1-1-1977

An Analysis of Standardized Reading Test Scores to Determine the Effectiveness of a Junior High Reading Program

Michael Tucker
University of Nebraska at Omaha

AN ANALYSIS OF STANDARDIZED READING TEST SCORES TO DETERMINE THE EFFECTIVENESS OF A JUNIOR HIGH READING PROGRAM

A Field Project

Presented to the

Department of Educational Administration

and the

Faculty of the Graduate College

University of Nebraska at Omaha

by

Michael Tucker

January 1977

ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 - 1346

FIELD PROJECT ACCEPTANCE

Accepted for the faculty of the Graduate College of the University of Nebraska at Omaha, in partial fulfillment of the requirements for the degree Specialist in Education.

Graduate Committee ______________________ Spec. Ed.

Name Department

____

____

Chairman

TABLE OF CONTENTS

LIST OF TABLES

Chapter 1

INTRODUCTION

The Millard School District is the fourth largest district in Nebraska. The student enrollment in June, 1976, was 8305. The school district is located in Omaha, Nebraska. The district presently includes eleven elementary schools, two junior highs, and one senior high. The junior and senior high schools are accredited by the North Central Association of Colleges and Secondary Schools.

One of the goals established by the Millard School District is to provide a comprehensive instructional program with sufficient alternatives for the maximum growth and development of students.

In attempting to meet the goal of providing a comprehensive instructional program, Dr. Ron Witt, Assistant Superintendent of Curriculum for the Millard School District, determined in 1970 that a seventh grade formal reading program would extend and complement the K-6 reading program by strengthening the reading abilities of students during the transition from the elementary grades to the junior high grades.

The Millard School District has had a junior high reading program since 1970. A major goal of the program is

to maintain and to develop the continuity of reading skills from the elementary grades through the junior high grades (7-9).

With the development of junior high schools in general, formal reading instruction has been discontinued or is principally of a remedial nature. There has been an assumption that K-6 reading skill development has been adequate. This assumption has not proven realistic in light of recent studies by reading authorities concerning maturation of the individual and the sequential development of reading skills.

Gene Maeroff states that most formal instruction in reading occurs in the primary grades. By the time a child reaches fourth or fifth grade, reading instruction starts to taper off. It disappears altogether in the junior and senior high schools of most school districts.[1]

The Millard School District's junior high reading program presently consists of a seventh grade formal reading instruction program. All seventh graders are involved in the reading program. The seventh graders meet for one class period daily in a regular scheduled reading class. They are placed in individual reading materials commensurate with their reading ability as determined from the Nelson Silent Reading Test. The total grade-equivalent scores from this

---

[1]Gene Maeroff, "Reading Skills Are Making A Comeback," The New York Times, February 6, 1977, p. 67.

standardized reading test determine the placement of the students. The students are then categorized as accelerated, developmental, or remedial readers.

In March of the seventh grade year, the seventh graders are retested with the Nelson Silent Reading Test. These total grade-equivalent scores are analyzed and compared with the total grade-equivalent scores, obtained on entry to the seventh grade program.

These scores indicate whether the seventh grade reading program was effective in maintaining the students' reading development through the elementary grades and these scores indicate whether there had been reading skill development through the seventh grade year.

After the seventh grade formal reading program, there is no formal reading instruction for the eighth and ninth graders. It has been assumed that the seventh grade program is effective in maintaining students' reading skill development, and that the seventh grade program is effective in developing reading skills sufficiently to sustain students through the eighth and ninth grade years.

In this study, an additional reading test was administered to 125 seventh graders who are presently ninth graders. The Nelson-Denny Silent Reading Test was administered in March, 1976.

These 125 ninth grade total grade-equivalent scores were analyzed and compared to the previous test data obtained

from the Nelson Silent Reading Test. The analyses of the data were used to determine if the students had maintained reading skill development after the formal seventh grade year without formal reading instruction. The analyses of the data were used to determine whether there had been reading skill development through the eighth and ninth grade years without formal reading instruction.

The analyses of the data obtained from the Nelson Silent Reading Test and the data obtained from the Nelson-Denny Silent Reading Test were used to determine the effectiveness of the junior high reading program in its present form in maintaining and developing students' reading skills from the elementary grades through the junior high grades.

There were originally 153 students who entered this seventh grade program in September, 1974. One hundred twenty-five were in the ninth grade in March, 1976. The fact that they were still at North Junior High in March, 1976, was the determining factor in using that number of students for the study.

In addition to the analyses of standardized total grade-equivalent test scores, which comprised the major portion of the study, the study included an analysis of reading expectancy in relation to mental achievement (IQ) and a reading survey administered to the students as ninth graders.

STATEMENT OF THE PROBLEM

In this study standardized reading test scores were analyzed to determine the effectiveness of the seventh grade formal reading instruction program in maintaining and developing students' reading skills of vocabulary and paragraph comprehension from the elementary grades through the junior high grades.

DELIMITATIONS

This study was limited to the analysis of the total grade-equivalent scores from the Nelson Silent Reading Test Form B, that was given to 125 students who participated as a group in a formal reading program as seventh graders in 1973-74, and the total grade-equivalent scores from the Nelson-Denny Silent Reading Test, Form C, that was given to these same students in March, 1976, of their ninth grade year.

HYPOTHESIS

The seventh grade program is effective in maintaining and developing students' reading skills of vocabulary and paragraph comprehension from the elementary grades through the junior high grades on the basis of the analysis of the 125 students' total grade-equivalent test scores.

SIGNIFICANCE

It was anticipated that the results of the study would be beneficial to the administration of the Millard School District in evaluating the effectiveness of the present junior high reading program and in evaluating the total reading program K-12 in the Millard School District.

This study, by analyzing standardized test scores for a group of students who participated in the program and who are finishing junior high, may indicate objectively whether the program was effective enough to warrant continuation in its present form. It may indicate changes in the K-6 program, the junior high program, or it may indicate changes in the 10-12 program.

Chapter 2

REVIEW OF LITERATURE

The importance of reading in education has always been recognized. In recent years there has been a proliferation of literature concerning reading statistics to further emphasize the point.

Bond and Tinker state that reading is generally recognized as the most important subject that we teach in the elementary school. In recent years the realization that proficiency is necessary in high school and college has been recognized. It has been estimated that 80 per cent to 90 per cent of all study activities in the high school requires some degree of reading.[1]

Bond and Tinker emphasize that capable young adults with reading difficulties are unlikely to find suitable employment. Moderate reading ability is needed to even apply for most jobs.[2]

Roma Gans estimates that from 10 per cent to 25 per cent of the students leaving sixth grade and entering junior

---

[1]Guy L. Bond and Miles Tinker, Reading Difficulties: Their Diagnosis and Correction (New York: Meredith, 1967), p. 3.

[2]Ibid., p. 5.

high are unable to read the required texts. She contends that only through careful concern for reading growth from K-12 can a program be both sensibly planned and adequately evaluated. Proper coordination of K-12 reading may have the following effects: (1) Retention in the elementary grades may be reduced. (2) Failures in junior high content areas may be reduced. (3) Undesirable conduct related to frustration may be ameliorated. (4) Teenage dropouts may be reduced. (5) Teaching that is geared to the bright, the average, and the less able will be easier to attain.

Gans also feels that the continuity of reading skills is a prime consideration for any school system. The soundest approach to the problem of K-12 skill development would be to direct all changes toward unifying elementary and secondary programs in a true system of education. This would create a school that from K-12 is truly a reading program for all students.[3]

Statistics alone can be deceiving and yet they provide an indication of the success or failure of the schools in meeting the needs of students. In addition to statistical data, there has been research conducted in the areas of maturation and reading skill development.

According to M. S. Johnson, research has indicated that varying levels of maturity have helped to establish some

---

[3]Roma Gans, Common Sense in Teaching Reading (Indianapolis: Bobbs-Merrill Co., 1963), p. 392.

sequence of goals to be reached at different stages of development. With this realization, emphasis has shifted to reading instruction for all throughout the K-12 program rather than merely corrective instruction.[4]

Millard Public Schools recognized the importance of a K-12 reading program and this was one of the reasons for establishing the junior high reading program. This study would be indicative as to the present effectiveness of the junior high reading program in maintaining and developing reading skills from the elementary grades through the junior high grades.

An important aspect to the development of reading skills K-12 is the teacher's mind set. Estes contends that the teacher's general mind set about his role does not include teaching reading skills in situations where substantive reading is required. Assuming that students have learned to read in the elementary school beyond which they need only to be asked to read to learn, is the too frequent mode of instruction.[5]

In analyzing the effectiveness of the reading program at North Junior High, the major data source was obtained from

---

[4]Marjorie Seddon Johnson, "Reading Ideas in a Research Stage," ed. Albert Mazurkiewicz, New Perspectives in Reading Instruction (New York: Pitman Publishing Corporation, 1963), p. 549.

[5]Thomas H. Estes and Dorothy Piercey, "Secondary Reading Requirements: Report on the States," Journal of Reading, XVII (October, 1973), 204-211.

standardized reading tests. Standardized reading test scores are valuable tools of assessment; however, they must be utilized correctly.

Mavrogenes, Winkley, Hanson, and Vaca state that reading survey tests are group tests which always include measures of comprehension, usually include vocabulary and sometimes rate. They are used by the classroom teacher to determine the range and the average class reading ability; to divide the class into groups for instruction, to aid in selection of appropriate materials, to help identify reading disabilities, and to measure student's progress. School administrators may also use such tests to measure the effectiveness of instruction, to evaluate new programs or different methods and to identify pupils at various ability levels.[6]

Karlin asserts that standardized reading tests may be useful for measuring reading growth; identifying reading needs; and determining reading status.[7]

The principal function of standardized tests is to show what levels students have reached so that future work can be planned or to give additional attention where it is needed.[8]

---

[6]Nancy A. Mavrogenes, Carol K. Winkley, Earl Hanson and Richard T. Vaca, "Concise Guide to Standardized and College Reading Tests," Journal of Reading, XIV (October, 1974), 13.

[7]Robert Karlin, Teaching Reading in High School (Indianapolis; Bobbs-Merrill Co., 1964), p. 84.

[8]Ibid., p. 63.

Standardized test results provide valid indications of how well students are progressing toward objectives on which there is general agreement. Teachers may compare the performances of other comparable students, since the standardized population of a well constructed test is supposed to represent a typical group of students.[9]

No single test measures the entire reading process. Most standardized silent reading tests measure general reading ability. Among the more general reading skills measured by standardized tests are vocabulary and paragraph comprehension.[10]

For the student who has no serious reading problem the test score represents an approximate measurement of reading level at which one would expect him to perform. If his grade level falls between, roughly 9.5 and 10.5, a teacher can safely assume that he is able to read a textbook at the ninth grade level of difficulty with a fair degree of understanding.[11]

In another article Karlin further asserts that tests do not cover all the types of reading that students engage in. Tests do not demand the sustained reading students do in school and elsewhere. It is one thing to understand a single

---

[9]Ibid., p. 64.

[10]Ibid., p. 66.

[11]Ibid., p. 71.

paragraph and another to react suitably to a longer passage. Students ordinarily do not read words in isolation nor do they have to read under timed conditions which do not allow for much flexibility. Reading tests offer approximations of how well students read; values they do not possess should not be ascribed to them. Teachers may use standardized reading tests if they understand their limitations and are able to interpret their results adequately. The test permits us to speak with some objectivity about the reading achievement of students.[12]

According to Traxler, perhaps the most important value of a reading test, or any other standardized test, is that it lends a certain amount of definitiveness to our thinking about the achievement of a pupil or a group. Without reading tests it is possible to say in a vague or general way, "Here is a pupil who appears to be a good reader; here is another who doesn't read well; and here is another who doesn't seem to be able to read at all." But we cannot be very confident about our classification when it is done simply on a subjective basis.[13]

---

[12]Robert Karlin, "Evaluation for Diagnostic Teaching," Assessment Problems in Reading, ed. Walter H. MacGinitie (Newark, Delaware: International Reading Association, 1973), p. 11.

[13]Arthur E. Traxler, "Values and Limitations of Standardized Reading Tests," New Perspectives in Reading Instruction, ed. Albert J. Mazurkiewicz (New York: Pitman, 1963), p. 354.

MacGinitie believes that we will face more intelligently the tasks of teaching reading and will face with even greater determination the whole job of education when we understand the function and problems of measurement well enough to realize that scores reflect the student's past and what the school has done, and the scores suggest future needs and opportunities for both the student and the school.[14]

IQ scores must also be used with good judgment. IQ scores can be used as indicators of a student's potential to learn.

The evidence that Bane and Jencks have reviewed suggests that IQ tests are quite good at measuring the kinds of intelligence needed to do school work. Students who do well on IQ tests are quite likely to get good grades in school.[15]

Bane and Jencks state that those who do poorly on IQ tests also do poorly on school achievement tests that measure things like reading comprehension and arithmetic skills.[16]

---

[14]Walter H. MacGinitie, "What Are We Testing," Assessment Problems in Reading, ed. Walter H. MacGinitie (Newark, Delaware: International Reading Association, 1973), p. 42.

[15]Mary Jo Bane and Christopher Jencks, "Five Myths About Your IQ," The IQ Controversy, ed. N. J. Block and Gerald Dworkin (New York: Random House, 1976), p. 327.

[16]Ibid., p. 325.

The formula used in this study concerning reading expectancy is a formula devised by Bond and Tinker. The formula presents the teacher with an easy means of finding a student's approximate expected grade level in reading. Their basic equation is as follows:

Number of years spent in school x IQ + 1 = expected grade level.

The reading expectancy grade scores calculated by the formula (years in school x IQ) + 1.0 is worked out by taking the number of years the child has been in school and multiplying that number by his IQ and then adding 1.0 because his grade score was 1.0 when he entered school. In calculating the reading expectancy score by the formula (years in school x IQ) + 1.0 for a child with an IQ of 150 halfway through the fifth grade, his reading expectancy score would be (4.5 x 1.50) + 1.0, or 6.8 + 1.0 which equals 7.8.[17]

Roger Farr contends that the procedures for determining reading capacity are quite limited in their usefulness because the research on which they are based has failed to relate the estimates of capacity to actual reading improvement programs. If a measure of capacity is valid, then a student in a remedial reading program with only a small gap between his achievement and capacity scores would be expected not to

---

[17]Guy L. Bond and Miles Tinker, Reading Difficulties: Their Diagnosis and Correction (New York: Meredith Publishing Co., 1967), p. 93.

make any reading gains other than those expected in normal development. On the other hand, students with a large discrepancy between achievement and capacity would be expected to make much greater gains. Studies along this line should supply evidence concerning the "usefulness" of capacity measures.[18]

---

[18]Roger Farr, Reading: What Can Be Measured (Newark, Delaware: International Reading Association, 1969), p. 189.

Chapter 3

DESIGN OF THE STUDY

This study was conducted at Millard North Junior High, 2828 South 139th Plaza, Omaha, Nebraska.

The data obtained for the analyses to determine the effectiveness of the junior high reading program were based on the pre-test and post-test total grade-equivalent scores from the Nelson Silent Reading Test, Form B, (grades 3-9) of 125 students, who participated in a seventh grade formal reading program in 1973-1974.

Standardized reading test score data were obtained from the Nelson-Denny Silent Reading Test, Form C, (9-16) which was administered to these 125 students, who were ninth graders, in March, 1976. These students had not had formal reading instruction in the eighth and ninth grade years.

The Nelson Silent Reading Test (3-9) and the Nelson-Denny Silent Reading Test (9-16) provide grade-equivalent scores in vocabulary and paragraph comprehension skills. These standardized tests provide a total grade-equivalent score which is a combined score of vocabulary and paragraph comprehension. The Nelson-Denny Silent Reading Test has a range from 6.0 to 15.0. The Nelson Silent Reading Test has a range from 2.0 to 10.5.

The total grade-equivalent scores obtained from these standardized reading tests are arrayed in tabular form from the highest score to the lowest score, and the data are compared and analyzed to determine the effectiveness of the junior high reading program in maintaining and developing students' reading skills from the elementary grades through the junior high grades.

The 125 students were pre-tested in April, 1973, of their sixth grade year, with Form B, of the Nelson Silent Reading Test. These pre-test total grade-equivalent scores were used as indicators of reading ability on entry to the seventh grade program. These students were placed in reading materials commensurate with their ability as indicated by the total grade-equivalent scores of the pre-testing. In March, 1974, of their seventh grade year, they were administered Form B, of the Nelson Silent Reading Test as a post-test to indicate the reading progress for the year to determine the effectiveness of the seventh grade formal reading instruction program in maintaining and developing students' reading skills of vocabulary and paragraph comprehension from the elementary grades through the seventh grade.

These 125 students received no further formal reading instruction in the eighth and ninth grade years. There had been no further testing of these students until the testing for this project which was done in March, 1976.

This would leave a two year span in which these students did not participate in a formal reading instruction program. Since there had been an interval of two years, the Nelson-Denny Silent Reading Test was administered to those 125 students to determine the effectiveness of the seventh grade reading program in maintaining and sustaining reading skill development through the eighth and ninth grade years.

The Nelson Silent Reading Test, Form B, consists of 175 items; 100 items to measure vocabulary and 75 items to measure reading comprehension. It is administered in a single class period. The normal working time is thirty minutes. Ten minutes are allotted for the vocabulary portion and twenty minutes for the comprehension portion.

The Nelson-Denny Silent Reading Test, Form C, consists of 136 items; 100 items to measure vocabulary and 36 items to measure paragraph comprehension. The normal working time is thirty minutes. Ten minutes are allotted for the vocabulary portion and twenty minutes for the comprehension portion.

The Nelson Silent Reading Test and the Nelson-Denny Silent Reading Test are published by Houghton-Mifflin and they are designed to facilitate the measurement of vocabulary and comprehension skills from grades 3-16. The company recommends that the Nelson-Denny Silent Reading Test be used to measure ninth graders and above. The Nelson Silent Reading Test is recommended for grades 3-9.

In addition, the Millard School District's elementary reading program uses the Houghton-Mifflin basal reading series. It was felt by the researcher that the validity and reliability would be more comparable if the tests used were published by Houghton-Mifflin.

The Nelson Silent Reading Test manual states that grade-equivalent scores, although easy to understand, must be interpreted with caution. They assume a regular pattern of growth throughout the school year, a condition which may seldom be met. Furthermore, wide deviations should be considered quite normal. Despite their limitations, grade-equivalents have the advantage of simplicity and direct meaning and represent a convenient way of rendering scores on several tests "comparable." (manual p. 9.)

The total grade-equivalent test scores obtained from the Nelson Silent Reading Test, Form B, pre-test and post-test scores, were compared to determine the effectiveness of the seventh grade program in maintaining and developing the reading skills of vocabulary and paragraph comprehension from the elementary grades through the seventh grade.

The total grade-equivalent scores obtained from the pre-test and post-test of the Nelson Silent Reading Test were compared with the total grade-equivalent scores for the Nelson-Denny Silent Reading Test to determine the effectiveness of the seventh grade reading program in sustaining these students through the eighth and ninth grade years

without formal reading instruction. This would indicate whether the seventh grade program is effective in maintaining and developing reading skills through the eighth and ninth grade years.

The major research data for this study were predicated on the data obtained from standardized reading test total grade-equivalent scores. Additional data were gathered concerning reading expectancy. Further data were gathered by surveying the ninth graders' feelings about their junior high reading experience.

In Appendix A, information concerning the expected grade level in reading in relation to their mental achievement (IQ) will be found for those ninth grade students whose IQ scores were available.

In Appendix B, information concerning the ninth graders' feelings about their junior high reading experience will be found. The students were given a survey to determine their feelings about reading.

Chapter 4

PRESENTATION OF DATA

The major emphasis of the study consisted of the analyses of standardized silent reading total grade-equivalent test scores to determine the effectiveness of a junior high reading program in maintaining and developing reading skills of vocabulary and paragraph comprehension from the elementary grades through the junior high grades.

In addition to the analysis of standardized test scores, the study includes an analysis of expected grade level of reading in relation to mental capacity (IQ) and the study includes a questionnaire given to the ninth grade students to determine their attitude concerning reading, study habits, and school.

The students' total grade-equivalent scores are tabulated from the highest total grade-equivalent score to the lowest total grade-equivalent score on entry to the seventh grade program (Table I).

One can compare the total grade-equivalent scores on entry to the junior high program with the total grade-equivalent scores obtained in March, 1974, of the seventh grade year to determine the progress made during the instructional program. One can then analyze the total grade-

equivalent scores from March, 1974, in relation to the total grade-equivalent scores obtained in March, 1976, of the students' ninth grade year to determine the effectiveness of the program in maintaining and developing reading skills through the eighth and ninth grade years.

In analyzing the scores from Table I, the research reveals that on entry to the seventh grade program seventy-seven students, or 62 per cent of the 125 students, were at the 7.0 grade level. Their scores ranged from 7.0 to 10.5.

There were forty-eight students, or 38 per cent of the 125 students, who were below the 7.0 grade level. Their scores ranged from 6.9 to 3.0.

In March, 1974, there were 100 students, or 80 per cent of the 125 students, at the 8.0 grade level. Their scores ranged from 8.0 to 10.5.

There were twenty-five students, or 20 per cent of the 125 students, below the 8.0 grade level. Their scores ranged from 7.8 to 4.1.

One hundred and twenty-one students out of the 125 students who participated in the program, either maintained reading skills or developed reading skills as they progressed through the seventh grade program. Four students did not show a gain. One student tested 10.5 on entry and 10.2 in March, 1976. One student tested 7.8 on entry and 7.5 in March, 1974. Two students tested 5.2 on entry and 4.7 in March, 1974.

The growth gain for the 121 students ranged from a low of .2 grade level to a high of 4.3 grade levels. The Nelson Silent Reading Test tops out at 10.5. Twelve students entered at 10.5 and in March, 1974, scored 10.5. Thirty-two students entered with scores that ranged from 6.2 grade level to 10.3 grade level and scored 10.5 grade level in March, 1974.

The Nelson-Denny Silent Reading Test was given to the 125 students who participated in the seventh grade program in March, 1976, of the students' ninth grade year. There had been two years since these students participated in a reading instruction program.

The test results revealed that seventy-one students, or 57 per cent of the 125 students, were at 10.0 grade level or above 10.0 grade level. These scores ranged from 10.0 to 15.0 grade level. The 10.0 grade level was used to indicate reading at grade level.

There were fifty-four students, or 43 per cent of the 125 students, who were below the 10.0 grade level. These scores ranged from 9.8 to -6.0 grade level.

The seventy-seven students at 7.0 grade level or above on entry to the seventh grade program in September, 1974, was similar to the seventy-one students at 10.0 grade level or above in March, 1976, of the ninth grade year.

Of the 125 students who participated in the program, the researcher was able to locate ninety-four mental achievement (IQ) scores which were from a variety of tests.

Each IQ score was matched with the student's total grade-equivalent reading scores. Each total grade-equivalent score was followed by the expected reading grade level score, on entry to the reading program in September, 1973; in March, 1974; and in March, 1976. The IQ score was listed following this data.

These scores are tabulated in Table II and these scores follow the same numerical sequence of scores found in Table I. (Appendix A)

In analyzing the expected reading grade level scores of the ninety-five students whose IQ scores were available, the data revealed that on entry to the seventh grade program fifty-eight students, or 62 per cent of the ninety-four students, had the same or higher total grade-equivalent scores than their expected reading grade level. There were thirty-six students, or 38 per cent of the ninety-five students, who had lower expected reading grade level scores.

In March, 1974, of the seventh grade program, seventy-six students, or 81 per cent of the ninety-four students, had the same or higher total grade-equivalent scores than expected grade level scores, and eighteen students, or 19 per cent of the ninety-four students, had lower total grade-equivalent scores than expected reading grade level scores.

In March, 1976, of the students' ninth grade year, fifty-four students, or 57 per cent of the ninety-four students, had the same or higher grade-equivalent scores than

expected reading grade level scores. Forty students, or 43 per cent, had lower total grade-equivalent scores than expected reading grade level scores.

The fifty-eight students who had the same or higher expected grade level score on entry to the seventh grade program in September, 1974, were similar to the fifty-four students who had the same or higher expected grade level score in March, 1976, of the ninth grade year.

A questionnaire consisting of eleven questions concerning reading attitude, study habits, and school, was given to 120 of the 126 ninth grade students. The questionnaire was designed to indicate their attitude about reading and studying to indicate whether the junior high seventh grade reading program was effective in instilling a positive attitude about reading, study habits, and school.

The student responded to each question by answering "usually," "sometimes," or "seldom." In analyzing the responses, the researcher interpreted the "usually" answer as one that indicated a positive attitude toward reading, study, and school.

The "sometimes" response was interpreted as indicating a receptive attitude toward reading, study, and school.

The "seldom" response was interpreted to indicate a poor attitude toward reading, study, and school.

The responses to the individual questions were tabulated as percentages. The questionnaire and the percentages for each question are found in Appendix B.

TABLE I

Total Grade Equivalent Test Scores

	Nelson Silent Reading Test			Nelson-Denny Silent Reading Test	
	PRE-TEST	POST-TEST	GROWTH	SCORE	GROWTH
1	10.5	10.5		14.2	3.7
2	10.5	10.5		15.0	4.5
3	10.5	10.5		14.9	4.4
4	10.5	10.5		12.6	2.1
5	10.5	10.5		13.6	3.1
6	10.5	10.5		14.2	3.7
7	10.5	10.5		15.0	4.5
8	10.5	10.5		13.6	3.1
9	10.5	10.5		14.4	3.9
10	10.5	10.5		15.0	4.5
11	10.5	10.2	-.3	14.9	4.7
12	10.5	10.5		14.9	4.4
13	10.5	10.5		13.1	2.6
14	10.3	10.5	.2	14.1	3.6
15	10.3	10.5	.2	13.6	3.1
16	10.3	10.5	.2	14.8	4.3
17	10.2	10.5	.3	14.0	3.5
18	10.2	10.5	.3	12.0	1.5
19	10.1	10.5	.4	14.5	4.0
20	10.1	10.5	.4	12.8	2.3
21	10.0	10.5	.5	13.6	3.1
22	9.9	10.5	.6	13.5	3.0
23	9.8	10.3	.5	13.8	3.5
24	9.8	10.5	.7	14.0	3.5
25	9.7	10.5	.8	14.9	4.4
26	9.7	10.5	.8	10.7	.2
27	9.7	10.5	.8	13.1	2.6
28	9.6	10.5	.9	13.2	2.7
29	9.6	10.5	.9	13.0	2.5
30	9.5	10.5	1.0	12.6	2.1
31	9.4	10.5	1.1	12.5	2.0
32	9.4	10.5	1.1	12.7	2.2
33	9.4	10.5	1.1	13.1	2.6
34	9.2	10.4	1.2	13.1	2.7
35	9.2	10.5	1.3	10.2	-.3
36	9.2	10.5	1.3	10.2	-.3
37	9.1	10.5	1.4	12.0	1.5
38	9.1	10.5	1.4	13.4	2.9
39	9.1	9.5	.4	12.7	3.2
40	9.1	10.5	1.4	15.0	4.5

TABLE I (continued)

	Nelson Silent Reading Test			Nelson-Denny Silent Reading Test	
	PRE-TEST	POST-TEST	GROWTH	SCORE	GROWTH
41	9.1	10.3	1.2	10.0	-.3
42	9.0	10.5	1.5	13.3	2.8
43	8.9	10.0	1.1	12.0	2.0
44	8.8	9.1	.3	12.6	3.5
45	8.8	9.5	.7	9.3	-.2
46	8.8	10.5	1.7	9.1	-1.4
47	8.8	10.5	1.7	14.0	3.5
48	8.7	10.5	1.8	15.0	4.5
49	8.7	10.5	1.8	13.4	2.9
50	8.7	9.7	1.0	10.9	1.2
51	8.7	8.7		9.8	1.1
52	8.6	10.5	1.9	13.2	2.7
53	8.5	10.4	1.9	13.7	3.3
54	8.5	9.5	1.0	10.6	1.1
55	8.5	9.9	1.4	10.2	.3
56	8.4	10.1	1.7	13.2	3.1
57	8.4	10.0	1.6	10.7	.7
58	8.3	10.5	2.2	12.8	2.3
59	8.2	9.9	1.7	7.5	-2.4
60	8.2	10.2	2.0	8.5	-1.7
61	8.1	9.0	.9	9.8	.8
62	8.0	9.5	1.5	7.5	-2.0
63	7.9	8.3	.4	6.0	-2.3
64	7.9	10.4	2.5	11.3	.9
65	7.8	9.5	1.7	9.8	.3
66	7.8	7.5	-.3	6.0	-1.5
67	7.8	9.6	1.8	7.9	-1.7
68	7.6	10.1	2.5	7.7	-2.4
69	7.6	9.5	1.9	14.2	4.7
70	7.4	9.6	2.2	8.6	-1.0
71	7.3	9.2	1.9	7.5	-1.7
72	7.1	8.7	1.6	8.3	-.4
73	7.1	9.1	2.0	7.9	-.2
74	7.1	8.5	1.4	9.5	1.0
75	7.1	8.8	1.7	8.1	-.7
76	7.0	10.0	3.0	11.5	1.5
77	7.0	9.4	2.4	10.4	1.0
78	6.9	10.5	3.6	14.0	3.5
79	6.8	8.3	1.5	10.0	1.7
80	6.6	8.5	1.9	8.9	.4
81	6.6	9.2	2.6	6.0	-3.2
82	6.5	10.0	3.5	7.1	-2.9

TABLE I (continued)

	Nelson Silent Reading Test			Nelson-Denny Silent Reading Test	
	PRE-TEST	POST-TEST	GROWTH	SCORE	GROWTH
83	6.5	10.5	4.0	13.9	3.4
84	6.3	7.6	1.3	8.1	.5
85	6.3	8.2	1.9	6.3	-1.9
86	6.3	6.5	.2	9.1	2.6
87	6.2	9.2	3.0	8.5	-.7
88	6.2	9.4	3.2	12.7	3.3
89	6.2	8.3	2.1	7.7	.6
90	6.2	9.4	3.2	10.2	.8
91	6.2	8.9	2.7	11.6	2.7
92	6.2	10.5	4.3	13.2	2.7
93	6.1	8.0	1.9	9.5	1.5
94	6.0	7.8	1.8	7.3	-.5
95	6.0	6.2	.2	7.1	.9
96	5.8	9.8	4.0	10.0	.2
97	5.8	8.3	2.5	12.0	3.7
98	5.8	8.1	2.3	6.2	-1.9
99	5.8	9.0	3.2	8.1	-.9
100	5.7	7.3	1.6	8.9	1.6
101	5.6	8.0	2.4	9.7	1.7
102	5.6	8.3	2.7	--	--
103	5.6	6.5	.9	7.1	.6
104	5.6	8.0	2.4	10.0	2.0
105	5.6	7.0	1.4	8.6	1.6
106	5.5	6.3	.8	9.8	3.5
107	5.5	7.1	1.6	9.7	2.6
108	5.5	7.4	1.9	8.5	1.1
109	5.4	5.7	.3	8.6	2.9
110	5.4	6.5	1.1	-6.0	-.5
111	5.3	6.8	1.5	-6.0	-.8
112	5.3	9.5	4.2	8.5	-1.0
113	5.3	8.0	2.7	8.1	.1
114	5.2	4.7	-.5	--	--
115	5.2	4.7	-.5	6.0	1.3
116	5.2	8.7	3.5	11.1	2.4
117	5.0	5.5	.5	8.8	3.3
118	4.9	5.3	.4	10.0	4.7
119	4.7	6.3	1.6	--	--
120	4.7	5.5	.8	--	--
121	4.6	5.1	.5	6.2	1.1
122	4.3	7.3	3.0	-6.0	-1.3
123	3.7	4.7	1.0	6.2	1.5
124	3.4	5.1	1.7	7.9	1.8
125	3.0	4.1	1.1	6.9	2.8

Chapter 5

SUMMARY

In this study, standardized reading test scores were analyzed to determine the effectiveness of a junior high reading program in maintaining and developing students' reading skills from the elementary grades through the junior high grades.

The standardized test scores analyzed were the pre-test and post-test total grade-equivalent scores from the Nelson Silent Reading Test, Form B, of 125 students who participated in a formal instructional reading program as seventh graders in 1973-1974 and the total grade-equivalent test scores from the Nelson-Denny Silent Reading Test, Form C, which was given to the 125 students as ninth graders in March, 1976.

In addition to the analysis of standardized test scores, the study included an analysis of expected grade level of reading in relation to mental capacity (IQ) and the study included a questionnaire given to the ninth grade students to determine their attitude concerning reading, study habits, and school.

CONCLUSIONS

1. It would appear that the seventh grade reading program was effective in maintaining and developing reading skills from the elementary grades.

One hundred twenty-one of the 125 students either maintained reading skills or developed reading skills during the instructional period. The grade level growth ranged from 4.3 to .2.

It would appear that the major factor in maintaining and developing reading skills through the seventh grade year was the result of the daily reading instruction.

2. It would appear that the seventh grade reading program was not effective in sustaining the developmental reading skill progress made during the seventh grade through the eighth and ninth grades for the students as a group.

On entry to the seventh grade program in September, 1974, there were seventy-seven students at the 7.0 grade level. There were seventy-one students at the 10.0 grade level in March, 1976, of the students' ninth grade year.

The similarity of figures would seem to indicate that the lack of reading instruction during the eighth and ninth grade year was a factor in the developmental skill decline from the end of the seventh grade year for the group. However, this similarity of figures would seem to indicate that the seventh grade instructional program may have been a

factor in maintaining reading skills from the elementary grades through the junior high grades (7-9) for the group.

3. The analysis of the ninety-four students whose IQ scores were available would appear to indicate that the seventh grade instructional program was effective in maintaining and developing reading skills from the elementary grades in relation to IQ and the expected grade level of students.

On entry to the seventh grade program in September, 1974, fifty-eight of the ninety-four students had the same or higher total grade-equivalent scores than their expected reading grade level.

In March, 1974, of the seventh grade year, seventy-six of the ninety-four students had the same or higher total grade-equivalent scores than expected reading grade level scores.

These figures would seem to indicate that the seventh grade program was effective in maintaining and developing reading skills through the seventh grade year. The major factor in the progress would seem to be the daily reading skill instruction.

In March, 1976, of the students' ninth grade year, fifty-four students had the same or higher expected reading grade levels.

On entry to the seventh grade, fifty-eight students had the same or higher expected grade level. In March, 1976, of the students' ninth grade year, fifty-four students

had the same or higher expected grade level.

These similar figures would seem to indicate that the seventh grade program was not effective in sustaining the progress of the group through the eighth and ninth grade years. However, these similar figures would seem to indicate that the seventh grade program was a factor in maintaining reading skills for the group from the elementary grades through the junior high.

4. The questionnaire that was given to 120 of the 125 students who participated in the seventh grade instructional program would appear to indicate a positive attitude about reading, school, and study habits, with the exception of question number four.

Question number four indicated that it may be a factor in the study. The question was "Do I read leisure pleasure books each day?"

The responses to question number four resulted in 18 per cent answering "usually," 33 per cent "sometimes," and 51 per cent "seldom."

The 51 per cent "seldom" response may be a factor in the reading skill progress decline through the eighth and ninth grades.

A leisure pleasure reading program in conjunction with the required subject area reading for eighth and ninth graders may have an impact on ninth grade reading test results.

A student who reads leisure pleasure reading books on a regular basis would probably keep the skills of vocabulary and comprehension at a high level and these skills would be indicated by test scores. This leisure pleasure reading factor would require further study to state conclusively that it had an impact on test results.

The reading instructional program for seventh graders appears to be effective in maintaining and developing reading skills through the seventh grade. The fact that there was daily reading skill instruction would appear to be the reason. If the data proved otherwise, the seventh grade instructional program in its present form would be suspect.

The progress made during the seventh grade year was not sustained through the eighth and ninth grades. The reason seems to be the lack of formal reading instruction.

As to the effectiveness of the seventh grade formal reading program in maintaining and developing reading skills through the eighth and ninth grade, the program is suspect.

The standardized test data used in this study have been utilized by the Millard School District to evaluate and in some instances to change the present reading programs K-12. The seventh grade instructional reading program will remain. It appears to be effective in maintaining and developing reading skills from the elementary grades.

Several recommendations that were made from the data are presently in effect or they are being considered.

RECOMMENDATIONS

1. Provide an eighth and ninth grade remedial reading program for students whose test scores at the end of the seventh grade program indicate reading problems. Students' reading potential and cooperativeness would be considered in determining the extent of the program. This has been done.

2. Provide an additional reading instructor at the senior high school to accommodate the ninth grade students whose reading test scores indicate reading problems. Students' reading potential and cooperativeness would be considered in determining the extent of the program. This has been done.

3. Continue to evaluate all ninth graders to determine reading competencies to assist senior high placement. This is being considered.

4. Evaluate the present K-6 reading program to determine its effectiveness in meeting students' reading needs. This evaluation of the K-6 program may indicate change in the junior high program. This is being done.

5. Consider various reading instructional programs that would be available to all students throughout the 7-12 program. This is being considered.

This study has, by analyzing objective standardized reading test data, attempted to confirm a subjective feeling about a junior high reading program.

The subjective feeling is that reading as a skill must be taught continually K-12 in an organized manner to all students, if we are to maintain and develop reading skills to meet the demands of society.

If programs and instruction exist K-12, the testing to determine the effectiveness of reading programs in meeting the reading needs of students will become more meaningful. Periodic testing, when reading instruction has been absent for several years, is suspect in determining future needs and evaluating programs.

BIBLIOGRAPHY

BIBLIOGRAPHY

Bane, Mary Jo, and Christopher Jencks. "Five Myths About Your IQ," The IQ Controversy. N. J. Block and Gerald Sworkin, editors. New York: Random House, 1976.

Bond, Guy L., and Miles Tinker. Reading Difficulties: Their Diagnosis and Correction. New York: Meredith, 1967.

Estes, Thomas H., and Dorothy Piercey. "Secondary Reading Requirements: Report on the States," Journal of Reading, XVII (October, 1973) 204-211.

Farr, Roger. Reading: What Can Be Measured. Newark, Delaware: International Reading Association, 1969.

Gans, Roma. Common Sense in Teaching Reading. Indianapolis: Bobbs-Merrill Co., 1963.

Johnson, Marjorie Seddin. "Reading Ideas in a Research Stage," New Perspectives in Reading Instruction. Albert J. Mazurkiewicz, editor. New York: Pitman, 1963.

Karlin, Robert. "Evaluation for Diagnostic Teaching," Assessment Problems in Reading. Walter H. MacGinite, editor. Newark, Delaware: International Reading Association, 1973.

_____. Teaching Reading in High School. Indianapolis: Bobbs-Merrill, 1964.

MacGinite, Walter H. "What Are We Testing," Assessment Problems in Reading. Walter H. MacGinite, editor. Newark, Delaware: International Reading Association, 1973.

Mavrogenes, Nancy A., Carol K. Winkley, Earl Hanson, and Richard T. Vaca. "Concise Guide to Standardized and College Reading Tests," Journal of Reading, XIV (October, 1974), 13.

New York Times, February 6, 1977.

Traxler, Arthur E. "Values and Limitations of Standardized Reading Tests." New Perspectives in Reading Instruction. Albert J. Mazurkiewicz, editor. New York: Pitman, 1963.

APPENDICES

APPENDIX A

APPENDIX A

TABLE II

Expected Reading Grade Level in Relation to Mental Achievement (IQ)

	Nelson Reading PRE TEST	Expected Reading Grade Level	Nelson Reading POST TEST	Expected Reading Grade Level	Nelson-Denny	Expected Reading Grade Level	IQ
1	10.5	7.9	10.5	8.7	14.2	11.0	115
2	10.5	8.0	10.5	8.8	15.0	11.1	116
3	10.5	9.0	10.5	9.9	14.9	12.6	133
4	10.5	7.9	10.5	8.7	12.6	11.0	115
5	10.5	8.3	10.5	9.2	13.6	11.6	122
7	10.5	8.0	10.5	8.8	15.0	11.2	117
8	10.5	8.6	10.5	9.5	13.6	12.0	127
9	10.5	7.8	10.5	8.6	14.4	10.8	113
10	10.5	8.6	10.5	9.4	15.0	12.0	126
11	10.5	9.0	10.2	9.9	14.9	10.8	113
12	10.5	7.1	10.5	7.8	14.9	9.8	101
14	10.3	8.0	10.5	8.8	14.1	11.1	116
15	10.3	8.1	10.5	9.0	13.6	11.4	119
16	10.3	7.8	10.5	8.6	14.8	10.9	114
18	10.2	8.9	10.5	9.9	12.0	12.5	132
19	10.1	8.3	10.5	9.2	14.5	11.6	122
20	10.1	7.1	10.5	7.8	12.8	9.9	102
21	10.0	9.0	10.5	10.0	13.6	12.7	134
22	9.9	8.2	10.5	9.0	13.5	11.4	120
23	9.8	7.8	10.3	8.6	13.8	10.8	113
24	9.8	7.9	10.5	8.7	14.0	11.0	115
25	9.7	7.2	10.5	8.0	14.9	10.0	103
26	9.7	8.7	10.5	9.2	10.7	11.7	122
27	9.7	8.0	10.5	8.8	13.1	11.1	116
29	9.6	9.3	10.5	10.3	13.0	13.1	139
30	9.5	7.8	10.5	8.6	12.6	10.8	113

TABLE II (continued)

	Nelson Reading PRE TEST	Expected Reading Grade Level	Nelson Reading POST TEST	Expected Reading Grade Level	Nelson-Denny	Expected Reading Grade Level	IQ
31	9.4	6.9	10.5	7.6	12.5	9.6	99
32	9.4	7.5	10.5	8.3	12.7	10.5	109
34	9.2	7.4	10.4	8.2	13.1	10.3	107
35	9.2	6.6	10.5	7.2	10.2	9.1	93
38	9.1	7.8	10.5	8.6	13.4	10.9	114
39	9.1	7.4	9.5	8.1	12.7	9.2	106
40	9.1	8.1	10.5	9.0	15.0	11.4	119
41	9.1	7.8	10.3	8.3	10.0	10.5	109
42	9.0	8.0	10.5	8.8	13.3	11.1	116
44	8.8	8.6	9.1	9.5	12.6	12.0	127
45	8.8	6.9	9.5	7.6	9.3	9.6	99
46	8.8	7.5	10.5	8.3	9.1	10.5	109
48	8.7	8.6	10.5	9.5	15.0	12.0	127
49	8.7	7.7	10.5	8.5	13.4	10.7	112
51	8.7	7.1	8.7	7.8	9.8	9.9	102
54	8.5	7.2	9.5	8.0	10.6	10.0	104
55	8.4	6.9	9.9	7.6	10.2	9.6	99
56	8.4	7.2	10.1	8.0	13.2	10.0	104
57	8.4	7.4	10.0	8.2	10.7	10.3	107
62	8.0	7.4	9.5	8.1	7.5	10.2	106
63	7.9	7.4	8.3	8.1	6.0	10.2	106
64	7.9	6.9	10.4	7.6	11.3	9.6	99
65	7.8	6.6	9.5	7.3	9.8	9.2	94
67	7.8	7.3	9.6	8.0	7.9	10.1	105
69	7.6	7.5	9.5	8.2	14.2	10.4	108
70	7.4	7.2	9.6	8.0	8.6	10.0	104
71	7.3	7.1	9.2	7.8	7.5	9.9	102
72	7.1	7.1	8.7	7.8	8.3	9.9	102
73	7.1	6.6	9.1	7.2	7.9	9.1	93
75	7.1	6.5	8.8	7.1	8.1	8.9	91

TABLE II (continued)

	Nelson Reading PRE TEST	Expected Reading Grade Level	Nelson Reading POST TEST	Expected Reading Grade Level	Nelson-Denny	Expected Reading Grade Level	IQ
76	7.0	8.3	10.0	9.2	11.5	11.6	122
77	7.0	7.2	9.4	8.0	10.4	10.0	104
78	6.9	8.2	10.5	9.0	14.0	11.4	120
79	6.8	6.9	8.3	7.6	10.0	9.6	99
80	6.6	7.0	8.5	7.7	8.9	9.7	100
82	6.5	7.9	10.0	8.7	7.1	11.0	115
84	6.3	6.9	7.6	7.6	8.1	9.6	99
85	6.3	7.5	8.2	8.3	6.3	10.5	109
86	6.3	7.2	6.5	8.0	9.1	10.0	103
88	6.2	8.6	9.4	9.5	12.7	12.0	112
89	6.2	7.1	8.3	7.8	7.7	9.9	102
91	6.2	7.4	8.9	8.1	11.6	10.2	106
93	6.1	6.0	8.0	6.6	9.5	8.0	83
94	6.0	7.1	7.8	7.8	7.3	9.9	102
96	5.8	7.5	9.8	8.2	10.0	10.4	108
97	5.8	6.8	8.3	7.4	12.0	9.4	96
98	5.8	7.2	8.1	8.0	6.2	10.0	103
99	5.8	7.1	9.0	7.8	8.1	9.9	102
100	5.7	7.0	7.3	7.7	8.9	9.7	100
101	5.6	6.8	8.0	7.4	9.7	9.3	95
102	5.6	7.0	8.3	7.7	--	9.7	100
103	5.6	4.4	6.5	6.9	7.1	8.7	88
104	5.6	7.1	8.0	7.8	10.0	9.9	102
105	5.6	6.6	7.0	7.3	8.6	9.2	94
106	5.5	7.0	6.3	7.7	9.8	8.7	88
107	5.5	6.9	7.1	7.6	9.7	9.5	98
108	5.5	8.6	7.4	9.5	8.5	12.0	112
109	5.4	8.2	5.7	9.0	8.6	11.4	120
110	5.4	7.3	6.5	8.0	6.0	10.1	105
111	5.3	6.8	6.8	7.5	6.0	9.4	97

TABLE II (continued)

Nelson Reading PRE TEST		Expected Reading Grade Level	Nelson Reading POST TEST	Expected Reading Grade Level	Nelson-Denny	Expected Reading Grade Level	IQ
112	5.3	8.9	9.5	9.8	8.5	12.4	131
113	5.3	6.3	8.0	6.9	8.1	8.7	88
116	5.2	6.8	8.7	7.4	11.1	9.4	96
117	5.0	7.6	5.5	8.4	8.8	10.6	110
121	4.6	5.8	5.1	6.4	6.2	8.0	80
122	4.3	6.1	7.3	5.7	6.0	8.4	85
124	3.4	4.9	5.1	5.4	7.9	6.7	65
125	3.0	5.4	4.1	5.9	6.9	7.4	73

APPENDIX B

APPENDIX B

READING
APRIL 1976

NAME _____

		USUALLY	SOMETIMES	SELDOM
1.	Is learning to be a good reader important to me?	71%	26%	3%
2.	Am I learning new vocabulary words every day?	28%	62%	10%
3.	Do I try to understand and use everything I read?	49%	43%	8%
4.	Do I read leisure pleasure books each day?	18%	33%	50%
5.	Do I have good work study habits?	38%	50%	12%
6.	Do I start working as soon as I get to class?	38%	51%	11%
7.	Do I work without interrupting others by talking instead of studying?	33%	58%	9%
8.	Do I set goals for myself each day and see that I get a lot done?	27%	46%	28%
9.	Am I an independent worker who needs little supervision from the teacher?	53%	39%	8%
10.	Do I go over all work carefully and spend time thinking about self correction?	29%	58%	13%
11.	Am I satisfied with my work in Junior High?	60%	31%	9%