Fall 1951

A Study of The Summer Remedial Reading Program of The Ellinwood Kansas Elementary School

Manly Huber  
*Fort Hays Kansas State College*

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A STUDY OF THE SUMMER REMEDIAL READING PROGRAM OF THE
ELLINWOOD, KANSAS, ELEMENTARY SCHOOL

being

A Master's Report presented to the Graduate Faculty
of the Fort Hays Kansas State College
in partial fulfillment of the requirements for
the Degree of Master of Science

by

Manly Huber, B.S.
Fort Hays Kansas State College

Date November 11, 1937 Approved
Major Professor

Ralph A. Coden
Chairman Graduate Council
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This investigation was designed to study the summer school program for the purpose of justifying its continuance or to show the effort to be of insignificant educational value and, therefore, no more than a slap-dash-off-the-street plan.

Although the summer school included only the subjects of reading, arithmetic, and spelling, the study was limited to the remedial reading division of the summer of 1939 during which there were thirty-four pupils enrolled in this department.

Whatever the findings are, the results shown are applicable to a local situation only and are derived from such a limited study that there is no attempt to generalize.
CHAPTER I

INTRODUCTION

It is evident when one attempts to locate current material concerning remedial summer school work at the elementary level that either this type of education is not being done or, if it is, the perpetrators are keeping it very quiet.

THE PROBLEM

Beginning in 1949 a remedial summer school session was held in the Ellinwood Elementary School to help the pupils who had failed to advance with their groups or whose achievement was low.

This investigation was designed to study the summer school program for the purpose of justifying its continuance or to show the effort to be of insignificant educational value and, therefore, no more than a keep-them-off-the-street plan.

Although the summer school included only the subjects of reading, arithmetic, and spelling, the study was limited to the remedial reading division of the summer of 1949 during which there were thirty-four pupils enrolled in this department. Whatever the findings are, the results shown are applicable to a local situation only and are derived from such a limited study that there is no attempt to generalize.
PROCEDURES

In order to present a clear idea of the causes of poor reading, the diagnosis of the defects, and the approved remedial measures, Chapter II is a study of the remedial problem in general as obtained from some of the authorities in the field.

The organization of the summer school, including the subjects involved, the division of time for the subjects, the diagnosis and treatment of difficulties of the individuals in the reading classes, are discussed in Chapter III.

Chapter IV shows the results of the reading program based upon scores made by the pupils at the beginning of the session on the Gates Reading Tests as compared with the scores made on a different form of the same test at the end of the term. This chapter includes also an evaluation of the program in the light of the test results.

In Chapter V is a general summary of the purposes, methods, and results of the study together with conclusions which may be drawn concerning the school and recommendations which seem justified.

DEFINITIONS OF TERMS

Chronological age (C.A.) is the age of a child expressed in years and months.
**Reading age** (R.A.) is that age in years and months which designates an individual's level of reading ability as determined by a reliable reading test. This reading age may be less than, equal to, or greater than the person's chronological age.

**Reading grade** (R.G.) is another means of indicating the skill of a reader by testing which gives in grades and decimal fractions thereof at which grade level the pupil is reading.

**Audiometer** is an apparatus designed to test hearing ability consisting of several sets of head phones through which pupils may listen to a record of a diminishing voice.

**Tachistoscope** is an instrument which flashes words, phrases, or short sentences upon a screen for a regulatable length of time.

**Remedial reading program** is that program designed to improve the reading ability of the children who are reading below the level indicated for their chronological ages. More specifically it is applied to the special efforts with those who are retarded one year or more in their reading ability.

**I.Q.** is the abbreviation of intelligence quotient which, in turn, is the ratio of the mental age to the chronological age of an individual.
FACTORS CONTRIBUTING TO POOR READING, DIAGNOSIS, AND TREATMENT

The causes for one's inability to progress in reading have changed in man's thinking from the early part of this century at which time much attention was given to "word blindness" and "congenital alexia" to the present contention that most reading difficulties are due to organic factors including defects which can be corrected and to social and emotional factors which may be improved. ¹ Reading is, indeed, a complex process affected by many aspects of an individual's nature.

In the elementary schools of the present, 20 percent of the children may be classed as poor readers. Among these are many who have average to high mental abilities. This places a problem of careful diagnosis and treatment up to the schools. ²

That schools are accepting the responsibility toward the defective reader is evidenced by the fact that at the present time remedial reading programs are to be found in nearly all elementary schools and in approximately one-half the secondary

schools. Colleges are beginning to institute departments for reading improvement.\textsuperscript{3}

MENTAL RETARDATION. Low mental ability may result from such factors as heredity, accidents at birth or later injuries, and glandular trouble.\textsuperscript{4}

Indications of subnormal mental ability are slowness and inaccuracy of reactions, meager vocabulary, difficulty in organizing material, and actual physical deformity. Intelligence testing by use of a non-verbal form will give a good approximation of the child's mental ability. In regard to this latter indication the committee on Developmental Reading in California has evidence to show that children with intelligence quotients of sixty to seventy may by appropriate remedial help reach a reading level of the fourth grade. Further, individuals with I.Q.'s of eighty may attain the ability equal to that of the seventh grade.\textsuperscript{5}

The remedial procedures for the mentally retarded will involve the determining of the degree of mental ability in order to appreciate approximately how much the pupil might


\textsuperscript{4} California State Committee on Developmental Reading, "Diagnosis and Treatment of Reading Difficulties," The Bulletin of the National Association of Secondary School Principals, 35:43-44, February, 1951.

\textsuperscript{5} Ibid., p. 43.
reasonably be expected to attain. Further information concerning the child may be obtained from a study of his school records, case history, medical record, home visitation, and by interviews with the pupil.

In order to motivate his reading, materials concerning the child's interests should be used. Also the materials should be on the child's level of understanding so that he may read without undue effort and begin to feel some confidence in his ability to read.

The experiences which are meaningful to the child should be the basis upon which to start building his vocabulary, a process entailing patient explanations of meanings. Care should be exercised against the attempt to add too many words in a short period of time.

EDUCATIONAL IMMATURITY. Among the children in the first grade, the chronological ages may vary as much as one year at a time in life when a few months mean a great deal in child development. The mental ages of children six years old have been found by Dolch to vary from four and one-half years to seven and one-half years, the difference due, in part, to variations in experiences of play, travel, social atmosphere in the home, and whether or not there are older siblings in the home.6

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Those who are educationally immature may have scant vocabularies for their ages, may not be familiar with literary expressions commonly known, may have a dislike for reading so that they will do no reading on their own time outside class.  

To effect progress in a group such as this ample materials on the children's level of understanding—determined by administering any of a number of available, reliable reading tests—and some even a little below this level should be supplied along lines of their individual interests to give encouragement and motivation. At first, lengthy selections may well be avoided as shorter stories when properly introduced are sources of satisfaction. Also found to help is the study of a list of new words taken from the selection before the reading of it.

FAULTY EYESIGHT AND EYE MOVEMENTS. The first thing to check in the poor reader is the eyes from the obvious fact that he can hardly do the job comfortably, if at all, with poor vision. In fact, a child may simply refuse to read if his eyes become definitely uncomfortable in the process. The child never suspects his eyes to be faulty as

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7 California State Committee on Developmental Reading, op. cit., pp. 43-44.

8 Loc. cit.
he thinks everyone sees as he does. Parents seldom compare their child's sight with others and so it is that the teacher is frequently the one to discover the condition.  

Symptoms of poor vision are poor reading, the angle at which the book is held, the distance the book is held from the eyes, eye fatigue, inability to see board work, squinting, and frequent rubbing of the eyes. Testing with the Snellen Chart and the wheel chart will indicate gross irregularities which then should be checked by one professionally capable. Whether or not the eyes work together may be checked with a telebinocular, an instrument now possessed by some schools. If there is a lack of coordination, a specialist should be consulted. The teacher, of course is in no position to diagnose, but she can identify, by these means, nearsightedness (myopia), farsightedness (hyperopia), and astigmatism.

It is quite common for a pupil to have faulty eye movements which include difficulty in ability to follow the line from left to right and trouble returning to the beginning of the next line. This may be caused by poor coordination, difficulty with words or meanings, guessing,

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10 Ibid., p. 10.
or simply by carelessness and may be detected by observation of eye movements and listening to the child's oral reading. To remedy this, the child should practice pronouncing unrelated words with five spaces between and some one inch between lines. Later should follow a simple story similarly typed.¹¹

As the child views objects in any order, so he may view words also in any order. Thus "was" may appear to him as "saw" or even a word as "law" may appear to the child as "awl". Such errors are not careless or ignorant ones but are due to methods of observing which result from the lack of proper teaching of left to right progression or because of having to work with materials containing words of too great difficulty causing the child to put much effort into the study of individual words, or from teaching which emphasizes the final parts of words.

This "reversal" of words has been studied as to the possible relation played by left-handedness. Although studies differ, it seems that there are little more serious reversal difficulties among the left-handed as compared with the right-handed.¹²

Remedial measures to correct reversal tendencies


closely resemble correct initial teaching of reading with a few practices added. First, using blackboard or charts so that printed material may be large, the teacher may use a pointer demonstrating the left-to-right movement with a careful explanation repeatedly given. At first only one line of printed words suffices to be followed by adding more lines. Next the printed page is to be used with similar instructions.

Now since reversal applies to words and occasionally to phrases it is necessary to extend similar instructions to words and phrases stressing the importance of starting always at the left. If a difficult word is encountered, subsequent words may be read to obtain help from context and then the entire line should be reread. Special study of the common words which the child reverses may be necessary. The pupil may use his finger as a guide for his eyes to follow; but when the left-to-right habit has been established, the manual guide should be discontinued. 13

Tracing words which he tends to reverse—the kinesthetic method—is frequently employed as a corrective measure. 14

Monroe is a champion of the use of handwriting to


correct the reversal tendency. However, Gates, while acknowledging the effectiveness of the handwriting method, contends that it requires too much time to be counted efficient.

DEFECTIVE HEARING. Until recently, poor hearing was not given much attention in regard to poor reading ability. Teachers then began to find, that, if a child cannot hear the teacher's instructions well, he simply falls farther behind. Many times the child who cannot hear instructions has been labeled as disobedient or dull. The difficulty becomes accumulatively worse with time.

Indications of defective hearing may be that the child leaves off sounds at the beginning or the ending of words, confuses words of like sounds since he has not heard the slight distinctions, is inattentive, frequently asks a neighbor what has been said, has a vacant expression, or makes vague replies.

Diagnosis is not difficult by means of an audiometer, the watch-tick test, or the whisper test. The first mentioned is much preferred, if available, since it makes possible the testing of many at the same time.

17 Dolch, op. cit., pp. 11-12.
When the cases have been identified, some may be helped by medical attention. The collection of wax against the ear drum is one source of hearing failure which is easily remedied by professional treatment.

Even if the defect cannot be treated, the teacher can place the pupil in the most favorable location seeing that he has the maximum chance of becoming aware of the class work. The child should be given careful drill pronouncing words of like sound and of sounding all syllables of words being used.

Research by Bond showed that in schools where reading was not taught by phonics or phonetics and where little emphasis was placed upon oral reading those with hearing difficulties did nearly as well as those with good hearing ability. But in schools depending on oral reading, phonics, and phonetics, sixty-three per cent of those having reading difficulties had hearing defects.\(^\text{18}\)

Therefore, with the hard-of-hearing child more stress needs to be placed on the visual approach to words together with a guided effort in handwriting and spelling. Special attention needs to be given toward the child's becoming familiar with characteristic syllables and root words.\(^\text{19}\)

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\(^{19}\) Ibid., p. 430.
LACK OF ATTENTION AND MOTIVATION. There is evidence that the lack of attention may result in a pupil's inability to distinguish between similar sounds as was said of the partially deaf child. However, the pupil lacking in attention will pass the hearing tests which will eliminate him from that category.

To improve the child's ability to identify similar sounds the teacher may read pairs of words having similar sounds as "bat" and "bad", "sit" and "bit", etc., having the child repeat each pair with attention to shades of sound. Usually the child makes rapid progress.20

Attention is closely related to motivation, the lack of which in the thinking of some specialists, is really the cause for most of the failures in reading.21 Durrell has stated the idea very well as follows:

The highest type of motivation is reading for some specific purpose which appeals to the child as important. The best assignments are those which call into play internal drives and satisfactions. . . social approval, the desire for praise from an admired person, interest in planning and other inventive activity. . . investigating to satisfy curiosity, and imitation of admired people.22

The enthusiasm of the teacher is also a big factor in motivation. The enthusiastic and conscientious teacher will

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20 Dolch, op. cit., p. 13.
21 Gates, op. cit., pp. 11-12.
be attempting to set up assignments on the basis of the drives just mentioned. Also the feelings and attitudes of the teacher are contagious in the classroom situation.

SPEECH DIFFICULTIES. Researchers are at a loss as to evaluating speech defects and their relation to reading difficulties. One seemingly reasonable explanation is that many defects of the speaking voice cause embarrassment and emotional strains which in turn may lead to strong dislike of any language or reading activity.\(^{23}\) However this may be, it remains that improvement in the speech is followed ordinarily be better reading.

Impediments of speech may be caused by factors of heredity, by illness—especially paralysis, by accidents, through imitation, or as a result of deafness.\(^{24}\)

Indications are quite obvious that the more common impediments are stammering, inability to start speaking, at times, inward struggle, substitution of consonants, and the like.\(^{25}\)

If the speech defect is of a serious nature, analysis by the experts of a speech clinic may be desired. If the defect

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\(^{24}\) California State Committee on Developmental Reading, op. cit., p. 51.

\(^{25}\) Ibid., pp. 51-52.
is of lesser magnitude, slow progress may be achieved by protecting the child from embarrassment, building his confidence by letting him perform when he is fully prepared, by providing rest periods, and by helping him to join in group singing and choric activities where his defect will not be extant. Patient drill consisting of the pupil's repeating the easier consonant and vowel combinations after the teacher and followed by the more difficult is good therapy.26

The way a child says a word, incorrect though it may be, is to him the correct way. So it is essential to have him repeat the letters of the alphabet or certain lists of words to isolate the sounds which cannot be properly formed. Next, it becomes necessary to get the child to detect the difference between his pronunciation and the correct one. When this is successfully done, gradual improvement may follow. Emotional upset should be avoided throughout this effort.27

EMOTIONAL FACTORS. While it is probably true that inability to read may lead to emotional unbalance, researchers believe the opposite also to be true.

Instability of the emotions may be caused by numerous factors or interrelated factors such as shame, fear, embarrassment, and withdrawal.28 Starting to school is a tremendous

26 Robinson, op. cit., p. 52.
28 California State Committee on Developmental Reading, op. cit., pp. 45-46.
change in the lives of many little folk and tendencies formerly
not so noticeable may become quite prominent in this very
strange environment.

Emotional upset may lead to the child's tendency to
day dream, to refuse to read, to become tense when asked to
participate, to be shy, to be frustrated\textsuperscript{29} perhaps by being
presented with the task of reading before ready.

Robinson\textsuperscript{30} states that many children in the seriously
retarded group have emotional difficulties. She contends that
the neurotic child should be studied by a psychiatrist before
the teaching of reading is begun or before it is again attempted
as many have repeatedly failed to the point of having lost
confidence.

In planning the program for the less seriously affected
emotional child, the teacher should eliminate the situations
embarrassing to the pupil, commend his strong points to build
a bit of confidence, and provide suitable reading material on
subjects in which the child is extremely interested.\textsuperscript{31}

HEALTH. A child hampered by problems of health is not
likely to be able to work up to capacity in reading or any

\textsuperscript{29} California State Committee on Developmental Reading,\textsuperscript{\textit{op. cit.}}, pp. 45-46.

\textsuperscript{30} Robinson, \textit{op. cit.}, p. 88.

\textsuperscript{31} California State Committee on Developmental Reading,\textsuperscript{\textit{op. cit.}}, pp. 45-46.
other subject. A teacher having taught for any appreciable length of time has contacted children afflicted with enlarged adenoids, infected tonsils, frequent colds, severe headaches, asthma, frequent toothaches, and other health disorders. These may hinder the children's efforts or result in absences which will impede the learning process.

Diagnosis may be effected by observation, complaints of the child, or by information obtained from parents or former teachers of the child. The case may be referred to the school nurse who in turn, may recommend medical attention. In any event, the teacher should in an inconspicuous manner make the child as comfortable as possible.

A second group of factors commonly found is that dealing with the home conditions. Some children come to school without breakfast or have quick, poorly planned meals and, therefore, suffer from varying degrees of malnutrition. Many do not get sufficient rest. These conditions may cause listlessness, sleepiness, bad behavior, and emotional upsets.

The remedy is not simple. The school nurse of family doctor may talk with the parents as to the value of proper diet and rest to the welfare of the child inasmuch as parents tend to give more serious attention to nurses and doctors in such matters than they do to teachers. Should this fail, nourishment and rest can be provided at the school as a
temporary measure. The school health program may convince the child himself of the value of health habits and balanced diet resulting in his informing his parents.

The removal of the factor causing poor health is of first concern. After this is done, better work will usually follow.

FAULTS IN SCHOOL READING PROGRAMS. It is not uncommon to find quite average children who simply do not read well, the cause being faulty reading programs involving factors of the teacher, the supervisor, the librarian, and of the administrator.

Among the errors is the revision of the reading curriculum without the teacher's having been consulted or having been prepared to fit into the new program, but she must try.

The giving of good reading tests with subsequent filing of the unused results is quite a loss of opportunity toward diagnosis of individual difficulties.

As has been stressed, understanding the child is a principal factor in remedial work as in all teaching. The lack of understanding is a serious fault regardless of the cause—overcrowded classrooms, mass instruction, inadequate testing program, no cumulative records, little exchange of

information from teacher to teacher, callousness to pupil needs, or lack of clinical aid.

A promotion policy which conditions advancement very largely on reading skill with no regard to other accomplishments will tend to keep the poor reader working at capacity trying to attain that which is just beyond his reach. This may complicate the problem by giving him a sense of futility.

Lack of provision for difference in reading readiness is a serious fault in the teaching program and the fact that "reading readiness" now is applied to any student anywhere in the school system when confronted with new materials has its additional significance. Activities or scaled-down materials need to be planned or furnished for the "unready".

Throughout this discussion of remedial reading the value of much reading material on the level of each retarded child has been stressed. Certainly meagerness of material must be listed among the faults.

A lack of balance in the visual, auditory, and the kinesthetic methods of teaching words will result in a portion of the children making slower progress than their capabilities would permit since, in any group, there are nearly always some who will respond to one method but exhibit little response to the other two.

Finally, failure of the program to balance the oral and the silent reading elements may cause deficiencies. McDade:\textsuperscript{33}

\textsuperscript{33}McCullough, Strang, and Traxler, \textit{op. cit.}, p. 106.
showed by experiment that reading can be taught by use of silent reading only thus getting entirely away from the slowness of "sounding out" the words and lip movements fostered by the auditory method with much oral reading. However, in view of the fact that one has at least some occasion to read orally it should be included but the oral reading periods should be based on situations of a meaningful nature. When a child is reading orally the other children should not be following in their books as that has been shown by Gilbert (1940) to be actually detrimental.

The fore-mentioned faults are in most cases sufficiently indicative of best procedures. Yet in the field of testing and use of test results a few suggestions should be made.

There are many reading tests which may be relied upon to measure quite well that which they have been designed to measure such as speed, word recognition, comprehension, reading status as to year or grade, gains in reading, auditory perception and pronunciation. Some reading tests are quite useful in diagnosis. Usually with the tests are excellent manuals which describe the means of administering, scoring, rating the tests, and using the results. But whatever tests the administration provides or the faculty selects, the teachers involved should familiarize themselves with the possibilities and values of the tests as related to their functions as

34 McCullough, Strang, and Traxler, op. cit., p. 97.
teachers of individual children.

SUMMARY. Good teaching will in the first place take many of these factors into consideration and avoid the necessity of the remedial work. But with the crowded class-rooms of the present, proper individual attention is almost an impossibility and the need for some remedial measures is to be expected. The factors mentioned are worthy of consideration in the program and definite provision should be made to diagnose and to group those with similar difficulties. From here on the particular methods employed are not as potent as the leadership and stimulation of the teacher and the determination of the pupils to succeed.35

CHAPTER III

ORGANIZATION OF THE SCHOOL AND PROCEDURES

Originally the intention was to include in the summer school those pupils who were passed on condition or who had been retained. This plan was not rigidly followed. Several parents of children whose achievement had been low requested earnestly that their children be admitted even though they had been promoted unconditionally. Some of these pupils were admitted after consultation with the parents.

In 1949 the summer school began immediately after the regular school term ended and continued for six weeks. The daily sessions ran from nine to twelve o'clock for four weeks. During the two weeks the churches held morning Bible School, afternoon classes were held.

Three teachers were employed: one each for the fields of mathematics, spelling, and reading. Each teacher had from ten to fifteen pupils each period so that the instruction could be highly individualized.

Allowing for some recreational time, the morning was divided into three periods of some fifty minutes each (the time varied with the needs of the groups). Thus each instructor worked in her area for three different periods
with a different group each period. If an individual needed help in one subject only, he attended a class in that subject for one period only. However, the bulk of those enrolled needed work in all three areas.

Diagnosis was based on conference with teachers, results of intelligence tests, health records (physical examinations given each year), and results of the Gates Reading Tests. The Gates tests were of value in classifying the reading difficulty as to whether it was due to word recognition or failure to grasp the thought of the sentence or the paragraph for the lower grades. For the upper grades the Gates tests located difficulties due to the failure to understand precise directions, to note details, to predict outcome of given events, or to appreciate the general significance of a paragraph.

In the period of remedial reading, the instructor stressed the recognition of letter combinations and word analysis. Use was made of the Dolch Basic Word Chart. Much importance was placed upon obtaining meaning from what was read. It was sought to increase speed of word recognition and eye span by frequent use of the tachistoscope.

Attempt was made to eradicate some of the common faults of poor readers. For instance, "jerkiness" of the fast or the slow reader was aided by use of the tachistoscope, by the group's reading in unison, and by choric exercises.
Skipping of lines and losing the place were decreased by working with interesting selections of suitable reading level. At times a pointer was used to help the reader keep his place. A card which underlined the line being read sometimes helped. Books were available having lines spaced quite some distance apart for the reader having this particular difficulty.

Lacking a desire to read may easily be due to the pupil's having been constantly subjected to material beyond his ability to comprehend. Part of the solution lay in presenting books or stories on or below the child's reading level so that he could read with ease. When this was done, he probably began to consider reading in a new way; and when materials were offered on subjects in which he had an expressed interest, he began reading for pleasure on his own time.

Frequently, prior to reading a new selection, the class studied a list of words chosen from the story. In doing this, the pupils made use of several copies of the Century Thorndike Dictionary which were a part of the equipment of the reading room. Such a study tended to lessen the apprehension that a few poor readers had when a new bit of material was impending.

In some cases of the definitely mentally retarded and/or physically handicapped, much repetition was necessary and even such measures as word tracing were utilized (the kinesthetic method).
CHAPTER IV

RESULTS AND EVALUATION

In order to have some concrete evidence of results, one form of the Gates Reading Test was administered near the beginning of the summer school term, a second form was given near the close, and in the following fall one of the forms previously used was again taken by the pupils.

From this testing the reading age and reading grade of the pupils were determined at the three points cited.

Table I presents the findings from the testing. An examination of the results in "Gain or Loss" in the reading ages (R.A.) shows a maximum gain (Case No. 6) of 6 months and a maximum loss (Case No. 31) of 3.5 months. Four pupils show either a loss or no gain while thirty show gains ranging from .5 months to 6 months.

From the "Gain or Loss" column, the following is found:

- The arithmetic mean (average) 2.31 mo.
- The median 2.00 mo.
- The mode 2.00 mo.

The results compare favorably with the gain expected by normal pupils during a six-week period in the regular school term, this being 1.5 month's reading age based on a twelve-month
### TABLE I

**RESULTS OF GATES READING TESTS**  
**ELLINWOOD PUBLIC SCHOOLS SUMMER SCHOOL 1949**

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<th>Case</th>
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increase over one year's time. However, if a twelve-month gain were to be attributed to the 9 months of the school term, then the expected gain would be 2 months for each of the 6 six-week terms.

It may be observed that of the thirty-four cases, nine were not retarded, that is, their reading ages exceeded their chronological ages at the beginning of summer school. While eight of these made gains, the arithmetic mean of their increases is 1.89 which is .42 months less than the mean for the group and .57 months less than the mean gain of those who were retarded which was 2.46 months.

The arithmetic mean for gain in reading grade for the group is .197 or .2 grade.

The correlation between the intelligence quotients determined by one or more group intelligence tests and the gains made by the children computed by the "Spearman rho" method is plus .16. Even though this correlation is positive, it is so low that no prediction could be based upon it.

The critical ratio or the ratio of the difference between the means of the reading ages for the beginning and the end of the summer term was found to be .63, that is, there are some 77 chances in 100 that the results are significant or not due merely to chance.

One element of surprise involved in the subsequent testing in the Fall of 1949 was the fact that in nearly every case the pupils showed additional increases in reading age while slight
losses might have been expected. These gains could partly be attributed to an increased interest in reading and, therefore, some continued reading during the balance of the summer. Furthermore, in the fall one of the same forms was administered which had been used during the summer making some gain, no doubt, due to familiarity with the test. The average gain for the twenty who had fall scores was 8.58 months over the total summer period.

A FOLLOW-UP. All the children who made definite advancement as indicated by the testing program included in this report and also by the cooperative appraisal of the summer school faculty were recommended to be advanced with the groups with which they had been identified the previous school year. All of these pupils succeeded in carrying the work of the advanced grade the school year of 1949-50.
CHAPTER V

GENERAL SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study was designed to investigate the effectiveness of the remedial reading program of the summer school conducted in the Ellinwood Elementary School the Summer of 1949. This necessarily included an examination of methods used as well as a scrutiny of the results achieved.

A survey of the remedial problem in general as gathered from several authorities was presented in order to have a basis for comparing the reading program as practiced to the more ideal. A second factor in evaluating the effort was based on the results of the testing program.

It has been found that the less retarded pupils profited less than the more retarded ones. The average gain in reading ability (2.31 months) exceeded that to be expected by pupils during the school year.

CONCLUSIONS. It would appear, since the mean gain in reading age exceeded that expected of unretarded children during the course of six weeks of a school year, that the effort has been worthwhile for the retarded readers. In view of the lesser gains made by the unretarded children, it is indicative that the program has been constructed more in terms of the needs of the retarded.
The fact that a few cases gained nothing or even lost ground would indicate that, if possible, more careful diagnosis should be effected with subsequent care in the construction of the program to be followed. However, because of the complexity of the reading process, the possibility of each member of a group of thirty-four showing a gain would be very small.

Even though, statistically, the results have not been such as could be termed unquestionably "significant", yet there is only one chance in four that the results in this one summer school session were due to chance.

RECOMMENDATIONS. This study of one portion of the summer school would indicate that the program be continued with certain changes and improvements: (1) a different program should be set up for the unretarded readers if they are to be included in the future; (2) more careful and detailed diagnosis of each pupil's difficulties should be made, if possible; and (3) case studies of the more definitely retarded readers should be made which would render future investigation more pointed and valuable.
A. BIBLIOGRAPHY


B. PERIODICAL ARTICLES


A. BOOKS


Gray, W. S., Remedial Cases in Reading: Their Diagnosis and Treatment. Chicago: University of Chicago Press, 1929. 208 pp.


B. PERIODICAL ARTICLES


C. ENCYCLOPAEDIA ARTICLE


D. BULLETIN

APPENDIX

Included are copies of Form I of the Gates Primary and Gates Basic Reading Tests used in the testing program of the summer school to determine the status of the pupils and to aid in the diagnosis of some reading difficulties.