A comparison of the abilities of third grade children in oral and written recall from listening and from silent reading

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School of Education

Thesis

A COMPARISON OF THE ABILITIES OF THIRD GRADE CHILDREN IN ORAL AND WRITTEN RECALL FROM LISTENING AND FROM SILENT READING

Submitted by

Eileen M. Cullinan

(B.S. in Ed., Gorham State Teachers College, 1942)

In Partial Fulfillment

of the Requirements for the Degree

Master of Education

1952

First Reader: Donald D. Durrell, Professor of Education
School of Ed.
Mar. 15, 1955
#3557
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CHAPTER I

INTRODUCTION

The purpose of this study is to compare the abilities of third grade children in oral recall and written recall. The study includes tests of oral and written recall from silent reading and from listening.

In this study, recall has been defined as the ability to give back unaided, orally or in writing, ideas that have been heard or read by the child. The ability to recall such material is one of the most desired outcomes of the language arts program.

Why some people can recall more readily than others can not be stated with certainty. Analytic studies of the factors relating to recall contribute to the definition of this ability.

According to Germane 1, "It is the ability to retain and recall the main points of material read which makes the acquisition and application of knowledge possible. Time and effort spent in developing skill in rapid reading and in organization are wasted unless the essential ideas are retained."

In a report of the Thirty-Sixth Yearbook Committee Gray 2 summarized with a statement to the effect that reading is one of the higher mental processes when considered in its broad sense, and that it includes all the

1 Charles E. Germene and Edith G. Germene, Silent Reading (Row, Peterson Co., White Plains, N. Y. 1930) P. 86

factors of thinking, such as reflection, evaluation, and a clearness of meaning.

Since the ability to recall has been recognized as one of the essential phases of the reading program, and since there is at present no test of recall available for use in the primary grades, this study proposed to construct a usable means of measuring oral and written recall from silent reading and from listening. In this study neither the fluency of expression nor the sequence of ideas expressed was measured.

The test was in four parts: oral recall from reading, oral recall from listening, written recall from reading, and written recall from listening. Each part of the test included a short selection and a longer selection written for this test. These paragraphs were written on a third grade reading level, and were about topics within the children's range of understanding but with which they were not likely to be familiar. The tests were constructed so as to be scored objectively.

Seventy-five third grade children in New Britain, Connecticut participated in the study. Intelligence test scores, reading achievement scores, mental ages, and chronological ages were obtained for descriptive purposes.

The purposes of the investigation were:

1. To compare oral recall from listening with oral recall from reading.

2. To compare written recall from reading with written recall from listening.

3. To compare oral recall from listening with written recall from listening.

4. To compare oral recall from reading with written recall from reading.
The text on this page is not legible due to the quality of the image. It appears to be a page from a document, possibly containing text in English, but the content cannot be accurately transcribed.
5. To compare oral recall from listening with written recall from reading.

6. To compare oral recall from reading with written recall from listening.

7. To compare the total scores for recall from reading to the total scores of recall from listening.

8. To compare the total oral recall with the total written recall scores.
CHAPTER II

REVIEW OF RESEARCH

The mental factors involved in oral and written recall have yet to be defined in exact terms. Research studies of various approaches to the problem have revealed that recall is an ability which can be improved through teaching. Experiments have indicated also that intelligence is not the sole determinant of a person's ability to recall.

Among the studies which conclude that recall can be taught is an experiment conducted by Foster in which a series of workbook exercises was presented to sixth grade pupils in an experimental group. Final test results showed that the experimental group had made significant gains over the control group both in written recall and in recalling material in sequence. In an evaluation of exercises to improve recall in grade five Scott found superior gains in oral recall in the experimental group. Significant gains were also found in oral and written recall through the use of the outline study method. Burke's study of the development of oral in grade six through the use of workbook exercises led to similar findings.

---


Whether the way in which material is presented affects recall was studied by Bates 6, Goldstein 7, Joney 8, and Miller 9. Bates's study of third grade children indicates that oral presentation is superior to silent reading at that level. Girls were superior to boys in silent reading retention. Miller's study of third and fourth grade children showed that comprehension through hearing was better than comprehension through reading, with the fourth grade showing less difference than the third grade. Joney's study of recall in the fourth grade showed that on both hard and easy material the hearing comprehension is superior. Goldstein based his study on an adult population, and found that the superiority of listening diminishes as the material increases in difficulty. He found that listening was more favorable to the less intelligent adults.

6 Methyl Bates, "A Comparison of Retention Following Oral presentation or Silent Reading in Grade Three," (unpublished Master's thesis, Boston University, 1950)

7 Harry Goldstein, "Reading and Listening Comprehension at Various Controlled Rates," Contributions to Education, No. 821, Teachers College, Columbia University)

8 Olive Joney, "Comparison of Reading and Listening in Teaching Factual Materials in Grade Four," (unpublished Master's thesis, Boston University, 1942)

9 Eleanor Miller, "The Relation of Hearing Comprehension to Reading Comprehension in Grades Three and Four," (unpublished Master's thesis, Boston University, 1941)
Comparisons of oral and written recall have been made by Bucknam ¹⁰, Elliot ¹¹, and Potter ¹². Bucknam's study in grade five concluded that unaided oral recall was superior to unaided written recall, with a greater difference on short selections than on long selections. Potter found in grades three to six that oral recall was better on difficult material, but that written recall was better on easy material. Elliot said that the relation of oral and written recall in grade five was high enough to assume that the two types of recall correspond. She also found that written recall corresponded with reading achievement.

Whether a single reading has any affect on recall has also been studied. Yoakam ¹³ says that the effect of a single reading varies in efficiency with the grade taking the test. Pupils in lower grades show much less ability than pupils in the upper grades. Howe ¹⁴ made a study of the effect of a single reading with fifth grade children, and found that there was no real difference between recall of material that was read only once and recall of material that was left before the child.

¹⁰ Margaret Bucknam, "A Comparison of the Fluency of Oral Recall With Written Recall in Silent Reading in Geography in Grade Five," (unpublished Master's thesis, Boston University, 1941)

¹¹ Vera Elliot, "Comparisons of the Factors Related to Oral and Written Recall," (unpublished Master's thesis, Boston University, 1943)

¹² Ruth Potter, "Comparison of Oral Recall with Written Recall in Silent Reading in the Middle Grades," (unpublished Master's thesis, Boston University, 1934)

¹³ Gerald Yoakam, "The Effect of a Single Reading," University of Iowa Studies Vol. II, No. 7 (Iowa City, 1922)

In a study of retention in classroom learning Tiedman used a multiple choice test to find the rate of forgetting. He found that initial difficulty appears not to be a determining factor in the rate of forgetting.

Smith's study of ninth grade pupils found a close correlation between the ability to see relationships and the ability to recall information. Smith concluded that the abilities indicated by intelligence were not necessarily the abilities involved in learning the science material he tested.

Recall and recognition were studied in a psychological experiment by Peixotto and Philip, who stated that "The learning span for recall is so much shorter than that for recognition that the learning proceeds much more slowly in the former."

The pupil's comprehension of materials read is not known to the teacher from results of multiple choice testing, according to Courtney's study of ninth grade pupils. In a later study done with Bucknam and Durrell, Courtney says that "wide variations in recognition and unaided

---


18 Paul Courtney, "Recall by Reproduction vs. Recall by Recognition," (unpublished Master's thesis, Boston University, 1941)

recall show a possible reason for pupil failure in verbal subjects even though the reading test score shows a high reading comprehension." The need for measuring the fluency of recall in analysing the reading ability of pupils was pointed out in this study.
CHAPTER III

PLAN AND PROCEDURES

I. Plan: The purpose of this study is to compare the abilities of third grade children in oral and written recall from silent reading and from listening.

II. Conduct of the study

A. Selection of material

1. In selecting topics for the original stories which make up the test, an informal survey of children's magazines, newspapers, and reference books was used as a guide. The vocabulary was checked with the third grade vocabulary lists of the Scott Foresman Basic Readers for third grade \(^{20}\) and with Gates' Word List \(^{21}\).

2. The key for scoring the test objectively consisted of a check list for each story of the ideas expressed in that story. Each idea recalled by the child was checked on a score sheet.

3. The directions for administering the tests differed slightly with each test.

a. Written recall from silent reading

The children were given copies of the story and told

\(^{20}\) Scott Foresman, Company, New York, N. Y.

\(^{21}\) Arthur I. Gates, "Reading Vocabulary for the Primary Grades", (New York: Bureau of Publications, Teachers College, Columbia University,) 1926
to read it carefully to themselves. After reading the story, they were to turn it face down, and write on a separate sheet all that they could remember. They were told that it was not necessary to use the exact words of the story, and that spelling would not count. No time limit was imposed. The teacher collected the copies of the story while the children were writing so that they would not refer to them.

b. Written recall from listening

The story was read to the children by the teacher in a slow, but natural, tone. The story was read only once with no further explanation, then the children were told to write all that they could remember. Spelling and exact wording were again not discredited. There was no time limit.

c. Oral recall from listening

Individual testing was necessary in order to get an unbiased score. The child was told to listen to the story so that he could tell all that he remembered. In order to adjust to any subjectivity that might occur on the part of the testers, any questionable response was written at the bottom of the check list.

d. Oral recall from reading

Testing was individual. To conserve time three children were given copies of the test simultaneously,
and told to read it carefully. When they indicated that they had read the story to their own satisfaction, the responses were checked by the tester.

B. Subjects of the study

Seventy-five third grade children in New Britain, Connecticut took part in the study. They were from middle and lower income groups and had a variety of home backgrounds and social experiences. The distribution of chronological ages, mental ages, and reading achievement scores are shown in Tables I, II, and III.

C. Assumptions made

1. No previous testing or preliminary training preceded or accompanied the testing of this study.

2. The test is a reliable means of measuring oral and written recall.

3. Individual reading achievement will be reflected in tests which depend upon silent reading.
**TABLE I**

**CHRONOLOGICAL AGE DISTRIBUTION**

<table>
<thead>
<tr>
<th>Score</th>
<th>f</th>
<th>d</th>
<th>fd</th>
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<tbody>
<tr>
<td>10.3-10.5</td>
<td>1</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>10.0-10.2</td>
<td>0</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>9.8-9.11</td>
<td>1</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>9.5 - 9.7</td>
<td>1</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>9.2 - 9.4</td>
<td>0</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>8.11-9.1</td>
<td>4</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>8.8-8.10</td>
<td>13</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>8.5 - 8.7</td>
<td>19</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>8.2 - 8.4</td>
<td>21</td>
<td>-1</td>
<td>-21</td>
</tr>
<tr>
<td>7.11-8.1</td>
<td>12</td>
<td>-2</td>
<td>-24</td>
</tr>
</tbody>
</table>

Mean -- 8.5

A mean chronological age of eight years and five months in January is a normal distribution for third grade.
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
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<td></td>
<td>0.1</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>0.0</td>
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</table>

E - coil
TABLE II

MENTAL AGE DISTRIBUTION

<table>
<thead>
<tr>
<th>Score</th>
<th>f</th>
<th>d</th>
<th>fd</th>
</tr>
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<tr>
<td>9.10-10.2</td>
<td>2</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>9.5 - 9.9</td>
<td>7</td>
<td>3</td>
<td>21</td>
</tr>
<tr>
<td>9.0 - 9.4</td>
<td>8</td>
<td>2</td>
<td>16</td>
</tr>
<tr>
<td>8.7 - 8.11</td>
<td>13</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>8.2 - 8.6</td>
<td>18</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7.9 - 8.1</td>
<td>8</td>
<td>-1</td>
<td>-8</td>
</tr>
<tr>
<td>7.4 - 7.8</td>
<td>12</td>
<td>-2</td>
<td>-24</td>
</tr>
<tr>
<td>6.11 - 7.3</td>
<td>5</td>
<td>-3</td>
<td>-15</td>
</tr>
</tbody>
</table>

Mean —— 8.5

The mental ages are based on the results of the Kuhlmann-Anderson Intelligence Test 22 which was administered in November, 1951.

The mean age of eight years and five months is equated to an intelligence quotient with a mean of 100.6, which is an average for third grades of the total population.

---

TABLE III

DISTRIBUTION OF READING ACHIEVEMENT SCORES

<table>
<thead>
<tr>
<th>Score</th>
<th>f</th>
<th>d</th>
<th>fd</th>
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</thead>
<tbody>
<tr>
<td>22-24</td>
<td>17</td>
<td>3</td>
<td>51</td>
</tr>
<tr>
<td>19-21</td>
<td>7</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>16-18</td>
<td>10</td>
<td>1</td>
<td>10</td>
</tr>
<tr>
<td>13-15</td>
<td>7</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10-12</td>
<td>3</td>
<td>-1</td>
<td>-3</td>
</tr>
<tr>
<td>7-9</td>
<td>10</td>
<td>-2</td>
<td>-20</td>
</tr>
<tr>
<td>4-6</td>
<td>14</td>
<td>-3</td>
<td>-42</td>
</tr>
<tr>
<td>0-3</td>
<td>4</td>
<td>-4</td>
<td>-16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>72</th>
<th>-6</th>
</tr>
</thead>
</table>

M = 13.75

The above scores were obtained on the Detroit Reading Test for Third Grade. A score of thirteen is the equivalent of a grade level of 3.5. The test was administered in January, 1952. The mean score of 13.75 indicates that the group was average in reading achievement.

23 Detroit Reading Test For Third Grade, World Book Company, Yonkers-on-Hudson, N. Y.
<table>
<thead>
<tr>
<th></th>
<th>0.1</th>
<th>0.2</th>
<th>0.3</th>
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</thead>
<tbody>
<tr>
<td>0.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.9</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
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<td></td>
</tr>
</tbody>
</table>
CHAPTER IV

ANALYSIS OF DATA

Seventy-five third grade children were studied to compare their abilities in oral and written recall from listening and from silent reading. Comparisons were made of the total scores from written recall with the total scores from oral recall. Comparisons were also made of the results of listening tests with the results of the reading tests. Intercorrelations were made to show the relationship of the various forms of presentation.

The statistical data with accompanying interpretations is shown in tables presented in the following order:

Table IV  A Comparison of Oral Recall from Listening with Oral Recall from Reading
Table V   A Comparison of Written Recall from Listening with Written Recall from Reading
Table VI  A Comparison of Oral and Written Recall from Listening
Table VII A Comparison of Oral and Written Recall from Silent Reading
Table VIIIA Comparison of Oral and Written Recall
Table IX  A Comparison of Listening and Reading
Table X to XV Inter-test Correlations
TABLE VI

A COMPARISON OF ORAL AND WRITTEN RECALL FROM LISTENING

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>Diff</th>
<th>SEDiff</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>7.58</td>
<td>3.62</td>
<td>.42</td>
<td>.10</td>
<td>.616</td>
<td>.162</td>
</tr>
<tr>
<td>Written</td>
<td>7.68</td>
<td>3.87</td>
<td>.45</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The difference between the means in Table VI indicates an insignificant difference between oral and written recall on these tests.

TABLE VII

A COMPARISON OF ORAL AND WRITTEN RECALL FROM READING

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>Diff</th>
<th>SEDiff</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>8.66</td>
<td>3.76</td>
<td>.43</td>
<td>3.73</td>
<td>.554</td>
<td>6.73</td>
</tr>
<tr>
<td>Written</td>
<td>4.95</td>
<td>3.01</td>
<td>.35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Oral recall from reading was superior to written recall from reading on these tests. This is to be expected as the combination of reading and writing responses is more difficult for the children who have poor achievement in both fields.
TABLE IV
A COMPARISON OF ORAL RECALL FROM READING AND FROM LISTENING

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>Diff</th>
<th>SEdiff</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td>7.58</td>
<td>3.62</td>
<td>.42</td>
<td>1.10</td>
<td>.601</td>
<td>1.83</td>
</tr>
<tr>
<td>Reading</td>
<td>8.68</td>
<td>3.76</td>
<td>.43</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table IV shows a slightly higher mean for the oral recall from reading. The standard deviations and the standard errors for these tests were almost the same. The difference between the means is too small to be significant.

TABLE V
A COMPARISON OF WRITTEN RECALL FROM LISTENING AND FROM READING

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>SEM</th>
<th>Diff</th>
<th>SEdiff</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td>7.68</td>
<td>3.87</td>
<td>.45</td>
<td>2.73</td>
<td>.571</td>
<td>4.08</td>
</tr>
<tr>
<td>Reading</td>
<td>4.95</td>
<td>3.01</td>
<td>.35</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table V shows that written recall from listening to a story is superior to written recall from silent reading.
TABLE VIII

A COMPARISON OF ORAL AND WRITTEN RECALL

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SEM</th>
<th>Diff.</th>
<th>SE diff.</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>16.46</td>
<td>.764</td>
<td>3.46</td>
<td>1.104</td>
<td>3.145</td>
</tr>
<tr>
<td>Written</td>
<td>13.00</td>
<td>.798</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

The critical ratio of 3.145 obtained in Table VIII indicates that oral recall is more favorable to third grade children.

TABLE IX

A COMPARISON OF LISTENING AND READING

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SEM</th>
<th>Diff.</th>
<th>SE diff.</th>
<th>CR</th>
</tr>
</thead>
<tbody>
<tr>
<td>Listening</td>
<td>14.04</td>
<td>.766</td>
<td>1.51</td>
<td>1.058</td>
<td>1.424</td>
</tr>
<tr>
<td>Reading</td>
<td>12.53</td>
<td>.731</td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>

Table IX shows that recall from listening was not significantly different from recall from silent reading.
<table>
<thead>
<tr>
<th>No.</th>
<th>1956-60</th>
<th>1961-65</th>
<th>1966-70</th>
<th>1971-75</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**STATIONS**

Values for strength in sections a.

<table>
<thead>
<tr>
<th>No.</th>
<th>1956-60</th>
<th>1961-65</th>
<th>1966-70</th>
<th>1971-75</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Detailed:**

Values have been adjusted for wind pressures.
Tables X to XV show the inter-test correlations as computed on the Durost-Walker Correlation Charts. The high correlations would seem to indicate that the tests were measuring many of the same basic elements. The four types of recall tested have much in common.

TABLE X

CORRELATIONS OF ORAL RECALL FROM LISTENING

<table>
<thead>
<tr>
<th>Oral recall from listening</th>
<th>Oral recall from reading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.59</td>
</tr>
<tr>
<td>Oral recall from listening</td>
<td>Written recall from listening</td>
</tr>
<tr>
<td></td>
<td>.60</td>
</tr>
<tr>
<td>Oral recall from listening</td>
<td>Written recall from reading</td>
</tr>
<tr>
<td></td>
<td>.47</td>
</tr>
</tbody>
</table>

TABLE XI

CORRELATIONS OF WRITTEN RECALL FROM LISTENING

<table>
<thead>
<tr>
<th>Written recall from listening</th>
<th>Written recall from reading</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.65</td>
</tr>
<tr>
<td>Written recall from listening</td>
<td>Oral recall from listening</td>
</tr>
<tr>
<td></td>
<td>.60</td>
</tr>
<tr>
<td>Written recall from listening</td>
<td>Oral recall from reading</td>
</tr>
<tr>
<td></td>
<td>.66</td>
</tr>
</tbody>
</table>

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24 Durost-Walker Correlation Chart, World Book Co., Yonkers-on-Hudson, N. Y., 1938
A NEW MAKING OF A CLASSICAL

A NEW MAKING OF A CLASSICAL

A NEW MAKING OF A CLASSICAL

Oriental and Western Art

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### TABLE XII

**CORRELATIONS OF ORAL RECALL FROM READING**

<table>
<thead>
<tr>
<th>Arithmetic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral recall from reading</td>
<td>Oral recall from listening</td>
</tr>
<tr>
<td>Oral recall from reading</td>
<td>Written recall from reading</td>
</tr>
<tr>
<td>Oral recall from reading</td>
<td>Written recall from listening</td>
</tr>
</tbody>
</table>

### TABLE XIII

**CORRELATIONS OF WRITTEN RECALL FROM READING**

<table>
<thead>
<tr>
<th>Arithmetic</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Written recall from reading</td>
<td>Oral recall from listening</td>
</tr>
<tr>
<td>Written recall from reading</td>
<td>Oral recall from reading</td>
</tr>
<tr>
<td>Written recall from reading</td>
<td>Written recall from listening</td>
</tr>
</tbody>
</table>
3.  
4.  
5.  
6.  
TABLE XIV

CORRELATION OF RECALL FROM READING WITH RECALL FROM LISTENING

<table>
<thead>
<tr>
<th>Total recall from reading</th>
<th>Total recall from listening</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.76</td>
</tr>
</tbody>
</table>

TABLE XV

CORRELATION OF ORAL RECALL WITH WRITTEN RECALL

| Total oral recall | Total written recall | .74 |

The correlations of the total scores as shown in Tables XIV and XV would seem to indicate that the children who did well on one test were likely to do well on the others, and that those who were low on one test were low on the other tests.
To Alice

Alice, I have come into possession of a book or manuscript that contains a statement about your ancestry. May I ask you to identify any relatives who may have been mentioned in it?

Yours,

[Signature]

June 1925

Page 19

This is a page from a book or manuscript that contains a statement about someone's ancestry. The author is asking to identify any relatives mentioned in it. The page is written in English and appears to be a letter or a note.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. Summary

The purpose of this study was to compare the abilities of third grade children in oral and written recall from silent reading and from listening. The test was in four parts: oral recall from silent reading, oral recall from listening, written recall from silent reading, and written recall from listening. Original paragraphs were constructed, and check lists for objective scoring were made for each of the stories. Seventy-five third grade children participated in the testing. The following data show the results of the tests:

1. A comparison of oral and written recall showed a mean score of 16.46 for oral recall and a mean score of 13.00 for written recall. The difference of 3.46 indicates that the oral recall was more favorable to the third grade children.

2. A comparison of recall from listening with recall from reading showed a mean score of 14.04 for listening and a mean score of 12.53 for reading. The difference of 1.51 is not significant.

3. Oral recall from listening correlated .59 with oral recall from reading.

4. Oral recall from listening correlated .60 with written recall from listening.

5. Oral recall from listening correlated .47 with written recall from reading. This was the lowest of the inter-test correlations.
6. Written recall from reading correlated .65 with written recall from listening.
7. Oral recall from reading correlated .63 with written recall from reading.
8. The total recall from reading correlated .76 with the total recall from listening.
9. Total oral recall correlated .74 with total written recall.

II. Conclusions

The high inter-test correlations seem to indicate that the four types of tests were measuring a common factor. The oral recall from listening and the written recall from reading had the lowest correlation, as would be expected, since the former involved neither reading nor writing, and the latter included both—a double hurdle for the low achiever.

III. Recommendations for further research

A. Correlations of oral and written recall with intelligence quotients, based on a group with a wider range of abilities.
B. Measurement of the sequence of ideas recalled.
C. The development of a scale for measuring the fluency of expression in oral and written recall.
D. The establishment of the reliability of the test by dividing the testing group into four parts, and presenting the four forms of the test in rotation.
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BIBLIOGRAPHY


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Seeing Eye Dogs

Seeing Eye dogs go to school for three months to learn how to lead a blind person. The dogs learn to obey when they are told to go "Right", "Left", or "Forward". Then they have to learn not to obey if it is not safe.

A blind person goes to the school for one month to learn how to use his dog. Other people should not pet a Seeing Eye dog or talk to one. He is the eyes for the blind man, and must take care of him. A Seeing Eye dog costs $150.00.
Seeing Eye Dogs - Check list of ideas recalled

Seeing Eye dogs go to school for three months to learn to lead a blind person.

They learn to obey when they are told to go right, left, or forward.

They learn not to obey when it is not safe.

A blind person goes to the school for one month to learn how to use his dog.

Other people should not pet the dog or talk to it.

He is the eyes for the blind person.

Seeing Eye dogs cost $150.
Strange - But True - Animal Stories

There have been many interesting stories told about wild animals. Some of the stories are so strange that it is hard to believe that they are true.

When an animal trainer says that he has a kangaroo that can box, he is telling a true story. Most kangaroos box with each other when they are playing. They do not have to take boxing lessons from a man.

Elephants are not afraid of mice. Many times people say that elephants are afraid that mice will get up into their trunks, but that is not true. If a mouse did get into the trunk, the elephant would sneeze it out. It is not true that elephants drink through their trunks either. They suck up water and squirt it into their mouths.

A deer does get new horns each year—even the big moose whose antlers spread more than six feet across. The antlers break off each year without hurting the animal at all. In a short while the new antlers begin to grow. The antlers may grow as much as three inches in one week.

Another story that is not true is that porcupines shoot quills at their enemies. Sometimes when a porcupine thumps its tail on the ground, a few loose quills will fly out. But the only way it can really hurt an enemy is when the enemy tries to bite the porcupine. The enemy will get a mouthful of sharp quills.
Strange But True Animal Stories- Check list of ideas

- Kangaroos can box.
- They do not have to take boxing lessons.
- Elephants are not afraid of mice.
- Elephants could sneeze rice out of their trunks if they get in.
- Elephants do not drink through their trunks.
- Elephants suck up water with their trunks and squirt the water into their mouths.
- A deer gets new antlers every year.
- It does not hurt a deer to lose its antlers.
- Antlers may grow three inches in one week.
- Porcupines do not shoot quills at their enemies.
- If an enemy attacks a porcupine, he will get a mouthful of quills.
Jim's Game

Jim was playing a game by himself, while he waited for his mother to come from town. He was counting all the moving things he could see. First he saw some ants building a house. Then he saw a mother robin flying to her nest. Soon a lady went by with her two little girls. One of the little girls was trying to catch a leaf that was blowing about. Then Jim saw the bus. He ran to the corner to meet his mother.
Jim's Game -- Check list of ideas recalled

— Jim was playing a game by himself.
— While he waited for his mother to come from town.
— He was counting all the moving things he could see.
— He saw some ants building a house.
— He saw a mother robin flying to her nest.
— A lady went by with two little girls.
— One of the little girls was trying to catch a leaf that was blowing.
— Jim saw the bus.
— He ran to meet his mother.
Yellowstone is the oldest and the largest of all the national parks in the United States. Hundreds of people go there every year to see all the wonderful sights. In one part of the park you can stand and look down for eight hundred feet, and all the stones you will see will be yellow.

You will see steam shooting high in the air. The guide will tell you that down under the ground there are some very hot rocks. When water from underground springs goes over the rocks, it makes so much steam that it comes right up through the ground. The steam you see is called a geyser. One of the geysers is named "Old Faithful" because it shoots steam up into the air every hour all day and all night. It never misses a day.

You will like the bears in Yellowstone Park. There are many of them, and they like to beg for food from travelers. Wild buffaloes live out there too. If you want to see many kinds of birds, just look around carefully. There are three hundred different kinds of birds in the park.

Another sight you will enjoy is the petrified forest. Some trees were covered up for many years. After a long time they changed to stone. Workers have uncovered these trees. If you have ever seen a stone that you thought was a piece of bark, it may have come from the petrified forest of the Yellowstone National Park.
Yellowstone National Park is the oldest and largest in the United States.

Hundreds of people go there every year to see the sights.

In one place you can look down 800 feet and all the stone is yellow.

You see steam shooting high in the air.

There are springs and hot rocks under the ground.

The water on the hot rocks makes so much steam it comes up through the ground.

The steam that shoots up in the air is called a geyser.

Old Faithful is a geyser that shoots steam every hour.

Old Faithful never misses a day.

There are many bears that beg for food from travelers.

Wild buffaloes live in Yellowstone Park.

There are 300 different kinds of birds there.

There is a petrified forest.

The trees have turned to stone.
Fireboats

Fireboats are very much like fire trucks. They are used to put out fires on other boats. They also help to put out fires in buildings close to the water. Engines on the fireboat suck up water from the sea and pump it out through big hoses. The water can go high in the air.

The fireboats put out many fires that the fire trucks cannot get to. The largest fireboat in the world is in New York City. It pumps as much water as twenty fire trucks.
Fireboats - Check list of ideas recalled

--- Fireboats are like fire trucks.
--- They put out fires in other boats.
--- They put out fires in buildings close to the water.
--- Engines on the fireboat suck up water from the sea.
--- The engines pump the water out through big hoses.
--- The water can go high in the air.
--- The fireboats put out fires that trucks cannot get to.
--- The largest fireboat in the world
--- is in New York City.
--- It pumps as much water as twenty trucks.
Colors can make you happy, and colors can make you tired. Colors can make you feel cool, and colors can make you feel warm. Do you believe it? People have proved that this is true.

Light blue and light green are cool colors. If you are in a room that has light blue walls, a gray rug, and light furniture, you will feel cooler than you would feel in a room that had a bright rug, dark furniture, and dark curtains.

In summer you feel cooler in light blue or white clothes than you would feel in dark blue or brown.

In schools and factories the walls are often painted pale green because people do not get so tired from this color.

When you are choosing clothes to wear, you think of colors. Would you like to see a girl wearing a pretty red skirt and an orange blouse? Some colors do not go together. They make your eyes tired even though you do not realize it.

In your homes the rooms that do not get much sunshine need bright warm colors. Yellow is one of the brightest and warmest colors. It is a favorite color for kitchens. Red is a warm color too.

In the springtime bright colored flowers, green leaves on the trees, and the bright feathers of robins and other birds make people feel happy.

Many people like to have a vacation in the fall so they can ride to the mountains and see the beautiful red and gold leaves. Color is all around us.
Colors - Check list of ideas recalled

--- Colors can make you happy.
--- Colors can make you tired.
--- Colors can make you feel cool.
--- Colors can make you feel warm.
--- Light blue and light green are cool colors.
--- A room with light walls and furniture makes you feel cool.
--- In summer light-colored clothes make you feel cooler.
--- In schools and factories the walls are painted light green because people do not get tired from this color.
--- Some colors do not go together.
--- Some colors together make your eyes tired.
--- Rooms that don't get much sunshine need bright colors.
--- Yellow is a bright warm color.
--- Yellow is a favorite color for kitchens.
--- Red is a warm color.
--- In spring green leaves, pretty flowers, and bright feathers on birds make people happy.
--- Many people like the bright-colored leaves in fall.
--- Color is all around us.
What We Get From Cottonseeds

When cotton is picked, it is full of seeds. These seeds must be taken from the cotton before it can be made into cloth. Many tons of seeds used to be thrown away until men learned how to use the seeds for making other things.

After the lint, or cotton, has been removed, the seeds are crushed to get the cottonseed oil. From the cottonseed oil they make salad oil, margarine, and shortening for your mother's pies and cookies. The crushed seeds or the oil from them is also used in making soap, candles, paper, phonograph records, dyes, and linoleum.

Cottonseed cakes are good for cows and hens to eat.
What We Get From Cottonseeds — Check list of Ideas

——— Cotton is full of seeds.
——— The seeds have to be removed before they make cloth.
——— Many tons of seeds used to be thrown away.
——— Men have learned to use the seeds.
——— After the lint has been removed, the seeds are crushed to get cottonseed oil.
——— Cottonseeds and cottonseed oil are used for:
   —— Margarine
   —— Salad oil
   —— Shortening
   —— Soap
   —— Candles
   —— Paper
   —— Dyes
   —— Records
   —— Linoleum
——— Cottonseed cakes are fed to cows and hens.
Luther Burbank

Luther Burbank was a man who loved working with plants and flowers. He had a large farm in California, and spent many hours in his garden every day doing wonderful things. He liked to try new ideas with his plants to see if he could make them bigger and better.

He would save only the seeds from his very best plants to use the next year. In a few years his potatoes were bigger and tasted better than anyone else's. Many farmers came to visit him to see how he did it.

Luther Burbank also did some experiments to see if he could grow some new kinds of fruit. He grew some oranges, raisins, and grapefruit that didn't have any seeds in them. To make new and better kinds of fruit, he grafted branches from some of his best trees onto the limbs of other good trees. Grafting means cutting the bark a little and fixing the new branch so that it will grow on another tree. After a few years a new kind of fruit will start to grow.

Luther Burbank tried the same kind of experiments with flowers. The new flowers were so beautiful that people all over the world heard about them and wanted some of the seeds.
Luther Burbank - Check list of ideas.

- Luther Burbank loved working with plants and flowers.
- He had a farm in California.
- He liked to try new ideas with his plants.
- He would use only the best seeds.
- He grew bigger and better potatoes.
- He grew seedless oranges, raisins, and grapefruit.
- Farmers came to see how he did it.
- He grafted branches to grow better fruit.
- Meaning of grafting
- Luther Burbank experimented with flowers.
- People all over the world wanted some of his seeds.
- Luther Burbank (name)