An In Depth Study of a Child with Visual Perceptual Problems and an Attempt to Determine the Effectiveness of Configuration Analysis as Related to Visual Perception

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AN IN DEPTH STUDY OF A CHILD WITH VISUAL PERCEPTUAL PROBLEMS AND AN ATTEMPT TO DETERMINE THE EFFECTIVENESS OF CONFIGURATION ANALYSIS AS RELATED TO VISUAL PERCEPTION

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

by
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August, 1968
APPROVED FOR THE GRADUATE FACULTY

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Sincere appreciation is extended to John Schwenker who extended continued faith, encouragement, and helpful guidance I needed to complete this paper.

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CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

In almost every school classroom there are children who are having trouble with reading. Parents and educators are searching for answers and solutions to produce better readers. Many children are having difficulty with reading because they are not perceiving correctly. "Perception is a process that makes present visual impressions meaningful in the light of past experiences and in accord with emotional needs" (19:7).

I. THE PROBLEM

Statement of the problem. It was the purpose of this study to work closely with one child who had been diagnosed as a disabled reader with visual perception problems to determine if the intensive use of visual perceptual training in the use of configuration analysis would improve the subject's reading power.

Importance of the study. A child who is having trouble with reading is not only a problem to himself, but usually causes problems in school, with his peers, and at home (21:3).
Frostig has worked with large groups of children to determine those children with perception disabilities (5:385); however, Navarra has stated the importance of studying one child:

... the purpose is not to use the study of this one child to prove anything. 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 individual 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 (15:2).

Tiedmann as stated in Navarra said:

... the importance of an exhaustive study of one child informs us of one among the possible rates of progress and allows us to put some determination upon the previously indefinite subject (15:3).

"All learning ... is a result of perceiving" (12:58).

Reading is a very important part of a child's learning. Reading alone is a very complex process and word perception is a part of the development of this skill. "However, the growth of the more complex skill is obviously impossible unless word perception skills are first mastered" (13:113).

This study will try to determine if a child with visual perception problems can improve in reading skills when she has been given training in perception and configuration analysis.
Limitations of the study. There are many factors which can cause a child to be a disabled reader. This study covered only a five-week span of training and so could not uncover all the problems which might affect the subject's reading ability. Frostig believes that "... the process of training [visual] perception and giving help in remedial reading may be arduous and prolonged" (4:12).

A great deal of literature has been written about the subject of reading; however, for the purpose of this study the review of the literature was confined to the areas of visual perception and configuration analysis.

II. DEFINITIONS OF TERMS USED

Reading. "Reading is the perception of graphic symbols" (16:44). It is taking the graphic symbols and relating them to a fund of experience and prior knowledge so that meaning is obtained from them.

Perception. The act of perception "... is the bridge between the human being and his environment, and without perception all but the simplest body functions, such as breathing and elimination would stop and survival would be impossible" (4:7). Perception involves the noticing of details or stimuli and "... the capacity to interpret and identify the sensory impressions by correlating them with previous experiences" (4:7).
Configuration clues. Configuration is using the form of the entire word to recognize the word.

Vision. Vision involves the act or power to seeing with the eye.

Disabled reader. A disabled reader is a person who "... does not read as well as his potential ability indicated he should" (21:1).

Chapter II is designed to review the literature on visual perception and configuration clues. Chapter III is a discussion of diagnostic procedures of an eight-year-old child having problems with visual perception. Chapter IV describes the procedures used in working with the subject. Chapter V is a summary of the recommendations for further studies.
CHAPTER II

REVIEW OF THE LITERATURE

Reading is the most important skill a child learns in school, for if he is not a good reader, how can he obtain information about anything else? Many children have difficulty with reading because they are not perceiving the configuration of words correctly. This chapter will give a brief review of the literature in the area of visual perception and configuration.

I. VISUAL PERCEPTION

"Visual perception is involved in nearly every action we take" (6:5). "Perception is a process that makes present visual impressions meaningful in the light of past experiences and in accord with emotional needs" (19:7). Kidd and Rivoire (12:57) stated that all the learning an individual does is the result of perceiving. All reactions are preceded by perception. "No one can fear, hate, love, learn, or recognize anything or anybody unless he first involves himself in seeing, hearing, touching, tasting, or smelling" (12:58).

Kidd and Rivoire go on to say that "Each primary exposure to a stimulus is occasioned by the quiet and unnoticed recording of the event by the mind" (12:58). Although the sensory perception occurs in the eye, "The recognition and
integration of stimuli is a process that occurs in the brain" (4:7). Reading is the stimulus and the meanings and interpretations are drawn from the reader's past experiences (16:23).

According to Helson (3:30) the three factors of importance in the perception procedure are:

1. The stimulus or object which gains attention.
2. Other objects forming the objects immediate background.
3. The effects of previous objects in the perceiver's past experience.

Perception gives meaning to events, objects, or situations, while learning involves a series of ongoing perceptions or perceptual change brought about through repeated exposure to the same or similar objects and situations (3:37).

Kottmeyer (13:113) feels that reading is a complex process and word perception plays only a part; however, the growth of more complex skills is obviously impossible unless word perception skills are first mastered. He goes on to list these perception skills as: 1) configuration, 2) context, 3) phonics, 4) syllabication, and 5) structural analysis. Gray (8:16) listed the same skills but added the dictionary.

Smith (16:39) has stated that the data concerning the perceptual development of poor readers indicate that often they have not learned to notice the details of an object. Children become accustomed to perceiving incorrectly.
In early infancy and childhood the characteristics of perception are vague and diffuse and lacking in accurate observation of detail. Children are relatively unable to make inferences from their environment because they lack the knowledge to guide them (12:393).

"A child with a visual perceptual lag is indeed handicapped for . . . his world is perceived in a distorted fashion, it appears to him unstable and unpredictable" (6:6). Because of this, he will probably become an anxious child due to his lack of success.

Frostig (4:8) research indicates that a child who scores low in her test of visual perception will frequently score low in academic achievement and be poorly adjusted in the classroom.

It is often extremely difficult to discover the factors contributing to a child's disabilities in visual perception. The cause may be pathological in origin, such as minimal brain dysfunction, or it may be simply a lag in perceptual development without readily discernible causes. Sometimes the problem may result from an emotional disturbance sufficiently severe to cause the child to pay more attention to his inner feelings and fantasies than to the stimuli of his outer environment. Whatever the etiology, it is important to the child that his difficulties be diagnosed and remedial measures instituted as early as possible to avoid the undesirable emotional complications that inevitably result from failure to learn (4:9).

II. CONFIGURATION CLUES

"When the reader uses the form of the entire word to recognize it, he is using configuration clues" (16:202).
Recognizing a word as a whole may mean knowing what the word is by using a part suggested by the whole such as the initial letter or groups of letters, the final letter or ascending and descending letters (14:125). Gray (18:19) has stated, "Before a child can remember a printed word and associate it correctly with its meaning he must look carefully at its details noting how it differs in form from other printed words that he knows." Harris (9:17) feels "In the early stages of reading, most children rely on the shape or configuration of words."

In Smith and Dechant, Clapaiede (16:199) said "... the mind proceeds from the simple to the complex; the fact that the child sees the whole before perceiving its parts does not contradict this statement." He went on to say "Consequently educators have suggested that the best way to teach a word is to present it as a whole."

McKee (14:125) expressed the belief that good readers recognize words at a glance but there is no valid explanation of how they do it. But Smith and Dechant (16:200) say that poor readers commonly identify words by certain key letters, letter arrangements, or other outstanding characteristics.

Children need to be taught to observe likenesses and differences in objects and symbols before they can distinguish the configuration of words (1:80). "When a printed word is completely familiar, we respond to it automatically and are
scarcely aware of the details of its form (8:19). Gray added emphasis to that statement when he said "... the memory of word forms is one of the major word-perception abilities used in rapid, fluent reading." It is based on the habit of scrutinizing new or relatively unfamiliar word forms, the ability to call up a mental picture or image of a word form, and the association of meaning with printed words (8:19).

"Children can be helped to observe salient characteristics of words as an aid to recalling them." Calling the distinctive characteristics to the attention of a child is very helpful (10:318).

III. VISION

"Human infants from birth can see and discriminate patterns as the basis for form perception" (12:170). "The period of maximum visual perceptual development normally occurs between the ages of 3 1/2 and 7 1/2 years" (4:8). It has been found that children are somewhat far sighted until the age of nine or ten (19:3).

Much incidental learning occurs in the course of an infant's visual explorations. If this does not happen during the early months of looking at his surroundings, then the infant gains only in the perfection of sensorimotor skills (12:163).
The development of visual-motor coordination is important because well-directed eye movements are a prerequisite for reading and most other school work (4:10). "Visual-motor coordination is the ability to coordinate vision with movements of the body or with movement of a part or parts of the body" (4:66).

Cole (2:39) stated that the typical history of a child with immature eyes is they spend the first grade trying to read, but do not see the words distinctly and strain their eyes. They come to the conclusion that reading is too hard for them and that perhaps they cannot ever learn. In the second grade they become even more convinced they cannot read. All too often immaturity of the eyes is only temporary, but the attitude is permanent.
CHAPTER III

DIAGNOSTIC PROCEDURES

The purpose of this study was to work intensly with one child who was having reading problems and had missed blocks of learning to determine if reteaching the child could be done with the use of configuration clues.

The subject chosen for the study was a girl who suffered from double vision until she entered first grade when this was detected. During her first year in school, she underwent a series of three eye operations to shorten the eye muscles and straighten the eyes.

I. THE RESEARCH SETTING

The room. The Remedial Reading Clinic rooms in Hebeler Elementary School on the campus of Central Washington State College were used for the sessions in diagnosis and remediation. These rooms are large and well lighted. They contain an abundance of reading materials, both the basic series used in normal classrooms and many specially written series such as the Dolch Basics and The Adventures Series. Besides these books, the subject was allowed to go to the library in Hebeler as often as she pleased.

The room also contained many puzzles such as the "Judy See-Quees" and the colored pattern puzzles (see
The backroom had well-stocked shelves of games like Consonant Lotto, Group Word Teaching Game, and Build a Sentence by Dolch. These were easy to get to so the subject could use them whenever she wanted to.

These rooms also contained numerous types of teaching machines pertaining to reading.

Time. Since the subject was enrolled in the Reading Clinic, she spent from 9:00 until 11:00 each day there for five weeks from June 17, 1968 to July 18, 1968.

The first fifteen to twenty minutes of each day was devoted to the intensive use of configuration clues using the Dolch basic words on the blackboard. After this period the subject was allowed a free choice of activities before some more work was given. Each day the subject participated in a game of work-up baseball with the other members of the clinic. The remainder of the daily sessions were devoted to more remedial exercises. A total of fifty hours was spent working with the subject.

II. DIAGNOSTIC EVALUATION

Vision. Frostig (4:8) stated that the period of maximum visual perceptual development usually occurs between the ages of 3 1/2 to 7 1/2 years. It was during these years that the subject was seeing double.
Harris (10:233) explained seeing double as a lack of proper balance among the six pairs of muscles which turn the eyeballs; as a result of paralysis of the muscles, the eyes cannot focus accurately on the same target.

During her first year in school, the ophthalmologist operated on the eye muscles three different times to try to correct the vision. The operations appear to have been successful.

**Emotional evaluation.** Based on observations, the child did not appear to have any emotional problems. She had no other apparent learning blocks. She did have a very strong dislike for reading out loud and especially for reading from the normal type of basic reading texts. During testing situations, she constantly asked how she was doing and seemed unsure even when she was told the responses were correct.

**Durrell Analysis of Reading Difficulty.** This test is a series of tests designed to pin-point the various areas which give the child the most trouble. The sections on oral reading, silent reading, listening comprehension, word recognition and word analysis, visual memory of word forms, auditory discrimination were administered to the subject and the results follow.

**Oral reading.** The subject was asked to read on a third and fourth grade level. On the third grade level her
phrasing was fair. She read the paragraph in thirty seconds with two errors and a comprehension score of six out of seven. The time score placed her in the bottom section of the third grade level.

On the fourth grade level, she placed in the low third grade range. She also began to read word by word and when she was stuck on a word made no attempt to sound through it. She also began to ignore much of the punctuation.

**Silent reading.** The subject's scores in this section were very similar to those in oral reading. On the third grade level, she read in thirty seconds which placed her in the lowest portion of the grade. Her recall was poorly organized and she had no imagery ideas. Slight lip movements were observed. Comprehension was fairly good; ten memories out of fourteen were correct. On the fourth grade level she did very poorly.

**Listening comprehension.** The subject was tested on levels two through four and did very well on two and three, missing only one question on each level.

**Word analysis.** The subject was given two lists of the Durrell basic words in the tachistoscope. On the List A from grade level 1 she received a perfect score. On List B for the same level she missed five words out of forty. The
errors were in the medial and final sounds or the endings of the words.

**Visual memory of words.** The subject obtained a score of -4, which places her on a 2.5 grade level. Most of the mistakes made were in the final sounds of words or adding of endings.

**Hearing sounds in words.** Again the subject placed in the 2.5 grade level. She made the same mistakes in final sounds and endings as she did in the visual memory of words.

**Frostig Developmental Test of Visual Perception.** This is a test designed to determine the areas of visual perception which might contribute to learning difficulties. It contains five tests: eye-motor coordination, figure ground, constancy of shape, position in space, and spatial relationships. The results of the subject are summarized below.

**Eye-motor coordination.** This is the test to determine the ability to coordinate vision with movement of the body or parts of the body. The subject obtained an age equivalent of 10+ and a scaled score of 13. These are very high.

**Figure-ground perception.** "The figure is that part of the field of perception that is the center of our attention." "An object cannot be perceived accurately unless
it is perceived in relation to its ground" (6:8). The subject obtained an age equivalent of 6 years 6 months and a scaled score of 8. This is two years behind her chronological age. In reading this means she will have trouble reading words in their proper sequence and seeing relevant letters and words distinctly without confusing them with the surrounding letters and words (6:8).

**Position in space.** This is the ability to determine the relationship of an object to the observer. In reading, this would mean to a child letters, words, phrases, and numbers will appear distorted. The subject obtained an age score of 9 years 0 months and a scaled score of 13.

**Spatial relationships.** This determines the ability of a person to perceive the position of two or more objects in relation to himself and in relation to each other (6:10). The subject obtained an age score of 7 years 6 months and a scaled score of 11.

The subject's total perceptual quotient was 125.

**Informal Survey of Dolch Basic Word List.** Each level of words on the Dolch Basic Word List was printed on a sheet of paper and then shown to the subject. The following are the results of the test given before any work was done with the subject.
<table>
<thead>
<tr>
<th>Reading Level</th>
<th>Missed</th>
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</thead>
<tbody>
<tr>
<td>Pre-primer level</td>
<td>3</td>
</tr>
<tr>
<td>Primer level</td>
<td>10</td>
</tr>
<tr>
<td>First grade level</td>
<td>12</td>
</tr>
<tr>
<td>Second grade level</td>
<td>11</td>
</tr>
</tbody>
</table>

**Test analysis.** The results of the tests indicate that the subject's instructional reading level was on the beginning second grade level. Her frustrational level was on the middle second grade level. Her recreational level was low first grade level.

She had no well-organized method of word attack and was unaware of mistakes that she made. Her phonics skills included only the use of beginning sounds and sometimes these were confused; although her other listening skills were at grade level.

She needed work in the area of figure-ground perception and position in space and some work in spatial relationships.

The subject's sight vocabulary was poor and confused. She did not recognize her mistakes. She also had a fear of the normal type of textbook.

From these tests and observations, a program of remediation which will be described in Chapter IV was undertaken.
CHAPTER IV

REMEDIAL PROCEDURES AND RESULTS

The purpose of this study was to work closely with one child who was having reading and perception problems to determine if intensive work with configuration clues would improve the subject's reading skills. Although the subject chosen was a third grade girl, she did not have many of the skills required by first grade readers. Because she had missed so much school during the first grade she had also missed large blocks of learning. The results of her tests disclosed that she was low in the two areas of perception which determine a reader's ability to see words as they appear on a page; and that her basic sight vocabulary was deficient.

Since the subject had been having trouble with reading and had obtained little enjoyment from books, her attitude toward reading and her self-image was deteriorating. This was surmised because she would not read out of books and she gave up easily on difficult tasks.

This girl also lacked any organized group of skills or methods for attacking words which were unfamiliar to her.

I. REMEDIAL PROCEDURES

Since the remedial session was two hours long, the author tried to follow the suggestions listed in the Frostig
Teacher's Guide (4:96-100). These are first, reduce distracting and irrelevant stimuli. Second, accentuate relevant stimuli—give detailed explanations. The third concept is the use of a positive tone to encourage the child towards a positive performance. Third, present material in a step-by-step progression, but fourth, be careful to gauge the length of the training periods to avoid frustration. The fifth suggestion is to make sure all work is done in a left-to-right progression.

Harris (9:175) stated that studies have shown the best learning takes place when:

1) the learner is motivated, 2) the learner is ready in terms of developmental maturation and necessary previous experience, 3) the learner can distinguish the desired response from incorrect responses, 4) the desired response is reinforced and other responses are not, and 5) enough repetition takes place to provide for permanence of retention.

The initial remedial sessions were used to observe the subject and to establish rapport. The subject drew pictures of her family, talked about her home, likes and dislikes, and dictated experience stories. Several periods were spent in the gym walking the balance beam, jumping rope, and swinging on the bars—all activities the subject did well. The author read several times each day to the subject. After the first book, the subject decided she wanted to turn the pages.

These initial sessions were also used to acquaint the subject with the rooms and equipment which would be used
and with the other children involved in the clinic. All the children played work-up baseball for 25 minutes a day and the subject was one of the better players.

Portions of the second week were used for testing. Since this was close and strenuous work, the remainder of each of these days was used for games, gym activities, and reading stories.

After administering the Dolch Basic Word List, the author printed all the words the subject had missed on cards. These cards were given to the subject to keep in an envelope which she decorated.

The first activity each morning was to get the word cards and go to the black board to work. The author would write a word on the board, draw a frame around it as it was pronounced, and then the subject would pronounce it as she traced it with her finger. The word was then erased but the frame was left. The subject was asked to write the word inside the frame and pronounce it again. After she had written it, she was shown the card and asked to check her work.

Tracing a word has been suggested by Grace Fernald (10:386) as the kinesthetic method and Harris (9:171) has suggested underlining or drawing frames around words to make them stand out. The writing of the word also ensures left-to-right progression.
Since meaning is the most important thing in reading, the author would write sentences on the board and draw a frame for the words which were being studied and the subject would choose the correct word by configuration and by meaning in context. An example of this type of sentence would be: See the dog run the ball; after and big being the words which would fill the blanks. When the subject was able to do this she received the words to put in her envelope.

Materials from the Frostig Guide (4:19-49) were used to develop awareness of parts of the body. Activities such as the time spent in the gym walking the balance beam, jumping rope, and climbing and swinging on the jungle gym were fun as well as instructive.

The subject was also shown a picture of a figure in the Frostig Guide and then asked to cut it apart and put it back together again.

She was also shown pictures of various body positions and asked to duplicate them herself. She was also asked to duplicate hand positions and tell which hand it was. Then she was given a group of pictures of a boy with a shoe missing and a girl with a glove missing and she was to tell whether the foot or hand was the left or the right one. Since the subject did have some trouble with these exercises, the author went back to them at many different times.
To help the child perceive reversals or rotations of figures, the author placed colored squares in a random order on the table and asked the subject to line them up parallel and then on their corners. The same thing was done with triangles.

These same colored squares were also used to copy patterns shown to the child. For example Colored pattern blocks were also used with the subject. First she was asked to repeat a pattern by placing the blocks on top of a picture within a frame and then to repeat it outside the frame by looking at the picture.

Each day the subject spent some time working the "Judy See-Quees" puzzles. These are a group of pictures which tell a story when they are arranged in the proper order. The subject enjoyed racing other children in the clinic to see who could finish the puzzle in the least amount of time.

All of the above activities were used in an attempt to encourage the subject to use her dominant hand, to improve hand-eye coordination, and to further the development of left-to-right eye movements.

To further listening skills, the author used the My Weekly Reader Group Listening Comprehension Diagnostic Program stories. These are short paragraphs which the author would read out loud. The subject would draw a picture to show everything she had heard in the story.
To further develop visual-motor coordination and to attempt to improve the subject's imagery, the author and child played many games. Sometimes these were attempting to copy actions such as pulling a load, pushing a load, climbing or they were pretending to be something like a tree, an airplane, a cat or a bird.

Coloring, cutting and pasting, as well as numerous finger plays, were also used to improve visual-motor coordination.

To develop the subject's figure-ground perception, some more games were played. In these the subject was asked to find as many round, red, wooden, rough, smooth, etc. things as she could. Another variation of this game was asking the child to find something specific such as a square button among some round ones or a little bird in the grass, or a particular crayon from the box.

Each day the subject was given some work sheets to do. One day it might be circle all the words in the row which begin like, end like, or are the same as the first word. An example: find - fun find for find. Or find the word "want" on a paper and circle it in red. Or choose the correct word out of three choices to fill in a blank in a sentence. Or choose a sentence to tell about a picture.

A portion of each day was spent working with the controlled reader. The very simple filmstrips were used
such as the ones which showed a picture of a house and two words - house horse; and the filmstrips which showed a series of three pictures, two of which were alike and one of which was different.

The Tashist-o-Flasher was also used with the subject. She was shown numbers, letters, and forms which she was asked to copy on paper.

To develop auditory memory and discrimination of sounds the author and subject played many rhyming games. The author would begin a rhyme and the subject would finish it; or the author would say a word and the child would match it with another word which rhymed. The subject also did many of the exercises in the Ginn Enrichment Program book Consonant Sounds and Symbols.

The subject needed work with medial and final sounds so she had her match pictures which ended with the same sound, do work in the Ginn workbook, and use "Phonics" series of filmstrips published by Minnesota Mining and Manufacturing co.

Many of the Dolch games like Consonant Lotto and Group Word Teaching Game were played with the subject.

II. RESULTS

Being a good reader involves more than knowing the basic sight vocabulary words; it involves the use of many
skills and understandings. Although this study was concerned mainly with the development of vocabulary through the use of configuration clues, to determine how much gain was made, all the skills necessary for a good reader must be considered, too.

Since the study covered only a five-week period, the only test which was readministered was the Dolch Basic Vocabulary test. The following table is a summary of the results obtained.

| TABLE I |
| DOLCH BASIC WORD LIST |
| PRE- AND POST-TEST RESULTS |

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test Number Missed</th>
<th>Post-Test Number Missed</th>
<th>Total Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-primer</td>
<td>3</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Primer</td>
<td>10</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>First Grade</td>
<td>12</td>
<td>7</td>
<td>5</td>
</tr>
<tr>
<td>Second Grade</td>
<td>11</td>
<td>8</td>
<td>3</td>
</tr>
</tbody>
</table>

All the other conclusions were drawn from observations and a conference with the father of the subject.

By the end of the clinic sessions, the subject was much more willing to try new activities both with the author and with other children. She was also able to express her wants especially when she was too fatigued from close work.
The subject enjoyed working on the machines in the clinic and became confident enough to move up the speed on the controlled reader. She made no mistakes in copying the items during the use of the Taschist-o-Flasher.

Before she left she asked the author to fill her writing tablet with exercises like the ones she had been doing in class. She said she was going to use them to teach her younger brothers and sisters to read.

The subject began checking out more and more books from the library and although she still would not read from a basic text, she began to read her library books. She became very intrigued with the Bennet Cerf book of Riddles and took it home one weekend to share with her family.

Her father was very pleased because for the first time since she had started school, his daughter was willing to and showed interest in picking up books and trying to read them.

The results of the retesting show that the subject did make some gains in basic sight vocabulary through the use of configuration clues. She also made a great deal of gain in self-esteem and attitude toward reading.
CHAPTER V

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

I. SUMMARY

This study was conducted in the reading clinic at Hebeler Elementary School with a third grade girl to determine if the intensive use of configuration clues would improve her reading power.

This girl had missed large blocks of instruction during her first year in school because of numerous eye operations. The operations were undertaken to correct her double vision.

The subject had a low stock of basic sight words and few well-organized word attack skills. She also had a low self-image of herself because of her many failures in reading. She balked at reading from any books and refused to read from the normal type of classroom reader.

After the author established rapport with the subject, the Durrell Analysis of Reading Difficulty, Frostig Developmental Test of Visual Perception, and an informal Dolch Basic Sight Vocabulary were administered.

The subject showed that her word attack skills were weak, she knew only beginning sounds, and she was reading orally and silently below her grade level. However, her listening skills were at grade level.
She needed work in the area of figure-ground perception and position in space as indicated by the Frostig test.

The size of her basic sight vocabulary was low.

The subject needed to develop a better attitude toward reading, and did; i.e., during the study she picked up books such as Bennett Cerf's *Riddle* book and discussed them with the author.

Each day the subject was presented four to five of the basic vocabulary words she had missed on the Dolch test. These words were written on the board and a frame was drawn around the word. The subject traced the word with her finger as she pronounced it. The word was erased but the frame remained and the subject would write the word from memory and check her answer. The author then wrote sentences on the board but drew frames in place of the words being studied. The subject would read the sentence and choose the correct word using shape and context.

Many Frostig visual perception materials were used as well as the controlled reader and the Taschist-o-Flasher. The child told the author many experience stories and they played many games such as Consonant Lotto. Lots of time was spent reading stories of the subjects choosing.

At the end of the session, the subject was retested in the Dolch Basic Vocabulary test and made slight gains on each of the levels.
II. CONCLUSIONS

It would appear that this method combining visual perception training and configuration clues was successful with this subject.

Perhaps if the sessions had been shorter and the number of weeks longer, the subject would have made larger gains.

It was also learned from the father that the subject's eyes are turning in again and she may have to undergo another series of operations. It is possible that she is beginning to see double again.

This method of teaching words requires individual teaching and is therefore very time consuming so may not be effective with groups of children.

Unless the subject began to develop some well-organized word attack skills she may tend to confuse the shapes of similar words as she learned new words. Many words have the same form and unless the child's perception continued to improve, it could be possible that the subject would forget the initial words.

It is important to remember that children learn faster and better when they learn under enjoyable conditions and with a person who is accepting.
III. RECOMMENDATIONS

This same type of study could be conducted with a larger group of children to determine if all children can make progress in learning words using configuration clues. This study could also be conducted over a longer period of time with shorter sessions.

It is important to remember that meaning is the most important item in reading and perhaps the extensive use of configuration clues would decrease the emphasis on meaning.

The teachers of reading need to be warm, accepting people who can make the learning fun.
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