A COMPARATIVE STUDY OF THE READING ABILITY SCORES OF BOYS AND GIRLS IN THE THIRD GRADE OF THE GRAHAM, TEXAS, ELEMENTARY SCHOOL

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CHAPTER I

INTRODUCTION

Reading is demanded of the child almost hourly in his school work; if he fails in reading, he will experience failure in practically every other field. To be a well-adjusted child, and later a well-integrated adult, the individual needs to read skillfully at every school level. It is significant that a large proportion of juvenile delinquency cases have also proved to be remedial-reading problems.

Any phase of life which so profoundly influences the child merits the most careful study by all who work with children. It demands the use of techniques that have been tested and have proved their practical value in the classroom.

Reading is the basis of all our study; therefore, it is important that elementary school students attain the highest possible degree of ability. Not only is the ability to read important, but the ability to understand and interpret the material read is also of paramount significance.

Statement of the Problem

In the experiments and findings in literature one constantly sees references to the "well known superiority of girls in subjects involving language, such as reading,

grammar, and literature." The problem of this study is to determine how the reading ability of boys in the third grade of the Graham elementary school compares with the reading ability of the girls in the same grade. The problem is concerned with four phases of the reading scope.

Purpose

For eighty years psychologists have investigated problems touching upon reading ability. It is the purpose of this study to determine if there is any significant difference in the reading ability of boys and girls in the third grade. If such differences are found to exist, an attempt will be made to explain the cause.

Sources of Data

The major source of data came from the tests administered to the boys and girls of the third grade of the Graham, Texas, Elementary School. Data were also gathered from books in the field of education, current magazine articles, and trade publications available through the libraries of the North Texas State College and the Texas State College for Women, Denton, Texas.

Limitations

The present study was confined to a study of the boys and girls enrolled in the third grade of the Graham, Texas, Elementary School during the school year 1949-50. The study

will consider only the results of a standardized test administered as a part of the regular classroom routine.

Procedure

The boys and girls of the third grade were given The Nelson Silent Reading Test.[1] These tests are designed to serve as a measure of the reading ability of pupils in the third to ninth grade, inclusive, and to serve as a diagnostic instrument for determining pupil difficulties. The test consists of two parts, a vocabulary test and a paragraph test. The vocabulary test consists of one hundred words in five-response type, while the paragraph test consists of twenty-five paragraphs, each followed by three questions concerning the contents of the paragraph; the questions are in the four-response form.

The paragraph test measures three phases of reading ability: ability to understand the general significance of a paragraph, ability to denote details, and ability to predict probable outcome. These tests were scored, and boys and girls paired for the purpose of comparison. Pairing was based on organismic age. Scores on each phase of the test were recorded, compared and analyzed to determine if any differences did exist.

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[1] M. J. Nelson, The Nelson Silent Reading Test, Grades 3 to 9, Form A.

Review of Related Studies

A great deal has been written concerning reading. However, the majority of the work has been in the field of reading content rather than in the field of reading ability.

Kopel found that in his particular school perhaps 90 per cent of the reading disability cases were of methodological origin.[2] Inadequate provision for individual differences at the primary level seemed to be the cause of failure.

According to the investigation of Harris, in most schools the children show an astonishingly wide difference in reading ability. He found that it was not unusual to discover in the upper elementary grades some children who are still reading at the primary levels, while others are superior to the high school seniors.[3] Naturally this situation creates a serious educational problem. He sums up his study by saying

> . . . most cases of reading disabilities arise from such causes as mental or social insecurity, sensory handicaps, poor motivation, frequent and prolonged absence from school and exposure to ineffective and inefficient teaching.[4]

If there be a reading disability, the first job is to find out "why". For many years educators thought a child

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[2]David Kopel, "Causation of Illiterary and Poor Reading," Review of Elementary Research, XII, No. 2 (April, 1943), 72.

[3]Albert J. Harris, How to Increase Reading Ability, p. 3.

[4]Ibid., p. 19.

who was unable to read was either lazy or stupid. Then, by the use of intelligence tests it was discovered that many bright, intelligent children could not read, although they could understand what was read to them.[5] Causes for a child not being able to read are classified into four groups: physical, intellectual, emotional, and educational.[6]

Many children are retarded because they are not ready for reading. Poor instruction in early years tends to make retarded readers.[7] Constant prodding and scolding only add to the child's difficulties.

Low intelligence is maintained by most authors of psychology of reading as a possible contributing factor in reading retardation. Psychologists recommend that some measure of mental capacity be secured for any given case of reading ability. Here again the fact is pointed out that many tests are unsuitable because of the reader's insufficient ability in reading fundamentals.[8]

Previous investigations have indicated that reading ability and mental ability are highly correlated and support

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[5]Madeline Shipman, "Children Who Cannot Read," Hygeia, XXVI (April, 1948), 274, 275.

[6]Ibid.

[7]E. Boykin, "Maybe He Can't Read," Parents, XXIII (March, 1948), 36.

[8]Glenn Myers Blair and James F. Kamnon, "Do Intelligence Tests Requiring Reading Ability Give Spuriously Low Scores to Poor Readers at the College Level," Journal of Educational of Educational Research, XXXVI (September, 1942), 280, 284.

the assumption that whatever influences the development of one may influence that of the other.[9] Many tests are unsuitable because of their printed form. A child with a high I. Q. may have a low score because of poor reading.[10]

A fairly consistent finding in the elementary grades is that girls are better than boys on the average in reading comprehension, vocabulary, and basic language skills. From laboratory experiments, Olson found that age for age girls regularly exceeded the boys in eight out of ten comparisons.[11]

Gellerman reported only sixty cases of reading difficulty. He found that about 31 per cent of the cases had intelligence quotients below normal (90) while 33.3 per cent of the cases were above normal (110). The remaining 35.7 were within a normal range.[12] The conclusion drawn was that the majority of reading difficulties was not due to low intelligence but primarily to instructional programs not adjusted to the individual needs.[13]

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[9]William S. Gray, "Summary of Reading Investigations," Journal of Educational Research, XXX (September, 1948), 405.

[10]Ibid.

[11]Williard C. Olson, Child Development, p. 134.

[12]Saul W. Gellerman, "Causal Factors in the Reading Difficulties of Elementary School Children," Elementary School Journal, XLIX (May-June, 1949), 523.

[13]Ibid.

CHAPTER II

EQUATION OF STUDENTS ON BASIS OF ORGANISMIC AGE

The first step in setting up a study to compare the reading ability of boys with the reading ability of girls was to determine a basis for comparison. Because of sex differences, rate of maturity, and interests, a comparison of only the reading grades of boys with those of girls would be pointless. Therefore, in order to compare more accurately the reading ability of boys with the reading ability of girls, from an enrollment of 120 students, thirty boys and thirty girls were chosen on the basis of organismic ages for comparison.

The boys and girls in the third grade of the Graham, Texas, Elementary School were first paired on the basis of organismic age. In comparing the intelligence quotients of the pairs selected by organismic ages, it was found that the intelligence quotients of several pairs varied as much as ninety points. By eliminating those pairs whose intelligence quotients varied more than eighteen points, thirty pairs were obtained. The organismic ages of the thirty pairs varied by no more than .2 of a point and the intelligence quotients varied by no more than eighteen points.

The organismic age and intelligence quotient for each of the boys and girls used in this study are shown in Table 1.

TABLE 1

ORGANISMIC AGE AND INTELLIGENCE QUOTIENT
FOR PAIRS OF BOYS AND GIRLS

Girls			Boys		
Pupil	Organismic Age	Intelligence Quotient	Pupil	Organismic Age	Intelligence Quotient
1	8.4	79	1	8.4	82
2	9.4	101	2	9.4	116
3	9.9	110	3	9.9	110
4	8.9	106	4	8.8	100
5	8.2	88	5	8.2	76
6	7.9	122	6	7.9	115
7	10.0	119	7	10.0	113
8	8.8	94	8	8.8	104
9	8.8	94	9	8.8	91
10	9.5	111	10	9.5	102
11	10.1	112	11	10.1	114
12	10.4	117	12	10.6	124
13	8.6	94	13	8.6	90
14	9.0	108	14	8.9	90
14	9.5	122	15	9.5	118
16	9.2	93	16	9.2	91
17	9.2	93	17	9.2	83
18	8.5	99	18	8.5	82
19	8.9	94	19	8.9	106
20	8.9	102	20	8.9	113
21	8.1	91	21	8.2	92
22	9.7	104	22	9.7	109
23	9.3	104	23	9.3	97
24	9.3	103	24	9.2	92
25	8.9	107	25	8.9	90
26	9.0	85	26	9.0	89
27	7.9	76	27	8.1	92
28	9.4	107	28	9.4	105
29	9.5	114	29	9.5	110
30	8.5	89	30	8.5	75

Organismic ages for both boys and girls ranged from a low of 7.9 to a high of 10.6. For the girls, the range was from 7.9, reported by pupil No. 6, to 10.4, reported by

pupil No. 11. The mean organismic age for the girls, for the boys, and for the entire group was 9.7.

Intelligence quotients for the girls ranged from a low of seventy-six reported by pupil No. 27 to a high of 122 reported by pupil No. 6. For the boys, intelligence quotients ranged from seventy-five reported by pupil No. 30 to 124 reported by pupil No. 12. The mean intelligence quotient for the girls was ninety-three; for the boys it was 101; and for the entire group it was ninety-six.

Twelve girls and fifteen boys had intelligence quotients below the mean for the group. Twenty-four girls had intelligence quotients above the mean for the girls while fourteen boys had intelligence quotients above the mean for their group.

The most important function of a test lies in the fact that a single administration of the test in a class provides the teacher with a rather exact notion of the level of development of the several elements of silent reading ability in the class as well as with specific information concerning the limitations of the individuals comprising the class. By comparing the results obtained from a class with the accompanying norms, a clear concept of the general ability of the class in silent reading of the work-study type can be obtained. By analyzing the scores made by individual pupils on the various parts of the test, the specific weaknesses or strengths of individual pupils may be discovered.

After the intelligence quotients and organismic ages had been established, the students were given The Nelson Silent Reading Test. This test consisted of two parts, vocabulary and paragraph. The vocabulary test consisted of one hundred words in five-response type. The paragraph test measured three phases of reading ability: ability to understand the general significance of the paragraph, ability to denote detail, and ability to predict probable outcome. Scores for both boys and girls on the vocabulary test are shown in Table 2.

TABLE 2

VOCABULARY TEST SCORES FOR THIRD GRADE BOYS AND GIRLS

Pupil	Scores		Pupil	Scores	
	Boys	Girls		Boys	Girls
1	11	12	16	11	16
2	28	32	17	11	28
3	30	42	18	10	13
4	31	16	19	28	18
5	31	16	19	28	18
6	18	13	20	10	11
7	53	11	22	36	26
8	32	13	23	28	30
9	28	26	24	21	28
10	28	20	25	19	16
11	28	32	26	7	11
12	33	35	27	23	13
13	11	11	28	26	28
14	32	29	29	29	28
15	44	28	30	12	12

The highest score possible on the vocabulary test was one hundred. The highest score made by the girls was forty-two and was reported by student No. 3. Four students, Nos. 7, 13, 20, and 26, made scores of eleven. The median score for the girls considered was eighteen and the mean score was twenty-four.

Scores for the boys ranged from a low of seven to a high of fifty-three reported by pupils Nos. 26 and 7 respectively. The median score for the boys was twenty-eight and the mean score was 19.6.

The median score set up by the author of The Nelson Silent Reading Test is twelve.[1] The median score for the group considered in the present study was twenty-six. Seventeen boys and fourteen girls had scores equal to or above the median score for the group.

The mean score for the entire group was twenty-five. Thirty-one of the sixty pupils considered made scores above the average score for the group. Fifteen girls had scores that exceeded those of their partners. Only one pair, pair No. 13, had scores that were the same.

The greatest variation in the scores for pairs occurred in pupils No. 7. The boy of the pair had a score of fifty-three out of a possible one hundred while his counterpart had a score of only eleven. No explanation for this

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[1]Nelson, op. cit., p. 1.

discrepancy can be given. Pairs of students designated as Nos. 13 had the same score and pupils Nos. 30 also had equal scores.

The first part of the paragraph test measured the ability of the students to understand the general significance of a paragraph. Scores for the thirty pairs of students are contained in Table 3.

TABLE 3

SCORES FOR BOYS AND GIRLS ON ABILITY TO UNDERSTAND THE GENERAL SIGNIFICANCE OF A PARAGRAPH

Pupil	Scores		Pupil	Scores	
	Boys	Girls		Boys	Girls
1	6	4	16	6	12
2	14	18	17	5	10
3	15	20	18	6	13
4	10	9	19	9	9
5	1	13	20	7	2
6	9	13	21	9	13
7	14	4	22	11	9
8	11	9	23	9	8
9	8	10	24	10	9
10	14	10	25	15	12
11	14	13	26	6	1
12	14	16	27	8	14
13	6	6	28	9	9
14	11	11	29	10	10
15	14	11	30	11	2

The highest possible score on this phase of the test was twenty-five. Scores for the girls ranged from a low of one made by pupil No. 26 to a high of twenty reported

by pupil No. 3. The median score for the girls was ten as compared to a mean score of eleven for the boys.

For the boys, scores ranged from a low of one to a high of fifteen reported by pupils No. 5 and 15 respectively. The median score for the boys was nine as compared with a mean score of eight.

For the entire group, the median score was ten as compared with a median score of four set by the author of the test. The mean score for the group was eleven. Twelve boys and thirteen girls had scores that exceeded the mean score for the group. The scores for the girls exceeded the scores for the boys in twelve cases and only four pairs of students had the same scores. Thus, twenty-five of the thirty pairs of students considered had scores above the average.

Pupils No. 13, 14, 19, 28, and 29 had equal scores. The greatest variation showed up in students No. 5. The difference in this case was twelve points. Pupils No. 7, who showed the greatest variation in scores on the vocabulary test, had scores that varied by only ten points in favor of the boy on the portion of the test that measured the ability to understand the meaning of a paragraph. On the whole, the scores of the pairs were fairly well distributed and even.

In the over-all view, those who had high scores on the vocabulary test, generally had high scores on the

ability to understand the general significance of a paragraph. However, it was not always true that those who had low scores on the vocabulary test had low scores on the ability to understand the general significance of a paragraph. These two observations would, however, tend to indicate that vocabulary and ability to comprehend the meaning of connected sentences are closely related.

The second portion of the paragraph test measured the ability of boys and girls to denote details. Scores for this portion of the test are shown in Table 4.

TABLE 4

SCORES FOR THIRD GRADE BOYS AND GIRLS ON ABILITY TO DENOTE DETAILS

Pupil	Scores		Pupil	Scores	
	Boys	Girls		Boys	Girls
1	7	4	16	7	11
2	11	14	17	8	10
3	12	17	18	8	7
4	8	9	19	7	9
5	2	7	20	8	3
6	9	7	21	5	11
7	17	5	22	9	10
8	8	11	23	5	10
9	5	11	24	8	6
10	10	8	25	9	11
11	12	11	26	5	1
12	14	14	27	8	8
13	8	8	28	10	6
14	8	10	29	9	10
15	12	11	30	8	2

The highest score possible on this phase of the test was twenty-five. The boys had a high score of fourteen, as reported by pupil No. 12, and a low score of two, made by student No. 5. The median score for the boys was eight, and the mean score was ten.

For the girls, the low score was one, as reported by pupil No. 26, and the high score was seventeen, as reported by pupil No. 3. The median score for the girls was nine, and the mean score was eight.

The median score for the group was nine, five points above the median score set up by the author of the test administered. The mean score for the group was seven. Forty-seven boys and girls had scores that exceeded the mean score for the group. Scores for the girls exceeded scores for the boys in fifteen instances, and only three pairs of students had equal scores.

Again students No. 7 showed the greatest variation in scores. The difference in their scores was twelve points in favor of the boy. Students No. 12, 13, and 27 had equal scores. For the third time, students No. 13 had equal scores. Those who had high scores on vocabulary and ability to understand the general significance of a paragraph generally were the students to make high scores on the ability to denote details.

The last portion of the paragraph test measured the ability of students to predict probable outcome. Scores

on this phase of test are shown for the boys and girls in the third grade in Table 5.

TABLE 5

SCORES FOR BOYS AND GIRLS ON ABILITY TO PREDICT PROBABLE OUTCOME

Pupil	Scores		Pupil	Scores	
	Boys	Girls		Boys	Girls
1	8	6	16	8	7
2	13	15	17	8	10
3	14	19	18	8	7
4	10	10	19	10	9
5	3	6	20	8	7
6	9	6	21	10	12
7	7	7	22	12	10
8	8	8	23	10	8
9	9	10	24	7	10
10	13	10	25	10	7
11	13	12	26	2	3
12	13	13	27	8	6
13	8	6	28	10	10
14	8	12	29	12	10
15	13	11	30	6	4

Scores on this section of the whole test ranged from a high of nineteen for both the boys and the girls to a low of two for the boys. For the boys, student No. 26 reported a low score of two while student No. 7 reported a high score of nineteen. The median score for the boys was nine as well as was the mean score. This would signify a normal distribution. Pupil No. 26 reported the low score of three, and pupil No. 3 reported a score of nineteen for the girls. The median score for the girls was ten as compared with a median score of nine for the boys.

For the group the median score was nine, three times the median score set up by the author of the test for third grade students. The mean score for the group was ten. In thirty instances the scores made by the boys and girls considered exceeded the mean score. In seventeen instances the scores for the boys exceeded the scores for the girls. In four cases the scores for the boys and girls were the same.

The scores for the pairs of students considered were more nearly equal on this portion of the test than on any of the other phases. The greatest variation was four as shown in the scores for students No. 14. Five pairs of students, Nos. 4, 7, 8, 12, and 28 had equal scores.

It is interesting to note that students No. 7 who on other phases of the test had the greatest variation in scores, had equal scores on this phase of the test. Children in the same grade will differ greatly in their reading

abilities even though they have received a similar amount and type of reading instruction. These differences in development are due to variations in intelligence, in sensory capacities, in physical condition, in background of language development, and in confusions and faulty habits in the learning process.

The nine-to-eleven-year period is one of steady progress in physical development and rather important changes in mental and social activities. The influence of the group is all important, but at the same time individual interests are beginning to appear. Boys and girls begin to develop separate interests in reading and varied materials must be available.

CHAPTER III

COMPARISON OF SCORES FOR BOYS AND GIRLS

Standardized tests are published tests which may be objectively scored and which furnish norms--standards of achievement--making it possible to compare a specific group with a much larger group of similar age or grade. There are many standardized reading tests. Among them can be found tests that measure practically all of the comprehension abilities, the study skills, general level of word recognition, vocabulary, rate of reading, accuracy and speed of oral reading, and the ability to read content subjects. Standardized tests derive their merit from the reliability with which they measure individuals within a group. Most standardized tests have been carefully constructed so that on repeated testing a pupil gets approximately the same score. The tests are relatively accurate measures of the pupil's ability in the attribute being measured by the test. They also have merit in that they can give a maximum of information in a minimum of time. They are so designed that they may be easily scored. By and large, too, they measure important attributes--reading abilities and skills--that have been thought to be of sufficient importance to warrant careful measurement. The greatest single value in

standardized tests is, however, that their norms make possible comparisons of the attainments of a class or individuals within the class in various important learnings in reading. In other words, the administration of standardized tests make it easy to tell the levels of the various abilities of a child, or of a class, in relation to the norms of the large number of children that took the test while the test was being standardized.

As has been previously stated, the vocabulary test consisted of one hundred words in five-response type. The highest possible score therefore would be one hundred. For third grade students the author of The Nelson Silent Reading Test found the median score on the vocabulary test to be twelve.

The highest possible score on each of the three phases of the paragraph test was twenty-five. The highest possible total score for an individual student on all phases of the test would be 175. In the previous chapter the scores for both boys and girls were recorded on each section of the test. The total scores on all phases of The Nelson Silent Reading Test for the thirty pairs of students considered are shown in Table 6.

It is well to recall at this point that the boys and girls were paired on the basis of their organismic ages and that their intelligence quotients did not vary more than eighteen points. Table 6 shows the comparison of total scores

TABLE 6

TOTAL SCORES ON THE NELSON SILENT READING TEST FOR BOYS AND GIRLS IN THE THIRD GRADE

Pupil	Scores		Pupil	Scores	
	Boys	Girls		Boys	Girls
1	32	26	16	32	46
2	66	79	17	32	58
3	71	98	18	32	40
4	59	44	19	54	45
5	17	39	20	33	23
6	45	39	21	52	36
7	103	27	22	68	55
8	59	41	23	51	57
9	50	57	24	46	53
10	65	48	25	43	46
11	67	68	26	20	16
12	74	79	27	47	41
13	33	31	28	55	53
14	59	61	29	60	58
15	83	61	30	37	20

on all phases of The Nelson Silent Reading Test for the boys and girls. The greatest discrepancy was in the total score of pupils No. 7. The girl had a total score on The Nelson

Silent Reading Test of twenty-seven while the boy with whom she was paired had a total score of 103. No logical explanation can be offered for this difference. The intelligence quotients for the pair were 119 for the girl and 113 for the boy. This difference in intelligence quotients does not bear out the wide difference in total reading ability score.

The scores of pupils Nos. 13, 14, 28, and 29 varied by only two points. Intelligence quotients for these students varied only four, eighteen, two, and four points respectively.

In eighteen cases the total scores for the boys exceeded the total scores of the girls. The mean score for the girls was forty-six and the mean score for the boys was fifty-two. Sixteen boys and thirteen girls had total scores in excess of the mean. This means that a total of twenty-nine students had grades above the average for the group.

The boy who had the highest intelligence quotient, pupil No. 12, had a total score of seventy-four. The girls who had the highest intelligence quotients, pupils Nos. 6 and 13, had total scores of thirty-one and thirty-nine respectively. On the other hand, the girl who had the lowest intelligence quotient in her group, had a total score of forty-one, eleven and three points, respectively, higher than the two girls with the highest intelligence quotients. These data would indicate that in the case of the boys, a high intelligence quotient would predict a high reading

ability score. For the girls, in a majority of cases the same seems to hold true.

Table 6 tends to show that a high intelligence quotient will generally predict a high score in reading ability. It was not shown that the student with the lowest intelligence quotient made the lowest reading ability score. However, Table 6 does show that both boys and girls of equal organismic ages have approximately equal reading abilities.

As has been shown in the preceding chapter, the median score on each phase of The Nelson Silent Reading Test for the group of third grade students considered exceeded the median score set up by the author of the test. It was felt that the mean score of the tests would be a more accurate basis for comparison. Table 7 has been prepared to show a comparison of median and mean scores for boys and girls, as well as for the group on all phases of The Nelson Silent Reading Test.

A first glance at Table 7 shows very little difference in the median and mean scores for boys and girls on all phases of the reading ability test. Also, mean and median scores for the boys and for the girls closely parallel those for the entire group.

The mean score for the entire group on the vocabulary test was twenty-five. The mean score for the girls on this phase of the test was nearer the mean for the group. The mean score for the boys was 19.6 as compared with a mean

TABLE 7

MEAN AND MEDIAN SCORES FOR BOYS, GIRLS, AND FOR GROUP ON ALL PHASES OF THE NELSON SILENT READING TEST

Test Phase	Mean			Median		
	Boys	Girls	Group	Boys	Girls	Group
Vocabulary	19.6	24	25	28	18	26
Ability to understand the general significance of a paragraph	8	10	11	9	10	10
Ability to denote details	10	8	7	8	9	9
Ability to predict probable outcome	9	9	9	9	10	9
Total score	54	49	51	52	46	53

score of twenty-four for the girls. The median score for the group on the vocabulary test was twenty-six. For the boys, the median score was twenty-eight, and for the girls, eighteen.

Eleven was the mean score for the group on the portion of the test that measured the ability to understand the general significance of a paragraph. The mean score for the girls was two points above the mean score for the boys and one point below the mean score for the group. The median

score on this phase of the test for the group was ten and it was also the median score for the girls. The median score for the boys was one point less.

On the test to determine the ability to denote details the group had a mean score of seven. The mean scores for both the boys and girls exceeded that of the group. The mean score for the boys was three points above that for the group. The boys had a median score of eight, just one point above that for the girls and for the group.

The mean score for the group on ability to predict probable outcome was ten. The mean scores for both the boys and girls were the same as that for the group.

The mean score for the group on the entire test was fifty-one. The mean score for the boys, fifty-four, exceeded the mean score for the girls by five points. The median score for the boys was just one point below the median score for the entire group. The median score for the girls was forty-six.

The highest mean score for the boys on the paragraph test was on the section measuring the ability to understand the general significance of a paragraph and ability to predict probable outcome. There is no valid explanation for the lack of uniformity of scores on this phase of the test for the girls.

To be able to explain the differences in reading ability scores, one would have to be familiar with the individual

differences of the pupils. This implies more than a vague knowledge of home background, personality and emotional problems, and reading-achievement level.

By referring to the tables in Chapter II of the present study, it is observed that the boys who had the highest intelligence quotients also had high scores on the vocabulary test and that the ones who had low intelligence quotients had low scores on the vocabulary test. This was not true in the case of the girls. The girl with the lowest intelligence quotient had a low score on the vocabulary test, but one of the girls with the highest intelligence quotient also had a low score on the vocabulary test.

In ability to understand the general significance of a paragraph, the boys who made the high scores were the boys with high intelligence quotients. The same was generally true for the girls. Intelligence quotients that are high seem to predict a high score on ability to understand the general significance of a paragraph.

For both the boys and the girls those with high intelligence quotients generally had high scores on the phase of the test that measured the ability to denote details. Also, those with low intelligence scores generally had low scores on this phase of the test.

On ability to predict probable outcome, the students with high intelligence quotients had high scores, and the students with low intelligence quotients had low scores.

In most cases, the scores for the boys exceeded the scores for the girls on this phase of the whole test.

CHAPTER IV

CONCLUSIONS AND RECOMMENDATIONS

The present study has compared the reading ability scores of boys and girls of equal organismic ages in the third grade of the Graham, Texas, Elementary School to determine if there is any difference in the reading ability scores of boys and girls. The organismic ages of the students considered did not vary more than .2 of a point and the intelligence quotients for these pupils did not vary more than eighteen points. The students were given The Nelson Silent Reading Test which measured four phases of reading ability. The four phases measured were vocabulary, ability to understand the general significance of a paragraph, ability to denote detail, and ability to predict probable outcome.

Conclusions

From the results of the tests given the boys and girls in the third grade of the Graham, Texas, Elementary School, and the data presented in the preceding chapters, the following conclusions have been reached:

1. The girls had slightly higher scores on the vocabulary test than the boys.

2. The boys and girls did equally well on the test to measure ability to understand the general significance of a paragraph.

3. Scores for the girls were higher on the ability to denote detail than were those for the boys.

4. The boys had higher scores on ability to predict probable outcome than the girls.

5. The boys had higher total scores than the girls in seventeen instances as shown in Table 6.

6. Boys and girls of equal intelligence did not differ greatly in reading ability.

7. Silent reading only was considered; the results do not necessarily apply to oral reading achievement. There are many factors involved in reading which were not investigated.

8. Probably, under properly controlled conditions, there is no significant difference in the average reading ability of the two sexes.

Recommendations

On the basis of data gleaned from related studies, results of the tests administered, personal observation of third grade reading students, and discussion with other teachers of reading certain recommendations for future reference are in order:

1. There is more need for "longitudinal" research; that is, research that covers longer periods of time in

checking the relationship between reading ability and physiological, intellectual, emotional, social, and experiential maturity, respectively.

2. More diagnostic tests covering the whole range of areas discussed in this study should be used in further research in regard to the effects of reading content on children.

3. Research to find more effective ways of teaching children to read critically should be made.

4. The results of such research should be applied to teaching in the lower grades.

5. A further study might show a comparison of home background and personality adjustment between children who state that they read most of their spare time, and children who state that they seldom if ever read for pleasure.

A P P E N D I X

APPENDIX A

ORGANISMIC AGE, INTELLIGENCE QUOTIENT, SCORES ON ALL PHASES OF READING ABILITY TEST AND TOTAL SCORE FOR GIRLS IN THIRD GRADE OF THE GRAHAM, TEXAS ELEMENTARY SCHOOL

Pupil No.	Organismic Age	Intelligence Quotient	Test Phases				
			1	2	3	4	Total
1	8.4	79	12	4	4	6	26
2	9.4	101	32	18	14	15	79
3	9.9	110	42	20	17	19	98
4	8.9	106	16	9	9	10	44
5	8.2	88	13	13	7	6	39
6	7.9	122	13	13	7	6	39
7	10.0	119	11	4	5	7	27
8	8.8	94	13	9	11	8	41
9	8.8	94	26	10	11	10	57
10	9.5	111	20	10	8	10	48
11	10.1	112	32	3	11	12	68
12	10.4	117	35	16	14	13	79
13	8.6	94	11	6	8	6	31
14	9.0	108	29	11	10	12	61
15	9.5	122	28	11	11	1	61
16	9.2	93	16	12	11	7	46
17	9.2	93	28	10	10	10	58
18	8.5	99	13	13	7	7	40
19	8.9	94	18	9	9	9	45
20	8.9	102	11	2	3	7	23
21	8.7	91	32	13	11	12	68
22	9.7	104	26	9	10	10	55
23	9.3	104	30	9	10	8	57
24	9.3	103	28	9	6	10	53
25	8.9	107	16	12	11	7	46
26	9.0	85	11	1	1	3	16
27	7.9	76	13	14	8	6	41
28	9.4	107	28	9	6	10	53
29	9.5	114	28	10	10	10	58
30	8.5	89	12	2	2	4	20

APPENDIX B

ORGANISMIC AGE, INTELLIGENCE QUOTIENT, SCORES ON ALL PHASES OF READING ABILITY TEST AND TOTAL SCORE FOR BOYS IN THIRD GRADE OF THE GRAHAM, TEXAS ELEMENTARY SCHOOL

Pupil No.	Organismic Age	Intelligence Quotient	Test Phases				
			1	2	3	4	Total
1	8.4	82	11	6	7	8	32
2	9.4	116	28	14	11	13	66
3	9.9	110	30	15	12	14	71
4	8.8	100	31	10	8	10	59
5	8.2	76	11	1	2	3	17
6	7.9	115	18	9	9	9	45
7	10.0	113	53	14	17	19	103
8	8.8	104	32	11	8	8	59
9	8.8	91	28	8	5	9	50
10	9.5	102	28	14	10	13	65
11	10.1	114	28	14	12	13	67
12	10.6	124	33	14	14	13	74
13	8.6	90	11	6	8	8	33
14	8.9	91	32	11	8	8	59
15	9.5	118	44	14	12	13	83
16	9.2	83	11	6	7	8	32
17	9.2	82	11	5	8	8	32
18	8.5	106	10	6	8	8	32
19	8.9	113	28	9	7	10	54
20	8.9	113	10	7	8	8	33
21	8.2	92	28	9	5	10	52
22	9.7	109	36	11	9	12	68
23	9.3	97	28	8	5	10	51
24	9.2	92	21	10	8	7	46
25	8.9	90	19	15	9	10	44
26	9.0	89	7	6	5	2	29
27	8.1	92	23	8	8	8	47
28	9.4	105	26	9	10	10	55
29	9.5	110	29	10	9	12	60
30	8.5	75	12	11	8	6	37

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