smith and Dechant state that:

An effective developmental reading program is built on a foundation of early diagnosis of inadequacies, careful evaluation of needs and abilities, and the utilization of professionally designed materials and methods (41:407).

Authorities suggest the use of three levels of diagnosis for identifying disability (35:44), (6:128), (41:414).

Survey

Early diagnosis and evaluation can quite easily be effected by the classroom teacher at what is called the survey level of diagnosis. This level of identification serves as

the foundation on which all subsequent diagnosis is based. Methods of examination usually include group and/or individual achievement tests, teacher observation and cumulative record folders. A teacher must also be alert to physiological or sensory limitations or learning difficulties and adjust methods accordingly. The main contribution of a survey evaluation is to identify individuals who have possible severe disability and need further study and to uncover strengths and weaknesses in the general class or specific groups of children within the class (35:44). Children whose problems are identified at this level are referred to as cases of simple disability and can be helped in the classroom by adjustments in materials and instruction.

Analytical

Specific or analytical diagnosis is usually performed by reading specialist or clinician and deals with the next level of severity. This level involves identification of specific areas of strengths and weaknesses in the reading act. Methods of examination usually include standardized or informal tests, measures of intelligence and tests that give a detailed analysis of performance in the areas of difficulty. This evaluation is often sufficiently diagnostic to indicate the instructional adjustments required. Children in this category are often taken out of the classroom for remedial instruction until they are able to function normally again at grade level.

Case Study

The third level is the intensive or case study technique which requires complete appraisal of all possible factors that may be related to the basic defects or problems that are interfering with or impeding effective learning. It brings together and integrates everything known about the academic performance, home background, school history, health record, personality and social adjustment of the child; translates all diagnostic information into recommendations for remedial treatment and describes and evaluates the results of the remedial treatment (36:37-38). This level of diagnosis is used with children classed as cases of limiting disability. At this level the need is for re-education in a reading center or clinic with a well planned program designed to correct faulty reading patterns and develop the skills that are lacking.

For the limiting disability cases, the case study is invaluable because of its thorough scope of assessment and although less severe cases may not require this, the lack of complete and accurate diagnosis can be harmful rather than helpful to the child. In Kress (30:75), Rabinovitch states that:

. . . Failure to attempt accurate diagnosis, with all cases labeled indiscriminately as reading disabilities, has led to the many divergencies in reports in the literature, and more important, has probably afforded many children inappropriate treatment.

III. DIAGNOSTIC PRINCIPLES

When applying the case study technique, there are generally recognized principles of diagnosis to be followed. (6:Ch.VII): (1) Diagnosis must always be directed toward formulating methods of improvement; (2) it should supply all pertinent information for correcting the disability; (3) it must go as far as necessary to isolate the problem but no farther than needed; (4) only pertinent information should be collected by the most efficient means; (5) standardized procedures should be used whenever possible; (6) informal procedures may need to be used when it is necessary to expand the diagnosis; (7) decisions must be based on patterns of scores; and (8) diagnosis should be continuous. This last principle may well be the most important of all since the program of remediation and the findings of diagnosis are so closely and continuously interrelated. As Otto believes:

. . . the dichotomy between diagnostic and remedial techniques is preserved mainly for discussion purposes; in practice such a dichotomy should not exist. Diagnosis and remediation are concurrent in good remedial teaching: diagnosis results in dynamic teaching which, in turn, is constantly evaluated (35:34).

Causes of disability will be examined before effective remedial planning is considered.

Causes of Disability

Research tells us that the diagnosis of learning problems can be an extremely complex task. Seldom can a single causal factor be isolated as the key to a given learning problem. Typically, there are a number of causal factors operating in a case of learning disability. Also, the large number of factors that are shown to have a relationship to a learning disability may interact in a wide variety of ways which further complicate the diagnostic process (29:16), (21:274). Pollack and Peikarz state that:

Any factor or condition that can interfere with any kind of learning is apt to have even more influence on the acquisition of reading skills than on other learning. Since reading is a highly complex process which involves the use of abstract symbols and requires highly disciplined eye movements and close, concentrated attention for prolonged periods of time, the effects of negative factors and conditions are exaggerated (36:16).

Neither does the alteration or removal of these factors insure reading growth. Although it is often necessary to eliminate the handicaps under which the child is laboring, before he can be taught to read, it does not follow that the alteration of these factors will always insure positive growth in reading. Research tells us that:

. . . although handicapping factors may be identified within a child, they may bear little relation to his reading problem. The correction or elimination of such factors may still leave a child unable to learn to read. The pattern of factors involved seems to be more important than any single factor or condition for such children (36:16-17).

The nature of defects in reading are recognized to be of physical, psychological, and environmental origin. It is necessary to determine the dynamic pattern of relationship between these areas for each child with whom we work.

Physical Factors

Areas that have a relation to reading are vision and hearing, cerebral dysfunction, glandular dysfunction and general health. Authorities reviewed concur that the physical functioning of vision and hearing as sensory receptors of external stimuli is related to the reading act although there is disagreement as to the degree of influence it exerts (14:56), (38:50-51).

Bond and Tinker say that "the differentiation of poor from good readers on the basis of their visual equipment is not impressive (6:87). The factors of vision that seem to be most often related to reading problems are refractive errors of hyperopia and astigmatism, and the binocular deficiencies of strabismus, fusion errors and aniseikonia. Regardless of the extent to which malfunction of visual acuity interferes with any case of disability, the presence of such a defect which can be corrected should not be condoned. Pollack and Piekarcz state three kinds of hearing losses that are common to children which may become a factor in reading disability (36:20). First, an overall reduction in ability to hear

sounds in one or both ears. Second, difficulty in hearing sounds at certain frequencies only, while all other sounds are distinct and clear to them. Third, permanent hearing losses due to congenital factors or temporary or intermittent losses due to infection, injury, trauma, or excess wax. Hearing loss seems most significant if there is severe loss, high tone deafness or when pupils with a deficiency are taught by auditory methods.

A closely related aspect of visual and auditory acuity is the ability to discriminate between small, yet significant similarities and differences in things both seen and heard. Vernon states that "The one universal characteristic of nonreaders suffering from specific reading disability is their complete failure to analyze word shapes and sounds systematically and associate them together correctly" (46:74). Mounting research suggests that the ability to discriminate in this manner is partially subject to maturation and develops in an orderly sequence (47:134), (46:253-259). Pollack and Piekartz say that the:

. . . development of discriminatory skills may not be completed until the ages of eight years and six months to ten years for many children. This means that children may be unable to learn certain things that depend upon the possession of auditory and visual discrimination until they have reached a more mature age (36:21).

Authorities refer to this discriminative ability as visual and auditory perception. According to Smith and Dechant,

the area of perception encompasses the entire continuum of sensory-cerebral activity including initiation by a stimulus, preparation for a response (perception itself), and culmination in a response.

The perception of a graphic symbol must, of necessity, involve a simple perception of certain forms (the printed word) as a means of learning to read. But the more complex perception of the word must come to include the organization and modification of various sensory data in order that a particular series of printed letters (the word) may evoke meaning. (41:26)

The meaning or "perception" that words have for us are determined almost completely by understandings of "concepts" formed from our prior living experiences. These understandings or concepts are formed by (1) being able to abstract or see the similarities within a framework which involves dissimilarities and (2) generalizing or evolving a general principle from the many experiences of the individual (41:35). Perception then, is a representative, cerebral process which can range from the concrete and specific to the abstract and generic. Dysfunctioning of this process is frequently encountered in reading disability. Vernon states "We have at present no evidence as to the cause of this cognitive deficiency, which appears to be confined solely to linguistic activity" (46:74). A significant number of disabled readers exhibit other symptoms related to cerebral dysfunction such as poor motor co-ordination (6:96), minor speech disorders (46:73), orientation dif-

ficulties (35:16), aphasia (41:157), mixed dominance and laterality (21:25), (12:199-202). The origin of these problems are vague. These disorders are thought to be an indication of delayed or irregular neurological maturation and as such may be a major factor in severe reading disabilities. These correlates are receiving considerably more attention than previously. There also appears to be a relationship between them and reading disability, however, evidence to date is still obscure and inconclusive.

Glandular dysfunction and general health are thought to be factors operating in some cases of disability but as Smith and Dechant state:

Even though a relationship may be found between certain physical conditions and reading, we can not conclude that a causal relationship has been established . . . The data merely tell us to pay special attention to the physical health of our students and to recognize that certain physical deviations may be accompanied by educational problems (41:156).

Psychological Factors

According to Otto, the two major areas of psychological correlates can be classed as intelligence and emotional adjustment (35:21-25). Intelligence tends to be related to reading achievement at all academic levels. In general, the brighter children are, the better readers they tend to be. However, Bond and Tinker say that:

. . . low intelligence is not itself a direct cause but that it may lead indirectly to reading disability.

. . . In the regular classroom situation, the slow learner is likely not to learn enough at each lesson for effective handling of the next assignment. He drops farther and farther behind as time goes on in the developmental program. If these handicaps are allowed to accumulate, he becomes a reading disability case (6:113).

This indicates that an adjustment of methods and materials is necessary for the slow learner to allow him to progress at his own rate of growth to the maximum of his potential. When this need is not met, we create a learning problem.

It is quite common for research comparing groups of poor and good readers to show a somewhat larger percentage of pupils with unfavorable signs of personality adjustment among the retarded readers. The disagreement is related to the incidence or cause-effect relationship rather than to the presence of this phenomenon (7:440), (21:264-265). Most authorities recognize that the emotional maladjustment associated with reading disability can be both cause and effect.

Examination of all the evidence, however, does make it pretty clear that the emotional maladjustment is much more frequently the effect than the cause of reading disability. This view is strongly supported by the fact that in most instances, the emotional difficulties clear up when the reading disability is relieved by remedial instruction (6:107).

Environmental Factors

Although research is inconclusive in the area of environmental correlates, there is a substantial body of

research that points to the fact that environmental factors do have an effect on reading and contribute to reading disability. Most authorities agree that conditions in the home have an important effect on a child's personality adjustment during preschool and during school years (36:23). The home may determine to a great extent the linguistic skills a child has, the opportunity to acquire and develop ideas, the experiences available to him, the interest and concern with educational success and his motivation and desire to do well in school. They also effect his cultural attitudes, his chance to develop independence and individuality and his feeling of personal worth and security so essential to healthy, positive growth.

Bond and Tinker state that:

Quarreling parents, broken homes, neglect of the child, overprotection or domination or anxiety on the part of parents, hostility of parents, and unhealthy rivalry among children in the family are likely to produce nervous tensions and develop feelings of insecurity (6:108).

The relation of reading to the school environment is twofold. First, it is important that the child develop favorable attitudes toward school, his teacher, the other school children, and toward reading. If the child's personal and social adjustment do not provide a satisfactory background for the development of favorable attitudes in the school

environment the resulting conflicts may hinder reading progress. Secondly, educational conditions such as unsound administrative policies, ineffective instructional methods, and inappropriate materials contribute to unsuccessful reading growth (7:572-575). Bond and Tinker state that:

The vast majority of reading cases are brought about through failure on the part of the child to acquire the necessary learnings, or through faulty learnings as he progresses up through the reading program (6:116).

From this statement it is clear how much responsibility rests on the school for the success of the reading program. However, responsibility for success can never be solely placed on any single influence.

Rarely, if ever, is there a severe learning or reading problem that would not show signs of several of the factors listed. A remedial specialist might, in the course of a case study and diagnostic work-up, find other causal factors as well. The classroom teacher has neither time nor the training to delve as deeply into a case as the specialist, but in many cases he is expected to solve some extremely complex learning problems . . . In many cases the causal factors tend to become less important once the pupil finds he can learn and is shown a method by which he can overcome his handicap.

It should also be stressed that different children react differently to any given handicap, and what is a causal factor for one child may not necessarily be a handicap for another child. Each child is unique and each teacher works best in his own way. If sound remedial methods are applied, if individual differences in children are provided for, if enthusiastic and aggressive teaching techniques are used, progress in learning is likely to follow (35:29).

Learning progress is only likely then in a carefully planned remedial program that is based on the child's individual needs.

IV. THE REMEDIAL PROGRAM

Learning Theory

A prerequisite to the planning of any sound academic program must take into account the known principles of learning theory.

Reading is a process that must be learned. The laws of learning and the facts concerning such topics as motivation, reinforcement, practice, interference, transfer, and conditioning apply to learning to read . . . Every teacher needs to know and understand how the child learns to read. Effective learning is the only criterion of effective teaching (41:50).

Although there is considerable contrast and disagreement between the two major families of contemporary learning theory, there are a number of principles of learning which are commonly accepted by modern psychologists, regardless of the school of psychology with which they identify.

Bigge states some of these principles as being: (1) good health and correction of physical defects; (2) need for personal involvement; (3) intrinsic motivation; (4) need for success; (5) learning in problem situations; (6) judicious use of tests; (7) self-imposed goals; (8) readiness; (9) learning of wholes; (10) meaningful relationship of material; (11) purposive remembering and forgetting; (12) overlearning; (13) immediate follow-up and review; and (14) interference. If learning is to be optimum, these principles must be applied to any teaching situation (4:287-307).

Remedial Program

The term "remedial reading" is fraught with a number of widespread misconceptions, some of which are: (1) remedial reading instruction is based on a set of principles which differ appreciably from the principles that are the basis of the schools regular developmental reading program; (2) remedial reading is a "bag of tricks", including a vast number of games and motivators, which can only be used effectively by a highly trained specialist; and (3) the remedial program is something that must be done outside of the regular classroom. In truth, "There should be little if any difference between the principles or the practices followed in remedial reading and the everyday instructional activities of a conscientious, creative classroom teacher" (23:371-373). Any basic difference between a developmental and remedial program would have to be attributed to the degree and intensity of "emphasis on individualization" (41:426). The significant principles on which a sound program of instruction is built are summarized by Bond and Tinker as follows: (1) treatment must be based on an understanding of the child's instructional needs; (2) remedial programs must be highly individualized; (3) instruction must be organized instruction; (4) the reading process must be made meaningful to the learner; (5) the reading program must

be encouraging to the child; (6) materials and exercises must be suitable to the child's reading ability and instructional needs and (7) sound teaching procedures must be employed. To build successfully on these principles, a knowledge of procedures and methods that may be used is essential (6:205).

Reading is taught basically through the use of phonics (the sound units of which words are made), structure (recognition of word parts, their meaning and relationships), and kinesthetic techniques (combination of sight, and sound with writing and tracing words and letters). The kinesthetic techniques were developed primarily for use with severely disabled readers who presumably had evidence of neurological dysfunction (35:168). It was thought that receiving and associating stimuli through the three combined sensory paths simultaneously would strengthen the retention of the symbol association and thus establish the learning more firmly. Mills compared the visual, phonic, kinesthetic and a combined approach in an attempt to discover the superiority of one group over the other. He concluded from his findings "that children learn to recognize words by different methods, and that no one method is superior for all children" (41:204). Heilman states that:

Any given technique, practice, or procedure is likely to work better with some children than with others. Hence, the teacher of reading must have a

variety of approaches . . . Authorities in the field of reading are in general agreement that 'There is no one best method of teaching.' . . . Regardless of the efficiency of a given method of teaching of reading, it will produce its share of problem cases and impaired readers if used exclusively. If there are significant individual differences in the way children learn to read, it follows that different approaches are advisable . . . When a teacher becomes enamored of one method to the exclusion of others, she shuts out the possibility of adjusting method to individual pupil needs (29:9).

Most leading basal programs of reading instruction present a combination of these approaches in varying degrees of emphasis. Abundant research would seem to indicate that the more inclusive the basal program the more effective the learning. However, while the program is important, research indicates that no formal program is a panacea. The most important variable is the teacher. Authorities believe that the training of teachers needs to be up-graded. The teacher should be well versed in developmental scope and sequence required in a sound reading program, should be trained to examine for strengths and weaknesses in each individual and draw on the vast sources of prepared material to fit each situation in terms of need. In this approach the teacher would use a basal approach as a structural framework from which to work. She would incorporate the best of all formal programs and select only those that were pertinent to any given situation.

CHAPTER III

CASE STUDY

Name: Cindy

Age: 8

Grade: Third

I. REFERRAL

Cindy was referred to the investigator by the classroom teacher because she manifested difficulty in reading. She was 8 years old at the time of referral but was reading on a second grade level with a second grade class. The teacher stated that her placement in this situation was questionable. Cindy objected to working in this situation and her parents expressed the opinion that it was the result of a personality conflict with the teacher involved. She seemed resentful at being asked to work with second graders and also at having to work with the same materials in which she had worked last year. The teacher in third grade described her as lacking reading skills, having poor work habits, being poorly organized, having a short attention span, being inattentive to directions and unable to "get started on an assigned task." Individual instruction was requested.

Classroom Observations

Cindy was a slender, fragile appearing child with long dark hair. She appeared cheerful and easy-going and was excessively verbal in a secure situation. She interacted readily with her peers but only on a superficial level. The other children did not see her as a leader, but accepted her easily in social situations. She was restless in the classroom, wiggling and squirming in her chair. She gave the outward appearance of attending to directions, but rarely followed them through to completion. She was easily distracted and became involved in numerous time wasting activities when an assignment was to be started. Much of her work time was spent in quiet conversation with anyone who would respond to her. She gave the appearance of disinterest and refused to become involved in schoolwork beyond a superficial conformity. She enjoyed participating in group projects and appeared to take a great deal of pleasure in creative and manipulative activities. She had difficulty with reading in her reading group. This was also evident in content areas. In the reading group she could use enough skills and picture clues to get general comprehension from the material read. Tenseness and frustration were manifested in her oral reading and at times the material read was void of sense. She was always anxious to "get outside" at recess.

Her posture was poor and her coordination in general was awkward. Writing was difficult and the letters were poorly formed. She pinched her pencil tightly and worked close to the paper.

Whenever an activity was changed, she gave the impression of being confused as to what was happening and was unable to follow necessary procedure. This behavior was evident when instructions had been given for the follow up activities. Her behavior could be described as "never ready, never finished, inattentive to class procedure and usually talking".

II. DIAGNOSTIC INFORMATION

To construct a background of information on Cindy, the following areas were examined and reported: The School, The Home, and The Child.

School Information

From her school permanent record file the following information was obtained. Cindy's absences from school have averaged approximately eleven days a year, which would not seem to be significantly related to her reading problem.

Since the beginning of first grade, there have been six standardized measures of performance administered: The Harrison-Stroud Reading Readiness Profile (11-19-64),

California Test of Mental Maturity (3-3-65), Stroud, Hieronymus, McKee Primary Reading Profile (6-67), Gates Primary (10-11-65), California Achievement - Upper Primary (2-2-66), and California Achievement - Upper Primary (5-17-66). See appendix for test results. While the composite scores of the tests placed her at grade level, the subtests that are related to success and ability in reading were significantly low.

The anecdotal comments on Cindy's kindergarten and first grade records indicated immaturity and lack of independent self-direction. This was substantiated in conversations with her teachers. The kindergarten and first grade teachers also favored academic adjustment in the primary grades by adjusting her progress to fit her individual growth pattern. It was stated that this would provide her with an opportunity to experience a sense of personal success and security much needed at that time. This recommendation, however, was never acted upon.

There were no references to any physical difficulties in her school records.

Home Information

The following home information was compiled as a result of an interview with Cindy's mother.

1. Name: Cindy
2. Age: 8
3. Birthdate: September 13, 1958
4. School: Hebelers
5. Grade: Third
6. Address: Rural, Ellensburg
7. Father's age: 36
8. Mother's age: 32
9. Father's nationality: Portugese
10. Mother's nationality: English and Italian
11. Language in the home: English
12. Parents are: Living together
13. Two brothers: Ages 3 and 5
14. Socio-economic status: Middle upper class
15. Level of education:
Mother - B. A. in Education
Father - Masters plus (teacher)

Cindy was born without any apparent difficulty following a full-term pregnancy. She sat unaided at the age of 6 months, walked at 7 months and talked at the age of 14 months. Shortly after she began to walk the family moved and Cindy stopped any further attempt to walk. She was examined by a bone specialist who stated that the move had been a traumatic experience causing ambulatory immobility. There was no physical basis for her inability to walk. She walked again at 12 months without any further problems. Her right hand was used first and has always been favored. There was no evidence of visual or hearing problems until age 7 when glasses were prescribed for all near work. At age 7 it was also noted that a left to right approach was not firmly established and there was confusion of letters in words, and reversals. Cindy worked with the optometrist for several months on visual perception exercises. She

resisted wearing her glasses. No serious illnesses or accidents were reported and her other physical development was normal. The date of her last complete physical examination was during first grade.

Family relations with siblings and parents were "normal" as stated by the parents. There were the usual fights, Cindy dominated the younger children and came to mother for most of her information and problem-solving. She received attention by crying and tended to exhibit this behavior following minor incidents. This excessive crying and infantile behavior was most annoying to the parents. Behavior that parents stated as pleasing was independence in self-care. Most of the activities in which the children were involved were independent of parents except for a few picnics and short summer trips. The father had been away in connection with work and studies much of this period in Cindy's life, which might have explained the closer relationship with the mother. Disciplinary procedures were to take away TV privileges or send her to her room. These steps were not often necessary. Her special interests consisted of collecting rocks and sea shells, indulging in pretend situations and working at her own small projects of interest. She liked horses and the outdoors as did her father.

Parental expectations for the future were not specific. They hoped she would do well enough to go to college if she so desired.

In first grade she liked school and the teacher except twice during the year when the class was presenting a school play. At this time she became very upset and did not want to go to school. On one of these occasions mother had to take her to school and stay for a while - there were still tears and a scene when she left. She seemed to like reading and wanted to please but it was felt this was just a superficial reaction. Her mother stated that in second grade there was a "violent personality conflict with the teacher". Cindy hated school and did very poorly in reading all year. Only because she knew and liked the third grade teacher would she consent to return to school that year. She has shown some interest in reading of late. There had been no work done at home with her in reading.

Her relations with peers and friends seemed to be reciprocal although she tried to dominate whenever she could. There was little preference for younger or older children as playmates. She seemed to be content to play either with others or alone. She would usually follow a stronger child.

Reading materials in the home consist mainly of professional literature, some magazines for adults, art history

books and some children's books which were packed away at the present from a prior move.

Her father felt that the source of her learning problem was a poor self image and a negative, underrating of herself. Her mother thought she would outgrow her attitude toward school and academic problems. Her mother had problems in school until the fourth grade and then "got along alright". The mother stated that Cindy should have been held in first grade another year. The teacher indicated this might have been wise in order to give Cindy a chance to catch up and perform strongly, but the father objected to this as the solution to the problem.

Interview with the Child

The first few interviews with Cindy consisted of an informal getting acquainted situation. She was a very pleasant child and establishing rapport with her was easy. During this period, she was given the Witty Interest Inventory. Her answers indicated that she enjoyed the outdoors and usually played with her younger brothers or alone. Since they lived out of town, there were few opportunities for playmates. She indicated two girls in her class as close friends. She was very fond of stuffed animals and spoke of a tiger as her prized possession. Most of the children's activities were done independent of the parents with the exception of an occasional bicycle ride. The family has

spent time in California with relatives during the summer. The subject of the relationship between her brothers and herself was frequently referred to and manifested considerable hostility. She had a consuming interest in horses and talked at great length with much imagination. She did not like school or reading. She saw her reading problem as "not being able to figure out the words". When questioned about her glasses, she insisted that she did not really need them and did not want to wear them.

III. PRETESTING

On the basis of the previous information it was decided that testing was necessary in the areas of intelligence, perceptual ability, personality assessment, reading disability, and level of performance. Over a period of several weeks the following tests were administered: California Achievement - Upper Primary - Form W, WISC, Informal Reading Inventory, Dolch Basic Sight Vocabulary, Durrell Analysis of Reading Difficulty, Benton's Test of Left-Right Discrimination, Frostig's Developmental Test of Visual Perception, a complete speech and hearing analysis by the Central Washington State College Speech and Hearing Clinic, two psychological measures: House-Tree-Person, and Draw-a-Person. A conference with Cindy's optometrist was conducted in an effort to ascertain the nature of her

perceptual difficulties and the type of work that had been done with her. See appendix for complete reports of tests results.

Testing Summary

The WISC placed Cindy in the normal range on the total battery and on the California Achievement she placed at grade level. Low scores in the areas of word recognition and visual perceptual ability seemed to relate to a similar pattern on previous tests and suggested a relationship between these deficiencies and her reading problems in the classroom.

The Informal Inventory indicated that her instructional level was well below the level indicated by standard measures. The discrepancy seemed incongruous until reading tests revealed marked difficulty in specific areas such as: recognition of sight vocabulary, attention to discrimination of word interiors, confusion of vowel sounds, some difficulty with blending sounds, poor phrasing, regressive eye movements, some reversal tendencies and difficulties with form constancy, spelling and handwriting problems. Since the total test score represents strengths as well as weaknesses, it was easy to see how she could appear to be working at grade level and still have a great deal of difficulty with daily classroom work. In spite of these weaknesses, comprehension was adequate which suggested that she could get enough meaning from the words that she knew and from

other clues to carry her through on general comprehension. The only left-right confusion occurred when material was placed in such a relationship to her that the positioning of the symbols were opposite of her left and right sides. This related to confusion and reversal that had been evidenced in a reading situation. Coordination was somewhat awkward and although she favored her right hand, she could use the left well even for writing. Personality tests indicated a strong possibility of poor self concept and negative attitudes toward herself which would significantly affect her learning. More information is needed in this area. There were no problems indicated in speech or hearing. Visual exercises were prescribed by the optometrist to correct letter confusion, reversals and left-to-right approach. Glasses were to be worn for all near activities. The basic remedial needs were in the areas of visual perception, eye-movement, sight, vocabulary, phonics, spelling, handwriting, and attitudes. See the appendix for complete test analysis.

Prognosis

Observations of classroom behavior, academic performance, and weakness in specific skill ability indicated that Cindy was not able to compete satisfactorily with the other children at her grade level. If she continues in the

present situation meeting failure and frustration, the chances for improvement of her academic performance and attitudes will become increasingly remote. Based on the previous information, the following program was recommended to bring growth in Cindy's reading ability. It was anticipated that if reading improved, her general attitude and interest would improve also.

Recommendations

The following materials were recommended: Continental Press Perceptual Materials, Gillingham Phonetic-Kinesthetic Materials, Sullivan Programmed Materials, Dolch Easy Readers, self-instructional workbooks by Ginn and Company, teacher made materials and selected games and workbook exercises from such sources as : "Improving Reading in the Elementary School" by Schubert and Torgerson, "Reading Aids Through the Grades" by Russell and Karp, "Spice" by Platts, Shumaker and Sr. Rose Marguerite, "Teaching Word Attack Skills" compiled by King and Schulte from the State University of Iowa, "Learning Activities for Reading" by Herr, basal reading workbooks and various exercises from texts such as "Teacher's Guide for Remedial Reading by Kottmeyer, "Teaching Reading" by Heilman, "Reading Difficulties Their Diagnosis and Correction" by Bond and Tinker, "The Teaching of Reading" by Deboer and Dallmann, and "Help Your Child Learn How to Learn" by Avery and Higgins.

IV. REMEDIAL PROGRAM

Finding and maintaining a suitable working area was a problem. When possible, pictures and books were present to establish an interesting and stimulating atmosphere in which to work. The work periods were set up in half-hour sessions each day at a time that did not interfere with group classroom interaction or pleasurable activities.

Gillingham materials were used to work with phonics, build spelling ability and handwriting. It was suggested that examination of words from beginning to end would strengthen left-to-right orientation and increase ability to recognize and distinguish similarities and differences in word interiors. This is a kinesthetic method and eye-hand coordination could be reinforced. This simultaneous presentation of multiple stimuli is more effective for some children. Sullivan and Ginn material were used for variety in vowel discrimination and left-right orientation. Continental Press material was used to increase visual perceptual ability. These were reinforced with games and selected teacher made exercises. Games, exercises and workbook pages were used to build sight vocabulary, spelling and left-right approach. Stories and writing games and exercises were used for handwriting. Phrasing games and exercises as well as oral reading was worked on in an attempt to promote good phrasing. Because of long frustration and failure with

with basal reading material, experience charts and pupil written stories were used in the first two months. At the end of this time the Dolch Easy Readers, Cowboy Sam books and selected library books were used to create interest in and desire for reading as well as for teaching purposes. Various progress charts were kept to record progress. Each session was evaluated to see what had been accomplished and what needed more work. Every day's lesson was planned on the basis of the needs and evaluations from the previous day. Toward the end of the study an unfamiliar basal series was introduced to work back into the more "typical" classroom materials.

In the beginning sessions Cindy was verbal and would have conversed for the entire time if she had been permitted to do so. She was reluctant to begin work on any activity that was suggested. It soon became evident that this was an avoidance technique to keep from becoming involved in a situation that was fraught with frustration and failure for her. First she was allowed to talk a great deal and the work was simple to insure certain success. Several weeks later the talking and dawdling during her work began to gradually diminish, however her security never reached the point where this behavior pattern disappeared. Her attitude slowly became more positive and she began to show interest in reading easy material. A more secure attitude was mani-

fested in her approach to the reading task and a personal belief that she could do it. This growth diminished when she was placed in a reading group with fast second graders during the last four and a half weeks of the study. In spite of recommendations that this situation be changed, she remained in this group, meeting defeat and frustration every day in relation to the younger childrens' ability. From this time on, her gains in positive attitude waned. It is regrettable that the positive gains were so quickly undone by unnecessary mishandling.

CHAPTER IV

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The purpose for conducting this study was to present the case study method in diagnosing reading disability and on the basis of this diagnosis to prescribe and implement a corrective program. The program and results were then reported to show the functioning of this technique.

The study was conducted over a 14 week period during the school year 1966-67.

A subject was selected on the basis of the subject's need for help in reading. Diagnostic tests were given to the subject to determine areas of need. Tests were administered at the beginning and end of the study to determine growth.

No comparisons were made with other individuals or groups. Evaluation was done in terms of self improvement.

The subject made observable gains but these were not statistically significant. Improvement was observable in word recognition, use of vowels, listening ability, spelling, handwriting, and spelling generalizations. Interest in reading and attitude toward reading indicated positive growth. Independent reading level progressed from 1.9 to 2.1 and instructional level from 2.5 to 2.9. Daydreaming and

time wasting during work periods decreased. There was strong reinforcement in the one to one relationship provided in this situation. Subject responded to individual attention and instruction.

Although the gains were made in performance, they were not great enough to show strong transfer into the classroom. See appendix for record of growth.

Conclusions

It may be concluded from the data that Cindy made observable gains in reading through the use of an eclectic remedial program.

Definite gains in skill areas were observed.

Gains such as interest in reading, increased feeling of security with herself, significance of teacher-pupil relationship, and change in attitude toward herself and school cannot be statistically measured but were observed through change in behavior patterns.

The study did have positive value in the case of one individual subject. Value to be drawn from this study is that the accurate application of an eclectic approach, based on reliable, depth diagnosis is an effective instrument in planning and executing a remedial program fitted to individual needs.

Recommendations

Case studies should be conducted in an environment that provides adequate testing, cooperative school and home scheduling, and availability of needed materials.

Further research in one to one relationships in remedial instruction based on the careful analysis of a complete case study should be conducted.

Further research should be conducted on the transfer of individual instruction to the classroom situation with emphasis on the adjustment necessary to make the transfer fit the individuals level of instruction.

Teachers should be knowledgeable with the case study method as a means of accurate, depth diagnosis.

BIBLIOGRAPHY

BIBLIOGRAPHY

1. Bamman, Henry A., Ursula Hogan, and Charles E. Greene. Reading Instruction in the Secondary Schools, New York: David McKay Company, Inc., 1961.
2. Betts, Emmett A. Foundations of Reading Instruction, New York: American Book Company, 1946.
3. Betts, Emmett Albert. "Success Levels for Retarded Readers", Readings on Reading Instruction, New York: David McKay Company, Inc., 1963. p. 442-447.
4. Bigge, Morris L. Learning Theories for Teachers. New York: Harper and Row Publishers, 1964. 350 pp.
5. Birch, Dr. Jack. "Specific Reading Disabilities", Readings on Reading Instruction, New York: David McKay Company, Inc., 1963. p. 67-74.
6. Bond, Guy L., and Miles A. Tinker. Reading Difficulties: Their Diagnosis and Correction, New York: Appleton-Century-Crofts, Inc., 1957. 449 pp.
7. Chall, Jeanne S. "Reading Disability and the Role of the Teacher", Readings on Reading Instruction, New York: David McKay Company, Inc., 1963. p. 47-52.
8. Chall, Jeanne, and Shirley Feldmann. "First Grade Reading: An Analysis of the Interactions of Professed Methods, Teacher Implementation and Child Background", Reading Teacher, 19:569-575, May, 1966.
9. Cohn, Stella M. and Jack Cohn. Teaching the Retarded Reader. New York: Odyssey Press, Inc., 1967. p. 1-18.
10. DeBoer, John J. and Martha Dallmann. The Teaching of Reading, New York: Holt, Rinehart and Winston, Inc., 1964. 409pp.
11. Delacato, Carl H. The Treatment and Prevention of Reading Problems. Springfield, Illinois: Charles C. Thomas, 1959. 122pp.

12. Delacato, Carl H., Melvyn P. Robbins, and Robert S. Arner. "Delacato Revisited", Journal of Exceptional Children, 33:199-202, November 1966.
13. Durrell, Donald D. The Improvement of Basic Reading Abilities, Yonkers, New York: Word Book Co., 1940. 407 pp.
14. Ewalt, Dr. H. Ward, Jr. "Visual Skills and Reading", Corrective and Remedial Reading, A Report of the Sixteenth Annual Conference and Course on Reading, Pittsburgh: University of Puttsburgh, 1960. p. 55-66.
15. Fernald, G. M. Remedial Techniques in Basic School Subjects. New York: McGraw-Hill Book Company, Inc., 1943. 349 pp.
16. Frostig, Marianne. Developmental Test of Visual Perception, Manual. Palo Alto, California: Consulting Psychologists Press, 1961. p. 1-50.
17. Gates, Arthur I. "What We Know and Can Do About the Poor Reader", Readings on Reading Instruction, New York: David McKay Company, Inc., 1963. p. 434-440.
18. Hampleman, Richard S. "A Study of the Comparative Reading Achievements of Early and Late School Starters", How to Increase Reading Ability, New York: David McKay Company, Inc., 1961. p. 61-65.
19. Harris, Albert J. "Causes of Reading Retardation-An Evaluation", Corrective and Remedial Reading, A Report of the Sixteenth Annual Conference and Course on Reading, Pittsburgh: University of Pittsburgh, 1960. p. 21-30.
20. Harris, Albert J. "The Diagnosis of Reading Disabilities", Corrective and Remedial Reading, A Report of the Sixteenth Annual Conference and Course on Reading, Pittsburgh: University of Pittsburgh, 1960. p. 31-37.
21. Harris, Albert J. How to Increase Reading Ability, New York: David McKay Company, Inc., 1961. 575 pp.
22. Harris, Albert J. "Intellectual and Perceptual Development", Readings on Reading Instruction, New York: David McKay Company, Inc., 1963. p. 47-52.
23. Heilman, Arthur W. Principles and Practices of Teaching Reading. Columbus, Ohio: Charles E. Merrill Books, Inc., 1961. 445 pp.

24. Hester, Kathleen B. Teaching Every Child to Read, New York: Harper and Brothers Publishers, 1955. 394 pp.
25. Hildreth, Gertrude. Teaching Reading, New York: Holt Rinehart and Winston, 1958. 597 pp.
26. Hill, Winfred F. Learning, San Francisco: Chandler Publishing Company, 1963. 212 pp.
27. Hoggard, J. Kendall. "Readiness is the Best Prevention", How to Increase Reading Ability, New York: David McKay Company, Inc., 1961. p. 67-72.
28. Hymes, James L. Before the Child Reads, Evanston, Illinois: Row, Peterson, 1958. 96 pp.
29. Kottmeyer, William. Teacher's Guide for Remedial Reading, St. Louis: McGraw-Hill Book Company, 1959. 252 pp.
30. Kress, Dr. Roy. "A Case Study of Reading Retardation", Corrective and Remedial Reading, A Report of the Sixteenth Annual Conference and Course on Reading, Pittsburgh: University of Pittsburgh, 1960. p. 75-90.
31. McCreary, Ruth V. "Meeting Individual Reading Needs", How to Increase Reading Ability, New York: David McKay Company, Inc., 1961. P. 451-454.
32. McKee, Paul. Reading: A Program of Instruction for the Elementary School, Boston: Houghton Mifflin Company, 1966. 446 pp.
33. Monroe, Marion. Children Who Cannot Read, Chicago: University of Chicago Press, 1932. 205 pp.
34. Otto, Wayne, "Family Position and Success in Reading", Reading Teacher, 19:119-223, November, 1966.
35. Otto, Wayne, and Richard A. McMenemy. Corrective and Remedial Teaching, Boston: Houghton Mifflin Company, 1966. 361 pp.
36. Pollack, M. F. W., and Josephine A. Piekarz. Reading Problems and Problem Readers, New York: David McKay Company, Inc., 1963. 236 pp.
37. Rench, Hazel S., and Frances M. Moroney. "A Challenge: I Can't Read", Readings on Reading Instruction, New York: David McKay Company, Inc., 1963. p. 447-450.

38. Robinson, Helen Mansfield. Why Pupils Fail in Reading, Chicago: University of Chicago Press, 1946. 257 pp.
39. Russell, David H. Children Learn to Read, Boston: Ginn and Company, 1949. 375 pp.
40. Silver, Archie A., and Rose A. Hagin. "Maturation of Perceptual Functions in Children With Specific Reading Disability", Reading Teacher, 19:253-259, January, 1966.
41. Smith, Henry P. and Emerald V. Dechant. Psychology in Teaching Reading, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1961. 453 pp.
42. Smith, Nila Banton. Reading Instruction for Today's Children, Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1963. 594 pp.
43. Spache, George D. Reading in the Elementary School, Boston: Allyn and Bacon, 1964. 345 pp.
44. Strang, Ruth, Constance M. McCullough, and Arthur E. Traxler. The Improvement of Reading, New York: McGraw-Hill Book Company, 1961. 443 pp.
45. Tinker, Miles A. "Eye Movements in Reading", How to Increase Reading Ability, New York: David McKay Company, Inc., 1961. p. 52-57.
46. Vernon, M. D. Backwardness in Reading, Cambridge: University Press, 1958. 227 pp.
47. Vernon, M. D. "Ten More Important Sources of Information on Visual Perception in Relation to Reading", Reading Teacher, 20:134-135, November, 1966.
48. Weintraub, Samuel. "Sex Differences in Reading Achievement", Reading Teacher, 20:155+, November, 1966.
49. Wollner, Mary H. B. "Should Parents Coddle Their Retarded Readers?", Readings on Reading Instruction, New York: David McKay Company, Inc., 1963. p. 451-454.

APPENDIX

DIAGNOSTIC INFORMATION PRIOR TO STUDY

Harrison-Stroud Reading Readiness Profile (11-19-64)

| | | | |
|----------------------------|-----|--------------------------|-----|
| Using Symbols | 93% | Auditory Discriminations | 88% |
| Visual Discriminations (a) | 20% | Using Context and | |
| (b) | 46% | Auditory Clues | 74% |
| Using Context | 46% | Letters Names | 36% |

California Test of Mental Maturity (3-3-65)

| | |
|-------------------|---------------------|
| Language Date | 2.0 grade placement |
| Non-language Date | 3.7 grade placement |
| Total Battery | 2.8 grade placement |

Stroud Hieronymus McKee Primary Reading Profile (6-65)

| | | | |
|----------------------|-----|---------------|-----|
| Reading Aptitude | 50% | Word Attack | 62% |
| Auditory Association | 72% | Comprehension | 49% |
| Word Recognition | 39% | Composite | 46% |

Gates Primary (10-11-65)

| | |
|------------------|---------------------|
| Word Recognition | 2.4 grade placement |
| Sentence | 2.2 grade placement |
| Paragraph | 2.8 grade placement |
| Average | 2.5 grade placement |

California Achievement - Upper Primary

| | | | |
|-------------------------|-----|--------------------|-----|
| Reading vocabulary | 2.5 | Language mechanics | 2.2 |
| Reading comprehension | 2.4 | Spelling | 1.8 |
| Total reading | 2.3 | Total | 2.2 |
| Arithmetic reasoning | 2.0 | Battery | 2.1 |
| Arithmetic fundamentals | 1.9 | | |
| Total | 1.9 | | |

California Achievement - Upper Primary

| | | | |
|-------------------------|-----|--------------------|-----|
| Reading vocabulary | 2.5 | Language mechanics | 2.8 |
| Reading comprehension | 3.1 | Spelling | 2.2 |
| Total | 3.0 | Total | 2.7 |
| Arithmetic reasoning | 2.3 | Battery | 2.5 |
| Arithmetic fundamentals | 2.1 | | |
| Total | 2.1 | | |

PRETESTING

California Achievement Test

| | | | |
|-------------------------|-----|--------------------|-----|
| Reading vocabulary | 3. | Language mechanics | 3.7 |
| Reading comprehension | 3.8 | Spelling | 2.9 |
| Total reading | 3.4 | Total language | 3.5 |
| Arithmetic reasoning | 4.3 | Total battery | 3.5 |
| Arithmetic fundamentals | 2.9 | | |
| Total arithmetic | 3.6 | | |

During the first part of the test Cindy appeared to apply herself very well. She tried hard and showed signs of tenseness by twisting her hair, lip reading, wiggling in her chair, and dropping her pencil frequently. She asked a number of questions concerning definition of vocabulary and had marked difficulty in remembering and following directions. On the arithmetic section, she counted on her fingers, made marks on the table, became lathargic in her behavior, day-dreamed on timed sections and seemed to generally "give up". This may have reflected a defensive response to considerable frustration.

Wechsler Intelligence Scale for Children

| | |
|-------------------|------------------|
| Verbal score | 65-75 percentile |
| Performance score | 55-65 percentile |

On that part of the WISC which purports to measure the degree to which one has assimilated knowledge to which almost everyone is exposed, Cindy scored relatively high indicating a fairly high degree of intellectual curiosity

or ambitiousness in terms of this test. On another subtest (Coding) involving learning ability in a new situation, Cindy was significantly low relative to her other scaled scores. However, this subtest involves a speed factor of considerable importance. It was this factor which seemingly held her score down. She dawdled, looked out the window even though she seemed to realize that the test was timed.

Informal Reading Inventory

Independent reading level was placed at the last part of first grade, Instructional level at the middle of second grade and Frustrational level at the beginning of third grade. There was also indication of poor phrasing, regressive eye movements, weakness in sight vocabulary and problems with discriminating the medial part of words. In spite of these difficulties, comprehension on the Independent and Instructional levels was quite adequate. On the material that could be done successfully, she progressed easily and seemed to be interested. On the part that was more difficult for her she yawned a lot, day dreamed and seemed generally bored and uninterested.

Dolch Basic Sight Words

Only about half of the basic sight vocabulary was well known. Again the difficulty seems to be with the accurate discrimination of the interior of words and the knowledge

of vowel sounds. Cindy tried hard on this test and seemed to feel some degree of security with the material.

Durrell Analysis of Reading Difficulty

Oral reading placed her at low second grade level with considerable difficulty in phrasing and sight vocabulary. Comprehension was good. Word analysis ability was inadequate. There was much word-by-word reading, she lost her place easily and was easily distracted. There were signs of tenseness and her posture was very poor. A number of the mistakes she made were immediately corrected indicating pressure. She tried very hard. Grade placement 2.2.

Silent reading indicated that she functions well only up to the last part of second grade. Her comprehension was good up to this point and there was a rich flow of imagery in recalling and expanding on what was read. Her concentration was intense and she seemed interested in what she was reading. Beyond second grade material she twisted her hair and used her finger to point while she read. Her reading rate seemed rapid compared with oral reading. There were 5 to 8 movements per line and irregular pauses. High rate at the expense of mastery suggests that she gets enough to give general understanding and skips the rest. Recall was often poorly organized. Grade placement 2.8.

Listening Comprehension was very good up to the beginning of fourth grade. She appeared very attentive and interested. Grade placement 3.

Word Recognition and Word Analysis Skills indicated low sight vocabulary, poor vowel knowledge, guessing at words from first and last sounds and general form, letter-by-letter sounding and some difficulty with blending. She did not go beyond grade one in this area. There was obvious tension and uneasiness during this part of the test. Grade placement 1.9.

Letters (naming, identifying, and matching) were well known.

Visual Memory of Words was only possible to the first half of grade one. Again medial letters and endings were often confused or unknown.

Sounds of consonants in words were heard and recognized well in beginnings and endings of words or in isolation. She knew this rather well and seemed to enjoy doing it.

Spelling of sight words and well known words was poor. Phonic spelling of words was extremely poor, again indicating the lack of vowel sense and use. Spelling generalizations were also lacking. Grade placement-low first grade.

Handwriting was slow and laborious. The formation of letters was poor and posture was not good. The right hand

was used. She worked close to the paper and there was general tenseness in her body attitude. Grade placement 2.

Benton's Test of Left-Right Orientation

There was no directional problem indicated on this test except when the stimulus was in the relationship of reading material to the child. In this situation, there was some hesitancy and confusion as to which was right and left. This indicates the possibility of the same confusion with reading and other visual stimuli. It would seem that mirror images are confusing to her. She was relaxed and seemed to enjoy taking this test.

Frostig's Developmental Test of Visual Perception

There were no problems on this test except in the subtest involving form constancy or the ability to see a geometric form constancy is figure in a variety of backgrounds. Frostig states that form constancy is necessary in the development of the child in order to recognize a word in varying contexts.

Speech and Hearing

There are no difficulties indicated in speech or hearing.

Harris-Goodenough Test

Cindy placed at about the 45-55 percentile. This score was influenced by the subjects inferior drawings of

the female figures. There is a possibility of inferior self image indicated here.

House-Tree-Person

The figure of a man was drawn first. The examiner then requested that the subject draw a female figure. The scoring of the two figures yielded marked differences in favor of the male drawing. It is possible that this indicated a negative self concept and feelings of inferiority.

Vision

The optometrist's report indicated slight over convergence at far distances, ability to focus at near distances inadequate, reserves very low. Suppression of vision in the left eye especially when the hand is involved such as with writing. Also left to right approach is not established. His conclusions are that confusion of letters in words and reversals might accompany school work and there would be inability to focus attention on near centered tasks except for short periods of time. Recommendations to the school were to relieve as much stress as possible, establish left to right approach and be sure glasses are worn for all near activity such as reading and desk work. Visual exercises were prescribed and worked at for a period of several months.

POSTTESTING

California Achievement - Form X (2-20-67)

| | |
|-----------------------|------|
| Reading vocabulary | 3.8 |
| Reading comprehension | 3.9 |
| Total reading | 3.85 |

Since this study was concerned only with the area of reading, the other parts of this test were not given in the posttesting.

Durrell Analysis of Reading Difficulty

Oral reading indicated some problems with phrasing, sight words and vowels. Her score was slightly higher showing some growth although not significant to any large degree. Grade placement 2.5.

Silent reading dropped but the change in score was not significant. Grade placement 2.5.

Listening Comprehension improved to a considerable degree. Grade placement 5.

Word Recognition and Word Analysis Skills showed some growth in both sight vocabulary and phonics. Grade placement 2.7.

Visual Memory of Words is not possible to the first part of second grade. There are still problems with medial letters in words.

Spelling of sight words had greatly improved and there

considerable improvement in phonic spelling. Grade placement 3.

Handwriting was faster and the letter formation had improved. Grade placement 2.5.

The subtests on consonants sounds and letter identification were not administered since there was no problems with these areas on the pretesting.

Cindy's behavior during the test situation was slow and labored at times but the pattern of daydreaming and time wasting lessened. She appeared to try hard on each item and seemed more secure in her performance.

Dolch Sight Vocabulary - less than one fourth of the words were missed indicating substantial gain in comparison with the pretesting.

Informal Reading Inventory - There were still problems with phrasing, eye movements, sight vocabulary and medial letters but there have been gains in all these areas. Independent Reading Level was first part of second grade, Instruction Level was last part of second grade and Frustration Level was the first part of grade three.

House-Tree-Person. There were no marked differences in the drawing of the House and the Tree, however the posttest figure was female. It did not score as high in detail, placement on the page or body image as did the pretest figure.

Whether this is chance or suggestive of a personality trend has not been established. Further examination is necessary to determine an accurate interpretation.

Perceptual posttesting was not available. From the above information some gain was manifested in perception.

RECORD OF GROWTH

PRE

POST

California Achievement

| | | | |
|-----------------------|-----|-----------------------|------|
| Reading vocabulary | 3.0 | Reading vocabulary | 3.8 |
| Reading comprehension | 3.8 | Reading comprehension | 3.9 |
| Total reading | 3.4 | Total reading | 3.85 |

Durrell Analysis of Reading Difficulty

| | | | |
|---------------------------------------|-----|---------------------------------------|-----|
| Oral reading | 2.2 | Oral reading | 2.5 |
| Silent reading | 2.8 | Silent reading | 2.5 |
| Listening reading | 3. | Listening reading | 5. |
| Word recognition and word analysis | 1.9 | Word recognition and word analysis | 2.7 |
| Visual memory | 1.5 | Visual memory | 2.3 |
| Spelling | 1.7 | Spelling | 3. |
| Writing | 2. | Writing | 2.5 |

Dolch Sight Vocabulary

80 errors out of 220

29 errors out of 220

Informal Reading Inventory

| | | | |
|---------------------|-----|---------------------|-----|
| Independent level | 1.9 | Independent level | 2.1 |
| Instructional level | 2.5 | Instructional level | 2.9 |
| Frustrational level | 3. | Frustrational level | 3. |

House-Tree-Person

No marked differences