1951

An evaluation of the effect of illustrations upon comprehension in reading on first and second grade children

Kuivila, V. Theresa

Boston University

http://hdl.handle.net/2144/20570

Boston University
BOSTON UNIVERSITY
SCHOOL OF EDUCATION

THESIS

AN EVALUATION OF THE EFFECT OF ILLUSTRATIONS UPON
COMPREHENSION IN READING ON FIRST AND SECOND GRADE CHILDREN

by

V. Theresa Kuivila

(B. Ed. Clark University, 1948)

Submitted in partial fulfillment of the requirements
for the degree of Master of Education

1951

First Reader: Helen A. Murphy, Professor of Education
Second Reader: Donald D. Durrell, Dean, School of Education
ACKNOWLEDGMENTS

The writer wishes to express her appreciation to Miss Mary A. McAuliffe, Principal of Indian Hill School in Worcester, Massachusetts, for her co-operation in allowing the study to be carried out in her building.

Thanks are extended to Miss Marie K. Holland for her work with the illustrations.
TABLE OF CONTENTS

Page

Acknowledgments.......................................................... ii
Index to Tables.............................................................. iv
Introduction and Statement of the Problem......................... v
Chapter I....Review of Previous Research......................... 1
Chapter II....Plan of the Study........................................ 16
Chapter III...Analysis of Data.......................................... 22
Chapter IV....Summary and Conclusions............................. 27
Chapter V....Suggestions for Further Research................... 29
Bibliography................................................................. 30
Appendix...................................................................... 33
## INDEX OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I ..... Mean Chronological Age and Intelligence Quotient</td>
<td>19</td>
</tr>
<tr>
<td>II ..... Rotation of Stories</td>
<td>18</td>
</tr>
<tr>
<td>III ..... Comparison of Total Comprehension Scores</td>
<td>22</td>
</tr>
<tr>
<td>IV ..... Comparison of Comprehension Scores on Story I</td>
<td>23</td>
</tr>
<tr>
<td>V ..... Comparison of Comprehension Scores on Story II</td>
<td>24</td>
</tr>
<tr>
<td>VI ..... Comparison of Scores of Girls and Boys on Non-Illustrated Stories</td>
<td>25</td>
</tr>
<tr>
<td>VII ..... Comparison of Scores of Girls and Boys on Illustrated Stories</td>
<td>26</td>
</tr>
</tbody>
</table>
CHAPTER II

REVIEW OF PREVIOUS RESEARCH
CHAPTER I

REVIEW OF THE PREVIOUS RESEARCH

A comparison between older and more modern books shows that the present tendency is towards the use of a greater number of illustrations. The publishers of primary readers have increased the quality and quantity of illustrations probably in the belief that the books are thereby improved and made more useful.¹

Illustrations in books have been in use for a long time. According to Good ² there has been considerable discussion about the first illustrated books. Several books did predate the celebrated "Orbus Pictus" written by Comenius in 1657. Two hundred years before this in Germany, books had pictures and even Latin Grammars had illustrations. The "Magnus Cato" written by Caxton had several woodcuts. In the time of Henry VIII, a "Primer" was used and it was illustrated with pictures from the Bible. A small "A. B. C. with Catechism" was read by every English school child in the reign of Queen Elizabeth and on one of the remaining pages was an illustration of a schoolroom interior with the pupils and the teacher. Woodcuts in the first period of printing were not used for decorations but were employed to make the text clearer in such fields of study as geography, travel, and animal and plant life.


Illustrations in books have changed since that period. To quote Mellinger,\(^1\)

One of the most outstanding developments in the field of children's literature lies in the realm of illustrations. One needs only to pass through the children's section of any large department store, visit a publishing house interested in publishing books for children, wander through the children's room in a public library or observe the environment of a progressive schoolroom to be aware of the great number of gayly illustrated books of all colors, shapes, and sizes which are there for the delight and instruction of the child.

A study was made by Mellinger of 821 school children to find out their choice in pictures. The following conclusions were reached:

1. The large difference in the choice indicates that the children do have decided preferences.
2. The children choose more frequently the pictures in color rather than those in black and white.
3. They preferred the three-color pictures to the two-color pictures.
4. The children choose more frequently the realistic style to the conventionalized style.

A study by Bamberger\(^2\) shows that the amount of illustrations appears to be a factor influencing choices of books.

---

Bamberger also suggests that more than a quarter of the book's space should be devoted to pictures.

Dalgliesh\(^1\) states that illustrators realize that there is a thrill for little children in everyday things and that picture books do not have to be bizarre, but, owe their charm to the familiarity of their subject matter. She believes that in many books texts could be reduced to fifty per cent and have more pictures.

Opinion has been expressed by Freeman\(^2\) that the child must be met at his own level and gradually develop his picture sense rather than to start him at an adult level. After analyzing 60 choices they concluded that highly saturated color is the most outstanding determining factor of picture interest. The size of the central figure is apparently not important in determining preference.

Petersham\(^3\) says that good illustrations for children should have color, action and fun but should also be beautiful in design and have line.

The design should be simple and the line sensitive. A good illustration does not grow old-fashioned because of treatment.

---

Goodykoontz suggests that if pictures are to serve as a motivation for reading they must be selected with the following points in mind:

1. Children like books that have at least a quarter of the space given to pictures.
2. Children like full page or fairly large pictures.
3. Children prefer strong colors.
4. Bold central groups with few but striking details are better than many details.

Warnock states that illustrations are continually changing. All illustrated books are for the child and not the adult. In all books read for pleasure there should be spirited drawing, artistic coloring and humor. The illustrations should be in keeping with the text.

Newton relates that the newer artists tend toward greater simplification and a bolder, freer technique. There is a more lavish use of strong vivid colors, although the black and white line drawing carries with it an implication of humor.


Zisman is concerned with the illustrations in textbooks and feels that pictures should be organically related to the story. The illustrators should have meticulous concern for details, a sense of humor and a desire for perfect results in their undertaking. The author, publisher and artist should integrate their capabilities and a finer text would be the result.

Malter has collected and analyzed eight available preference studies on illustrative materials. The general conclusions that were abstracted are:

1. Children prefer colored illustrations.
2. Children are interested in a variety of things.
3. Children possibly do not like silhouettes.
4. Children's preferences are subject to change. They must be constantly re-evaluated.

Some factors which must be taken into consideration, also, are other needs of children, societal demands and expert opinion.

Miller states, that many primary teachers feel that pictures are not needed to clarify unfamiliar concepts and to clarify unfamiliar concepts and to

furnish clues for word recognition. The well-illustrated books are more attractive and interesting to children. However, many teachers use reading charts without pictures and the children read them with interest. Unless there is only a line or two of reading material on a page, the illustrations usually do not carry clues to all the ideas expressed on the page. The finding of clues requires the shifting of the eye from the printed matter and is considered to be an interference with the reading. He made a study in which his findings showed that children who read a given piece of material without pictures gained as much meaning as children who read the same material with pictures. No attempt was made to measure the influence of pictures on such matters as interest and enjoyment. And no argument is being made to deprive children of pictures, but a possible distinction could be made between a picture book and a book used to teach children to read.

Mangravite\(^1\) expresses strong disapproval of illustrated children's books.

In such books, we have a triangular arrangement so far as mental imagery is concerned; first, that of the person who wrote the book; second, that of the person who illustrated the book (and, of course, this must necessarily be different from that of the author because a second person cannot possibly express what another person conceives); third, that of the child who is reading the book.

Such a situation would only be confusing to the child and if words are meant to evoke pictures why are accompanying illustrations necessary?

According to Williams¹, illustrations in books should not be used merely to improve the appearance of a book but should play a more significant role than they are now doing to achieve educational objectives. All illustrations should have a direct connection with the subject matter of the book and be chosen with the thought of their appropriateness for mental age of the pupils using the book.

To quote Stutz²,

A useful picture should arouse interest, serve to introduce a subject, stimulate thought, provide a basis for discussion and facilitate review or summarize a subject.

He stresses the facts that illustrations should be skillfully reproduced, located as closely as possible to the written passages with which they are associated and be accompanied by meaningful captions. They should be studied as carefully as other instructional materials. The efficient use of illustrations may result in aroused interest, better habits of study, and increased understanding.

Miller³ was concerned with type of illustration technique preferred by primary grade children. His study revealed the following data:

1. Full Color reproductions received more than half of the total number of choices.

2. The technique in which red was predominant, the photograph and the technique featuring blue were highest in favor.

3. The wash drawing, the line drawing and the black and white drawing received insignificant percentages of the choices.

4. The percentages for photographs increased in the higher grades.

5. Boys registered more preferences for photographs than girls.

6. Preferences for photographs tended to increase as mental age increased.

7. In all three primary grades red was preferred to blue.

8. The girls preferred full color pictures more frequently than the boys.

9. There was a tendency for the children with higher intelligence to prefer the full-colored reproductions.

Ayer reports that in recent years numerous studies have been made of children's reactions to pictures. From a summary of these studies, the following findings are cited:

1. Children in nursery school and in first grade like factual pictures and pictures of everyday things.

---

2. Pictures of elves, fairies and other fanciful creatures are enjoyed by second and third grade children.

3. Children usually prefer the realistic type of illustration to the stylized or decorative type.

4. They like pictures in which there are large, easily distinguishable objects with important figures centered.

5. Pictures with some minor details are more popular than those showing practically nothing but the major figures.

6. The black and white pictures with some shadings are preferred to the outline drawing.

7. Children like especially pictures that show action and suggest a story.

8. Pictures of animals are popular. Domestic animals are enjoyed by little children and wild animals by older children.

9. All children enjoy humorous pictures.

10. Colored pictures are preferred to those without color.

Halbert inaugurated an experiment to evaluate three series of readers for primary and intermediate levels in the elementary grades. Three groups of rural children were tested:

one group with a story and illustrations; second group with a story alone; and the third with illustrations alone. The conclusions from this study were:

1. Children get more relevant ideas from reading a story with pictures.

2. From the standpoint of stimulating and arousing a variety of ideas, pictures are superior to reading matter alone or reading matter with pictures.

3. The majority of the ideas reported from pictures alone were irrelevant to the story or to the ideas intended in the pictures.

4. From the standpoint of stimulating ideas which are directed toward some specific goal, pictures alone are inferior to reading matter with or without pictures.

5. When the stimulating effect of pictures is directed by reading matter, there is an increase in their relevant ideas.

6. There should be a careful study of the background and experience of the children for whom instructional materials are prepared.

7. To the extent that memory for ideas is a measure of comprehension, pictures contribute to the comprehension of reading materials.
According to Miller\(^1\) one of the great changes in primary reading books is the increased use of pictures. He says that children in the primary grades spend too much time looking at pictures and that they are not interested in the pictures as they are related to the reading matter. Adults choose textbooks and often adult standards are not the same as the child's. Primary textbooks lean heavily on illustrations for the method of teaching reading and depend too much upon pictures to strengthen interest in books. Some of the reasons for the failure of pictures to contribute to understanding are:

1. Children do not read pictures accurately.
2. Verbalism may exist in picture reading as well as in the reading of printed material.
3. Children who have had little or no training in reading pictures are likely to get only a general impression from pictures.
4. Teachers often fail to use the pictures in such a manner as to contribute to understanding in reading.
5. The majority of pictures in primary readers deals with familiar doings and consequently have very few concepts which the children do not understand, so they do not contribute to meaning.

---

\(^1\) Miller, William A. "The Picture Crutch in Reading". Elementary English Review 14: 263-64; November 1937.
Miller\textsuperscript{1} states further that these copiously illustrated primary readers have not increased the comprehension of the accompanying reading material because of the inability to utilize the pictures. There may have been absolute misinterpretation of the pictures on the part of the children; they may have failed to note the constituent parts of a given picture; or they may have failed to see the relationship existing between the several parts of a picture. He made, in this study, an effort to determine what children saw in pictures without the suggestion or stimulation provided by any definite direction or guidance. The result of this investigation may be summarized as follows:

1. Children reported seeing few of the items which make up a picture.
2. The pictures are seen in isolation rather than in parts of a unified whole.
3. The most important items in a picture often escape the notice of the children.
4. Children with higher Intelligence Quotients tend to identify more items in pictures than do children with lower Intelligence Quotients.
5. If pictures are to be an aid to understanding of printed material which they accompany, teachers will need to direct the attention of children to important

\begin{flushright}
\end{flushright}
items in pictures and to develop the interpretation of these items.

Another form of illustration very prevalent today is found in comic books which are read eagerly by children everywhere. Lawson\(^1\), a well-known illustrator, says that a great deal can be learned from them to make books more vital. Comics are adventure serials; they have real interest, suspense, and are highly moral so illustrators should study children's wants and do accordingly.

Sperzel\(^2\), because of the vast number of comic books pouring into her community, wished to determine whether or not the reading of comics had any effect on vocabulary growth or comprehension. Some children read the usual assignment and others read comics. All groups improved but the differences were not significant. The influence of reading comics could be called neither good nor bad, but they do have a tremendous appeal for children.

Richards\(^3\) was interested in the effect of illustrations on comprehension of children at the fifth and sixth grade levels. The illustrations had little effect on comprehension.

scores, yet three out of four favored the illustrated story and none of the differences were statistically significant. From this same study it was discovered that the children of superior intelligence rated higher in non-illustrated stories, while children of average intelligence scored slightly higher on the illustrated stories. However, neither case showed any significant difference.

Galliher\textsuperscript{1} reports that illustrations seemed to have a great effect on comprehension. In all four stories used in the experiment, the differences were in favor of the illustrated group. In Story I, the differences were statistically significant.

Cassidy\textsuperscript{2} reports that the findings were not always consistent in recall. In comparing the scores of the four stories, it was found that the critical ratios of two stories favored illustrations while the other two showed critical ratios in favor of non-illustrated material. She also found that the findings for boys and girls were not always consistent. In three stories the results were in favor of the girls and in one story the result favored the boys.

Research indicates illustrations may be important in textbooks. This study is an attempt to measure the effectiveness.

\begin{enumerate}
\item Galliher, Margaret M. \textit{An Evaluation of the Effect of Illustrations on Comprehension in the Fifth and Sixth Grades.} Unpublished Master's Thesis, Boston University School of Education, Boston, 1946.
\end{enumerate}
of illustrations upon comprehension in first and second grade reading.
CHAPTER II

PLAN OF THE STUDY
CHAPTER II
PLAN OF THE STUDY

Illustrations in Primary Reading Books are profuse and occupy much space. Miller states that illustrations in books are a source of interest and pleasure to children but there is reason for considerable speculation as to how much they actually contribute to meaningful comprehension. Publishers spend huge sums of money every year on illustrations and it seems wise to discover whether the pictures are serving the intended purpose. This study has been undertaken to evaluate the effect of the illustrations on the comprehension of reading material in Grade I and Grade II.

In order to carry out this study, the following procedure was necessary.

(1) To secure stories at first and second grade reading level.

(2) To find an illustrator to draw the pictures for the stories.

(3) To decide upon the population to be used.

(4) To secure the permission of the principal of the school in which the experiment was to be carried out.

Materials Used.

The stories used for this experiment were two original

stories: "A True Story" and "Loopety-loop Soup" written by Alma L. Ward for her Master's Thesis at Boston University, 1949 and copyrighted, 1949. The vocabulary used in these two stories was verified by the author according to the Boston University Educational Clinic Primary Remedial Reading Vocabulary.

The writer with the cooperation of the artist checked the stories for portrayable incidents. Seven pictures were executed in black and white.

Six questions for each story were formulated based on the contents of the stories and on the pictures:

**A TRUE STORY**
1. What was Mary Elizabeth doing?
2. What did Mother tell Mary Elizabeth to do?
3. Who was the visitor in the kitchen?
4. What did Santa Claus give Mary Elizabeth?
5. Why did Santa Claus bring the dog so early?
6. Who had to go away?

**LOOPETY-LOOP SOUP**
1. Where did the old woman live?
2. What is the little old woman going to make?

1. See Appendix
3. What things did she put in the soup?
4. Why did she keep putting more things in the soup?
5. What made the soup just right?
6. What did the little old woman do then?

The reading material and pictures were arranged in booklet form on paper which was the same size as the classroom readers. Primer type was used. There were four booklets in all, two for each story, one illustrated and one not illustrated.

Table I shows the plan of rotation of the stories.

TABLE I

<table>
<thead>
<tr>
<th>No.</th>
<th>Story I</th>
<th>Story II</th>
</tr>
</thead>
<tbody>
<tr>
<td>25</td>
<td>Illustrated</td>
<td>Non-illustrated</td>
</tr>
<tr>
<td>25</td>
<td>Non-illustrated</td>
<td>Illustrated</td>
</tr>
</tbody>
</table>
**Subjects of the Study.**

Fifty children in the first and second grades in a large industrial city in a suburban area were included in this study. It was a heterogeneous population, not a selected one. The chronological ages ranged from 6 years 2 months to 8 years and 7 months and the Intelligence Quotients ranged from 94 to 141.

Table II shows the mean chronological age and Intelligence Quotient.

**TABLE II**

MEAN CHRONOLOGICAL AGE AND MEAN INTELLIGENCE QUOTIENT

<table>
<thead>
<tr>
<th>No.</th>
<th>Mean C. A.</th>
<th>S.D.</th>
<th>Mean I.Q.</th>
<th>S.D.</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>7</td>
<td>5.98</td>
<td>115.36</td>
<td>12.95</td>
</tr>
</tbody>
</table>

The mean Intelligence Quotient shows that the group was above average mentally.
Procedure

This study was conducted during ten consecutive school weeks starting January third. Each child was tested individually on the reading material during the last part of a noon hour. No preparation was given the child for the reading nor were any comments made concerning the illustrations. The booklet containing the illustrated story was handed to the child and he was asked to read the story orally. In order to eliminate any reading difficulty, the child was helped on any word he didn't know. When the story was completed, the child was questioned. A record of the answers was kept on a mimeographed sheet. If the child answered the questions correctly, a circle was placed around R for right. If an incorrect response was given, a circle was placed around W for wrong. The same procedure was followed with the non-illustrated story1. If the child made any comments during the reading of the story or after the reading of the story, such comments were recorded in the space provided for this purpose. Next, the child was asked to tell which story he preferred and the reason for his choice. Although the majority favored the illustrated stories, they did not designate the illustrations as the reason for their choices. Their reasons for choices were varied and personal.

1. See appendix
However, three of the entire number tested did designate that they liked certain stories because of the illustrations. Only two of the children tested looked at the illustrations for word clues.

All the tests were corrected and scored by the writer. The data from this study was analyzed and will be presented in the next chapter.
CHAPTER III
ANALYSIS OF DATA
CHAPTER III
ANALYSIS OF DATA

Table III shows the comparison of the mean comprehension scores on the illustrated and non-illustrated stories.

TABLE III
COMPARISON OF COMPREHENSION SCORES

<table>
<thead>
<tr>
<th>Group</th>
<th>Number</th>
<th>M</th>
<th>S. D.</th>
<th>S.E.M.</th>
<th>Diff. M.</th>
<th>S.E. Diff.</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illus.</td>
<td>50</td>
<td>5.10</td>
<td>.75</td>
<td>.107</td>
<td></td>
<td></td>
<td>.02</td>
</tr>
<tr>
<td>Non.Ill.</td>
<td>50</td>
<td>5.12</td>
<td>.67</td>
<td>.095</td>
<td>.02</td>
<td>1.</td>
<td>.02</td>
</tr>
</tbody>
</table>

The mean score for the non-illustrated story was 5.12 as compared with 5.10 for the illustrated story. The critical ratio .02 showed the difference not to be statistically significant.
Table IV shows the comparison of the mean comprehension scores on Story I.

**TABLE IV**

**COMPARISON OF THE MEAN COMPREHENSION SCORES ON STORY I**

<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>Mean</th>
<th>S.D.</th>
<th>S.E.M.</th>
<th>Diff. M.</th>
<th>S.E. Diff.</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ill.</td>
<td>25</td>
<td>5.52</td>
<td>.5</td>
<td>.102</td>
<td>.04</td>
<td>.80</td>
<td>.05</td>
</tr>
<tr>
<td>Non-Ill.</td>
<td>25</td>
<td>5.56</td>
<td>.64</td>
<td>.131</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean score for the non-illustrated story was 5.56 as compared with 5.52 for the illustrated story. The critical ratio of .05 showed the difference not to be statistically significant.
Table V shows the comparison of the mean comprehension scores on Story II.

**TABLE V**

**COMPARISON OF MEAN COMPREHENSION SCORES ON STORY II**

<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>M.</th>
<th>S.D.</th>
<th>S.E.M.</th>
<th>Diff. M.</th>
<th>S.E. Diff.</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ill</td>
<td>25</td>
<td>4.68</td>
<td>81</td>
<td>.165</td>
<td>.07</td>
<td>.89</td>
<td>.08</td>
</tr>
<tr>
<td>Non-ill.</td>
<td>25</td>
<td>4.75</td>
<td>38</td>
<td>.077</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean score for the non-illustrated story was 4.75 as compared with 4.68 for the illustrated story. The critical ratio .08 showed the difference not to be statistically significant.
Table VI shows the comparison of the comprehension scores of boys and girls on non-illustrated stories.

**TABLE VI**

**MEAN COMPREHENSION SCORES OF BOYS AND GIRLS ON NON-ILLUSTRATED STORIES**

<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>M.</th>
<th>S.D.</th>
<th>S.E.M.</th>
<th>Diff. M.</th>
<th>S.E. Diff.</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>26</td>
<td>5.08</td>
<td>.67</td>
<td>.134</td>
<td>.11</td>
<td>.102</td>
<td>.1</td>
</tr>
<tr>
<td>Girls</td>
<td>24</td>
<td>5.25</td>
<td>.78</td>
<td>.163</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Mean score for the girls was 5.25 as compared with 5.08 for the boys. The critical ratio of .1 shows the difference not to be statistically significant.
Table VII shows the comparison of the comprehension scores of boys and girls on illustrated stories.

### TABLE VII
**MEAN COMPREHENSION SCORES OF BOYS AND GIRLS ON ILLUSTRATED STORIES**

<table>
<thead>
<tr>
<th>Group</th>
<th>No.</th>
<th>M.</th>
<th>S. D.</th>
<th>S.E.M.</th>
<th>Diff.</th>
<th>S.E.</th>
<th>Diff.</th>
<th>C.R.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>26</td>
<td>5.12</td>
<td>.88</td>
<td>.176</td>
<td>.04</td>
<td>1.08</td>
<td>.04</td>
<td></td>
</tr>
<tr>
<td>Girls</td>
<td>24</td>
<td>5.08</td>
<td>.64</td>
<td>.133</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The mean scores for the boys was 5.12 as compared with 5.08 for the girls. The critical ratio of .04 showed the difference not to be statistically significant.
CHAPTER IV

SUMMARY AND CONCLUSIONS
CHAPTER IV
SUMMARY AND CONCLUSIONS

The purpose of this study was an attempt to determine to what extent illustrations affect the comprehension in reading of first and second grade children.

To carry out this experiment, four booklets were prepared. Two stories were in the illustrated form and two in the non-illustrated form. Each child read one form of each story. The stories were followed by a check for comprehension. The questions were asked, "Which story do you like best? Why?"

The stories were presented to heterogeneous population in the first and second grade in the same school. The experiment was carried out on the total population of the fifty children.

Limitations are still in evidence. The population tested was truly representative of the locality, yet the high median for intelligence quotient was due to accidental grouping at the time of the study.

From the analysis of data presented in the previous chapter, the following conclusions are drawn:

1. The illustrations did not seem to have any great effect on the comprehension scores in any of the stories.

2. In comparing the total scores on the illustrated
stories and non-illustrated stories, the mean score showed a slight favor toward the non-illustrated stories. The differences were not statistically significant.

3. In Story I, the mean score was in favor of the non-illustrated story. The differences were not statistically significant.

4. In Story II, the mean was in favor of the illustrated story.

5. In comparing boys and girls, the girls showed a higher mean on the non-illustrated material, and the boys rated higher on the illustrated story. The difference was not statistically significant.
CHAPTER V

SUGGESTIONS FOR FURTHER RESEARCH
CHAPTER V

SUGGESTIONS FOR FURTHER RESEARCH

During the course of this experiment the following topics seemed to warrant further research:

1. Repeat the same study calling attention to the illustrations.
2. Have illustrations in color.
3. Use actual photographs for illustrations.
4. Repeat the experiment using a larger population.
5. Select people from high and low intelligence.
6. Check retention by child giving an oral summary.
7. Experiment with children of urban and rural communities.
8. Develop a program for picture study.
9. Experiment using pictures of unfamiliar objects.
BIBLIOGRAPHY

Ayer, Jean.
"Format and Reading Appreciation". Elementary English Review 17: 213-17; October 1940.

Bamberger, Florence E.

Cassidy, Marjorie J.

Dagliesh, Alice.
First Experiences with Literature. New York: Chas. Scribners Sons, 1932, foreword.

Dagliesh, Alice.
"Picture Books for To-day's Children." Childhood Education 10: 65-67; November 1933.

Field, Walter T.

Freeman, G. Laverne and Freeman, Ruth Sunderlin.

Galliher Margaret M.

Good, H. G.

Goodykoontz, Bess.
<table>
<thead>
<tr>
<th>Author</th>
<th>Title</th>
<th>Publication Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miller, William A.</td>
<td>&quot;The Picture Crutch in Reading.&quot;</td>
<td>Elementary English Review 14: 263-64; November 1937.</td>
</tr>
<tr>
<td>Author</td>
<td>Title</td>
<td>Source</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Williams, Paul T.</td>
<td>&quot;Textbooks Need Better Pictures.&quot;</td>
<td>Nation's Schools 33: 50 June 1944.</td>
</tr>
<tr>
<td>Zisman, S. B.</td>
<td>&quot;Improving Illustrative Material in Textbooks.&quot;</td>
<td>Educational Screen 17: 218019; September 1938.</td>
</tr>
</tbody>
</table>
Loopety-loop Soup

A little old woman lived in a little old house. The little old woman did not have a cat or a dog. She did not have a pig or a hen. She did not have a duck or a cow. No, she lived by herself in her little old house.
One day the little old woman said, "I am hungry. I think I'll make some soup." She put the little old pan on the little old stove. She put some water into the little old pan. She put it on the stove to get hot.
At last she said, "I think my soup is ready." She put the soup into a dish. She ate some of the hot water.

"Oh, oh.

A loopety-loop
What funny soup," she said.

"This needs something more. I think I'll put in some meat."

A loopety-loop
In went the meat
Into the soup.

She waited and waited. At last she said,
"I think I'll eat my soup."

She put some of the soup into a dish.
She ate some of it.

"Oh, oh,

What funny soup," she said.
"This needs something more."

And loopety-loop
In went some potatoes
Into the soup.
She waited and waited. At last she said,
"I think I'll eat my soup." She took some of
the soup from the pan. She put it into a
dish. She ate some of it.
"Oh, oh,
What funny soup," she said.
"This needs something more. She looked here
and she looked there. She saw some vegetables in
a box. "The vegetables will make my soup good,"
she said.

So, loopety-loop
In went the vegetables
Into the soup.
She waited and waited. At last she said, "I think I'll eat my soup." She took some of the soup from the pan. She put some of it into a dish. The little old woman ate some of it.

"Oh, oh,

What funny soup," she said.

"This needs something more." She saw some salt on the table.

So loopety-loop
In went the salt
Into the soup.

She waited and waited. At last she said, "My soup must be ready." She took some of the soup from the pan and put it into a dish.

"Oh, oh,

What funny soup," she said.
"This needs something more." She looked and looked for something more. She looked on the table. She looked under the table. She looked in a box. She looked on the stove. She looked here and she looked there. At last she saw some pickles. "That is just what my soup needs," she said.

So loopety-loop
In went the pickles
Into the soup.
She waited and waited. At last she said,
"My soup must be ready. I think I'll eat it." She took all of the soup from the pan on the stove. She put it in a dish. She was very, very hungry.
"This soup is good," she said. She ate the water. She ate the meat and potatoes. She ate the vegetables and salt. She ate the pickles one and all. The little old woman ate and ate.

And loopety-loop

There was no more.

Of the funny soup.
Loopety-loop Soup

A little old woman lived in a little old house. The little old woman did not have a cat or a dog. She did not have a pig or a hen. She did not have a duck or a cow. No, she lived by herself in her little old house.

One day the little old woman said, "I am hungry. I think I'll make some soup." She put the little old pan on the little old stove. She put some water into the little old pan. She put it on the stove to get hot.

At last she said, "I think my soup is ready." She put the soup into a dish. She ate some of the hot water.

"Oh, oh,
A loopety-loop
What funny soup," she said.
"This needs something more. I think I'll put in some meat."

A loopety-loop

In went the meat

Into the soup.

She waited and waited. At last she said, "I think I'll eat my soup."

She put some of the soup into a dish.

She ate some of it.

"Oh, oh,
What funny soup," she said.

"This needs something more."

And loopety-loop

In went some potatoes

Into the soup.

She waited and waited. At last she said, "I think I'll eat my soup." She took some of the soup from the pan. She put it into a dish.
She ate some of it.

"Oh, oh,

What funny soup," she said.

"This needs something more." She looked here and she looked there. She saw some vegetables in a box. "The vegetables will make my soup good," she said.

So, loopety-loop

In went the vegetables

Into the soup.

She waited and waited. At last she said,

"I think I'll eat my soup." She took some of the soup from the pan. She put some of it into a dish. The little old woman ate some of it.

"Oh, oh,

What funny soup," she said.

"This needs something more."
She saw some salt on the table.

So loopety-loop
In went the salt
Into the soup.

She waited and waited. At last she said, "My soup must be ready." She took some of the soup from the pan and put it into a dish.

"Oh, oh,
What funny soup," she said.

"This needs something more." She looked and looked for something more. She looked on the table. She looked under the table. She looked in a box. She looked on the stove. She looked here and she looked there. At last she saw some pickles. "That is just what my soup needs," she said.
So loopety-loop
In went the pickles
Into the soup

She waited and waited. At last she said,
"My soup must be ready. I think I'll eat it."
She took all of the soup from the pan on the
stove. She put it into a dish. She was very,
very hungry. "This soup is good," she said.
She ate the water. She ate the meat and
potatoes. She ate the vegetables and salt.
She ate the pickles one and all. The little
old woman ate and ate.

And loopety-loop
There was no more
Of the funny soup.
A True Story

It was the night before Christmas. Mary Elizabeth was getting ready for bed. She wanted to be in bed when Santa Claus came. "I know Santa Claus likes to have boys and girls in bed when he comes around, she said.
Mary Elizabeth began to wash herself. She was just going to get into bed, when she heard some one at the door. "Oh, who could be coming to my house now?" said Mary Elizabeth. She heard a voice say, "Does Mary Elizabeth live here?" She heard Mother say, "Oh, what a surprise. Yes, Mary Elizabeth does live in this house. She is getting ready for bed, but I know she will want to see you. Come in, please do, and I will call her."

"Who can it be? said Mary Elizabeth. She had never heard the voice. Mother was laughing. Father was laughing, but Mary Elizabeth could not think who wanted to see her. Could it be Grandfather? No, it was not Grandfather's voice. Could it be Uncle Teddy's voice? No, because Uncle Teddy was away.
Just then she heard Mother call, "Mary Elizabeth, come, come. You have a surprise. Come see who is here." Slowly, slowly down, down, down she came. She could not see the surprise. But Mother and Father were laughing. They were in the kitchen.

At last Mary Elizabeth came to the kitchen. What would she see? Oh, what would she say? She ran into the kitchen. Oh,—Oh,—Oh.— What a surprise. There were Mother and Father. And there was Santa Claus. She ran to him. He was laughing.
"This is wonderful, Santa Claus. I am so glad to see you. Did you think I would be in bed?" She did not know if Santa Claus would be happy because she was not in bed. Santa Claus laughed and said, "Hello, Mary Elizabeth. Come here, and I will tell you all about it." Mary Elizabeth climbed up on Santa very fast.
This was wonderful. What a surprise.

Santa Claus began his story. But—what was that? "Bow-wow, Bow-wow, Bow-wow," she heard. Was that Santa Claus that said, "Bow-wow Bow-wow?" "That is a funny way to say things to a little girl," said Mary Elizabeth. No, it is not Santa Claus who said, "Bow-wow."

She heard it again a little louder. "Bow-wow, Bow-wow, Bow-wow," It came from under Santa's coat. She saw his coat go up and down, down and up. Then she saw two little black feet come out from under Santa's coat. And then out jumped a little, little dog from under Santa's coat. "Bow-wow, Bow-wow, Bow-wow."
The little dog ran around and around the kitchen. He wanted to look at his new home. The new little dog ran to Mary Elizabeth. "I like you," said Mary Elizabeth. "I like my new little dog. I will be very good to you. We will be very good friends."
Santa Claus said, "I know you will be good to him, Mary Elizabeth. That is why I brought him to this house. I had to come with him now. I did not want to put him with all the toys and presents. He would eat my Christmas cookies. He would bite my dolls and books. A little dog does many funny things, you know. Well, good-by every one. I must be off. I have work to do. I will be back by and by when you are in bed. Good-by Mary Elizabeth. Good-by every one. Merry Christmas to you and to all the good girls and boys. Merry Christmas."
A True Story

It was the night before Christmas. Mary Elizabeth was getting ready for bed. She wanted to be in bed when Santa Claus came. "I know Santa Claus likes to have boys and girls in bed when he comes around," she said.

Mary Elizabeth began to wash herself. She was just going to get into bed when she heard someone at the door. "Oh, who could be coming to my house now?" said Mary Elizabeth. She heard a voice say, "Does Mary Elizabeth live here?" She heard Mother say, "Oh, what a surprise. Yes, Mary Elizabeth does live in this house. She is getting ready for bed, but I know she will want to see you. Come in, please do, and I will call her."
Who can it be?" said Mary Elizabeth. She had never heard the voice. Mother was laughing. Father was laughing, but Mary Elizabeth could not think who wanted to see her. Could it be Grandfather? No, it was not Grandfather's voice. Could it be Uncle Teddy's voice? No, because Uncle Teddy was away.

Just then she heard Mother call, "Mary Elizabeth, come, come. You have a surprise. Come see who is here." Slowly, slowly, down, down, down she came. She could not see the surprise. But Mother and Father were laughing. They were in the kitchen.

At last Mary Elizabeth came to the kitchen. What would she see? Oh, what would she say? She ran into the kitchen. Oh,—Oh,—Oh—. What a surprise. There were Mother and Father. And there was Santa Claus. She ran to him. He
was laughing.

"This is wonderful, Santa Claus. I am so glad to see you. Did you think I would be in bed? She did not know if Santa Claus would be happy because she was not in bed.

Santa Claus laughed and said, "Hello, Mary Elizabeth. Come here, and I will tell you all about it." Mary Elizabeth climbed up on Santa very fast. This was wonderful. What a surprise.

Santa Claus began his story. But--what was that? "Bow-wow, Bow-wow, Bow-wow, she heard. Was that Santa Claus that said, "Bow-wow, Bow-wow?" "That is a funny way to say things to a little girl," said Mary Elizabeth. No, it is not Santa Claus who said, "Bow-wow."

She heard it again a little louder. "Bow-wow, Bow-wow, Bow-wow," It came from under Santa's
coat. She saw his coat go up and down, down and up. Then she saw two little black feet come out from under Santa's coat. And then out jumped a little, little dog from under Santa's coat. "Bow-wow, Bow-wow, Bow-wow."

The little dog ran around and around the kitchen. He wanted to look at his new home. The new little dog ran to Mary Elizabeth. "I like you," said Mary Elizabeth. "I like my new little dog. I will be very good to you. We will be very good friends."

Santa Claus said, "I know you will be good to him, Mary Elizabeth. That is why I brought him to this house. I had to come with him now. I did not want to put him with all the toys and presents. He would eat my Christmas cookies. He would bite my dolls and books. A little dog does many funny things, you know."
Well, good-by every one. I must be off. I have work to do. I will be back by and by when you are in bed. Good-by Mary Elizabeth. Good-by every one. Merry Christmas to you and to all the good girls and boys. Merry Christmas.
APPENDIX

LOOPETY-LOOP SOUP

1. Where did the old woman live? R. W.
2. What is the old woman going to make? R. W.
3. What things did she put into the soup? R. W.
4. Why did she keep putting more things in the soup? R. W.
5. What made the soup just right? R. W.
6. What did the little old woman do then? R. W.

Comments:

A TRUE STORY

1. What was Mary Elizabeth doing? R. W.
2. What did mother tell Mary Elizabeth to do? R. W.
3. Who was the visitor in the kitchen? R. W.
4. What did Santa Claus give Mary Elizabeth? R. W.
5. Why did Santa Claus bring the dog so early? R. W.
6. Who had to go away? R. W.

Comments: