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A Case Study of Two Disabled Readers Using an Eclectic Remedial Reading Approach

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A CASE STUDY OF TWO DISABLED READERS USING
AN ECLECTIC REMEDIAL READING APPROACH



A Thesis
Presented to
the Graduate Faculty
Central Washington State College



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



by
William J. Harrison
June 1966

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

Educators have tried to improve instruction in reading and have spent more money in this area than any other area of the elementary curriculum (6:4). The writer was also concerned about improving reading instruction because he had seen so many students having trouble with this aspect of the curriculum. Having studied Navarra and others, the writer decided an intensive study of two students with reading disabilities might be beneficial. A review of the literature indicated that very few intensive studies using a limited number of subjects have been made. For these reasons the writer prepared to make this kind of a study.

The two children used in this study came to the attention of the writer while making classroom observations. These children were having difficulty in all academic areas, especially reading. The opportunity was later afforded to work with them and a good working relationship was established. At that time the students demonstrated considerable motivation toward reading. It was felt that many of their problems could be eliminated if they were able to increase their reading ability.

I. THE PROBLEM

Statement of the problem. This study attempted to describe and evaluate the growth made by two children in an eclectic remedial reading program. Growth in reading skill, neurological organization, self-image, and the general quality of academic accomplishments in areas other than reading were evaluated. An attempt was made to verify or reject the following hypotheses:

1. The children will make observable gains in reading by using an eclectic remedial approach in conjunction with the Delacato method of establishing neurological organization.
2. As the children become more proficient in reading, their self-image will improve.
3. As the children become more proficient in reading, the quality of work in arithmetic, social studies, and science will improve.

Importance of the study. As early as 1873 there was concern expressed by educators concerning the adequacy of reading instruction. J. Russell Webb, in that year, described a need for reading methods other than the Alphabetic, Phonetic, or Word method. He felt these methods were not serving the needs of all children (22:74). Albert Harris expressed his concern for the disabled reader when he wrote:

The disabled reader is to a large extent cut off from cultural activities and finds it difficult to mingle with educated people. If his dislike for school becomes sufficiently intense, he may progress by easy stages to truancy, associations with undesirable companions, and juvenile delinquency. Juvenile delinquents as a group include many whose reading abilities are far below their mental abilities. Although many poor readers avoid delinquency, the frustrations caused by years of unsuccessful efforts and invidious comparisons with other children are practically certain to create severe feelings of inferiority which interfere with normal personality development (6:3).

Because of the problems that develop academically, socially, and psychologically when a child does not learn to read well in the regular classroom, further research is needed to determine ways in which these children can be helped. Many studies have been done involving large numbers of children, but it is difficult to find descriptive studies involving a limited number of children, the procedures used to help the child, and the results obtained. The importance and need for studies involving individual children has been established in areas other than reading. One of the first studies involving an individual or a limited number of children, was done in 1780 by D. Tiedmann (14:24). In 1895, Mary D. Prior pointed out that an evident need in child study was "accurate observations and records of individual instances" (14:24). John G. Navarra attributed the foundation of modern child psychology to Wilhelm Prager and his individual child study, "The Mind of the Child: The

Senses and the Will" (14:17). Navarra stated the importance of his study involving a single child in this way:

The intention is to illustrate a method of study which provides clues and leads to further investigative action. That is, the process by which a particular child learns will provide insights concerning how other children learn. This suggestion is made with the full understanding that any child that is studied will be different from other children. The information procured, however, will provide a point of comparison with other children studied in this way (14:11).

The purpose and importance of this study will in many ways parallel those expressed by Navarra. An attempt will be made to provide some insights concerning how two children reacted to a specific remedial reading program. It is hoped that the study will give stimulation and direction for further research of this type in remedial reading.

Limitations of the study. A number of authors have expressed opinions concerning reading and reading failures among children. The literature reviewed for this study was limited to three areas and is not intended to be a complete review of the literature relating to reading. The literature was reviewed in an attempt to determine whether the case study method is valid, to show the importance of reading, and to determine what areas needed to be considered in the diagnosis of reading disabilities.

The study lasted twelve weeks, which may have been too short a time for an adequate evaluation to be made of an eclectic remedial reading program.

II. DEFINITIONS OF TERMS USED

Reading. Reading is the act of responding to printed symbols (11:5). It is a developmental skill which is more than calling words or seeing words clearly. Reading is a skill used in conjunction with thinking, feeling, interpreting, and imagining (18:9).

Reading readiness. Albert J. Harris defines readiness as "a state of general maturity which, when reached, allows a child to learn to read without excess difficulty." Reading readiness involves the following factors: maturity, intelligence, auditory and visual perception, physical fitness, physical maturity, lateral dominance, experience, language, emotional and social maturity, and interest in books (6:26).

Eclectic remedial reading program. A program designed for helping a disabled reader, and composed of the following methods:

1. Fernald Kinesthetic Method. This method is described as being a technique in which the student traces the form of the word on a printed card, saying the syllables as he traces (6:216).

2. Experience Stories. In this approach the student dictates his own stories based upon his experience and using his own speaking vocabulary (6:77).

3. Houghton Mifflin Developmental Series. Skills are developed in the use of phonic attack and context clues for word attack.

4. Look-Say Method. This method encourages the child to look carefully at a word or phrase that is set off in meaningful context while saying it (6:75).

5. Experience. In this approach the child is asked to draw upon his experience and is asked to illustrate the word with impromptu demonstrations or pantomime (6:78).

Neurological organization. Carl H. Delacato defines the term as "that physiologically optimum condition which exists uniquely and most completely in man and is the result of a total uninterrupted ontogenetic neural development" (4:7).

Disabled reader. The term "disabled reader" will be used to refer to any child who is reading one to two years below his innate capacity (6:32).

CHAPTER II

REVIEW OF THE LITERATURE

I. LITERATURE RELATED TO CASE STUDIES

Ruth Strang gave justification and direction to the case-study method of research concerning disabled readers when she wrote:

The case-study method of research seems to be recognized as an especially appropriate method of exploring reading disability. However, the spirit and purpose of the case-study method are lost when insufficient attention is paid to the "why" and "how" of information obtained (19:14).

In her study Strang presented two case studies involving diagnostic and remedial reading procedures. She outlined the similarities in emotional problems and the treatment of those problems through reading.

Carl H. Delacato (4:110-111) presented fourteen case studies in an attempt to establish universal application of his theory regarding the establishment of neurological organization. He, like Strang, has established the need for the case-study research approach. He has also established both diagnostic and treatment procedures for disabled readers.

Although Burton Blatt's case-study does not relate directly to disabled readers, it does give further direction to this type of study. Blatt describes his study in this way:

Although we do not believe the paper will contribute substantially to settling numerous current controversies abounding on change in children, it does present the case-study method--and its attendant ramifications --as a way of preparing professional workers more attuned than heretofore to understand and deal with theories of change and to design experiments that study it (3:116).

Blatt's study demonstrated that through careful teaching a child's I.Q. can be changed, and that the change can be measured. Like Delacato and Strang, Blatt has established diagnostic and treatment procedures.

These three studies were included in the review of the literature to further establish a need for the case-study method of research. They gave both stimulation and direction for doing further research of this type. They also gave direction for diagnosis, treatment, and measurement of change.

II. LITERATURE RELATED TO THE IMPORTANCE OF READING

A child who is able to read well is able to gain many things from books. Books may add meaning to the child's experience, furnish keys to understanding his problems, aid in developing wholesome attitudes, contribute to growth in language powers, stimulate ability to think, enlarge social competence, increase the capacity for enjoyment, and in these and other ways enrich the personality of the individual (1:20).

What then of the child who does not learn to read well? Albert J. Mazurkiewicz said this in regard to the problem of the disabled reader:

Emotional reactions are reports we make to ourselves about how things are going. The feelings we have about our success and failure color the meanings our experiences have for us and guide us into the future in positive and negative ways (10:380).

Many children do not understand why they have not learned to read. They soon consider themselves "dumb" or wonder if there is something wrong with them. The child may become aggressive and behavior deviations may be directed toward the teacher, the home and parents, classmates, or more specifically, toward books. In other instances the child may manifest his concern by withdrawing, becoming shy, and even uncommunicative (15:13). The schools cannot allow this to happen to the child with a reading disability. Methods need to be devised to help the disabled reader read with a proficiency commensurate with his intellectual ability (15:15).

III. CAUSAL FACTORS TO BE CONSIDERED IN DIAGNOSIS OF READING DISABILITIES

Psychological factors. The effect of emotional and personality problems on the ability to learn varies from child to child. In many cases the reading proficiency is adversely affected, one reason being the maturational lag

because of the emotional disability (14:22). Hildreth (8:166), in relation to reading readiness, tells us that the pupil with better self-control and self-reliance, who can pay attention, follow directions, and resist distractions, is more apt to profit from reading lessons than one who lacks these qualities. It would follow then that a child who has emotional problems may not have profited from early reading instruction and may have difficulty profiting from remedial instruction at a later date.

Self-images must be considered in relation to psychological factors as they affect the disabled reader. Children develop a conception of themselves as learners just as they do in other aspects of behavior. If the child has experienced considerable failure in the complicated task of learning to read, his concept of self is then apt to be damaged. (16:97) Because of the damaged self-image, the child may be reluctant to learn to read and a problem of motivation may be encountered (16:90. Rouchek (17:98) tells us if success can be experienced, the self-image should improve and a general uplifting of the individual's self-image is good and does allow a greater degree of success in areas which require a greater degree of formal training such as reading.

I.Q. or Mental Age. One prime reason for considering the child's intelligence was to determine if he is in fact a disabled reader. By definition, the term "disabled" will be used only to refer to children who are reading one to two years below their innate capacity (6:32).

Another prime reason for considering the I.Q. is given by Tyler (20:368) when he indicated intelligence is an important determinant of general reading achievement. Pollack and Piekarcz added emphasis to Tyler's statement when they wrote, "reading retardation must always be determined by reference to the individual child's mental capacity regardless of chronological age and grade placement" (14:27). They further indicated that intelligence tended to be related to reading achievement at all academic levels and below average intelligence can and does influence reading in several ways (14:29).

Experiential background. Experiential background is generally considered as a readiness factor with regard to beginning reading; it must also be considered in remediation. Experiential background is essential in any program of vocabulary development, and vocabulary development is an essential part of any program of remediation in reading (6:24).

Monroe tells us that a teacher cannot start where the student is until he knows the level of linguistic and

vocabulary development which is based upon the child's prior experiences (12:23). We must know where the child is if we are to attempt to develop an adequate vocabulary by giving the necessary experiences that will further facilitate this development.

Visual acuity and perception. Visual perception is the purposeful act by which sensations are perceived, placed in logical order, and understood (24:45). Visual acuity is the degree of accuracy with which images are focused on the inside of the eye or retina (9:5).

The degree to which poor visual perception and acuity affects reading and the degree to which they are a causal factor in disabled readers is difficult to determine. Vernon (23:30), Harris (6:231) and others reported a great variation among purported incidence of reading problem cases which are due primarily to visual difficulties. It was apparent that some children with visual problems did become good readers and that all disabled readers were not found to have visual difficulties.

The need for considering this area is well stated by Sister Mary Ziets (24:45) when she tells us that the relation between reading and vision is intimate and tenuous. Because many disabled readers are found to have visual acuity and perceptual problems and because of their intimate relation

to the reading act, visual problems must be considered in the diagnosis of reading disabilities.

Neurological organization. Pollack and Pierkarz (14:43) indicate that neurological disorganization or the improper development of the brain because of infections, injury, or chemical imbalance or reactions of various kinds, may make it difficult for some children to learn to read. Others consider neurological organization in the narrow sense of cortical dominance which may also handicap a child's ability to read (4:17).

Carl Delacato has perhaps created more interest and concern about neurological organization as it relates to reading disability than any other authority in the field. He states,

The neurological development and organization of the human organism is the key to language and reading development and to language and reading difficulties (4:9).

Delacato's concern for neurological organization includes cortical dominance as it relates to handedness, footedness, vision, and tonality. He sees dominance in the above areas as following a developmental sequence in which no step may be omitted. If a developmental step is omitted, the child will not complete the neurological developmental pattern that is considered necessary for adequate language development, including reading. If these patterns are

faulty, they may be established by determining at what point the child's development stopped. By employing various techniques the adequate pattern may be re-established. After the complete neurological development has been completed, the child's reading problems can be alleviated through remedial instruction (4:123).

Physical factors causing reading disabilities. Table I is a summary of statements made by ten recognized authors in the field of reading regarding physical factors that may cause reading disabilities.

TABLE I

SUMMARY OF AUTHORS REGARDING PHYSICAL DISABILITIES
AS FACTORS IN READING RETARDATION

Degree to which the factor Influences Reading	Number of authors who considered each area as a possible factor in reading retardation		
	Visual Perception and Acuity	Auditory Perception and Acuity	Neurological Organization
Imperative	2	0	1
Disability factor in isolation	0	0	1
Disability factor in combination	3	10	10
Needs to be considered in diagnosis	10	10	10
Not a factor	0	0	0

The literature reviewed to compile Table I was taken from the writings of Emmet Betts, Albert Harris, Gertrude Hildreth, Lillian Harrison, Marion Monroe, William S. Gray, Henry Smith, M. D. Vernon, M. F. Pollack, and Carl Delacato. All of the authors reviewed considered visual acuity and perception, auditory perception and acuity, and neurological organization, as possible disabling factors in children with reading disabilities. There was not complete agreement as to whether they were causal factors in isolation from other factors, or if all of the factors were imperative to reading success.

Psychological factors causing reading disabilities.

Table II is a summary of statements made by ten recognized authors in the field of reading regarding psychological factors that may cause reading disabilities. The literature reviewed to compile this table was taken from the writings of Emmet Betts, Albert Harris, Gertrude Hildreth, Lillian Harrison, Marion Monroe, William S. Gray, Henry Smith, M. D. Vernon, M. F. Pollack, and Carl Delacato.

The only author who did not consider self-image, experiential background, and emotional stability as causal factor in reading disabilities was Carl Delacato. The remainder of the authors felt that these psychological factors needed to be considered in any diagnosis of reading disability.

TABLE II
 SUMMARY OF AUTHORS REGARDING PSYCHOLOGICAL
 DISABILITIES AS A FACTOR IN
 READING RETARDATION

Degree to which the factor influences reading	Number of authors who considered each area as a possible factor in reading retardation			
	Self- image	Experiential Background	I.Q.	Emotional Stability
Imperative	9	8	10	9
Disabling factor in isolation	2	8	10	2
Disabling factor in combination	7	8	10	7
Needs to be considered in diagnosis	9	8	10	9
Not a factor	1	1	0	1

CHAPTER III

DIAGNOSTIC PROCEDURES

The underlying purpose of this study was to learn the effects of an eclectic remedial reading program on a limited number of children. It was decided to limit the study to two children, thus enabling the author to report more fully the diagnostic techniques used and the remedial procedures established on the basis of the diagnostic evaluation.

Ruth Strang was quoted in Chapter II as saying, "the spirit and purpose of the case-study method are lost when insufficient attention is paid to the why and how of how the information is obtained." Chapters III and IV will attempt to fully report the "why" and the "how."

The two children used in the study were selected on a basis of need. They had been observed by the writer in classes taught by him at Hebeler Elementary School while serving as a graduate intern and their reading disability had become apparent at that time. In addition, the subjects' regular classroom teachers had pointed out a need for remedial help for these children.

I. THE RESEARCH SETTING

The room. The room in which the diagnosis and remediation took place was situated on the second floor of Hebel Elementary School. There was ample wall and floor space for progress charts and worktables. There was also ample blackboard space to serve the purposes of both the subjects and the author.

Books and other reading material were placed on the worktables in the room in an attempt to make the purpose of the room obvious. Not all the reading material in the room related directly to the subjects as other reading groups under the direction of the writer also used the work space.

A tape recorder, situated on one of the work tables, was used to evaluate the lessons and the subjects' performances. The recorder was on a majority of time and the subjects became used to it. In the writer's opinion, the recorder did not have an inhibiting effect during any testing situation.

Time. A number of factors needed to be considered relative to time: the subjects should not be deprived of a pleasurable activity such as recess or physical education, the children should be rested and alert, and the classroom teachers' plans for the children also needed to be considered. Based upon these considerations, Case I met with the writer

from 10:00 a.m. to 10:30 a.m. daily. Case II met with the writer from 1:00 p.m. to 1:30 p.m. daily.

A total of sixty hours was spent with Case I, including one and one-half hours for the eye examination and approximately four hours for the pre-testing and post-testing. The time was extended over a twelve-week period starting January 17, 1966, and ending April 8, 1966.

The time spent with Case II was abbreviated due to her frequent absences from school. She was absent from school for ten sessions. A total of fifty-five hours was spent with this subject of which approximately four hours were used for pre-testing and post-testing. The sessions extended over a twelve-week period starting January 17, 1966, and ending April 8, 1966.

II. DIAGNOSTIC PROCEDURE AND EVALUATION

CASE I

Observation. The subject was observed six times prior to the beginning of reading instruction. He did not volunteer at any time or in any way participate freely in group of class reading activities. When he was called upon to answer a question he seldom was aware of what had happened prior to the question. His interest did not sustain itself over the entire lesson and he seemed to tune out the lesson

after approximately ten minutes. He seldom followed directions the first time and the directions had to be repeated two or three times before he could or would begin. Seat work which demanded any sustained concentration was not completed. In contrast, assignments which could be completed quickly and with a minimum of effort were generally completed. During the free or unstructured reading periods he seldom was able to read the material which he had selected from the library.

On the basis of these observations it was determined that the initial reading lessons would be short and varied due to the subject's short attention span. It was further determined that directions should be clear, and that he would need some help and guidance in following them. Guidance would also need to be given in selecting reading material commensurate with the subject's reading ability.

Neurological organization. Based upon the Delacato test of neurological organization, it was determined that handedness was well established. Footedness was mixed in two areas: stepping onto a chair and stepping off a step. The left eye was predominant in all areas. All physical movements, although predominantly left, were awkward, as were most play activities. Crawling patterns were also awkward and he was unable to skip or stand on one foot. The subject was also unable to walk the balance board with any degree of skill.

Based upon these observations, it was determined that through physical activities described by Delacato and through play activities designed to improve coordination, this child could become left footed and his general coordination improved.

Auditory acuity and perception. The subject was able to repeat complex and simple tapping patterns. He was also able to hear whispered directions with both ears and hear a watch at distances which would indicate there was no difficulty in auditory acuity. The school nurse reported a normal reaction to the audiometer tests at all frequency levels.

Based upon these tests, it was determined that the child had no problems of an auditory nature which would interfere with reading instruction.

Visual acuity and perception. The subject was reported by the optometrist to have poor muscular control which created some difficulty in making smooth eye movements in a left-to-right direction. In addition, he tended to regress often.

These problems did not seem to be beyond correction, and no other problems of a disabling nature were reported.

Emotional evaluation. Based upon the classroom teacher's and the writer's evaluation, this child was not

considered to have any emotional problems of a magnitude which would inhibit his reading progress.

He verbalized a concern about his lack of reading ability and his self-image in this area was poor. In other areas, both in school and in the community, he saw himself as being a worthwhile person.

I. Q. Based upon a group test, The California Test of Mental Maturity, which had been administered in the first and third grades, the child's I. Q. was approximated to be within the normal range (96).

Reading level. In an attempt to fit the reading material to the child, the R. A. McCracken adaptation of the Robinson and Betts Informal Reading Inventory was given. The child's instructional level was determined to be below the 1.5 grade level.

Experiential background. The subject's parents reported that because of their advanced age and the pressures of being self-employed in a small business, they had not spent much time with the child. In describing a normal day, the parents reported that he spent most of his time either in school or watching television. He seldom did anything for himself because the parents felt it was easier to do it for him. They further indicated there was little reading

material in the home and they did not spend any of their limited leisure time reading or participating in family activities. The subject's experiences were limited to those found in the community with peers who were generally younger than himself, the one exception being a yearly vacation of one week.

The child's vocabulary was limited. He used very simple sentences of from three to five words. He was unable to converse spontaneously for an extended period of time unless direct questions were asked. The subject's parents indicated this was true in the home and indicated that there was little dialogue in the home.

It was determined on the basis of this information that the child needed to enlarge his experiential background and vocabulary.

The Durrell Analysis of Reading Difficulty

This test was designed as a diagnostic device to examine reading difficulties. It is an individual test which measures the following areas: oral reading, silent reading, listening comprehension, word recognition and analysis, visual memory of word forms, auditory discrimination, and spelling. The test was given to each subject and the results of each section will be reported.

Oral reading. The subject was asked to read at grade levels one, two, and three. The scores on the rate and errors at levels two and three indicated the subject was reading at a low first-grade level. He read in a word-by-word fashion with no phrasing at the two upper levels. He did not use any word recognition skills and would not attempt unfamiliar words in the two upper sections. While attempting these sections his voice was high pitched and strained, and he appeared nervous and frustrated. He was more comfortable at level one; he was able to read successfully, and his phrasing, rate, and comprehension were good.

Silent reading. In this section of the test the subject was most successful at level one. His scores on levels two and three indicated he was reading at first grade level. His comprehension on test questions was 60 per cent at level one and below 23 per cent at grades two and three. He was unable to read any section without whispering and moving his lips. The silent rate was far above the oral reading rate. The slowest time was 70 seconds as compared to 123 seconds on the oral section. However, the comprehension scores indicated that he was not reading carefully on the silent section and was missing much of the content.

Listening comprehension. The subject was tested at four levels for this test--grades one through four. The

scores ranged from 57 per cent comprehension at level four to 71 per cent at level one. These scores were consistent with those obtained on the silent and oral reading tests, in which the subject was most successful at grade one.

Word recognition and analysis. Forty words were presented from the grade one Durrell reading list. Of the forty, the subject was able to recognize fifteen when they were presented by the tachistoscopic method. When the subject was allowed to analyze the words, he was able to recognize an additional two words. When the subject miscalled a word presented tachistoscopically, he was asked to indicate the letters he saw in the word. He consistently saw only the first and last letters in the word.

Visual memory of words. The results of this test indicate the subject's visual memory of words was extremely poor. He scored below the 1.5 grade level. The problems observed were the same as those found in the vocabulary test: he was seeing or attending to only the first and last part of the word and ignoring the middle.

Hearing sounds in words. On this section of the test the subject scored below the 1.5 grade level. The only sounds he was able to hear consistently were the initial consonants. He did not hear any of the consonant blends

and missed many of the last sounds. A list of sixteen consonant blends were given in isolation and he was unable to verbalize any of these.

Spelling. The first grade spelling list was administered. The subject was able to spell one word, that being "Run." When asked to spell the words as they sounded, he attempted two, which were not correct, and refused to attempt any more of the words presented.

The results of the Durrell Analysis of Reading Difficulty would indicate the subject was reading at a beginning first grade level. The subject's sight vocabulary was inadequate above the first grade level, as were his work attack skills. Although he knew and could recognize all the letters in the alphabet, he did not know or use initial consonant sounds or blends. According to the test results he was unable to hear blends in words or ending sounds. He saw only the beginning and ending of the words and ignored the middle.

CASE II

Observations. The subject participated in a special purpose reading group under the direction of the writer and ample opportunity was afforded to observe the subject in both structured and unstructured group reading activities.

The subject was generally unable to pay attention to lessons for periods exceeding ten or fifteen minutes. She was generally reluctant or unable to participate in group discussions or activities. She was unable to follow directions and the directions had to be given to her individually before she was able to begin the assignments. If the assignments demanded sustained concentration and effort, she was unable to complete them.

When the group was allowed to read books selected from the library, the subject was seldom able to read the book selected. For the benefit of the group she would make an attempt for a short time but would soon lose interest.

It was determined that the initial remedial sessions would be short and varied. She needed help in following directions and selecting appropriate leisure reading material.

Neurological organization. The subject was right handed, footed, and eyed. There did not appear to be any ambidexterity. She was awkward in any physical play activities and generally avoided these activities whenever possible.

It was decided that there was a need for the general improvement of coordination. It was also decided to use the activities designed for establishing neurological organization in an attempt to improve the subject's over-all coordination.

Auditory acuity and perception. The subject was able to perform all the tests designed to measure auditory acuity and perception. She was able to repeat complex and simple tapping patterns and hear whispered directions. She was also able to hear a watch at distances which indicated there was no difficulty in auditory acuity. She reacted normally to the audiometer tests at all frequencies.

Based upon the test results, it was determined that the child had no problems of an auditory nature serious enough to interfere with reading instruction.

Visual acuity and perception. The child was reported by the optometrist to be somewhat nearsighted, but it was determined that the nearsightedness was not extensive enough to create a reading problem. She was also reported to have some difficulty in making smooth left-to-right progressions due to muscular problems.

It was determined on the basis of the test results that visual training would need to be given in an attempt to help the child develop smooth and effective eye movements and fixation patterns.

Intelligence. Based upon the scores obtained on the Wechsler Intelligence Scale for Children, the subject's full scale I.Q. was determined to be 91. The examiner felt this score was low because of her emotional involvements.

Emotional evaluation. The subject was seen as having many unmet dependency needs which created some emotional and personality problems. These problems were considered by the psychologist to be severe enough to inhibit her academic progress.

Her self-image was poor in all areas and she verbalized a desire to change herself. She was concerned about her reading ability and felt that others, as well as herself, saw her as being "dumb" because she could not read as well as most of her class peers. She felt if she learned to read, many of these problems would be alleviated.

Considering the feelings expressed by the subject concerning reading, it was determined that the initial reading experiences needed to be carefully planned to enable the subject to be initially very successful.

Reading level. The instructional level for this subject was determined to be approximately the 2.0 grade level, based upon the McCracken Informal Reading Inventory.

Experiential background. There was no father in the subject's home, only a mother and a sister. The subject traveled widely as a young child, experiencing four changes of schools in the first three grades. Her mother is now a student and travel experiences have been limited for the past year. The mother indicated she was too busy to spend

much time with the child and opportunities for conversation in the home were limited. Prior to the mother becoming a student there was very little reading done in the home.

The child's conversations were generally very rich and she had a lively imagination which was used liberally in her conversations and stories.

Experiential background and richness of vocabulary were not considered as disabling factors in this subject's reading.

The Durrell Analysis of Reading Difficulty

Oral Reading. Three levels of difficulty were presented to the subject: levels two through four. The subject's scores on third and fourth grade material indicated she was reading at a second grade level. On the fourth grade paragraph she made nine errors and her comprehension was 71 per cent. Her scores on the third grade material were comparable except for the comprehension score which was 63 per cent. The only word attack skill used at these levels was an attempt to guess at unknown words based upon context clues. She appeared to be frustrated by the material encountered at the upper two levels and needed to be encouraged to complete both sections. On the second grade material she made three errors. Two of these were substitution of the word "the" for "a" which did not interrupt the thought pattern. Her comprehension score on this material was 100 per cent.

Silent reading. The subject's comprehension scores at all three levels presented in this section were good. She was able to comprehend more than 80 per cent of the material at all levels. Her reading rate at the third and fourth grade levels was slow, indicating she was reading at a second grade level. She whispered or moved her lips while reading at all grade levels, and there was considerable head movement. The upper two levels appeared to frustrate her.

Listening comprehension. The subject was tested at grade levels two through four. The scores ranged from 28 per cent comprehension at grade four to 71 per cent at grade two. These scores were consistent with the oral and silent reading scores in which the subject was most successful at grade level two.

Word recognition and analysis. Forty words were presented from the grade one reading list by Durrell, and the subject was able to recognize 33 of these words. When asked to analyze the missed words, the subject was able to recognize two additional words. Twenty-five words were presented from the second grade reading list and the subject was able to recognize eight. She was unable to recognize any additional words when allowed to analyze the miscalled words. When asked to tell what letters she remembered seeing in the miscalled words, the subject indicated she was consistently

seeing the first letter and occasionally the middle vowel. There was no indication she was seeing the end of the word.

Visual memory of words. The results of this test indicated the subject was functioning at a 1.5 grade level. The problems observed in this section indicated the subject was looking or attending to only the first part of the word and ignoring the middle and end of the word.

Hearing sounds in words. On this section of the test the subject received her highest score; she scored at the 3.5 grade level. She was able to hear all sounds tested. A list of sixteen consonant blends were presented in addition to the words and she was able to recognize the sound of twelve blends.

Spelling. The subject was presented the second grade spelling list of twenty words. She was able to spell the word "back" and missed the remainder of the list. She attempted eleven of twenty words presented and responded to the remaining nine words by saying, "I don't know," and refusing to attempt them. In attempting to spell the words, she used the initial consonant correctly on each word, but was unable to use any other method of attack.

Test analysis. The results of the tests indicated the subject's instructional reading level was the second

grade. Her only method of word attack was the use of context clues. Her sight vocabulary was inadequate and she read in a word-by-word fashion when asked to read above the second grade level. Although she was able to hear the various sounds in words, she was unable to use the sounds in attempting to read or spell unfamiliar words.

The diagnosis of a child's reading difficulties has only one purpose. It provides the data from which a treatment plan can be formulated. The diagnosis provides the information which enables the teacher to insure initial success in the reading lessons and provides data concerning the most disabling factors in the child's reading.

The initial diagnosis did not terminate the gathering of data concerning the child's reading problems. Anecdotal evaluations were made daily concerning the problems encountered and the directions in which the instruction needed to proceed.

The remedial methods used in an attempt to alleviate the problems encountered by each subject will be reported in Chapter IV.

CHAPTER IV

REMEDIAL PROCEDURES AND RESULTS

Based upon the information gained from the diagnosis, a basic remedial plan was outlined for both subjects. Many readiness factors needed to be considered. Case I's experiential background needed to be broadened and his speaking vocabulary expanded. He needed the opportunity to verbally use the language in the home and the remedial sessions. In both cases auditory and visual perception needed to be refined and smooth left-to-right eye movements needed to be established. Dominance needed to be established and reinforced, and general body coordination needed to be refined and improved. The subjects' self-image in reading needed to be bolstered and they needed to be convinced they could learn to read despite previous failures. Case I's major reading disabilities were the lack of an adequate sight vocabulary and the lack of any method of word attack or recognition skills. Case II's major reading disabilities were her lack of sight vocabulary and her complete dependence upon the use of erratic and ineffectual context clues.

Even though each child was taught individually, the remedial techniques used were the same; the only difference being the material used for Case II was somewhat more sophisticated than that used for Case I. Because the

techniques for both subjects were essentially the same, each case will be reported simultaneously.

I. REMEDIAL PROCEDURES

The initial remedial sessions were kept short and many activities were included in each thirty-minute session. Each of the initial sessions involved play activities used in an attempt to establish complete dominance and to improve the subjects' general coordination. The subjects were also encouraged to tell stories to the author in an attempt to extend their use of the language. The writer also read stories to the subjects in an attempt to improve their auditory discrimination and increase their interest in reading.

Dominance and neurological organization. The Delacato method of establishing dominance and complete neurological organization prescribes the adjustment of sleeping activities and the covering of the subdominant eye. In addition, it restricts the subject to the use of only the dominant hand and foot in all activities. Many of the subjects' activities could not be controlled by the author; consequently, these aspects of the Delacato treatment plan were not used. However, in all activities which the author directed, the subjects were encouraged to use only the dominant side. Play activities were designed to further

establish dominance. During these activities the subjects participated in kicking and throwing a ball with the dominant hand or foot. The subjects were given instructions to improve their throwing patterns, which were very awkward. In addition, they were given exercises involving skipping, standing on one leg, and running. They were encouraged to use their arms for balance while running and skipping and while trying to balance on one leg or walking the balance board.

The following sequence of activities was established to make the coordination and dominance exercises more interesting. It also gave the subjects the experiences needed in following verbal directions. A chair, gym mat, slide, rope swing, bench, and balance board were set in a circle approximately twenty feet in circumference. The subjects were instructed to step on and off the chair using the dominant foot as the lead foot. They then crawled the length of the mat, skipped to the rope swing, and swung to the slide. They climbed the slide ladder using the dominant foot, walked the length of the bench, and dismounted using the dominant foot. They hopped to the balance board on the prescribed foot and mounted the balance board, also using the dominant foot, and walked the board. They finished the sequence by either throwing or kicking a ball at a target with the dominant foot or hand.

Experience stories. The introduction of reading material was accomplished through the use of experience stories. It was hoped that by using the child's speaking vocabulary as a basis from which to build a more adequate reading vocabulary, the subject would experience success in the initial reading periods. Case II's classroom teacher informed the author he had successfully used this technique with the subject.

The subjects were asked to draw and color a picture on one-half a sheet of typing paper. They were then asked to tell a story about the picture. The story was typed on the bottom half of the page. This material was used in the initial reading lessons. In the first two weeks of instruction the subjects drew four pictures, adding stories to each. The first picture and story used by each subject are included in Appendix A.

The experience stories were used to begin building the subjects' sight vocabulary and to help the subjects begin to concentrate on the initial consonant sounds. In addition, they were used to help the subjects begin attending to the words as wholes. The following is an example of the exercises used to accomplish this goal. "It w_s nigh_. Su__en__ General Custer s_w an a__o_." The sentences used in the exercises came from the subjects' stories. The subjects were allowed to look at the story while filling in the

blanks. It was hoped this exercise would help them begin to concentrate on the whole word rather than just the initial letter.

Mazes and puzzles. Another activity used in the initial reading sessions was the use of mazes and puzzles. These were used in an attempt to encourage the subjects to use only the dominant hand, to improve hand-eye coordination, and to improve left-to-right eye movements. An example of the mazes used are included in Appendix B.

Sight vocabulary. Words taken from the Dolch Basic Sight Vocabulary List and the words presented in the Houghton Mifflin Pre-Primer and Primer series were presented in an attempt to help the subjects build a more adequate sight vocabulary. The Houghton Mifflin word list was used because this was the reading series used in the school, and it was hoped this choice of words would be helpful to the subjects in their regular classroom.

The following sequence was used in the presentation of new sight words. The word was always presented in context and the subject was asked to add sentences to the presentation sentence. The words were also on flash cards and the subjects were asked to respond to the flash card presentations after the words had been presented in context and meanings discussed. The lessons were always culminated,

regardless of the technique used to present and learn the word, by having the subjects put the words into meaningful context. This was done by having the subjects put the new words into sentences and whenever possible the sentences were put into meaningful paragraphs.

Whenever the children had difficulty learning and retaining words presented in the previously mentioned sequence, the words with which the subjects had difficulty were given added emphasis. This was done by using the Kinesthetic Method, dramatizations of the word, experiencing the word, or by making the word or parts of the word more distinctive through the use of color.

Kinesthetic method. An example of the words which were given added emphasis by using the Kinesthetic method were the words "want" and "went." Case I had difficulty with these words even when they were encountered in context. Both words were put on cards and the subject was instructed to trace the word with his finger while saying it. He was then asked to close his eyes and visualize the word and then write it. This did not appear to be sufficient emphasis to help him learn and retain the word or words in most cases. The words were then printed on the blackboard, using letters approximately twelve inches high, and the subject was asked to follow the same procedure that was used with the cards.

In addition, he was directed to concentrate on the different letters in each word. This technique was used on a number of words that both subjects had difficulty with and it appeared to be successful.

Use of color. A technique which was used to help the subjects attend to the middle of the word and help eliminate confusion between words that looked much alike was the use of color. Words like "cat," "cut," and "cot" were first put on individual cards with the middle vowel colored red, in contrast to the black letters c and t.

After these cards had been presented a number of times both in and out of context and the subjects no longer miscalled them, all the words were presented on one card with the vowels colored red. The subjects could then visualize and verbalize the differences between each word.

This procedure and the Kinesthetic Method needed to be used more extensively with Case I, but were considered beneficial for Case II. Case II indicated the colors in the word helped her to look at the whole word and drew her attention to the differences between the words.

Case I made further use of color, and this technique was inadvertently discovered. The subject was having difficulty with the word "was" while it was being presented out of context using flash cards. The subject used the author's

red marking pencil to write the word on a blank flash card and asked that the word be presented in that way. The red word was presented a number of times in the following sessions. The subject recognized the word consistently during these presentations. The red word was later replaced by a flash card on which the word was printed in the conventional manner and the subject had no further problem with the word. The subject was allowed, but not encouraged, to use this technique whenever he felt it was necessary.

Dramatizations. Both subjects were encouraged to dramatize words whenever possible. Words such as "jump" were especially well suited to this technique. Both subjects enjoyed and benefited from this technique and especially enjoyed acting out abstract nouns. Some of their creative efforts were interesting and effective.

Experience. The subjects were encouraged to experience words whenever possible. They were taken into the snow and words such as "cold," "freezing," "white," and "uncomfortable" were discussed and presented using flash cards while the subjects were in the environment. The words were discussed and put into context relating to the environment. The subjects were also encouraged to describe the situation carefully, telling what they saw and felt. This was done in an attempt to sharpen their perception and use

of the language in addition to allowing them to experience the words.

Word charts. Word charts were used in an attempt to maintain the subjects' motivation in learning new words. Case I especially enjoyed these charts. He drew a well drilling machine at the top of his first chart. He decided each word would equal one foot drilled. His father, who was a well driller, told him water is generally reached at one hundred feet. His original goal for this chart was then one hundred new words; this goal was later revised to fifty words. The subject was anxious to share this chart with his parents and was unable to wait for one hundred new words.

Case II was not interested in making an elaborate wall chart but was interested in keeping a visual record of the new words added to her reading vocabulary.

When either subject became impatient or frustrated with the growth being made or with the number of words being added to the chart, groups of words with common endings, such as tent and rent, were introduced. One or two words were introduced and the subjects were encouraged to add all the words to the list they could by changing the initial consonant. These words gave the subjects a large gain on the chart with a minimum amount of effort and

revitalized their motivation. It also provided an additional word attack skill.

Textbooks. During the third week for Case II and the fourth week for Case I, books were introduced. It was at this point that each subject first asked when they were going to start reading from books and indicated they were now interested in using books. The books were available and the decision as to which book would be used for each subject had been determined on the basis of grade level scores and other diagnostic data.

Case II's instructional level had been determined to be 2.0, and she was introduced to a Scott Foresman reading text at that level. She appeared to be content with this book for the first three days, but later asked to read from the first grade text which was being used for Case I. She was allowed to use this text and was pleased with herself when she completed the book in less than a week. The subject indicated this was the first time she had completed a book. The subject then requested books from the library to read during the remedial sessions. The subject was encouraged to make a choice of books commensurate with her ability and was allowed to use these books in the remedial sessions. After her initial successes in reading books, she demanded and was given more reading time in books of her choice.

Case I was introduced to a 1.0 grade level Scott Foresman text. He was reluctant to read this book so was introduced to the first book in the Cowboy Sam series. He enjoyed this book and completed it in nine days. Like Case II, he indicated this was the first book he had completed and was pleased with the accomplishment. Case I was not interested in reading books after completing Cowboy Sam. He preferred the experience stories and short paragraphs composed by the author using a controlled vocabulary which paralleled the words used in the sight vocabulary exercises. He also enjoyed games designed to help him with his sight vocabulary.

Houghton Mifflin word attack skills. The Houghton Mifflin developmental reading series was the one used throughout the school. This was the series the subjects were using in their regular classrooms and the word recognition and attack skills contained in this series were the skills concentrated on in their respective classrooms. It was decided to attempt to teach the skills outlined at the first grade level in this series. It was hoped this emphasis upon the early skills would help the subjects become more successful in their respective classrooms. The word attack techniques taught in the primary reading program is described in the Houghton Mifflin teachers guide this way:

The pupil is taught a single wholly reliable technique for unlocking strange words, and that technique is briefly: (1) to use the context (meaning of the other words) to think of a word that makes sense, and (2) simultaneously to use a few of the letter and sound associations in the word for accurate and positive associations.

The developmental sequence of activities that is introduced in the teacher's guide for the "Jack and Janet" primer text was used for both subjects.

Parental involvement. The parents of both subjects were involved in the remedial program. They were periodically informed of their child's progress and were encouraged to reinforce the child's positive feelings about their growth in reading. The parents were also encouraged to read to their child and include the child in extended conversations in the home. The parents of Case I were asked to have their child in bed by 8:30 p.m. rather than 10:30 p.m. They complied with this request and the child was able to benefit to a greater degree from the remedial activities and his regular classroom activities.

II. RESULTS

Evaluation of a remedial reading program must concern itself with many factors. Such factors as improvement in knowledge, skills and application of skills, interest in reading, and image of self need to be considered.

Such factors as improvement in knowledge and application of skills were in part measured by the use of tests given at the beginning and end of the remedial sessions. This was accomplished in this study by using the Durrell Analysis of Reading Difficulty and the reading sections of the California Achievement Test. The subjects were also tested on their knowledge of the Dolch Basic Sight Vocabulary List and the primer list of words taken from the Houghton Mifflin reading series. These lists of words were given in pre-test and post-test situations.

Improvement in such factors as interest in reading, application of skills in the regular classroom, self-image, and the improvement of the quality of work in arithmetic, social studies, and science were determined by interviewing the subjects and their classroom teachers.

Case I

Quality of work in academic areas other than reading.

The classroom teacher indicated there was no observable change in the quality of the work done in the areas of social studies, arithmetic, or science. The subject reported he did not feel as though he were doing any better in these areas. Based upon the conclusions made by the subject and the teacher, it was determined that even though the subject

had become a more proficient reader, it did not affect his performance in these areas.

Application of reading skills in the regular classroom. The degree to which the subject applied improved reading skills in the classroom was determined by the classroom teacher and reported to the author. The classroom teacher reported the subject's gains in the remedial setting were observable in the subject's classroom reading group. He was reported to have made greater gains in all areas of reading. The subject scored higher on the skill tests which were given as part of the developmental reading program in the regular classroom.

Reading interest. The classroom teacher reported an observable gain in interest in reading. For example, the subject ordered a book from a book club--the first order the subject had ever made of this nature. The subject was also willing to spend more time reading during the assigned free reading periods and occasionally read a book to fill other free time. This interest in reading books in the classroom was not observed in the remedial sessions. He preferred word games and exercises to books in the remedial sessions.

Self-image. Improvement in self-image was determined by interviewing the subject and through observations. The subject indicated in the initial interviews that he saw himself as a worthwhile person in areas other than reading. It was observed at the end of the study the subject was more comfortable in his reading group and participated more often. The subject verbalized less concern about his lack of reading ability and indicated he now felt he could learn to read. He indicated he felt he was a more proficient reader at the end of the study than he had been at the beginning.

Neurological organization and dominance. Improvement in the areas of neurological organization and coordination were observed, but complete neurological organization was not accomplished. The subject still experienced some directional confusion in printing, and he was still printing many letters in a right-to-left direction. No problems in reading reversals were observed at the end of the study. The subject's general coordination was improved. He was able to crawl, skip, hop, throw and kick a ball, walk the balance board, and balance on one foot with a greater degree of proficiency. The subject's coordination needed further improvement, and there was still some lack of neurological organization at the conclusion of the study.

Sight vocabulary. The results of the pre-test and post-test scores on the Dolch Basic Sight Vocabulary List and the Houghton Mifflin primer list indicate a gain in basic sight vocabulary. The subject gained 83 words on the first 110 words taken from the Dolch Vocabulary List. The subject gained 55 words on the Houghton Mifflin primer list.

Durrell Analysis of Reading Difficulty. The pre-test and post-test results of the Durrell Analysis of Reading Difficulty are reported in Table III. The results indicated a gain in all areas of the test with the exception of silent reading rate. It was noted that with the decline in silent reading rate the subjects' silent comprehension improved. The percentage scores in Table III were based upon the number of correct answers given to the questions presented in the test.

California Achievement Test. Form W of the California Achievement Test was used for the pre-test and Form X was used for the post-test. The grade norms used for reporting the test scores were those established in 1963. The subject gained in all areas tested; the smallest gain was made in word recognition and the largest gain was made in the meaning of opposites. The results of the pre-test and post-test are reported in Table IV, page 51.

TABLE III
CASE I
DURRELL ANALYSIS OF READING DIFFICULTY
PRE- AND POST-TEST RESULTS

Section	Pre-test	Post-test	Gain
<u>Oral reading rate</u>			
Level 1	21 sec.	19 sec.	2 sec.
Level 2	97 sec.	75 sec.	24 sec.
Level 3	138 sec.	75 sec.	63 sec.
<u>Silent reading rate</u>			
Level 1	24 sec.	25 sec.	- 1 sec.
Level 2	28 sec.	77 sec.	-51 sec.
Level 3	62 sec.	110 sec.	-48 sec.
<u>Oral reading comprehension</u>			
Level 1	100%	100%	0%
Level 2	100%	100%	0%
Level 3	100%	100%	0%
<u>Silent reading comprehension</u>			
Level 1	60%	100%	40%
Level 2	23%	100%	77%
Level 3	0%	42%	42%
<u>Listening comprehension</u>			
Level 1	71%	100%	29%
Level 2	42%	100%	58%
Level 3	75%	100%	25%
Level 4	57%	100%	43%
Level 5	55%	60%	11%
<u>Visual memory</u>	55%	60%	5%
<u>Hearing sounds in words</u>	47%	100%	53%
<u>Hearing sounds of letters</u>	0%	56%	56%

TABLE IV

CASE I

CALIFORNIA ACHIEVEMENT TEST
PRE-TEST AND POST-TEST RESULTS

Section	Pre-Test Form Y Grade Placement	Post-Test Form X Grade Placement	Gain in Grade Placement
Word recognition	1.9	2.2	.3
Meaning of opposites	2.0	3.8	1.8
Following directions	1.0	2.2	1.2
Interpretations	1.5	2.4	.9

The results of the tests, interviews, and observations indicated Case I made observable gains in reading through the use of an eclectic remedial approach. He also made gains in neurological organization and coordination. The writer realized the limitations of the measurement technique used, especially with regard to neurological organization. Because of these limitations, the author was reluctant to state unequivocally that Hypothesis 1 was substantiated by the study. It can be stated that Case I did make gains in the areas of reading and neurological organization, but a relationship between the two gains was not established on the basis of the information gained from this study.

The child's self-image did become stronger as he became more proficient in reading. As was stated, the child saw himself as a worthwhile person in all areas with the exception of reading prior to the start of the study, but his self-concept in reading did improve. These results would partially substantiate Hypothesis 2.

The subject did not become more proficient in the areas of arithmetic, social studies, or science on his grade level, nor did the quality of his work in these areas improve. These results did not substantiate Hypothesis 3.

Case II.Quality of work in academic areas other than reading.

The classroom teacher indicated there was no observable change in the quality of work in the areas of social studies, arithmetic, or science. The subject indicated she did not feel she was doing any better in these areas than she had done previously. Based upon these conclusions, it was determined that the quality of work done in these areas had not improved.

Application of reading skills in the regular classroom. The degree to which the subject was able to apply her improved reading skills in the regular classroom setting was reported to the writer by the subject's teacher. The classroom teacher reported the subject's gains were observable in some areas. During the tenth week of remediation the subject was placed in the slow reading group and experienced success in this group. She had been removed from group reading earlier in the year because of her lack of success in group situations and her inability to profit from group activities.

Reading interest. The subject's improved interest in reading was more observable in the remedial setting than in the classroom. The subject showed an observable gain in

interest in the classroom, but was unable to sustain the interest for extended periods of time.

Self-image. The subject enjoyed her new found success in reading. She indicated she felt she was a better reader than she previously had been and felt she could continue to improve. She was especially pleased about succeeding in the reading group in the classroom. Her self-image in reading was improved. She still verbalized a desire to change herself in other areas. She felt she was too fat, and she did not like herself as she was. The results of the interview indicated the subject's self-image had undergone a change in the area of reading only.

Dominance and neurological organization. There was little indication that this child was handicapped by lack of neurological organization. She was poorly coordinated and tended to avoid play activities that involved physical activity. Her coordination did not substantially improve during the course of the study. She was reluctant to attempt the tasks designed to improve her coordination and she continued to gain weight, which made improving her coordination difficult.

Durrell Analysis of Reading Difficulty. The results of the pre-test and post-test scores on the Durrell Analysis

of Reading Difficulty are reported in Table V. The results indicate a gain in all areas with the exception of silent reading rate. The silent comprehension scores improved with the slowing of the silent reading rate, which may indicate the subject was attempting to read too rapidly on the pre-test. The percentage scores in Table V were based on the number of correct responses given to questions presented in the test.

California Achievement Test. Two forms of the California Achievement Test were used for pre-testing and post-testing: Form W and Form X. The grade norms reported in the scores are based upon the 1963 norms. Case II gained in all areas, the average gain being .5 years. The gains in each area are reported in Table VI, page 57.

Results. The results of the tests, interviews, and observations indicate Case II made observable gains in reading through the use of an eclectic remedial approach. It was determined that lack of neurological organization was not a disabling factor prior to the start of remediation; consequently, the results of the study on Case II do not substantiate Hypothesis 1.

The subject's self-image in the area of reading did improve, but this improvement was not made in areas other than reading. These results would, then, partially

TABLE V
 CASE II
 DURRELL ANALYSIS OF READING DIFFICULTY
 PRE- AND POST-TEST RESULTS

Section	Pre-test	Post-test	Gain
<u>Oral reading rate</u>			
Level 2	35 sec.	28 sec.	13 sec.
Level 3	47 sec.	33 sec.	14 sec.
Level 4	78 sec.	70 sec.	8 sec.
<u>Silent reading rate</u>			
Level 2	39 sec.	35 sec.	- 4 sec.
Level 3	33 sec.	37 sec.	- 4 sec.
Level 4	53 sec.	77 sec.	-24 sec.
<u>Oral reading comprehension</u>			
Level 2	100%	100%	0%
Level 3	85%	100%	15%
Level 4	71%	75%	4%
<u>Silent reading comprehension</u>			
Level 2	85%	92%	7%
Level 3	86%	92%	6%
Level 4	80%	90%	10%
<u>Listening comprehension</u>			
Level 2	71%	85%	14%
Level 3	100%	87%	-13%
Level 4	20%	57%	29%
<u>Visual memory</u>	60%	60%	0%
<u>Hearing sounds in words</u>	96%	100%	4%
<u>Hearing sounds of letters</u>	73%	93%	20%

TABLE VI

CASE II

CALIFORNIA ACHIEVEMENT TEST
PRE-TEST AND POST-TEST RESULTS

Section	Pre-Test Form W Grade Placement	Post-Test Form X Grade Placement	Gain in Grade Placement
Word recognition	2.1	3.2	1.1
Meaning of opposites	3.1	3.6	.5
Following directions	3.2	3.9	.7
Interpretations	3.1	3.8	.7

substantiate Hypothesis 2 as the subject's self-image did improve in the one area.

Hypothesis 3 was not substantiated. The subject did not become more proficient in the areas of social studies, arithmetic, or science as the subject's reading improved.

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

This study was conducted with two disabled readers to ascertain the value of an eclectic remedial reading program.

No comparisons were made between the two subjects or any other group. The purpose of the study was to fully explain the diagnostic and remedial techniques used on two disabled readers and to relate the success of the eclectic remedial approach.

The study was conducted over a twelve-week period in the 1965-66 school year.

The subjects were selected for the study on the basis of need: the subjects' need for remedial help in reading and the author's need for two subjects to participate in the study.

The subjects were tested at the beginning of the study and again at the end to determine what growth was made in reading during the twelve-week session. The subjects and their teachers were interviewed at the beginning of the study and again at the end to determine changes in self-image, quality of work in areas other than reading, interest in

reading, and to determine if the growth in reading was observable in the regular classroom.

Both subjects did make observable gains in reading. The gains in reading were observable in the regular classroom and did affect the quality of the subjects' performance in their regular reading groups.

Both subjects showed observable gains in interest in reading. Case I's increased interest in reading was most observable in the regular classroom, in contrast to Case II whose increased interest in reading was most observable in the remedial setting.

At the beginning of the study Case I was considered to have an adequate self-image in areas other than reading, and Case II was considered to have a generally poor self-image in all areas. Each subject's self-image in the area of reading improved. Case II's self-image in areas other than reading did not appear to improve.

As the subjects became more proficient in reading, the quality of work in the other academic areas was not observably improved.

II. CONCLUSIONS

No attempt was made to determine if any one remedial reading technique used was superior, or if each technique was mutually effective. It was concluded on the basis of

the data that each subject made observable gains in reading through the use of an eclectic remedial reading program.

It was noted that Case I evidence some directional confusion and mixed dominance which would indicate complete neurological organization had not been established. It was also noted that he made observable gains in reading. The Delacato theory of neurological organization stresses a need for the complete establishment of neurological organization before the subject will make gains in reading. The gains in reading and neurological organization made by Case I did not substantiate the Delacato theory of neurological organization.

Both subjects made gains in oral reading rate; and no attempt was made, in any technique used, to increase oral rate. The gains made by both subjects would seem to substantiate Harris when he wrote, "rate can be expected to develop as a by-product of a good reading program" (6:538).

Although both subjects made gains in oral reading rate, their silent reading rate decreased. No attempt was made to alter the silent reading rate, but emphasis was placed on comprehension. It was surmized that as the subjects learned through experience the degree of accuracy that was necessary in different kinds of reading, they developed the ability to adjust their rate to the requirements of the reading task.

All of the intangibles which might indicate success in this program cannot be adequately measured. There were certain gains that the writer and the subjects' teachers observed during the study that were difficult to measure by means of tests. Some of these were the increased interest in reading, the improvement of self-image, the transfer of increased reading skills to the regular classroom, and the over-all change in attitude toward reading that the subjects experienced.

It was stated earlier in the study that there was a need for research involving a limited number of subjects that would enable the author to more fully report the "how" and "why" of a particular remedial program. The program described in this thesis was such an attempt. Though there is considerable study needed to develop more desirable programs in remedial reading, this author wondered if more individual attention were paid to students in their regular classrooms and a more concentrated effort were made to fit the reading program to the child, if the need for remedial reading programs might be alleviated.

This program may not serve the needs of all disabled readers, but it did serve the writer as a successful method of teaching reading to the two disabled readers used in this study.

III. RECOMMENDATIONS

In analyzing the data and completing the final evaluation of the program, several circumstances became apparent that might profit from further research:

It would be worthwhile to conduct a study of beginning readers using a similar eclectic approach to reading to determine the effectiveness of such an approach on beginning readers.

A study of one child to determine the effectiveness of a particular remedial technique and an attempt to fully explain how the child learned to read using the technique would benefit further individualized reading studies.

An effort to devise adequate methods of measuring certain intangibles such as attitudes, self-image, and interests would be of value to further experimental approaches to reading.

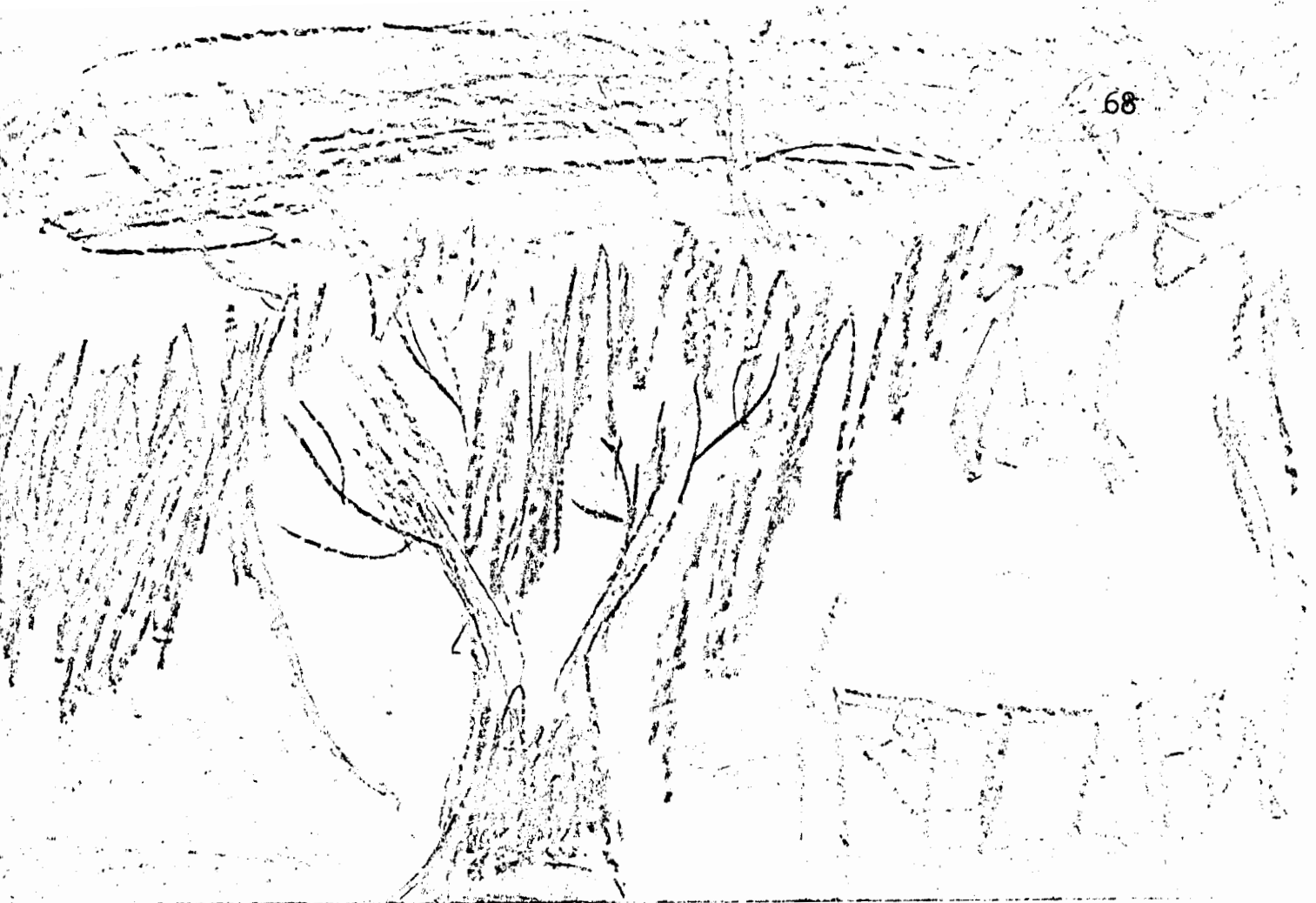
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APPENDIX A



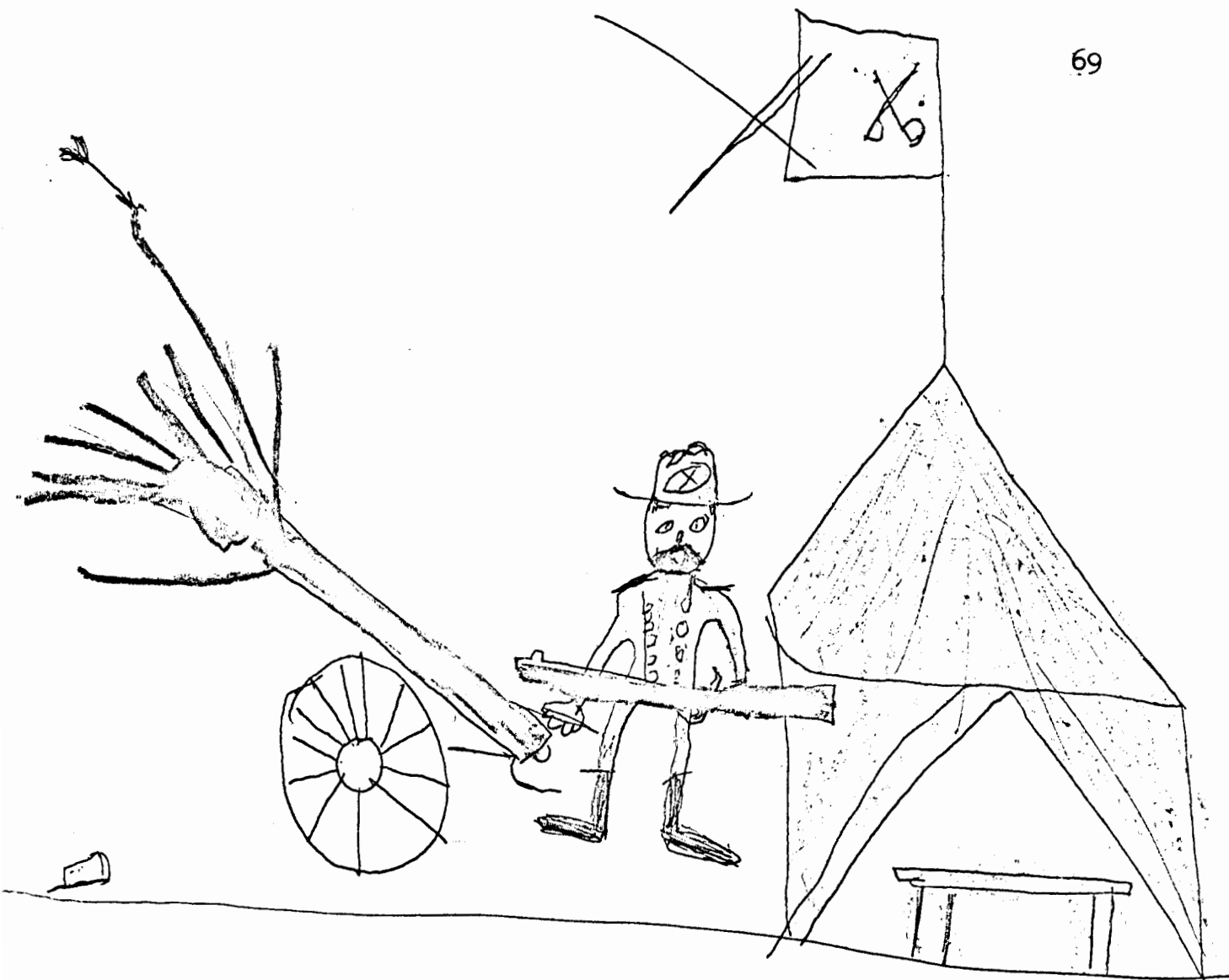
"THE WINDY NIGHT"

One night it was foggy.

The moon was up and shining. I saw a house on the dark street. The house was creepy. The house had stairs in it, and I went up the stairs. I fell in the steps, and saw a --something-- what was it.

It wore a dress, and looked like a woman. Her dress was pink and made of flannel. She wore slippers.

There was a tree by the house. The tree was ugly, and all I saw was the branches. The thing said, "hello." How would you like to sleep at our house?



It was night.
The Men could not sleep.
Suddenly General Custer saw an arrow.
General Custer told his men to charge.
That was his first war.
The second war he lost.
His army was killed.

THE END

BY STEVE WILSON.....

APPENDIX B





