



Fifth-grade childrens preferences for illustrations in middle-grade basal reading materials
by Daniel Joe Lucas

A thesis submitted in partial fulfillment of the requirements for the degree of DOCTOR OF
EDUCATION

Montana State University

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Abstract:

The purpose of this study was to: (a) investigate preferences among fifth graders for illustrative style found in basal readers (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies a particular literary form (i.e., legend, poem, biography); (b) examine illustrations from all the selections of the five major basal reading series texts written for middle grade children in order to classify the type of illustrative styles found in them; (c) read, evaluate, and categorize as to literary form, the approximately 800 selections from the same five basal reading series texts written for middle grade children.

The problem was investigated by: (a) a review of literature related to the problems; (b) a review of the five major middle grade reading texts; (c) an investigation of 521 fifth grade children's preferences for illustrative style; and (d) a tabulation, analysis and comparison of data gathered.

The major conclusions of the study indicated that: (a) the rank order of literary selections in five major middle grade reading texts was: informational article, poetry, reading activities, con- temporary realistic fiction, traditional literature (including legend), biography, modern fantasy, historical fiction, and drama; (b) the highest percentage of illustrative styles for legend, poetry, and biography in the same texts was impressionistic, photographic, and photographic respectively; (c) there was a preference among fifth graders' for illustrative style when the illustration accompanied the literary forms legend, poem, biography; (d) there were significant differences between the following when the illustration accompanied a particular literary form: male and female fifth graders' preference —poem; Mexican American and Caucasian fifth graders' preference— biography; Native American and Caucasian fifth graders' preference— legend; non-Caucasian and Caucasian fifth graders' preference—legend.

The major recommendations of the study were (a) all persons responsible for the purchase of material to use in the teaching of reading to middle grade students should receive training in critically evaluating illustrations as well as the text, due to the large amount of space and dollar outlay committed to illustrations and the resulting expense to schools districts; (b) photographs were utilized highly by publishers and students in the study tended to choose photographic styles for poem and biography. Personnel who are evaluating reading texts for use with middle grade students should be aware of these preferences. The trend in published materials to include more photographs should be encouraged.

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MIDDLE-GRADE BASAL READING MATERIALS

by

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A thesis submitted in partial fulfillment
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TABLE OF CONTENTS

VITA	ii
ACKNOWLEDGEMENTS	iii
TABLE OF CONTENTS.	iv
LIST OF TABLES	vi
ABSTRACT	viii

Chapter	Page
1. INTRODUCTION	1
Statement of the Problem	7
Need for the Study.	8
General Questions to be Answered	9
General Procedures.	11
Limitations	13
Definition of Terms	14
Summary	20
2. PROCEDURES	25
SECTION ONE	26
Questions to be Answered	26
Review of Literature.	27
Examination of Middle-Grade Selections -- Illustrative Styles.	27
Examination of Middle-Grade Selections -- Literary Forms	28
SECTION TWO	28
Research Questions	29
Statement of Null Hypotheses	30
Population Description.	33
Experimental Procedures	33
Analysis of Data.	36
Summary	37
3. REVIEW OF LITERATURE.	39
History of Illustrations in Reading Textbooks	39

Chapter	Page
Semantic Functions and Utility of Illustrations.	50
Controversies in Use of Illustrations.	53
Children's Preferences for Illustrations	62
Summary.	75
4. ANALYSIS OF DATA	87
Pilot Study.	87
Sample and Number Sampled	91
Data Tabulated	92
Summary.	128
5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS.	141
CONCLUSIONS	161
RECOMMENDATIONS.	167
LITERATURE CITED.	169
APPENDICES.	178
A. Literary Selections.	179
B. Instruments.	187
C. Instructions Given to Students	191
D. Qualifications of Illustrators	194
E. Illustrations.	197
F. Random Number Assignment	213
G. Major Basal Materials.	215

LIST OF TABLES

Table	Page
1. A Comparison of Test and Retest Preference Indications for Fifth Grade Students: Same Order Presentation.	90
2. A Comparison of Test and Retest Preference Indications for Fifth Grade Students: Different Order Presentation	91
3. Number of Fifth Graders Distributed Among Ethnic Groups in Selected Montana Elementary Schools	93
4. Number of Fifth Graders Distributed Between Non-Caucasian and Caucasian Groups in Selected Montana Elementary Schools	94
5. Number of Female and Male Fifth Graders in Selected Montana Elementary Schools	95
6. Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Legend. . . .	95
7. Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the literary Form, Poem	97
8. Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Biography . .	98
9. Male and Female Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Legend.	100
10. Male and Female Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Poem.	102
11. Male and Female Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Biography	104
12. Mexican American and Caucasian Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Legend	106

13.	Mexican American and Caucasian Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Poem.	108
14.	Mexican American and Caucasian Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Biography	110
15.	Native American and Caucasian Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Legend.	112
16.	Native American and Caucasian Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Poem	114
17.	Native American and Caucasian Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Biography	116
18.	Non-Caucasian and Caucasian Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Legend.	118
19.	Non-Caucasian and Caucasian Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Poem	120
20.	Non-Caucasian and Caucasian Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Biography	122
21.	Number of Illustrations and Literature Selections Distributed Among Illustrative Styles and Literary Forms in Grades 4, 5, and 6 Middle Grade Reading Texts	125
22.	Ranks of Preference by Students and Utilization by Publishers of Illustrative Styles for Selected Literary Forms	127

ABSTRACT

The purpose of this study was to: (a) investigate preferences among fifth graders for illustrative style found in basal readers (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies a particular literary form (i.e., legend, poem, biography); (b) examine illustrations from all the selections of the five major basal reading series texts written for middle grade children in order to classify the type of illustrative styles found in them; (c) read, evaluate, and categorize as to literary form, the approximately 800 selections from the same five basal reading series texts written for middle grade children.

The problem was investigated by: (a) a review of literature related to the problems; (b) a review of the five major middle grade reading texts; (c) an investigation of 521 fifth grade children's preferences for illustrative style; and (d) a tabulation, analysis and comparison of data gathered.

The major conclusions of the study indicated that: (a) the rank order of literary selections in five major middle grade reading texts was: informational article, poetry, reading activities, contemporary realistic fiction, traditional literature (including legend), biography, modern fantasy, historical fiction, and drama; (b) the highest percentage of illustrative styles for legend, poetry, and biography in the same texts was impressionistic, photographic, and photographic respectively; (c) there was a preference among fifth graders' for illustrative style when the illustration accompanied the literary forms legend, poem, biography; (d) there were significant differences between the following when the illustration accompanied a particular literary form: male and female fifth graders' preference--poem; Mexican American and Caucasian fifth graders' preference--biography; Native American and Caucasian fifth graders' preference--legend; non-Caucasian and Caucasian fifth graders' preference--legend.

The major recommendations of the study were (a) all persons responsible for the purchase of material to use in the teaching of reading to middle grade students should receive training in critically evaluating illustrations as well as the text, due to the large amount of space and dollar outlay committed to illustrations and the resulting expense to schools districts; (b) photographs were utilized highly by publishers and students in the study tended to choose photographic styles for poem and biography. Personnel who are evaluating reading texts for use with middle grade students should be aware of these preferences. The trend in published materials to include more photographs should be encouraged.

Chapter 1

INTRODUCTION

The continued research in the teaching of reading is necessary because it places the instructional program on a scientific basis, aids in answering unresolved questions, and clarifies conditions that influence its effective development (Weintraub in Robinson, 1971). This continued research in the teaching of reading stemmed in part from the fact that helping children to develop competence in communication has been accepted as one of the major objectives for elementary education in America (Klausmeier and Ripple, 1971). Fitzgerald and Fitzgerald (1965:v) noted that ". . . language training and reading instruction affect immeasurably the activities, progress, and outcomes of children's lives."

Reading proves to have its unique concerns as part of the total instructional program in the elementary schools. In order to improve the teaching of reading, educational researchers have investigated some of the conditions which influence the effective development of reading. In doing so, a great amount of published scholarship was accumulated (Walcutt, 1974:3). Numerous controversies have ". . . surged back and forth over reading theory during the past twenty-five or thirty years . . ." (Walcutt, 1974:4). One area of controversy has been the use of basal readers as the main tool for the teaching of reading in the elementary school (Cruisculo, 1967 and Ragan, 1966). Cruisculo

(1967) and others (Chall, 1967, Huck, 1967, R. Smith, 1976) have noted, however, that the current practice in most elementary schools is to select a set of basal readers for the basic instructional program. In a review of reading methods and materials which included basal reader programs, R. Smith (1976:117) noted: "It must be reiterated that no method or material is a panacea." Harris (1972:24) stated that teachers have to ". . . adjust to the strengths and weaknesses of each system." In order to make such adjustments, teachers need valid information about the nature of reading readiness; the reasons and methods behind vocabulary control; the stages of children's development; the reading tasks required of the content fields; the values of supplementary tools; the methods of grouping students; the role of oral and silent reading; the nature of word attack skills; and the relationship of writing style, material format, broadened content, and illustrative style to student interest (Spache, 1965).

Weintraub pointed out that this information is not always available:

Positive claims and counterclaims are often heard among persons who uphold particular practices, techniques, or materials in teaching beginning reading. Rarely are the proponents of various materials able to substantiate claims with more than the heat of argument of an undying devotion to their cause. Oftentimes this is so because there is little or no research on which to base one's convictions. Sometimes this is so because the research that has been done confuses rather than clarifies so that contradictory results can be cited (1966:61).

Harris (1972:24) concluded that innovative reading programs contained few real differences in teaching method. Essentially these programs consisted of new materials with parts corresponding to the basic components of readiness, preprimers, primers, readers, workbooks, teacher's manuals, tests, and supplementary books (R. Smith, 1976:94-102). The instructional program in the basal readers included strands or skill areas such as phonology, morphology, syntax, semantics, rhetoric, interpretation and comprehension, and study skills (Walcutt, 1974). Disputes about some of these components parts have continued as to the timing, degree of emphasis, and other adjustments to be made within a component within a plan (Harris, 1972).

R. Smith (1976:91) indicated that before making purchases, the personnel of the school needed to apply guidelines for evaluating basal reading material. He urged consideration of such things as philosophy of the program, treatment of ethnic, racial, and sex groups, interest value of the children's book, quality of illustrations, development of word identification skills, emphasis of comprehension activities and questions, usefulness of teacher's manuals, and recommendations for individualization and grouping. The actual story content and its presentation, for example, exert an influence on children's reading understanding, attitude, and skill. Yet Pellowski (1973:117) noted that, "The history and criticism of children's literature has tended to ignore the reading textbook and what it contains."

One of the unresolved questions in reading research concerning basal readers involves the manner in which stories are illustrated. Read (1950:340) noted that, "Pictures have always been important aids to the teaching of reading. They are the link between reality and the new strange symbols we call words." Yet, other writers (Hall, 1964, and Bloomfield, 1961) implied that satisfactory beginning reading texts should not have illustrations. As recent as 1966, one teachers' edition of a reading program contained the following statement pertaining to illustrations:

In order to focus the pupil's attention upon the reading materials themselves, pictures must be excluded from the basic experience. Experience has consistently demonstrated that a) pictures constitute a distracting element in the process of learning to read, and b) because pictures furnish clues to meaning, they lead the pupil's to guess at words rather than to read them. (Incidentally, the absence of pictures permits the release of highly individualized creativity when the pupils are encouraged to illustrate the stories, for they are not hampered by the interpretation of another 'artist'.) (Merrill, 1966:6).

Anderson stated that:

If the purpose of reading is merely to independently decode words, then such deletion (of pictures) might be significant. However, if the purpose of reading is to obtain meaning, and if an important aspect of reading is the expansion of concepts, then the children's readers should be selected with the best possible illustrations (1968:169).

Although one series (Rasmussen, 1964) contained illustrations that had little to do with story content, pictures ordinarily are designed to accurately represent the text. They also ". . . help develop the story's mood, reveal characterization, and can even

portray action without words" (Nelson, 1972:26). Lewis (1976:82) stated that the illustrations when done well expand ". . . the enjoyment of the text as the text expands the details of the drawings."

Authors of children's reading textbooks and educational researchers have freely expressed their convictions about the quality and appropriateness of the illustrations found in elementary school textbooks. Dow (1951:101), discussing illustrations of textbooks in general, stated that, "Illustrations in textbooks are generally poor and are often so wretched as to detract from the interest and dignity of the subject." Although Dow was speaking of texts in general, his comment that illustrations were the "textbook makers last-minute chore" seemed appropriate for pre-1950 basals. He pointed out that there had been sporadic improvement in illustrative techniques and that there was a gap between what was published and what could be. He further noted that students expected numerous and effective pictures: "visual evidence is no longer merely optional in most textbooks and ought no longer to be tawdry, or irrelevant" (Dow, 1951:108). Children today expect even better illustrations due to their exposure to higher quality children's literature:

Today's trade books for children are more beautifully and meaningfully illustrated, more sensitively written, and embody more enchanting literary style than any other generation has ever known (LePere, 1967:243).

Huck pointed out that basal text publishers have responded to

this demand for better illustrated material:

As children mature they can appreciate more abstract and sophisticated art design. Basic readers for the middle grades reflect the maturity and a few provide a real education in art itself. When selections have been made from beautifully illustrated books in children's literature, several series have obtained permission for the original art work. This serves to introduce students to some of the best illustrations of children's literature today. Examination and comparison of even the covers of basic readers at present as contrasted with those of ten years ago give a sampling of the many changes that have occurred in the technological aspects of publishing books today (1967:239).

Weintraub noted, in a summary of research, that certain styles and qualities of illustrations were preferred by children:

Similarly, general findings can be summarized about children's preferences for various kinds of illustrations. Colored illustrations tend to be preferred over black-and-white, and the more colors used, the stronger the appeal to children. Saturated primary colors are most appealing to young children, who also select realistic drawings over those of a more fanciful nature. Realism appears to be a more potent factor in picture preference than does color. Furthermore, illustrations that depict animals and children and their activities, including action suggesting the story sequence, are preferred (1971:197).

Research conducted on children's preferences for illustrations, however, does not necessarily coincide with adult views on the appropriateness of illustrations (Rudisell, 1952). Teachers of elementary school children, who use the literature from basal readers to teach reading, need to be aware of children's preferences for illustrative styles since more often than not, the teachers select the materials for their classes or serve on adoption committees (Newton, 1960:131). Illustrations are a part of the message in reading. They

take up space (Rudisell, 1952). Concannon (1975:254) commented that, "All too often the beauty of the illustrations becomes a strong selling point along with raising the cost of the text." Examination of basal readers showed that more illustrations and more expensive techniques were used in modern reading texts (Huck, 1967:239). A determination of children's preferences for illustrations could therefore be an important factor in the production of reading texts and in the selection of basal series for use in a school system.

Statement of the Problem

Huck (1967:237) found that basic readers were used ". . . in some 95 percent of our primary grades and in 88 percent of the middle grades. . . ." R. Smith (1976:92) urged consideration of many parts of these materials before making purchases. Illustrations of these basic readers have changed significantly (Huck, 1967). In order to determine the illustrative preferences of children, writers (Stewig, 1974 and Huck, 1976) have identified qualities such as disposition on the page, color, detail, coordination with the text, size, tension, shape, and media. The most common styles of illustrations used in children's reading materials may be grouped in the following categories: realistic, photographic, cartoon-like, impressionistic, and abstract forms (Lictieg, 1975, and Lam, 1969).

Should the styles of illustrations in presently available

reading material not be in line with children's preferences, the efficiency of reading instruction might be decreased. Therefore, there is a need for a knowledge of children's preferences for illustrations.

The problem of this study was to investigate the type of art style preferred by fifth graders in selected Montana schools. Specifically the study attempted to answer the question: Will there be a preference among fifth graders for illustrative style found in basal readers (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies a particular literary form (i.e., legend, poem, biography)? Another purpose was to examine illustrations from all the selections of the five major basal reading series texts written for middle-grade children in order to classify the type of illustrative style found in them. Another part of the study entailed the reading, evaluating, and categorizing of approximately 800 selections from the same five major basal reading series texts written for middle-grade children.

Need for the Study

Weintraub (1971) reported that continuous research in reading was a necessity. Yet, Pellowski (1973:117) noted that, "The history and criticism of children's literature has tended to ignore the reading textbook and what it contains." Russell (1970:143) stated that

". . . children, and especially young children, are attracted to books by their physical format."

In order to evaluate illustrations in children's books, Anderson (1968) identified qualities of good illustrations. Lam (1969: 137), however, implied that illustrations should also be liked by children: "The likes and dislikes of children should be considered in the style of art incorporated in these books."

There have been studies dealing with children's preferences of illustrations. Rudisell (1952) studied children's preferences for color versus other qualities in illustrations. A search of ERIC materials for the period of January, 1970 to October, 1976, however, yielded no studies of fifth grade children's preferences for illustrative styles in relation to story context in middle-grade basal readers. The proposed study investigated these preferences and their relationship to context of the accompanying literary material.

General Questions to be Answered

Questions to be answered by the study were:

1. What are the "milestones" in the history of the use of illustrations in reading materials and basal readers?
2. What are the semantic functions and utility of illustrations in reading materials?
3. What are the controversies in the use of illustrations?

4. What are the research findings pertaining to children's preferences for illustrations?

5. What is the distribution of illustrations among the types of illustrative style in the five major basal reading texts written for middle grade children?

6. What is the distribution of selections among literary forms in the five major basal reading texts written for middle grade children?

7. Will there be a preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form -- legend?

8. Will there be a preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form -- poetry?

9. Will there be a preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form -- biography?

10. Will there be a difference in preference among male and female fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration

accompanies the literary forms -- legend, poetry, biography?

11. Will there be a difference in preference among Mexican American, Native American, and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary forms -- legend, poetry, biography?

General Procedures

The general procedures followed in this study were:

1. The writer conducted an extensive review of literature pertaining to the use of illustrations in basal reading texts. This review reported studies in the following subcategories: 1) "milestones" in the history of the use of illustrations in reading materials and basal readers; 2) semantic functions and utility of illustrations in reading materials; 3) controversies in the use of illustrations; 4) children's preferences for illustrations -- style, theme, and color.

2. An examination of illustrations from all the selections of the five major basal reading texts (as determined by national sales) written for middle-grade children was made in order to classify the type of illustrative style found in them (i.e., realistic, impressionistic, photographic, cartoon, abstract).

3. An examination of the approximately 800 literary selections of the same five major basal reading texts written for middle-grade

children was made in order to categorize them as to the basic kinds of literary form they represent (i.e., fantasy, informational article, poetry, traditional narrative - including myth, epic, legend, tall tale - contemporary fiction, biography, drama, historical fiction).

4. Three selections were chosen from a middle-grade basal reading text on the basis that they fairly represented subjects, themes, characterizations, and forms which regularly appear in fifth grade reading programs.

5. Illustrations in each of the five categories of style (i.e., realistic, cartoon, photographic, impressionistic, abstract) were prepared for a part of each selection. Each illustration was prepared by an artist of reputation who had experience with children's illustrations. The photographer was a recognized professional photographer. The illustrations were reproduced on 35mm slides in color.

6. The writer developed an instrument for the subject's recording of his or her preference for an illustration. The instrument was prepared in the form of a ballot. A sample of the instrument appears in Appendix B.

7. The stimuli (illustrations prepared in five styles and reproduced on 35mm slides) were presented to the subjects. A taped reading of a selection was presented to the class and the tape was stopped at the section to be illustrated. The stimuli (an illustration

prepared in five styles and reproduced on 35 mm slides) were presented to the subjects. Subjects were then asked to mark their choice of the preferred slide on the instrument.

8. The writer reported results obtained from the instrument used with the subjects. Tables were constructed to answer the questions proposed and to fulfill the purposes of the problem. An array was displayed of styles compared with each literary form to show possible relationships between style choice and literary form. The chi square statistic was used to make decisions on retaining or rejecting the null hypotheses.

Limitations

The study was limited in the following ways:

1. The majority of sources for this paper were from the Montana State University Library, a personal library, other libraries through inter-library loan, and extensive use of ERIC resources. The review of literature was limited to research reports for the period of January, 1970 to October, 1976. Studies listed under the following descriptors were included: preferences, textbook bias, children's literature, pictures, basal readers, reading interests, and illustrations.

2. The research in this study was conducted in selected schools throughout Montana. Ability to draw generalizations from the findings in this study was limited in that only these selected Montana

public school fifth grade children participated in the study.

3. Generalizations drawn from the data produced in the study were further limited in that three literary forms and five illustrative styles were used. Three different illustrations were used.

4. The study was limited due to the particular artist's perception of the style.

5. While the writer originally intended to determine illustrative preferences of Black students as well as Native American, Mexican American, and Caucasian students, the two schools having the greatest number of fifth grade Black students had but nine children who were in this ethnic category; this was not considered an adequate sample size to conclude differences.

6. Since the biographical selection concerned a person who lived before the development of photography, a realistic portrait was used for photographic style.

Definition of Terms

Certain terms were considered in the following context:

Abstract. Any art in which the depiction of real objects in nature has been subordinated or entirely discarded, and whose aesthetic content is expressed in a formal pattern or structure of shapes, lines and colors (Mayer, 1969:1). Abstract art may be further characterized by having two dimensional qualities and juxtaposition of forms out of

their natural order.

Basal Reader. A textbook, usually part of a grade series, used for instruction in reading (Good, 1973:57).

Biography. Writers of children's biography are not bound by definition to an attempt at recreating the subject's life as full as possible, with complete detail and careful documentation. Instead the biographer may use several forms such as the picture-book biography, the simplified biography, or partial biography. A complete biography spans its subject's lifetime, but may be relatively simple or difficult (Huck, 1976:561).

Cartoon. An often humorous or satirical drawing or series of drawings, the main interest of which is the subject matter rather than the style of execution. Cartoons are generally rendered in a simple, linear manner. They are usually entertaining but may also serve the purpose of instruction and political or social commentary (Mayer, 1969:63).

Children's Literature. Published reading material of a superior quality written for children by expert writers; published reading materials of a superior and lasting quality accepted by children and read by them with pleasure (Good, 1973:342).

Contemporary Realistic Fiction. Contemporary realistic fiction may be defined as that imaginative writing which accurately reflects the life as it could be lived today. Everything in such a

story can conceivably have happened to real people living in our natural, physical world, in contrast to fantasy where impossible happenings are made to appear quite plausible, even though they are not possible. Historical fiction portrays life as it may have been lived in the past, while contemporary realism focuses on the problems of living today (Huck, 1976:394).

Drama. A story told by means of dialogue and action; written to be performed on the stage by actors. Plays for children are usually arranged in order that the children may perform them.

Drawing. The delineation on a surface of shapes and forms. It may be further elaborated with applications of color, highlights, and shading with hatching or washes to produce the effect of light and shadow (Mayer, 1969:115).

Historical Fiction. Historical fiction attempts to provide young people with the vicarious experience of participating in the life of the past. Forms include imaginative stories in which authors deliberately reconstruct the life and times of a period in the past, books written from an author's memory of an earlier period, or books that have taken on an aura of the past simply by being around a long time (Huck, 1967:469).

Illustration. ". . . By illustration we mean any form of exposition of elucidation. The degree it elucidates or reveals is

the degree of its goodness or badness. It can exist on its own, or it may need to be amplified by words. Or it can itself amplify a text. It can also serve decorative ends. It can be a drawing, a painting, a collage or a photograph; it can also be a thumb-print, a geometrical diagram, an ink blot or anything else that communicates. It should always be judged by the effectiveness of its statement and the media in which it appears" (Gill and Lewis, 1964:34).

Impressionism. Art work characterized by discontinuous brushwork and by the breaking up of light into its component parts. Artists creating impressionistic work break away from the traditional technique of continuous brushstrokes, from the representation of clearly outlined objects, and from preconceived notions of the color that things have in nature. Such art work may be further characterized by the artist's play with light and shadow (Mayer, 1969:192-193).

Informational Article. Informational articles are ones which are designed to convey facts, or interesting comments about a particular subject. Usually such articles are written by people who are authorities in their fields; or they are written by writers who study subjects, interview specialists, and compile the data (Huck, 1976:526).

Instructional Material. Any device with instructional content or function that is used for teaching purposes, including books, textbooks. . . (Good, 1973:307).

Middle-grades. A term commonly applied to grades 4, 5, and 6, or to any two of these grades in an elementary school (Good, 1973: 366).

Modern Fantasy. Modern fantasy contains some imaginary elements that are contrary to reality as we know it today. Writers of modern fantasy may personify animals or toys, create new worlds, change the size of human beings, give humans unusual powers, or manipulate time patterns. An example of a well-known fantasy is Charlotte's Web, by E. B. White. Common forms and topics in modern fantasy include: modern fairy tales, strange and curious worlds, imaginary kingdoms, animal fantasy, the world of toys and dolls, Lilliputian worlds, fabulous flights, eccentric characters and preposterous situations, magical powers, tricks with time, overcoming evil, suspense and supernatural, science fiction. The modern literary fairy tale utilizes the form of the old, but has an identifiable author. In many instances, modern fairy tales are farcical versions of the old fairy-tale form. The story may be set in the days of kings and queens and beautiful princesses, but the conflict may have a modern twist (Huck, 1976:251-257).

Photograph. A faithful representation of an object obtained by the action of the sun's rays upon a chemically prepared plate (Adeline's, 1927:302).

Poetry. Carl Sandburg made the statement that "what can be

explained is not poetry. . . . The poems that are obvious are like the puzzles that are already solved. They deny us the joy of seeking and creating." Poetry for children differs little from poetry for adults, except that it comments on life in dimensions that are meaningful to children. Its language should be poetic and its content should appeal directly to children (Huck, 1976:310).

Preference. Favorable evaluation of some object. . . as compared to other possibilities that are rejected; a selection that may be intellectual or emotional in origin, that is always volitional at least in the act of choosing, and that concerns any of the value realms such as aesthetics or morals (Good, 1973:433).

Primary Grade. Any one of the first three grades of an elementary school (Good, 1973:263).

Reading Activity. Reading activities include pages within the student's copy of the basal which provide exercises or practice for reading or reading-related skills (i.e., literary skills, study skills, comprehension skills) (Weiss, 1973).

Realistic. In general, the depiction of human figures, real objects, or scenes as they appear in nature, without distortion or stylization (Mayer, 1969:322).

Traditional Literature. The traditional folk or fairy tale usually has no identifiable author. Originally the tales were passed from one generation to the next. Although names such as Grimm, Jacobs,

and others have become associated with some of these, they did not write (in the sense of create) the stories. Names attached to such traditional forms are usually referred to as the compilers of the tales as opposed to the authors. These are stories that are said to have been born of the oral tradition. Common forms in traditional literature include folk tales, fairy tales, fables, myths, epics, and Bible stories. Fables are brief, didactic tales in which animals, or occasionally the elements, speak as human beings. Myths deal with human relationships with god, with the relationships of the gods among themselves, with the way people accept or fulfill their destiny, and with the struggle of people within and without themselves between good and evil forces. The epic is a long narrative or cycle of stories clustering around the actions of a single hero (Huck, 1976:251).

Summary

The continued research in the teaching of reading is necessary because it places the instructional program on a scientific basis, aids in answering unresolved questions, and clarifies conditions that influence its effective development. Teaching children to read has long been an accepted responsibility for elementary education in America.

Because of its complexity, reading instruction poses unique problems for the teacher. Researchers have investigated the teaching of reading in order to solve some of these problems. Although much

published scholarship has accumulated, numerous controversies have appeared during the past thirty years. The use of basal readers as the main tool for teaching reading has been one such controversy. No particular basal reading system should be considered a panacea. Teachers have been encouraged to adjust to the strengths and weaknesses of each system. In order to make such adjustments, however, teachers need valid information about many aspects of the reading process. Data for making these adjustments, however, have not always been available or reliable.

Smith (1976) indicated that individual components of reading programs should be placed under close scrutiny before purchasing a series. This kind of evaluation, however, has not always taken place.

One component of basal reading series that deserves scrutiny is the use of illustrations. Opinions as to the value, style, media, color, and other qualities have been expressed by many writers (Hall, 1964; Read, 1950; Fries, 1966; Anderson, 1968; Rasmussen, 1964). Other writers (Dow, 1951, and LePere, 1967) pointed out that today's children not only expected illustrations, but also expected higher quality ones. Huck (1967) noted that modern basal publishers responded to this demand by using new technology for the printing of instructional materials.

Adult view on the appropriateness of illustrations, however, have not always coincided with children's preferences (Rudisell, 1952).

Illustration production has assumed more space and has raised the price of materials. A determination of children's preferences for illustrations could, therefore, be an important factor in the selection of a basal series.

Since basal readers were found to be used by many schools a knowledge of the values that children place on illustrations would be helpful to teachers and other school personnel. Should the styles of illustrations in presently available basal readers not be in line with children's preferences, the efficiency of reading instruction might be decreased. The purpose of this study was to investigate the type of art style preferred by fifth grade pupils in selected Montana schools. Another purpose was to examine illustrations from all of the five major basal reading texts written for middle-grade children in order to classify the type of illustrative style found in them. Another part of the study entailed the reading, evaluating, and categorizing of approximately 800 selections from the same five major basal reading series texts written for middle-grade children.

Although the writer found studies dealing with various aspects of children's preferences for illustrations, a search of ERIC materials for the period of January, 1970 to October, 1976 yielded no studies of fifth grade children's preferences for illustrative styles in relation to story context in middle-grade basal readers. The proposed study investigated these preferences and their relationship to context

of the accompanying literary material.

The study attempted to answer questions as to the 1) history of the use of illustrations in basal reading materials; 2) the semantic functions and utility of illustrations in reading materials; 3) controversies in the use of illustrations; 4) research findings pertaining to children's preferences for illustrations; 5) the distribution of illustrations among the types of illustrative style in the five major basal reading texts written for middle grade children; 6) the distribution of selections among literary forms in the same five major basal reading texts written for middle grade children; 7) the preference among fifth grades for illustrative style when the illustration accompanied a particular literary form; 8) the differences in preferences among male and female fifth graders for illustrative style when the illustration accompanied a particular literary form; 9) the differences in preferences among Mexican, Native American, and Caucasian fifth graders for illustrative style when the illustration accompanied a particular literary form.

General procedures for the study were outlined as follows:

1) a review of literature was conducted; 2) an examination of illustrations of five major reading series was made in order to classify the type of illustrative style in them; 3) an examination of selections in the five major reading series was made in order to categorize them as to literary form; 4) three selections were chosen from three major

literary forms; 5) illustrations were prepared for each of five categories of style; 6) an instrument in the form of a ballot was prepared for the recording of subjects' preferences; 7) subjects were presented the stimuli and asked to mark their preference; and 8) data, findings, conclusions and recommendations were reported.

One limitation of the study was that the majority of sources for the paper were taken from the Montana State University Library, a personal library, available sources through inter-library loan, and ERIC materials for the period of January, 1970 to October, 1976. Ability to draw generalizations from the findings was limited: 1) in that only selected Montana public school fifth grade children participated in the study, 2) in that three literary forms, five illustrative styles, and three illustrations were used, and 3) in that individual artists prepared the illustrations in the different styles.

The following terms were defined: abstract, basal reader, biography, cartoon, children's literature, contemporary realistic fiction, drama, drawing, grade, historical fiction, illustration, impressionism, informational article, instructional material, middle-grades, modern fantasy, photograph, poetry, preference, primary grade, reading activity, realistic, and traditional literature.

The next topic in this paper will be the presentation and discussion of the procedures used in this study. This will be found in Chapter 2.

Chapter 2

PROCEDURES

The purpose of this study was to investigate the type of art style preferred by fifth graders in selected Montana schools. Specifically the study attempted to answer the question: Will there be a preference among fifth graders for illustrative style found in basal readers (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies a particular literary form (i.e., legend, poem, biography)? Another purpose was to examine illustrations from all the selections of the five major basal reading series texts written for middle grade children in order to classify the type of illustrative styles found in them. Another part of the study entailed the reading, evaluating, and categorizing of approximately 800 selections from the five major basal reading series texts written for middle grade children.

The procedures used in this study will be discussed in this chapter. The first section of the chapter will elaborate on those procedures dealing with the review of literature, the classification of illustrations, and the categorization of literary selections. The second section of the chapter will discuss those procedures for the investigation of the type of art style preferred by fifth grade students. The procedures discussed in each section will appear in the order in which they were completed by the writer.

SECTION ONE

The procedures used in this part of the study included the following parts: 1) the statement of questions answered in part one, 2) major elements reviewed in the related literature, 3) examination of middle-grade selections for illustrative styles, and 4) examination of middle-grade selections for literary forms.

Questions to be Answered

1. What are the "milestones" in the history of the use of illustrations in reading materials and basal readers?
2. What are the semantic functions and utility of illustrations in reading material?
3. What are the controversies in the use of illustrations?
4. What are the research findings pertaining to the children's preferences for illustrations?
5. What is the distribution of illustrations among the types of illustrative style in the five major basal reading texts written for middle-grade children?
6. What is the distribution of selections among the literary forms in the five major basal reading texts written for middle-grade children?

Review of Literature

The writer conducted an extensive review of literature pertaining to the use of illustrations in basal reading texts. This review reported studies in the following subcategories: 1) "milestones" in the history of the use of illustrations in reading materials and basal readers; 2) semantic functions and utility of illustrations in reading materials; 3) controversies in the use of illustrations; 4) children's preferences for illustrations -- style, theme, and color. Appropriate studies were reported from those holdings available from the Montana State University Library. Studies listed in the ERIC Index, the Education Index, and Dissertation Abstracts for the period of January, 1970 to October, 1976 and listed under the following descriptors were included: preferences, textbook bias, children's literature, pictures, basal readers, reading interests, illustrations.

Examination of Middle-Grade Selections

-- Illustrative Styles

An examination of illustrations from all the selections of the five major basal reading texts written for middle-grade children was made in order to classify the type of illustrative style found in them (i.e., realistic, impressionistic, photographic, cartoon, abstract).

The five major basal reading series were those which had the highest national sales according to a report by Market Data Retrieval, 1974. A copy of appropriate information from this report appears in

Appendix G.

A table was prepared to record the occurrence of illustrations in the categories.

The grade designation provided by the publishers was used to classify readers as middle-grade.

Examination of Middle-Grade Selections

-- Literary Forms

This part of the study entailed the reading, evaluating, and categorizing of approximately eight hundred selections from the same five major basal reading series texts written for middle-grade children.

Selections were categorized as to the basic kinds of literary forms they represented, that is: modern fantasy, drama, poetry, traditional literature (including myth, epic, legend, tall tale), contemporary realistic fiction, biography, historical fiction, and informational article.

A table was prepared to present the number of selections for each literary form listed above.

The grade designation provided by the publishers was used to classify texts as middle-grade.

SECTION TWO

The procedures used in this part of the study included the

following parts: 1) a statement of the questions to be answered, 2) population description, 3) experimental procedures (i.e., choice of literary selections, preparation of illustrations, preparation of the instrument, and the method of presenting the stimuli to subjects), and 4) analysis of data (i.e., method of organizing and reporting data and analysis of data).

Research Questions

1. Will there be a preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form -- legend?

2. Will there be a preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form -- poetry?

3. Will there be a preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form -- biography?

4. Will there be a difference in preference among male and female fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration

accompanies the literary forms -- legend, poetry, biography?

5. Will there be a difference in preference among Mexican American, Native American, and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary forms -- legend, poetry, biography)?

Statement of Null Hypotheses

1. Ho: There will be no preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, legend.

2. Ho: There will be no preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, poem.

3. Ho: There will be no preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, biography.

4. Ho: There will be no significant difference in preference between male and female fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the

illustration accompanies the literary form, legend.

5. Ho: There will be no significant difference in the preference between male and female fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, poem.

6. Ho: There will be no significant difference in the preference between male and female fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, biography.

7. Ho: There will be no significant difference in preference between Mexican American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, legend.

8. Ho: There will be no significant difference in preference between Mexican American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, poem.

9. Ho: There will be no significant difference in preference between Mexican American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, biography.

10. Ho: There will be no significant difference in preference between Native American and Caucasian fifth graders for illustrative

style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, legend.

11. Ho: There will be no significant difference in preference between Native American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, poem.

12. Ho: There will be no significant difference in preference between Native American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, biography.

13. Ho: There will be no significant difference in preference between Caucasians and non-Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, legend.

14. Ho: There will be no significant difference in preference between Caucasian and non-Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, poem.

15. Ho: There will be no significant difference in preference between Caucasian and non-Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, biography.

Population Description

All subjects participating in this study were fifth grade students from selected schools in Montana. Classes were chosen which contained a high proportion of Mexican American, Native American, and Caucasian students.

Twenty-seven fifth grade classes were chosen. Five hundred twenty-one students from ten schools participated in the study. Schools selected were those identified by a representative of the State Department of Public Instruction and school district principals as having a high proportion of the ethnic groups noted above. Schools participating in the study included the following: 1) Garfield and Taft in Billings, 2) Crow Agency and Wyola on the Crow Reservation, 3) Loy and Emerson in Great Falls, 4) Belgrade, Manhattan, Monforton, and Willson in the Bozeman area.

Experimental Procedures

This section will describe the choice of literary selections, preparation of illustrations, preparation of the instrument, and the method of presenting the stimuli to subjects.

Choice of literary selections. Three selections were chosen from a middle-grade basal reading text. Two of the selections were prose and the third was poetry.

In order that the selections be representative of the literary

forms in middle-grade basal reading texts, each selection was chosen from a different literary form. These selections were chosen from one publisher's fifth grade text.

The selections were chosen on the basis that they fairly represented subjects, themes, characterizations, and forms which regularly appeared in fifth grade reading programs. A transcript of each selection appears in Appendix A.

Preparation of illustrations. Illustrations in each of the five categories of style were prepared for a part of each selection. The photographic style for biography, however, was a photograph of a painted portrait. The section of the story of poem illustrated was one which was illustrated by the publisher. The section was also one in which an illustration was intended to extend the text and reveal the story mood and action. Each illustration was prepared by an artist or photographer of reputation who had experience with children's illustrations. The photographer was a recognized professional photographer. The illustration from the original text was also used. Listed in Appendix D is a description of the qualifications of each person who prepared the illustrations.

The illustrations used in the study were all of the same general shape, size, and arrangement. The illustrations were reproduced on 35mm slides. The styles of illustrations used in the study were 1) cartoon, 2) impressionistic, 3) realistic, 4) photo-

graphic, 5) abstract. Each slide was prepared with a number and alphabetical letter so that when projected onto the screen, it was identifiable by the child. Half-tone photographs of the illustrations appear in Appendix E.

Preparation of instrument. The writer developed an instrument for the subject's recording of preference for an illustration. The instrument consisted of a ballot, printed on a regular eight and one-half by eleven inch paper. A number and letter appeared on the ballot in order that the preference could be marked. An informal check on the reliability of the instrument was made by conducting a pilot study with fifth graders at Monforton, Belgrade, and Manhattan schools, Bozeman, Montana. A description of the pilot study appears in Chapter 4.

Method of presenting stimuli. The five slides of illustrative styles for a single selection were arranged for presentation by assigning each a random number (1-5). A copy of the random number assignment appears in Appendix F.

Copies of each of the three selections were provided each student in order that he or she could read along with the oral taped reading of the selection. Instructions on how to mark the ballot were given. At this time students were asked if they could see clearly the screen located at the front of the room. Those who could not were repositioned. The classroom teacher was asked to indicate on paper those students who were color-blind. The responses from the color-

blind students were included in the data analysis. A taped reading of a selection was presented to the class and the tape was stopped at the section to be illustrated. The tape was recorded by someone other than the experimenter. The subjects were asked to consider the slide as if it accompanied the selection just listened to and read.

The five slides of illustrative styles for a single illustration were shown twice to allow students to review them before making a choice. Subjects were asked to mark their choices on the instruments. Slides were projected for ten seconds. Instruments were collected. The total time involved for these procedures was approximately thirty minutes.

Analysis of Data

Results obtained from the instrument used with the subjects were tabulated by means of descriptive statistics. Tables were constructed to answer the questions proposed and to fulfill the purposes of the problem. The tables were constructed to provide information concerning the subject's preferences for illustrative style when accompanied by a specific literary form.

An array was displayed of styles compared with each literary form to show possible relationships between style choice and literary form. The chi square statistic was used to make decisions on retaining or rejecting the null hypotheses. A null hypotheses was rejected if

the chi square statistic was significant at greater than or equal to the .05 level of significance.

Summary

The purposes of this study were 1) to investigate the type of art style preferred by fifth graders, 2) to classify the illustrations in middle-grade basal readers as to type of style, and 3) to categorize selections in middle-grade basal readers as to literary form.

To accomplish the first purpose of the study, illustrations in five styles were prepared for three literary selections. Five hundred twenty-one students in twenty-seven fifth grade classes were asked to listen to and read the selections, after which they were shown the slides; students were given ballots on which they were to indicate their preference for a particular slide.

To accomplish the second purpose of the study a review of literature was conducted; illustrations in middle-grade basal selections were classified as to style; and selections in middle-grade basal selections were categorized as to literary form.

The data was compiled and analyzed to test the stated hypotheses. The chi square statistic was used to analyze the data at the five percent level of significance. The data was then presented in appropriate tables for drawing conclusions and making recommendations.

The next topic in this paper will be the review of literature.

This will be found in Chapter 3.

Chapter 3

REVIEW OF LITERATURE

Literature relative to the role of illustrations in basal readers appears to fall into four major subcategories. The first section of this chapter recounts "milestones" in the history of the use of illustrations in reading materials and basal readers. The semantic functions and utility of illustrations in reading materials are discussed in the second subcategory. A third cluster of writings looks at the controversies in the use of illustrations. A fourth group contains those studies devoted to aspects of children's preferences for illustrations. Style, theme, and color preference will be reported.

History of Illustrations in Reading Textbooks

"Not every child who picks up an attractive book in school today realizes that behind such features as good paper, readable type, and interesting illustrations there is a long and colorful story" (Russell, 1961:53).

The history of the use of illustrations would probably begin with the earliest cave drawings and progress through stone inscriptions to modern photographic and silk screen color processes. The invention of papyrus in the Nile region, parchment (made from the skins of sheep and cattle) dating back to 500 B.C., the reed or quill pen, Chinese

rag paper, the development of libraries by the Sumerians, the Babylonians, the Chaldeans, and the Assyrians, the invention of printing with moveable type, the first printing of books in Peru -- a full century before it began in English speaking countries, the arrival of the printing press in Massachusetts in 1638, and the mass paper production of the 1700's, all contributed important elements in the history of reading materials and the use of illustrations (Russell, 1961).

Before there was an alphabetic system of writing, pictographic and ideographic symbols were used. The development of these systems point to the early importance of communicating a message via illustrations. Durkin (1974:191) noted that pictographic symbols related directly to the visual appearance of their referents. A drawback in such a system was that the message was not always capable of being pictured. This drawback led to the development of the ideographic system of writing:

An ideograph is a conventionalized character substituted for the pictograph. The Dakota Indians symbolized 'plenty' by a buffalo head. . . . with the ideograph the direct relationship or origin of the symbol becomes difficult to trace (Russell, 1961:50).

Durkin (1974:191) noted that the ideographs often showed ". . . no relationships to its sound and, generally, none to its meaning either." Durkin (1974:191) demonstrated that written English, although not ideographic, has some ideographs. Examples were mathematical signs

(+,=), numerals (4, 10), and abbreviations (Ms., Co.). A person reading these ". . . either knows or doesn't know that 10 is read as 'ten'." There is no way a person can reach that conclusion from the ideograph alone.

In the alphabetic system of writing, words are represented by letters (graphemes) that, over their years of use, have been assigned speech sounds (phonemes). Although written English is alphabetic it does not have a mutually exclusive phonetic-graphemic relationship. The language has approximately forty-six sounds but only twenty-six letters to represent these sounds. Even though combinations of these letters allow the English writer to form written messages, many messages are still not capable of being communicated by the alphabetic system alone. Illustrations are felt to be one means of extending the written language into more complete realms of communication.

John Amos Comenius (1592-1670) is credited by most authorities as first emphasizing the need for illustrations to extend learning beyond the written phases. Hymen (1966:105) stated that "His book Orbis Pictus (World in Pictures) established the method of using illustrations for elementary students. His work set the stage for later educational reformers years later."

Witty, et al (1966:24-25) noted that progress in the teaching of reading ". . . may be best appreciated by tracing the development of the reading textbook." A review of the history of reading texts

pointed to the changing concepts in thought about the reading process, the progress in educational theory and practice, the influence of research in child development, and the developing concepts in the learning process. The changing attitudes toward the role of illustrations and the increasingly technical advancements in producing illustrations also played important roles in the history of reading materials.

One of the first reading books was the Hornbook, which really was not a book but a wooden paddle. On this paddle, a sheet of paper was fastened and covered by a transparent sheet of horn. Appearing on most "paddles" were the letters of the alphabet, vowels and vowel-consonant combinations, a benediction, and the Lord's Prayer. Occasionally, a cross was placed on the parchment. Except for this, there was no other illustration on the Hornbook. This particular symbol was appropriate, however, since it was the "Old Deluder Law of 1647" which required townships to establish schools so that children could learn to read the scriptures and the cross was intended to emphasize the religious function of reading (Hillway, 1964:20).

After 1750, the Battledore was developed (Huck, 1976:61). This book of instruction ". . . consisted of cardboard or other material folded to form three leaves." Although the book had no specific religious teachings, it contained the letters of the alphabet in both lower and upper cases, numerals, easy reading lessons, and

woodcuts of animals. Huck (1976:61) pointed out that "Probably these were the first books of pictures that could be handled by children themselves."

The New England Primer (1792) is usually described as being the next main reading text after the Hornbook and the Battledore. Tyack (1967:3) stated that The New England Primer was ". . . morbid at best and sadistic at worst." The primers of this time ". . . indicated values which were consciously inculcated in the young" (Tyack, 1967:179). Tyack (1967:179) added that "Religious orthodoxy and anxiety about salvation in early America spoke through the pages of The New England Primer (of which over 2,000,000 copies were sold.)"

The frontispiece in the Primer was usually a portrait of the reigning British monarch at the time the edition was printed. During the Revolutionary War, these pictures were replaced with engravings of American patriots. These frontispiece engravings showed a nationalistic rather than a religious objective for learning to read.

A series of pictures about one inch by two and three-fourths inches in size accompanied the verses in the Primer which were designed to teach the letters of the alphabet. "All of these pictures were woodcuts in black and white, crudely drawn, poorly proportioned, and altogether unattractive and inartistic" (Smith, 1965:22). The pictures often emphasized the dismal message of the verse. For example, in teaching the letter "y" one finds the verse "Youth forward slips/Death

soonest nips." The accompanying illustrations show a hideous figure holding a huge spear in his hand which is pointed at the head of a young child who stands nearby (Smith, 1965). Print and illustrations of this "Little Bible of New England" were necessarily small (Witty, et al. 1966:25).

Following the extensive use of The New England Primer, a number of spelling books came into vogue. Perhaps the most successful of the 1700's was Thomas Dilworth's A New Guide to the English Tongue. The 1770 edition was four by six inches in size and bound in leather. The speller, however, added a feature not found in any of the others -- a series of twelve crude little woodcuts (Smith, 1965).

In 1790, Noah Webster published his famous "Old Blue Back Speller" -- The American Spelling Book. The book is said to have reached a total distribution of twenty-four million. The first picture in an early edition was supposed to be a likeness of Noah Webster, showing him with hair standing upright in horn-like spikes, which gave him a most "uncouth" appearance. This portrait brought so much derision upon the author that it threatened for a time to ruin the future of his books. The speller, however, had so much merit that the public soon forgot the strange looking author who appeared in the frontispiece and accepted the book on its own worth. The other pictures in the speller were black and white woodcuts used to illustrate the fables and were of a highly moral character. The

pictures occupied approximately one and one-half percent of the total space of the book (Smith, 1965).

Lyman Cobb has been frequently noted as being one of the great educators of his time. He was a prolific writer of reading texts. The most popular of Cobb's books was the North American Reader which appeared in 1835. The book contained but one illustration -- a black and white reproduction of "Washington's Head-Quarters, Newberg, New York."

George Hillard was another author who conceived of the idea of preparing a set of readers. The author's summary of The Improved Reader noted that his book ". . . provides for the instruction of the learner in regard to the using of many words . . . while it entertains him with moral tales and many sketches in natural history" (Smith, 1965:57).

Except for the Bible ". . . textbooks were sometimes the only contact a school child had with the broad-world beyond his immediate community. . ." (Tyack, 1967:178). "Textbooks often revealed what their writers -- and those who purchased the books -- took to be a national consensus" (Tyack, 1967:179). Hence, many factors contributed to the popularity of the McGuffey Eclectic Series, used from 1836-1920. Emphasis was given to commendable character traits. Books were organized into a program of individual books for different grade levels. Illustrations were also included in the reading series: "The pictures

in readers for beginners became more plentiful and more directly representative of objects familiar to children and experience of child life" (Smith, 1965:85). The books became the most popular of all textbooks by 1920. Tyack (1967:181) stated that the author, William Holmes McGuffey was:

. . . born in Pennsylvania and raised in Ohio, the best-known American textbook writer. A college professor, McGuffey was no businessman; he signed a contract with his publisher, Truman and Smith, limiting his royalties to \$1,000, a fact which must have proved painful when he saw about 50,000,000 copies of his Readers, bought before his death in 1873. About 122,000,000 copies of his series were sold between 1836 and 1920, making them by far the most popular of all the textbooks.

David B. Tower was one of the authors who attempted to bridge the gap between the alphabet method and the word method. His text, the Gradual Primer, contained a few black and white pictures. They depicted horses, cows, and often childhood experiences such as wading in a brook. "The figures of the children are badly proportioned -- the heads being too large for the body and the legs too short" (Smith, 1965:111).

The Ward Rational Method was developed by Edward E. Ward, Superintendent of Public Instruction in Brooklyn, New York. It was published in 1894 by Silver Burdett and Company.

The greatest innovation was two full-page colored illustrations. This was probably the first school reader in which colored pictures were used. One of these showed two children walking down the road with their mother, and the other depicted four children riding in a little carriage drawn by two goats. Both illustrations were labeled 'A Picture for a Story.' There

were several small uncolored pictures; some occupied the upper half of the page; others were set into the reading text at various places on the page. The animals were drawn very well, but the human figures were stiff, expressionless, and often out of proportion. Approximately sixteen percent of the book was occupied by pictures--a decided increase in picture space (Smith, 1965:135).

One of the later series of readers which made use of a highly systematized method of phonics was the Beacon Readers published by Ginn and Company in 1912 and 1913. In examining the primer one sees in this book a trend toward the use of color pictures. Yet, that trend had not quite developed. All pictures in the first eighty pages were in color but from page eighty onward the pictures were in black and white. Approximately eighteen percent of the book was made up of illustrations (Smith, 1965:139).

The Reading-Literature Series by Row-Peterson and Company included a large number of illustrations drawn by Frederick Richardson. They typified a trend toward an increased percentage of illustrations. These readers contained illustrations on thirty-one percent of the pages (Smith, 1965:150).

By 1925, the mechanical makeup of readers had reached a high degree of excellence. Beginning readers often devoted as much as forty percent of their space to vivid three color combinations. The readers for the grades above the first grade contained more pictures; however, the fourth, fifth, and sixth grade readers generally contained black and white illustrations. Eleven out of sixteen series published after

1925 had blue covers (Smith, 1965:215).

New basal reading systems published between 1940 and 1950 emphasized reading readiness. The art work occupied still more space. The colors on the whole were more vivid, and colors were used more freely in intermediate grade readers. It was not uncommon to find full page illustrations in the upper grade readers (Smith, 1965:278).

The 1950's saw artwork becoming more colorful and profuse at the early levels and a reintroduction of some black-and-white illustrations. Full page illustrations and double page spreads seemed not to be used as much as in previous periods (Smith, 1965:328).

During the 1960's illustrations usually were placed at the tops and bottoms of pages. Color was used more generously in the upper grade readers. A unique feature occurred in that actual photographs were used in the upper grade readers (Smith, 1965:333). The Macmillan reading program of the latter sixties seemed to break the pattern of only placing illustrations in rectangles at tops and bottoms of pages. In this series illustrations occurred anywhere on the page and even extended down the edges of the pages or blended in with the written script. Additional improvement in the basal readers was noted by Huck (1967:239):

It was once thought that the mark of excellence of illustration in a reader for any grade depended upon the securing of one artist for an entire book. No longer is this the case. Just as no one literary form can serve the many purposes that the content of basic reading must serve, no one style or technique

or medium can serve the many purposes of illustrations. However, in most first grade reading materials, illustrations are realistic and character delineation must be consistent throughout the stories.

The linguistic movements of the 1960's saw illustrations omitted entirely from the reading textbooks but this seemed short-lived. The 1970's found illustrations returning to a position of importance in all major reading texts. Huck (1971:112) called attention to the various ways that contemporary artists used media in their illustrations; finger painting, printing from lace paper dollies, collage, and cut paper were all examples. The use of these techniques has influenced the production of illustrations in basal series.

From the information concerning the history of illustrations in reading textbooks, the writer has noted that by the very nature of graphic communication, illustrations have been important. At the same time, pictures alone were not capable of communicating some ideas. The alphabetic system of writing proved more adaptable to the expression of complex ideas. Pictures or illustrations, however, were still found to be capable of communicating some things very well.

Several viewpoints seemed to have influenced the development of illustrations for reading textbooks. These included illustrating for embellishment, religious symbolism, patriotic symbolism, moralistic symbolism. Illustrations were also provided in order to provide entertainment, additional experience, increased comprehension, motivation, and aesthetic appreciation.

Semantic Functions and Utility
of Illustrations

Most linguists, as well as reading authorities, have long recognized the utility of the use of illustrations in the teaching of reading. This utility, however, has not been universally accepted by authorities in these fields.

The semantic function of the use of illustrations has been described in almost every style of writing, from the extremely colorful narrative to the highly theoretical. Lundsteen noted that:

An illustration is to a book what molasses is to a pancake. It increases the nourishment, makes it more tasty, and adds a flavor of its own (1976:222).

Other authorities have made the following claims and observations:

Picture clues provide necessary vicarious experiences and often bridge the gap between a real experience and the printed symbols of that experience (Smith, 1972:255).

A good picture fascinates a child and is an approach to the context (Fitzgerald and Fitzgerald, 1967:178).

Illustrations in children's books are visual presentations by which the discursive text is illuminated and extended in richness of meaning (Smith, Goodman, and Meredith, 1976:329).

Language by itself as an idiom for knowing has limitations (Smith, Goodman, and Meredith, 1976:328).

The nondiscursive idiom, or symbolic presentation, can present concepts involving emotional overtones and significant particulars more effectively than can lines of discourse (Smith, Goodman, and Meredith, 1976:329).

Ability to read a picture well will ultimately help a child to read the printed symbols that appear under it (Smith, 1972:255).

Other writers have pointed to other language arts abilities related to the reading act, which may be aided by the use of illustrations. Smith (1972:161) noted that "Pictures may be used very effectively for building an enriched oral vocabulary." He also spoke of the capability of pictures to ". . . evoke a group of expressive words" (Smith, 1972:161).

Besides adding to oral vocabulary, pictures and illustrations have been used in pre-reading tasks and readiness testing: "Subtests concerned with ability in visual discrimination also used pictures" (Durkin, 1974:115).

Some teaching and reading authorities have urged children to create their own illustrations or to seek illustrations that make the selection meaningful:

Another way of using pictures in reading is to have children bring in a picture that they think looks like a character in a story they are reading (Flanigan and Boone, 1977:8).

Not all authorities agreed as to the degree that reading texts should be illustrated:

They (illustrations) should not dominate a book and rob the text of its vitality, nor should they be so subsidiary to the words that they merely decorate (Smith, Goodman, and Meredith, 1976:329).

As will be noted later in the following sections on controversies in the use of illustrations, some authorities claimed that:

Picture clues are a distraction from the main task of recognizing the printed form of the language (Smith, Goodman,

and Meredith, 1976:329).

It should be noted that some linguists have pointed to the limitations of symbols in general. A postulate of general semantics may be helpful here in dealing with problems of language and symbolism: the map is not the territory. The map never represents all of the territory. The word is not the thing. The symbol is not the object. A distinction is made between the symbol and its referent. Hayakawa (1963:13) explained Korzby'ski's concept of the "extensional orientation" in the following way: it is the "... habit of orienting oneself in terms of the nonverbal realities for which words presumably stand, to which words are often an imperfect guide, and from which we are too often shielded by verbal smoke screens." This strategy, maintaining an extensional orientation, allows for many possibilities in improved human perception. An illustration, then, could clarify and extend the world of words but would still be a symbol.

According to these author's statements, illustrations serve many functions in teaching children. Something valuable is added by the presence of an illustration. The child's world, as suggested by the writer's quoted in this section, is one of experience. Written language in the early stages of learning is certainly strange to the child. Pictures bridge the gap between the real world and written language. Pictures can explain very quickly the unique setting of a story, the emotional tensions of characters, and the animation that

written language may not -- at first -- provide for the child.

Controversies in Use of Illustration

Controversies in the use of illustrations in basal readers have increased steadily since the 1920's. This is understandable because of the recognition that aspects of illustration influence children's attitude toward materials. For the purposes of this paper controversies centered around the following areas will be discussed: 1) relative value of illustrations, and 2) ethnic and sex bias in illustrations for basal textbooks.

The production of a variety of styles, the use of several illustrative techniques, and the increase of illustrations in general, were well accepted in the 1960's according to authorities in the field of reading such as Smith (1965) and Huck (in Frost, 1967). One may find illustrations in almost all the basal reading materials since the conception of the graded reading materials in the early part of the eighteenth century. As was described in the section on the history of the use of illustrations, progress was made toward technical perfection of illustrations. With the advent of numerous linguistic approaches in the teaching of reading came a challenge to the accepted principle that illustrations should be included in all basal texts.

Hence, many authorities who believed in the value of illustrations had

to assert the reasons for including them in basal readers.

Hildreth (1958:156) supported the view that "The use of picture clues is similar to the use of context clues for deriving meaning of new or forgotten words." A picture was described by this author as having the power to give the key to the action going on in the story or the implications of the plot and details. A characteristic of well-constructed books, according to this author, was that they contain "attractive pictures on nearly every page that furnish clues to meanings in the text" (Hildreth, 1958:156). Manzo and Legenza (1975) argued that pictures have a language stimulation value and that certain components of pictures contributed to this value. These authors listed such potency factors as significant things in the picture, different colors, actions in progress, number of children present, number of things with potential for movement, empathy, and other aspects.

Anderson (1968:169) pointed out that adults often look at illustrations in books and magazines ". . . to get a mental image that word explanations alone cannot give." She further noted that "It is a mistake to think that children use pictures only to guess at what is printed below them." The use of illustrations in reading material was viewed as very important: ". . . if the purpose of reading is to obtain meaning, and if an important aspect of reading is the explanation of concepts, then children's readers should be selected with the

best possible illustrations" (Anderson, 1968:169).

Some linguists, however, advocated the opposite of such views. Bloomfield (1968), for example, actually advocated the use of a linguistic approach to reading early in the twentieth century. Barnhart (in Bloomfield, 1968:9) reported that Bloomfield encouraged the use of such a system in 1937. Bloomfield's essay entitled "Linguistics and Reading," appeared in 1942 (Bloomfield, 1942). His definition of reading was based upon the premise that "In order to read alphabetic writing, one must have an ingrained habit of producing the phonemes of one's language when one sees the written marks which conventionally represent these phonemes" (Bloomfield, 1968:10). Essentially the argument emphasized the importance of phonemic-graphemic relationships and de-emphasized the role of meaning and illustrations for beginning reading.

The subsequent arguments in educational circles and the widespread publicity of the system or systems of linguistically based reading programs have continued throughout this period, from 1940 to the present. Publications of many linguistic texts for children carried a 1960 copyright data; hence, current references are made to the linguistic movements of the 1960's. The Merrill Linguistic Readers was an example of a reading series which proposed that including illustrations had a negative effect on teaching a student to read.

In order to focus the pupils' attention upon the reading materials themselves, pictures must be excluded from the basic series. Experience has consistently demonstrated that (a) pictures constitute a distracting element in the process of learning to read, and (b) because pictures furnish clues to meaning, they lead the pupils to guess at words rather than to read them. (Incidentally, the absence of pictures permits the release of highly individualized creativity when the pupils are encouraged to illustrate the stories, for they are not hampered by the interpretation of another 'artist' (Fries, 1966:6).

A different principle has been used in most major reading series as determined by national sales. Publishers in the 1970's made positive claims for their illustrations:

A major function of our series is to suggest something of what lies beyond the covers of the books, the infinite multitude of subjects that are enjoyable, instructive, and exciting. One of the most rewarding and exciting dimensions of our work was with the designers, artists, and illustrators. Each of the selections by virtue of its uniqueness demanded an individualized pictorial treatment. Today's pupils live in an extraordinarily visual world: TV, magazines, newspapers, books, city streets, museums, department stores, advertisements--all struggle for visual attention. Illustrations in a reader should have a dynamic connection with experience. They should provide a delightful enhancement of written language, and our designers so employed their art that each illustration -- the covers, the Tables of Contents, and the unit openers -- excites curiosity and suggests a unity throughout the various segments of each book (Weiss, 1973:4).

Even the visuals of Reading 360 help guide the young learner to creative thought patterns. The wide variety of styles and techniques used by the artists demonstrate that there are many ways of perceiving 'reality' and that each is as valid as the other. Many of the illustrations also say a great deal simply by the things left undefined -- an empty area of quiet next to vivid color can speak to the emotions much more forcefully and directly than a fully drawn, conventional picture (Clymer, 1973:16).

Richness and variety of verbal content are complemented by the contributions of more than 100 of the finest contemporary book illustrators and artists, offering fresh and sensitive

visual interpretations of literature new and old. An imaginative sampling of techniques, styles, and media expands children's visual horizons and deepens their understanding of art and artists (Durr, 1976:3).

The appeal begins with the cover illustrations that adorn both pupil's and teacher's materials: picnics and playground games. Clowns and balloon peddlers. Fall's bold sunsets. Winter's icy cold. Spring's soft promise. The lazy days of summer. Sports. Work. Happy faces. Cities, towns, and countrysides. Cats and dogs and more curious creatures.

The illustrations are the work of many different children from many different cultures. Still, they have one thing in common. Each piece seems to say 'Come inside this book. You'll like it here.'

Once you've got children inside Reading Unlimited you'll find a wealth of stimuli to sustain their interest: many different kinds of illustrations fill the pages of Reading Unlimited -- black and white and full-color pictures, photographs, cartoons, and collages. The illustrations jolt, surprise, excite, delight as they help children learn to read. Page formats are designed to appeal to the eye as well as to parallel the content (Aaron, 1976:8-9).

There has also been much concern ". . . over inaccurate and inadequate representation of ethnic groups in instructional material" (Dunfee, 1974). Textbooks have also been under examination for ". . . their failure to portray accurately children's activities, family situations, interpersonal relationships, and the dress and occupation of women. . ." (Fishman, 1976:443). Dunfee (1974) spoke of the ". . . cognizance of the need to analyze instructional materials for ethnic bias." In the following section, studies shall be reported which speak to both ethnic and sex bias.

Simms reviewed racism in textbooks and categorized it as either commission or omission:

The first encompasses one or more of the following: stereotyping ethnocentrism, Eurocentrism, and use of prejudicial statements or caricatures that demean minorities. This variety of textbook bias is the most blatant and therefore the simplest to spot. The second form is much more subtle and insidious, being rooted in what the writers leave out. This deficiency may be attributed to lack of scholarly integrity, a lack of sensitivity and awareness, political demands made on textbook writers; or a continuation of our marriage to the Eurocentric view of history to the exclusion of all others (1975:201-202).

Dunfee (1974) reported that text writers are becoming more aware of such biases:

Publishers are joining with writers and developers of teaching materials to emphasize the contributions from each of the many groups that make up our country, to emphasize diversity as an aspect of the unity needed in American society, and to enrich American life by including differences rather than excluding some that do not fit old stereotypes. . . . Many of the ethnic groups in American society have been inadequately and inaccurately represented in instructional materials.

Klineberg (1967:225) raised questions regarding the basal readers' contribution to ". . . children's picture of American society, the attitudes and modes of thinking which are presumably developed, and the desire to read further." Klineberg (1967:230) suggested that readers could give children a more complete and adequate picture of American Life. Russell stated;

The charge of 'middle class bias' has been made frequently against modern readers, especially in the primary grades. The children are always too clean and well dressed, have too many possessions, and live in a too beautiful single family dwelling (1970:141).

The purpose of a study by Marten and Matlin (1976) was to compare very recent textbooks with those published before 1971.

The authors examined the proportion of women in illustrations, as main characters, and in active roles. Sixteen books were examined, eight at the first grade level and eight at the sixth grade level. The texts represented five publishers. Half of the books were published prior to 1971. The other half were published since then. Textbooks were selected so that each publisher was represented by both a new and old version of the first and sixth grade readers. The authors found data that ". . . demonstrated that females are now being represented slightly more in illustrations and as the main character in stories, though they still appear much less often than males" (Marten, 1976:764). The study, however, was limited to readers published by Harcourt, Brace, Lyons and Carnahan, Lippincott, Holt, Rinehart and Winston, and Scott Foresman. Only two of these publishers (Scott Foresman, and Holt, Rinehart and Winston) appeared as the top programs in sales according to Market Data Retrieval (1976). The information in the study will be presented here, however, to demonstrate what Marten described as a slight increase in female representation in basals. In the older texts, females constituted only thirty percent of all people in illustrations. By combining the two grade levels, twenty-eight percent of the older textbook illustrations and thirty-three percent of the new were female. This increase was found statistically significant using a chi square analysis. When examined separately, however, in first grade there was a slight but insignificant increase.

For sixth grade there was a "clear cut increase." The authors concluded that in the texts examined, ". . . females are now being shown slightly more often in illustrations, and as main characters in stories, in comparison to the older texts" (Marten, 1976:767). According to Marten and Matlin (1976:767) ". . . progress has been made, however, (females) are seriously misrepresented." In other ways the representation of females had not changed:

Perhaps more important, the nature of their activities has not changed substantially in recent years. Textbooks still give the impression that independence, initiative, and innovation are traits reserved for males (Marten, 1976:767).

A study entitled Dick and Jane as Victims (Allroy, 1972) examined sixteen reading series for evidence of sex stereotyping. There were 1,447 stories found to have featured males; 495 stories featured females. Illustrations in these stories were also examined for such stereotyping. Females, as depicted in the illustrations, were limited in bodily activity and in geographical setting (that is, close to home, nearby, at school). Girls' faces were empty and without expression; their bodies were passive. Males, as depicted in the illustration, however, were capable of many activities and playing rough games. Several parallel situations are described by the study. The authors found that boys appeared clever and imitated their fathers, implying that they acquired skills outside the home. Girls, however, imitated their mothers, implying that helping mother meant doing routine

dirty work or waiting on fathers and brothers. Illustrations depicted boys receiving money and thanks for the work they did; whereas girls received only thanks.

There have been criticisms that this study dealt with reading texts that are no longer published or in wide circulation. Fishman (1976:443) warned that the vast amount of criticism of children's texts ". . . is simply no longer appropriate because it attacks texts which are no longer being published or are entirely out of circulation." Of the sixteen series examined in Dick and Jane as Victims (Allroy, 1972) only five were described by Fishman as current.

Fishman concluded:

If elementary reading texts are to continue to be criticised for sexism, and if that criticism is to be taken seriously, more research on current textbooks is necessary. Unless and until new studies are made, it is impossible either to accept the charges of pervasive sexism in textbooks, or to praise those publishers who have in fact revised their texts to present a more realistic depiction of girls and women (1976:443).

In 1975, an expanded edition of the book Dick and Jane as Victims contained an analysis of new books from nine publishers. Some improvements were noted, but the authors stated that there was still a great unevenness between the treatment of males and females. Several publishers included excellent stories showing girls as competent persons but the ratio of male centered stories to female centered stories remained essentially the same. Girls were pictured working with a saw and hammer, playing with boys on a fire engine, and winning

prizes. Boys were depicted as crying and capable of sentiment. Blatant sexism was described as gone from the newer texts; but subtle forms of sexism still existed. The authors pointed out that a clever girl in one story did overcome a language barrier, but she was still illustrated with her hands behind her back. Other subtle ways of stereotyping or examples of stereotyping were evident to the authors: a girl who said she wanted to be a doctor or nurse when she grew up was illustrated as a nurse. The next textbooks still exhibited some forms of sexism in their illustrations. The authors concluded by stating that curriculum materials should be developed which encourage all children to develop their full potential regardless of their sex (Allroy, 1975).

Writings presented in this section dealt with the investigation of children's preferences for illustrative style, color, theme, position, complexity, and tension. Additionally, studies which investigated adult preferences verses children's preferences were reported. This writer noted that many of the findings of research conflicted with general beliefs of textbook writers and reading authorities.

Children's Preferences for Illustrations

Reading ability is of little value to a person unless he or she puts it to use in reading different materials voluntarily. How much a child will read on his own depends upon his interest. Interests

induce him to respond eagerly to many things in his life. Bond and Tinker (1957:395) noted ". . . interests can grow greater in intensity and breadth or they may fade and die out altogether." These authors (1957:395) further pointed out that ". . . nothing is more important in teaching reading than maintaining strong motivation."

Interest brings about motivation and includes the drive needed for learning. Bush and Huebner (1970:189) pointed out that "rewards and satisfaction accompany the satisfying of needs through brain stimulus and social approval. Performance depends on both motivation and learning."

When reading is associated with satisfying psychological needs it becomes a meaningful activity that the child is apt to repeat. Interest in reading is acquired by the individual based on his own uniquenesses (Bush and Huebner, 1970). The term interest may best be understood by recalling activities that were participated in during a person's childhood. These activities were often the result of need for expression (Witty, in Barbe, 1965). Interest has been defined in several ways:

An interest is a learned motive which drives the individual to act in accordance with that interest. It is defined as preoccupation with an activity when the individual is free to choose, when the child finds an activity satisfying and continues to be an interest (Witty, in Barbe, 1965:259).

Interest possesses the four qualitative criteria: persistent attention, feeling, activity, and direction. Interest has been defined

as:

. . . a characteristic disposition organized through experience which impels an individual to seek out particular objects, activities, understanding, skills, or goals for attention or acquisition (Witty, in Barbe, 1965:259).

Authorities in the field of reading have pointed out that the development of interests in reading is ". . . not only one of the basic aims of reading instruction but also an essential condition for sturdy growth in reading ability" (DeBoer and Dallmann, 1970:336). Success in reading then depends upon the drive that comes within the learner. Outward compulsion achieves little progress. One must determine and develop the interests that cause a child to seek the printed page.

Readers are strongly influenced by several aspects of the material: 1) story content, 2) information, 3) humor, 4) surprise elements, 5) illustrations, 6) conflict, 7) clear language, 8) characters, and 9) action.

One of the ways to better ensure that children will be motivated to read voluntarily and more widely is, then, to provide them with materials that contain components designed in an interesting manner. As was mentioned earlier, many aspects of printed material have a potential for influencing the interest of children. Illustrations of children's basal readers, being one of these aspects, have received particular attention by authorities in the field. Researchers have sought to determine the type of illustrations that would interest

children most by studying children's preferences for illustrative style, technique, color, and theme.

Authors have found that there is a close relationship between a child's interest and book illustrations:

One who is interested in jet airplanes will likely be excited about a picture book with various types of aircraft (Fitzgerald and Fitzgerald, 1967:37).

The studies described in the following section of this paper exemplify findings pertaining to children's preferences for illustrations in reading material. As early as the 1920's trends were evident in regard to the color of binding and cover designs. Dr. Bamberger, in 1922, published a study in which she concluded ". . . the color of the cover exerts an influence. Brightness is a pleasing factor to children. Blue, red, and yellow are the favorite colors for covers" (Smith, 1965:214).

Bow and Lopez (1953) studied the preferences in colors and illustrations for books of the Puerto Rican elementary schools, as expressed in the choices of the students themselves. Because of the lack of materials suited for Puerto Rican children, the authors proposed to carry out research to determine 1) the colors that Puerto Rican children preferred for the covers and pictures of their reading books, 2) the types of illustrations they preferred for their books, and 3) the part of the page where children wished the illustration to appear. A sample of 2496 elementary pupils in grades 2, 4, and 6 were

individually presented pictures 1) in different colors, tones, and color combinations; 2) in different drawing styles; and 3) in different positions on a page.

Children were asked to select their preferred color, type of drawing, and position of illustration on the page.

Bow and Lopez found that Puerto Rican children preferred:

1) blue (except age 7) in monochromatic preference, 2) primary colors to secondary colors, 3) dark tones of each color, 4) blue-red in the bichromatic combinations, and 5) orange-blue-yellow in the trichromatic combinations. Realistic drawings were the most popular for all grades. Illustrations occupying a full page or the upper half of the page had the approval of the students of all grades. On the basis of these and other findings, the authors suggested the following proposals be utilized in writing or buying textbooks for the children of Puerto Rico:

1. Covers for the books intended for the primary grades should be done in a rich tone of blue or red. The books assigned to the higher grades of the elementary school may have covers with blue, green or yellow as the main color. Elementary school children will like, also, bichromatic covers in blue-red, blue-violet, and blue-yellow. If three colors are preferred for the covers, those which will most likely meet the highest approval are blue-orange-yellow, blue-red-yellow, and blue-red-green. 2. Illustrations should be as life-like as possible, and in the favorite colors of children. These illustrations should occupy either a full page, or the upper half of the page. They should not divide or interrupt the printed part of the page (Bow and Lopez, 1953).

The authors also suggested that interest in color and drawing may be

subject to change. Other needs of children, interests of society, and the opinion of experts should be taken into consideration and a counterweight to children's own subjective judgment.

The drawback to many studies of children's preferences in illustrations, according to Stewig (1974), is that children respond to actual illustrations from books. It is impossible to generalize beyond the specific books used. In a study of children's picture preference, Stewig (1974:1012) identified visual components of illustrations that could be isolated and treated experimentally. The five variables were color, shape, proportion, detail and space:

1. Color: very realistic color, contrasted with unrealistic color.
2. Shape: very flat objects contrasted with modeled shapes presenting a three-dimensional quality.
3. Proportion: very realistically proportioned objects contrasted with objects having very exaggerated proportions.
4. Detail: illustrations containing many details contrasted with ones which contained very few details.
5. Space: illustrations with a very flat picture plane contrasted with ones featuring a deep space.

Four independent variables were grade level, sex, social class, and race. The dependent variables were the visual elements. The number of times a particular choice was made was investigated. Stewig manipulated one of these variables at a time. There were, in all, 1,078 subjects. No significant overall differences due to grade level, sex, social class or race were found. Several significant interactions between the four independent variables and the individual tasks were

revealed. Conclusions were: 1) older children prefer realistic color significantly more often than do younger children, 2) younger children preferred pictures with few details; pictures with shallow, rather than deep space, 3) analysis of all sex by task interaction revealed no significant differences though males chose shallow space slides less often than did females, 4) upper class children chose the few details slides and the shallow space slides significantly more often than the middle class children, and 5) white subjects chose realistic color and flat shape slides significantly more often than did black subjects. Black subjects chose few details and shallow space slides significantly more often than did white subjects.

One study (Bloomer, 1960) was concerned with the influence of style and theme on communication and stimulation. Bloomer investigated the responses of 336 elementary school pupils to establish a direction toward differentiation of picture effectiveness on the basis of the purpose the picture served. The children were shown pictures prepared in three different styles and three themes. Each theme was illustrated in line drawing, shaded line drawing, and shaded line drawing with color wash. Two themes embodied positive tension and negative tension; the third theme was positive with no tension. The children were asked to indicate which picture they liked best and which least, and to tell what was happening in any one of the pictures. The answers were written while pictures were still in view. Results

indicated that children were stimulated more by pictures they disliked than by those they liked. On the basis of this and other findings, Bloomer suggested the following proposals be utilized in the selection of illustrations to serve particular purposes: 1) when pictures are to stimulate interest and produce realistic thought about a subject, they should be line drawings with negative tension themes related to the subject, and 2) when pictures are to stimulate fantasy, they should be presented in color.

Concannon (1975) summarized research on the effect on comprehension of illustrations in texts. She concluded that the limited research indicated findings that pictures serving as motivating factors do not contribute significantly to the child's ability to decode.

The major aim of a study by Wohwill (1975) was to investigate children's response to stimulus complexity in meaningful pictorial materials. The study also focused on the distinction between two types of response measures: 1) differential looking time -- the amount of voluntary exploration of the stimulus to gain information; and 2) degree of liking -- the preference of a subject for one of two stimuli. By examining the responses of 192 students in grades one to eight, Wohwill attempted to test the hypothesis that "preference should show a peak at lower levels of diversity than would looking times" (Wohwill, 1975:344). Subjects were presented two different sets of stimuli; one involving stimuli that had been previously scaled for complexity

(operationalized in terms of amount of diversity, with respect to specific stimulus dimensions), and the other made up of configurations of meaningful stimuli, with differing levels of diversity of the elements of configuration being built into the material. The first set of pictorial stimuli consisted of a series of 14 slides representing scenes from the physical environment, ranging from pictures of Antarctica at one end to a view of the heart of Jersey City at the other. The second set consisted of sets of postage stamps, arranged in four by five matrices, i.e., 20 stamps to a set. For the exposure time part of the study, subjects individually looked at each slide for as long as they liked. For the preference-judgement part, subjects were run in groups of three. Subjects were asked to indicate which picture of the pair they liked better by placing a circle or a cross in an appropriate space of a data sheet. Wohwill found that results, in the case of the environment set, gave support to the hypothesis that the two response measures relate differentially to diversity, with looking time increasing monotonically with diversity; whereas, preferences peaked in the middle of the diversity scale, falling off irregularly to either side. For the stamp set the difference between the two functions became less. Wohwill discussed the results of the study in relation to theories postulating increases with experience in preference for complexity. Wohwill found little evidence for the increase with age in preferred level of complexity of pictorial stimuli.

Rudisell's study (1952) concerned the high valuation that adults placed on color in pictures for children regardless of the other characteristics of the pictures. By investigating the responses of approximately 200 children in grades K-6, the researcher sought to determine the importance which children themselves place on color and on other qualities which gave illustrations an appearance of realism (life-likeness) or the reverse. Subjects were presented with pictures of three subjects executed in five styles. The styles were 1) the uncolored photograph, 2) the colored photograph, 3) the colored drawing realistic in form and color, 4) the outline drawing, realistic in form but outlined in color without regard for realistic effect, and 5) the colored drawing, conventionalized in form, decorative but unrealistic in color. The children in grade 1-6 were asked to vote between pictures of a pair by encircling on a ballot the number of the preferred picture. Each kindergarten child voted by pointing to the picture of the pair he liked better. In order to obtain an estimate of the extent to which adult judgment of children's preferences would agree with the children's own choices, a vote was taken in a college assembly composed of students, faculty members, and townspeople. Seven hundred twenty-five adult votes were obtained. Rudisell found that:

1. Typical adult opinion over-emphasized the importance of color per se and underemphasized the importance of other qualities in illustrations for children.
2. In looking at a picture, a child apparently seeks first to recognize its content.

3. Any picture (assuming a certain content) proves satisfying to the child in proportion to its success in making that content appear real or lifelike. Whether it is colored or uncolored is less important than the appearance of realism.

4. A perfect visual representation of realism includes color, and color in pictures proves satisfying to the child in proportion to its success in increasing the impression of realism or life-likeness.

Rudisell concluded that color was only one variable in children's preferences. Under some conditions children preferred less colorful pictures which were more realistic.

Other authors of books on children's literature have freely expressed their convictions about what illustrations should be and therefore, implied that children prefer certain styles, techniques, and other aspects of illustrative format.

Arbuthnot (1972) stated that pictures should be synchronized, expressive of action, and detailed.

Lickteig stated:

Books for children are special kinds of books. They must adhere to the same standards of literary excellence as books for adults, but there are differences.

When comparing children and adult books, Jean Karl says that 'outlook' is one basic difference. The outlook characteristic of children's books, according to Karl, include the ability to look at life with hope, a sense of wonder about the world, a sense of adventure, and a feeling that life is valuable (1975:7-8).

Lickteig (1975) further noted several characteristics and values for illustrations in books for children. Although these comments were not directed specifically toward basal readers, they deserve mention here

due to the trend of including complete children's books or excerpts in basal readers.

No one particular kind of illustration seems to be the favorite of all children, but effective illustrations need to have certain characteristics. Illustrations should be coordinated with the text. It is important that the written text and the accompanying illustration appear on the same page. Children pay close attention to detail, so the illustrations must be meticulous about detail and agree with the text on size, number and color of objects that are shown. It is important that the illustrations carefully follow the story line so that a child can retell the story by using the illustration. Children respond favorably to pictures which show action when action enhances the illustration (Licktieg, 1975:48).

An important part of any informational book is the illustrating, as it can aid greatly in the reader's understanding of a concept and in making the book more attractive. Effective illustrations must be coordinated with the text and should appear on or opposite the page that has the explanatory text. Accuracy of illustrations is, of course, as important as the accuracy of the text. It is also important that the illustrator give some indication of the actual size of the object illustrated. The illustrations should be clear and aesthetically pleasing (Licktieg, 1975:98).

Nelson (1972) noted that variety in illustrations was important for children's interest:

... no one style is most appropriate for children. Realistic pictures are not inherently 'better' than impressionistic or abstract illustrations (Nelson, 1972:28).

Lewis (1976:83) pointed out that children "... don't seem to care whether the pictures are full color, part color, or no color."

Furthermore, according to this author, "The artistry of the best black-and-white illustrators does not depend on color for its perfection" (Lewis, 1976:83).

General comments by authorities in the field deserve to be reported:

Let us remember, however, the critics often use adult standards to judge basic texts, disregarding the vast amount of research and preparation that has gone into writing them (Criscuolo, in Frost, 1967:236).

Like the findings concerning children's reading preferences, those dealing with illustrations are of a general nature only and refer to groups. Individual children may have unique preferences quite unlike any that have appeared in the studies reported (Weintraub in Robinson, 1971:197).

Similarly, general findings can be summarized about children's preferences for various kinds of illustrations. Colored illustrations tend to be preferred over black-and-white, and the more colors used, the stronger the appeal to young children. Saturated primary colors are most appealing to young children, who also select realistic drawings over those of a more fanciful nature. Realism appears to be a more potent factor in picture preference than does color. Furthermore, illustrations that depict animals and children and their activities, including action suggesting the story sequence, are preferred (Weintraub, in Robinson, 1971:197).

As children mature they can appreciate more abstract and sophisticated art design. Basic readers for the middle grades reflect this maturity and a few provide a real education in art itself. When selections have been made from beautifully illustrated books in children's literature, several series have obtained permission for the original art work. This serves to introduce students to some of the best illustrations of children's literature today. Examination and comparison of even the covers of basic readers at present as contrasted with those of ten years ago give a sampling of the many changes that have occurred in the technological aspects of publishing books today (Huck, in Frost, 1967:239-240).

Writings presented in this section have pointed to the steadily increasing issues related to the quality, purpose, placement, and quantity of illustrations in children's reading textbooks. The

increased possibilities of technical perfection caused writers to challenge publishing companies and textbook authors to make illustrating a higher priority. Illustrations were described as extremely important in exciting curiosity among students and in encouraging students to look beyond the covers of books.

Summary

A review of literature included sections concerning the history of the use of illustrations in basal readers, the semantic functions and utility of illustrations in reading materials, controversies in the use of illustrations, and studies which sought to determine children's preference for illustrations.

The history of the use of illustrations would probably begin with the earliest cave drawings and progress through stone inscriptions to modern photographic and silk screen color processes. The invention or development of papyrus, parchment, Chinese rag paper, ancient libraries printing with moveable type, and modern printing processes each added an important development to the history of reading materials and the use of illustration.

The alphabetic system of writing replaced pictographic and ideographic writing processes. Many messages are still not capable of being communicated by the alphabetic system alone. Illustrations are felt to be one means of extending the written language into more

complete realms of communications.

John Amos Comenius (1592-1670) who wrote Orbis Pictus, is credited by most authorities as first emphasizing the need for illustrations in children's materials. A further tracing of the history of reading texts points to the changing concepts in thought about the reading process, the progress in educational theory and practice, the influence of research in child development, the developing concepts in the learning process, the changing attitudes toward the role of illustrations, and the increasingly technical advancements in producing illustrations.

Recognized as one of the first reading texts was the Hornbook. On most "paddles" were the letters of the alphabet, vowels and vowel-consonant combinations, a benediction, the Lord's Prayer, and occasionally a cross. This single illustration was intended to emphasize the religious function of reading.

The first book of pictures that could be handled by children themselves was the Battledore, consisting of cardboard folded to form three leaves.

Crude beginnings of illustrations were also evident in The New England Primer. The frontispiece in the Primer was usually a portrait of the currently reigning English monarch. During the Revolutionary War engravings of American patriots replaced the monarchs in the American edition. A series of crude woodcuts in black and white

accompanied the verses designed to teach letters of the alphabet.

Black and white woodcuts also accompanied the fables in the Blue Back Speller published in 1790 by Noah Webster. A series of twelve crude woodcuts appeared in Dilworth's A New Guide to the English Tongue.

Lyman Cobb's North American Reader (1835) contained but one illustration -- a black-and-white reproduction of "Washington's Headquarters, New York." Hillard's Improved Reader contained sketches in natural history.

Many factors contributed to the popularity of the McGuffey Eclectic Series. One factor was that pictures in the beginning readers were more plentiful and more representative of objects and experiences familiar to children. These textbooks sold 122,000,000 copies between 1836-1920.

Horses, cows, and childhood experiences were depicted in David B. Tower's Gradual Primer. Smith (1965:111) noted, however, that the figures of the children were badly proportioned.

The greatest innovation of Ward's Rational Method in Reading was two full-page colored illustrations. One showed children walking down the road with their mother. The other depicted four children riding in a little carriage drawn by two goats.

In examining the Beacon Readers published by Ginn and Company 1912 and 1913, one sees a trend toward the use of color pictures,

though the full use of color had not yet arrived. All pictures in the first eighty pages were in color but from page eighty onward the pictures were in black and white (Smith, 1965).

The large number of illustrations in the series by Row-Peterson and Company typified a trend to an increased percentage of illustrations. Thirty-one percent of the pages contained illustrations.

By 1925, the mechanical make-up of readers had reached a high degree of excellence with beginning readers often having as much as forty percent of the space devoted to three color combinations. Readers for the fourth, fifth, and sixth grades generally contained black and white illustrations.

Still more space was occupied by artwork for basal reading systems published between 1940-50. Colors were used more freely for intermediate grade readers. Full page illustrations were found not uncommonly in upper grade readers.

Although full page illustrations and double page spreads were not used as much as in previous periods, the 1950's saw artwork becoming more colorful and profuse at the early levels. At this time some black and white illustrations were re-introduced.

Actual photographs were a unique feature for the readers of the 1960's; the illustrations were usually placed at the tops and bottoms of pages. The Macmillan Reading Program broke this pattern. Illustrations occurred anywhere on the page and even extended down the

edges of the pages or blended in with the written script.

Huck (1967:239) noted an additional improvement in basal readers; no longer was one artist secured to illustrate an entire book. Numerous styles, techniques, artists, and media were used to serve the purposes of illustrations.

Although the linguistic movements of the 1960's saw illustrations omitted entirely from some reading textbooks, the 1970's, found illustrations returning to a position of importance in all major reading texts.

Contemporary artists use media in various ways and the use of many techniques has influenced the production of illustrations in basal series.

Although most linguists and reading authorities have recognized the utility of the use of illustrations in the teaching of reading, this utility has not been universally accepted. The semantic function of the use of illustrations has been described in very colorful and very theoretical ways. Lundsteen (1976:272) noted that "An illustration is to a book what molasses is to a pancake. It increases the nourishment, makes it more tasty, and adds a flavor of its own." Illustrations were noted as providing necessary vicarious experience, a fascination for children, an extension of meaning, significant particulars, a help for the child in learning to read, and a dramatization of the spoken word. Pictures were described as providing an effective method for

building an oral vocabulary. Other authorities warned that although illustrations have value, they should not dominate a book. Smith, Goodman, and Meredith (1970:329) warned that picture clues were a distraction from the main task of recognizing the printed form of language. Symbols, in general, were noted to have limitations. General semanticists, such as Korzbyski, explained that words were an imperfect guide to the nonverbal realities of life. He compared this to the statement that the map is not the territory. An illustration, then, could clarify the world of words, but illustrations still are symbols.

Controversies in the use of illustrations in basal readers have increased steadily since the 1920's. The relative value of illustrations and ethnic and sex bias in illustrations for basal textbooks were two areas considered important to the study.

The production of a variety of styles, the use of several illustrative techniques, and the increase of illustrations in general was well accepted in the 1960's according to reading authorities. The value of illustrations in providing the key to the action, the clue to meaning of words, and language stimulation, was described by Hildreth (1958) and Manzo (1975).

Although some publishers in the late 1960's and early 1970's adopted the view that pictures constituted a distracting element in the process of learning to read, most major basal textbook publishers

of the 1970's made positive claims for illustrations.

Textbooks have also been under examination for sexual stereotyping and ethnic bias. Racism has been labeled as either a form of commission or omission. Dunfee (1974) reported that text writers were becoming more aware of such biases. Klineberg (1967) suggested that readers could give children a more complete picture of American life. Martin and Matlin (1970) compared recent textbooks to those published by the same company in 1971. By examining the proportion of women in illustrations, as main characters, and in active roles, the authors found data that "females are now being represented slightly more in illustrations and as the main character in stories, though they still appear much less than males" (Martin and Matlin, 1976:764). Textbooks, according to the authors of this study, still gave the impression that independence, initiative, and innovation were traits reserved for males.

Authors of the study entitled Dick and Jane as Victims (1972) examined sixteen reading series for evidence of sex stereotyping. Most stories were found to have featured males rather than females. Illustrations in these stories were also examined for such stereotyping. Females, as depicted in many of the illustrations, lacked common sense, needed help from other males, were limited in geographical settings, and were limited in bodily activity. Males, as depicted in the illustrations were capable of many bodily activities, were

independent, and were rough when the situation called for roughness.

Fishman (1976) criticized the Dick and Jane as Victims study by stating that it attacked texts no longer published or those out of circulation. However, in 1975, an expanded edition of the book contained an analysis of new texts from nine publishers. Although some improvements were noted, there was still an unevenness between the treatment of males and females. The ratio of male centered stories to female centered stories remained essentially the same. Blatant sexism was described as gone from the newer texts. However, subtle forms of sexism still existed.

Many of the illustrations in the newer texts were considered to still be exhibiting sexism. The authors concluded by stating that curriculum materials should be developed which encourage all children to develop their full potential regardless of their sex.

Reading ability is described as having little value unless a person chooses to read different materials voluntarily. Interests induce a person to respond eagerly to many things in life and likewise brings about motivation. One may see then, that the development of interests in reading is both an aim and a condition for growth in reading ability. One must determine and develop the interests that cause a child to seek the printed page.

Many aspects of material may influence a child's response to materials -- story content, information, humor, surprise elements,

illustrations, conflict, clear language, characters, and actions. One of the ways to better ensure that children will be motivated to read voluntarily is to provide them with materials that contain components designed in an interesting manner. Illustrations, as one of these components, have received particular attention by authorities in the field. Researchers have sought to determine the type of illustrations that would interest children most by studying children's preferences for illustrative style, technique, color, and theme.

The studies described in this paper served to exemplify the findings pertaining to children's preferences for illustrations in reading material.

Bamberger's study (1922) influenced the covers of basal texts: blue, red, and yellow were the favorite colors for covers. Bow and Lopez (1953) studied the preferences of Puerto Rican children for colors and illustrations of books. The authors found that the children for the most part, preferred blue, primary colors, dark tones, blue-red, and orange-blue-yellow. Realistic drawings were preferred. On the basis of their findings, the authors recommended that in writing or buying textbooks for the children of Puerto Rico, illustrations should be as life-like as possible and in the favorite colors of children.

Stewig (1974) identified visual components of illustrations that could be isolated and treated experimentally. The five variable

components were identified as color, shape, proportion, detail, and space. Although no significant overall differences due to an independent variable were found, several significant interactions between the four independent variables and the individual tasks were revealed. Realistic color was preferred by older children. Younger children preferred pictures with fewer details.

Bloomer (1960) investigated the influence of style and theme on communication and stimulation. The researcher investigated elementary pupils' picture preferences to establish a direction toward differentiation of picture effectiveness on the basis of the purpose the picture served. Results indicated that children were stimulated more by pictures they disliked than by those they liked. Bloomer concluded that when pictures are to stimulate interest and produce realistic thought about a subject they should be line drawings with negative tension themes. When pictures are to stimulate fantasy, they should be presented in color.

Concannon (1975) in a summary of research on the effect on comprehension illustrations in texts, concluded that pictures serving as motivational factors do not contribute significantly to the child's ability to decode.

Wohwill (1975) investigated children's response to stimulus complexity in meaningful pictorial materials. Subjects were presented two different sets of stimuli--one involving stimuli that had been

previously scaled for complexity and the other made up of configurations of meaningful stimuli, with different levels of diversity of the elements being built into the material. The researcher found that results, in the case of the environment set, gave support to the hypothesis that the two response measures relate differentially to diversity. Wohwill found little evidence to support the claim that with age increase there is an increase in preferred level of complexity of pictorial stimuli.

By investigating the responses of children Rudisell (1952) sought to determine the importance which children themselves place on color and on other qualities which give illustrations an appearance of realism or the reverse. The children were presented pictures of three subjects executed in five styles: 1) uncolored photograph, 2) colored photograph, 3) colored drawing realistic in form and color, 4) outline drawing, realistic in form but outlined in color without regard for realistic effect, and 5) the colored drawing, conventionalized in form, decorative but unrealistic in color. The researcher found that typical adult opinion over-emphasized the importance of color per se and underemphasized the importance of other qualities in illustrations for children. Rudisell concluded that color was only one variable in children's preferences. Under some conditions children preferred less colorful pictures which were more realistic.

Other authors of books on children's literature have freely

expressed their convictions about what illustrations should be. Arbuthnot (1972) stated that pictures should be synchronized, expressive of action, and detailed. Lickteig (1975) claimed that books for children must adhere to the same standards of literary excellence as books for adults. Lickteig (1975) further noted several characteristics and values for illustrations in books for children. The author's comments were deemed necessary in view of the trend of including either complete children's books or excerpts from them in basal readers. According to Lickteig, illustrations need to be coordinated with the text and appropriate in detail. They should follow the story line.

Other authors' opinions seemed to contradict the findings of research. Nelson (1972:28) claimed that no one particular style was most appropriate for children. Lewis (1976:83) suggested that children didn't seem to care about color in pictures. Weintraub (1971) warned that research findings on children's preferences for illustrations are of a general nature only and refer to groups. Individual children, according to this author, may have unique preferences unlike any that appears in studies. Weintraub went on to state that general findings indicated children's preferences for color, realism, and childhood experiences in illustrations. Huck (in Frost, 1967) stated that as children mature they can appreciate more abstract and sophisticated art design.

Chapter 4

ANALYSIS OF DATA

The purpose of this study was to investigate the type of illustrative style preferred by fifth graders in selected Montana schools when the illustration accompanied different literary forms. Specifically, the study attempted to answer the question: Will there be a preference among fifth graders for illustrative style found in basal readers (i.e., realistic, cartoon, abstract, impressionistic, photographic) when the illustration accompanies a particular literary form (i.e., legend, poem, biography)?

Another purpose was to examine illustrations from all the selections of the five major basal reading series texts written for middle grade children in order to classify the types of illustrative styles found in them. An additional element of the study entailed the reading, evaluating, and categorizing as to literary form approximately eight hundred selections from the same five major basal reading texts written for middle grade children.

Pilot Study

In order to test the reliability of the instrument, the clarity of instructions, and the efficiency of the procedures a pilot study was conducted by the researcher. The procedures used in the pilot study will be described in this section. Procedures shall be

described in the order by which they were completed.

Selection of subjects. Seventy-three fifth grade students were chosen from the following public schools: Monforton Elementary, Belgrade Elementary, Manhattan Elementary. There were two fifth grade classes in the Belgrade Elementary, one fifth grade class at Monforton Elementary and Manhattan Elementary.

Experimental design. The design for the pilot study was a "before-after" design. The pilot study was conducted by gathering two measures of subject's preferences. The second measure followed one week (7 days) after the initial session.

To obtain experimental evidence it was necessary to set up the project as follows:

1. Order check: This experimental group consisted of thirty-six fifth graders. The subjects in this group were presented the slides in a different order during the post test part of the study.

2. Reliability check: This group of children consisted of thirty-seven fifth graders. The subjects in this group were presented the slides in the same order during the pre-test and post-test part of the study. A description of the instructions given the students appears in Appendix C.

Limitations. The pilot study was limited in the following ways:

1. Seventy-three subjects participated in the pilot study.

Approximately one-half of this number was subjected to treatment number one (i.e., all slides presented in the same order). The remainder of this number was subjected to treatment number two (i.e., order of slides changed for the post-test segment).

2. Even though one purpose of the study was to investigate differences in preferences for illustrative style among ethnic groups, all subjects participating in the pilot study were Caucasian.

Analysis of Data. One of the main purposes of the pilot study was to gather information on the reliability of the manner by which preference was to be investigated. It was assumed that students' preferences should be relatively the same during the first and second sessions. Analysis of data included a comparison of students' preferences in session one and session two. Percentage of subjects who marked ballots the same during both sessions is reported for both the order check group and the reliability group in Table 1 and Table 2.

Table 1 contains the test-retest information for students' preference for illustrative style. The data was collected by presenting slides in the same order for both tests.

Table 1

A Comparison of Test and Retest Preference Indications for
Fifth Grade Students: Same Order Presentation

School	Selection	Total N on Test	Consistent on Retest	Percent Consistency
Belgrade	"Mud Ponies"	24	19	79.2%
Manhattan	"Mud Ponies"	13	12	92.2%
Total		37	31	83.3%
Belgrade	"Buffalo Dusk"	24	19	79.2%
Manhattan	"Buffalo Dusk"	13	8	61.5%
Total		37	27	73.0%
Belgrade	"Thomas Jefferson"	24	17	70.1%
Manhattan	"Thomas Jefferson"	13	12	92.2%
Total		37	29	78.4%

The data from Table 1 indicated that there were no percent consistencies below 61.5% percent for the reliability check group.

Table 2 contains the test-retest information for students' preference for illustrative style. The data were collected by presenting the slides in a different order for the retest. The lowest percent consistency in Table 2 was 54.5 percent.

Table 2

A Comparison of Test and Re-Test Preference Indications for
Fifth Grade Students: Different Order Presentation

School	Selection	Total N on Test	Consistent on ReTest	Percent Consistency
Belgrade	"Mud Ponies"	25	18	72.0%
Monforton	"Mud Ponies"	11	6	54.5%
Total		36	24	66.7%
Belgrade	"Buffalo Dusk"	25	21	84.0%
Monforton	"Buffalo Dusk"	11	8	72.7%
Total		36	29	80.5%
Belgrade	"Thomas Jefferson"	25	15	60.0%
Monforton	"Thomas Jefferson"	11	9	81.8%
Total		36	24	66.7%

The data from Table 2 indicated that there were no percent consistencies below 54.5 percent for the order check group. This data appeared to support the statement that order was not a major factor in the preference of fifth grade students for an illustrative style.

From the data depicted in Tables 1 and 2, it can be concluded that percent consistencies of test-retest preference indications for the order check and reliability check were above the 50 percent level.

Sample and Number Sampled

All subjects participating in the study were fifth grade

students from selected elementary schools in Montana. Classes were chosen which contained a high proportion of Mexican American, Native American, and Caucasian students.

Twenty-seven fifth grade classes were chosen. Five hundred twenty-one students from ten schools participated in the study. Schools selected were those identified by a representative of the State Department of Public Instruction and School district principals as having a high proportion of the ethnic groups noted above. Schools participating in the study included the following: 1) Garfield and Taft in Billings, 2) Crow Agency and Wyola on the Crow Reservation, 3) Loy and Emerson in Great Falls, 4) Belgrade, Manhattan, Monforton, and Willson in the Bozeman area.

Data Tabulated

Tables are presented which depict the distribution of students among 1) ethnic groups, 2) Caucasian/non-Caucasian categories and 3) female and male categories, 4) Belgrade, Manhattan, Monforton, and Willson in the Bozeman area.

In instances wherein data are reported for differences in preference for illustrative style among Caucasian and non-Caucasian fifth graders, Black and other fifth graders were included in the non-Caucasian groups. The data and analysis are also presented for each of the hypotheses. Each table presenting data on fifth grade

students' preferences for illustrations includes frequency of response, percentage of response, and the calculated value of chi square.

The responses of all fifth graders were carefully hand tabulated and rechecked before computer analysis of the data. The Sigma Seven computer at Montana State University was utilized to perform calculations.

The tables presenting data on fifth graders' preferences for illustrative style are followed by an analysis of each hypothesis presented in Chapter 2. A discussion of each table follows.

Table 3 depicts the number of fifth graders distributed among ethnic groups.

Table 3

Number of Fifth Graders Distributed Among Ethnic Groups
In Selected Montana Elementary Schools

Ethnic Group	N	%
Caucasian	429	82.3%
Black	12	2.3%
Mexican American	26	5.0%
Native American	48	9.2%
*Other	6	1.2%
Total	521	100.0%
*Of Oriental background; Japanese, Thai		

Data depicted in Table 3 indicated that the largest percentage of students were Caucasian, and the lowest percentages were Japanese or Thai and Black.

Table 4 depicts the number of fifth graders distributed between non-Caucasian and Caucasian groups.

Table 4

Number of Fifth Graders Distributed Between Non-Caucasian and Caucasian Groups in Selected Montana Elementary Schools

Group	N	%
Non-Caucasian	92	17.7%
Caucasian	429	82.3%
Total	521	100.00%

Data depicted in Table 4 indicated that the largest percentage of students were Caucasian and the lowest percentage was non-Caucasian.

Table 5 depicts the number of fifth graders distributed between female and male groups.

Table 5

Number of Female and Male Fifth Graders In
Selected Montana Elementary Schools

Sex	N	%
Female	267	51.2%
Male	254	48.8%
Total	521	100.00%

Data depicted in Table 5 indicated that females and males were fairly evenly distributed with 51.2 percent females and 48.8 percent males.

Table 6 depicts preference for illustrative style among fifth graders when the illustration accompanied the literary form, legend.

Table 6

Fifth Graders' Preference for Illustrative Style When the
Illustration Accompanied the Literary Form, Legend

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Observed	51	9.79%	175	33.59%	220	42.23%	4	.77%	71	13.63%
Expected	100	20.00%	100	20.00%	100	20.00%	100	20.00%	100	20.00%

Calculated Chi Square - 310.89

Null Hypothesis 1 - there is no preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract,

impressionistic, photographic) when the illustration accompanies the literary form, legend,

Based on the analysis presented in Table 6, the critical value of chi square with $df=4$ equals 9.49. Since the calculated chi square is greater than table value at .05, the null hypothesis of no preference is rejected.

From the data depicted in Table 6, it can be concluded that there was a preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanied the literary form, legend. The rank order for fifth graders' preferences was:

1. Impressionistic
2. Photographic
3. Realistic
4. Cartoon
5. Abstract

The data indicated that there was a tendency among fifth graders to choose impressionistic style when the illustration accompanied the literary form, legend.

Table 7 depicts preference for illustrative style among fifth graders when the illustration accompanied the literary form, poem.

Table 7

Fifth Graders' Preference for Illustrative Style When the
Illustration Accompanied the Literary Form, Poem

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Observed	40	7.68%	226	43.38%	147	28.21%	2	.38%	106	20.35%
Expected	100	20.00%	100	20.00%	100	20.00%	100	20.00%	100	20.00%

Calculated Chi Square = 299.78

Null Hypothesis 2 - there is no preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, poem.

Based on the analysis presented in Table 7, the critical value of chi square with $df=4$ equals 9.49. Since the calculated chi square is greater than table value at .05, the null hypothesis of no preference is rejected.

From the data depicted in Table 7, it can be concluded that there was a preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanied the literary form, poem. The rank order for fifth graders' preferences was:

1. Photographic
2. Impressionistic

3. Realistic
4. Cartoon
5. Abstract

The data indicated that there was a tendency among fifth graders to choose photographic style when the illustration accompanied the literary form, poem.

Table 8 depicts preference for illustrative style among fifth graders when the illustration accompanied the literary form, biography.

Table 8

Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Biography

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Observed	92	17.66%	175	33.59%	45	8.64%	10	1.92%	199	38.20%
Expected	100	20.00%	100	20.00%	100	20.00%	100	20.00%	100	20.00%

Calculated Chi Square = 254.58

Null Hypothesis 3 - there is no preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, biography.

Based on the analysis presented in Table 8, the critical value of chi square with df=4 equals 9.49. Since the calculated chi square

is greater than table value at .05, the null hypothesis of no preference is rejected.

From the data depicted in Table 8, it can be concluded that there was a preference among fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanied the literary form, biography. The rank order for fifth graders' preferences was:

1. Realistic
2. Photographic
3. Cartoon
4. Impressionistic
5. Abstract

Since the writer chose a biographical selection about an historical character who lived prior to the perfection of photographic instruments, the reader should place limited value on the results of this item of the study. One could assume only that a realistic style was chosen above cartoon, impressionistic, or abstract style. The preference for photographic remains in doubt.

Table 9 depicts the degree of independence in preference for illustrative style between male and female fifth graders when the illustration accompanied the literary form, legend.

Table 9

Male and Female Fifth Graders' Preference for Illustrative Style
When the Illustration Accompanied the Literary Form, Legend

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Female	27	10.11%	98	36.70%	103	38.58%	1	.37%	38	14.23%
Male	24	9.45%	77	30.31%	117	46.06%	3	1.18%	33	12.99%

Calculated Chi Square = 4.62

Null Hypothesis 4 - there is no significant difference in preference between male and female fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, legend.

Based on the analysis presented in Table 9, the critical value of the chi square test of independence with $df=4$ equals 9.49. Since the calculated chi square is less than table value at .05, the null hypothesis of no significant difference is retained.

From the data depicted in Table 9, it can be concluded that there was no significant difference in preference between male and female fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanied the literary form, legend. The rank order for female fifth graders' preferences was:

1. Impressionistic
2. Photographic
3. Realistic
4. Cartoon
5. Abstract

The rank order for male fifth graders' preferences was:

1. Impressionistic
2. Photographic
3. Realistic
4. Cartoon
5. Abstract

The data indicated that there was a tendency for female and male fifth graders to choose impressionistic style when the illustration accompanied the literary form, legend.

Table 10 depicts the degree of independence in preference for illustrative style between male and female fifth graders when the illustration accompanied the literary form, poem.

Table 10

Male and Female Fifth Graders' Preference for Illustrative Style
When the Illustration Accompanied the Literary Form, Poem

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Female	20	7.49%	131	49.06%	55	20.60%	2	.75%	59	22.10%
Male	20	7.87%	95	37.40%	92	36.22%	0	.00%	47	18.50%

Calculated Chi Square = 18.09

Null Hypothesis 5 - there is no significant difference in preference between male and female fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, poem.

Based on the analysis presented in Table 10, the critical value of the chi square test of independence with $df=4$ equals 9.49. Since the calculated chi square is greater than table value at .05, the null hypothesis of no significant difference is rejected.

From the data depicted in Table 10, it can be concluded that there was a significant difference in preference between male and female fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanied the literary form, poem. The rank order for female fifth graders' preferences was:

1. Photographic
2. Realistic
3. Impressionistic
4. Cartoon
5. Abstract

The rank order for male fifth graders' preferences was:

1. Photographic
2. Impressionistic
3. Realistic
4. Cartoon
5. Abstract

The data indicated that there was a tendency for female fifth graders to choose photographic, then realistic styles; whereas, there was a tendency for male fifth graders to choose photographic, then impressionistic styles when the illustration accompanied the literary form, poem.

Table 11 depicts the degree of independence in preference for illustrative style between male and female fifth graders when the illustration accompanied the literary form, biography.

Table 11

Male and Female Fifth Graders' Preference for Illustrative Style
When the Illustration Accompanied the Literary Form, Biography

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Female	42	15.73%	106	39.70%	21	7.87%	5	1.87%	93	34.83%
Male	50	19.69%	69	27.17%	24	9.45%	5	1.97%	106	41.73%

Calculated Chi Square = 9.25

Null Hypothesis 6 - there was no significant difference in preference between male and female fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, biography.

Based on the analysis presented in Table 11, the critical value of the chi square test of independent with $df=4$ equals 9.49. Since the calculated chi square is less than table value at .05, the null hypotheses of no significant difference is retained.

From the data depicted in Table 11, it can be concluded that there was no significant difference in preference between male and female fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanied the literary form, biography. The rank order for female fifth graders' preferences was:

1. Photographic
2. Realistic
3. Cartoon
4. Impressionistic
5. Abstract

The rank order for male fifth graders' preference was:

1. Realistic
2. Photographic
3. Cartoon
4. Impressionistic
5. Abstract

Although there was no significant difference in preference between female and male fifth graders for illustrative style when the illustration accompanied the literary form, biography, the data indicated that there was a tendency for female fifth graders to choose photographic style; whereas, there was a tendency for male fifth graders to choose realistic style.

Table 12 depicts the degree of independence in preference for illustrative style between Mexican American and Caucasian fifth graders when the illustration accompanied the literary form, legend.

Table 12

Mexican American and Caucasian Fifth Graders' Preference for
Illustrative Style When the Illustration Accompanied the
Literary Form, Legend

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Caucasian	39	9.09%	129	30.07%	192	44.76%	3	.70%	66	15.38%
Mexican American	5	19.23%	11	42.31%	10	38.46%	0	00	0	00

Calculated Chi Square = 8.20

Null Hypothesis 7 - there is no significant difference in preference between Mexican American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, legend.

Based on the analysis presented in Table 12, the critical value of the chi square test of independence with $df=4$ equals 9.49. Since the calculated chi square is less than table value at .05, the null hypothesis of no significant difference is retained.

From the data depicted in Table 12, it can be concluded that there was no significant difference in preference between Mexican American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the

illustration accompanied the literary form, legend. The rank order for Caucasian fifth graders' preferences was:

1. Impressionistic
2. Photographic
3. Realistic
4. Cartoon
5. Abstract

The rank order for Mexican American fifth graders' preferences was:

1. Photographic
2. Impressionistic
3. Cartoon
4. Realistic (same rank)
5. Abstract (same rank)

Although there was no significant difference in preference between Caucasian and Mexican American fifth graders for illustrative style when the illustration accompanied the literary form, legend, the data indicated that there was a tendency for Caucasian fifth graders to choose impressionistic style; whereas, there was a tendency for Mexican American fifth graders to choose photographic style.

Table 13 depicts the degree of independence in preference for illustrative style between Mexican American and Caucasian fifth graders when the illustration accompanied the literary form, poem.

Table 13

Mexican American and Caucasian Fifth Graders' Preference for Illustrative Style When the Illustration Accompanied the Literary Form, Poem.

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Caucasian	33	7.69%	179	41.72%	128	29.84%	2	.47%	87	20.28%
Mexican American	2	7.69%	15	57.69%	8	30.77%	0	0	1	3.85%

Calculated Chi Square = 5.02

Null Hypothesis 8 - there is no significant difference in preference between Mexican American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, poem.

Based on the analysis presented in Table 13, the critical value of the chi square test of independence with $df=4$ equals 9.49. Since the calculated chi square is less than table value at .05, the null hypothesis of no significant difference is retained.

From the data depicted in Table 13, it can be concluded that there was no significant difference in preference between Mexican American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanied the literary form, poem. The rank order for

Caucasian fifth graders' preferences was:

1. Photographic
2. Impressionistic
3. Realistic
4. Cartoon
5. Abstract

The rank order for Mexican American fifth graders' preferences was:

1. Photographic
2. Impressionistic
3. Cartoon
4. Realistic
5. Abstract

The data indicated that there was a tendency for Caucasian and Mexican American fifth graders to choose photographic style when the illustration accompanied the literary form, poem.

Table 14 depicts the degree of independence in preference for illustrative style between Mexican American and Caucasian fifth graders when the illustration accompanied the literary form, biography.

Table 14

Mexican American and Caucasian Fifth Graders' Preferences for
Illustrative Style When the Illustration Accompanied the
Literary Form, Biography

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Caucasian	76	17.72%	136	31.70%	34	7.93%	8	1.86%	175	40.79%
Mexican American	4	15.38%	15	57.69%	3	11.54%	0	00	4	15.38%

Calculated Chi Square = 9.97

Null Hypothesis 9 - there is no significant difference in preference between Mexican American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, biography.

Based on the analysis presented in Table 14, the critical value of the chi square test of independence with $df=4$ equals 9.49. Since the calculated chi square is greater than table value at the .05, the null hypothesis of no significant difference is rejected.

From the data depicted in Table 14, it can be concluded that there was a significant difference in preference between Mexican American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the

illustration accompanied the literary form, biography. The rank order for Caucasian fifth graders' preferences was:

1. Realistic
2. Photographic
3. Cartoon
4. Impressionistic
5. Abstract

The rank order for Mexican American fifth graders' preferences was:

1. Photographic
2. Cartoon (same rank)
3. Realistic (same rank)
4. Impressionistic
5. Abstract

The data indicated that there was a tendency for Caucasian fifth graders to choose realistic then photographic styles; whereas, there was a tendency for Mexican American fifth graders to choose photographic then cartoon styles when the illustration accompanied the literary form, biography.

Table 15 depicts the degree of independence in preference for illustrative style between Native American and Caucasian fifth graders when the illustration accompanied the literary form, legend.

Table 15

Native American and Caucasian Fifth Graders' Preference for
Illustrative Style When the Illustration Accompanied the
Literary Form, Legend

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Caucasian	39	9.09%	129	30.07%	192	44.76%	3	.70%	66	15.38%
Native American	3	6.25%	28	58.33%	13	27.08%	1	2.08%	3	6.25%

Calculated Chi Square = 17.49

Null Hypothesis 10 - there is no significant difference in preference between Native American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, legend.

Based on the analysis presented in Table 15, the critical value of the chi square test of independence with $df=4$ equals 9.49. Since the calculated chi square is greater than table value at .05, the null hypothesis of no significant difference is rejected.

From the data depicted in Table 15, it can be concluded that there was a significant difference in preference between Native American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the

illustration accompanied the literary form, legend. The rank order for Caucasian fifth graders' preferences was:

1. Impressionistic
2. Photographic
3. Realistic
4. Cartoon
5. Abstract

The rank order for Native American fifth graders' preferences was:

1. Photographic
2. Impressionistic
3. Cartoon (same rank as realistic)
4. Realistic (same rank as cartoon)
5. Abstract

The data indicated that there was a tendency for Caucasian fifth graders to choose impressionistic style; whereas, there was a tendency for Native American fifth graders to choose photographic style when the illustration accompanied the literary form, legend.

Table 16 depicts the degree of independence in preference for illustrative style between Native American and Caucasian fifth graders when the illustration accompanied the literary form, poem.

Table 16

Native American and Caucasian Fifth Graders' Preference for
Illustrative Style When the Illustration Accompanied the
Literary Form, Poem

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Caucasian	33	7.69%	179	41.72%	128	29.84%	2	.47%	87	20.28%
Native American	3	6.25%	22	45.83%	9	18.75%	0	00	14	29.17%

Calculated Chi Square = 3.97

Null Hypothesis 11 - there is no significant difference in preference between Native American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, poem.

Based on the analysis presented in Table 16, the critical value of the chi square test of independence with $df=4$ equals 9.49. Since the calculated chi square is less than table value at .05, the null hypothesis of no significant difference is retained.

From the data depicted in Table 16, it can be concluded that there was no significant difference in preference between Native American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the

illustration accompanied the literary form, poem. The rank order for Caucasian fifth graders' preferences was:

1. Photographic
2. Impressionistic
3. Realistic
4. Cartoon
5. Abstract

The rank order for Native American fifth graders' preferences was:

1. Photographic
2. Realistic
3. Impressionistic
4. Cartoon
5. Abstract

The data indicated that there was a tendency for Caucasian and Native American fifth graders to choose photographic style when the illustration accompanied the literary form, poem.

Table 17 depicts the degree of independence in preference for illustrative style between Native American and Caucasian fifth graders when the illustration accompanied the literary form, biography.

Table 17

Native American and Caucasian Fifth Graders' Preference for
Illustrative Style When the Illustration Accompanied the
Literary Form, Biography

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Caucasian	76	17.72%	136	31.70%	34	7.93%	8	1.86%	175	40.79%
Native American	6	12.50%	18	37.50%	7	14.58%	2	4.17%	15	31.25%

Calculated Chi Square = 5.44

Null Hypothesis 12 - there is no significant difference in preference between Native American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, biography.

Based on the analysis presented in Table 17, the critical value of the chi square test of independence with $df=4$ equals 9.49. Since the calculated chi square is less than table value at .05, the null hypothesis of no significant difference is retained.

From the data depicted in Table 17, it can be concluded that there was no significant difference in preference between Native American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the

illustration accompanied the literary form, biography. The rank order for Caucasian fifth graders' preferences was:

1. Realistic
2. Photographic
3. Cartoon
4. Impressionistic
5. Abstract

The rank order for Native American fifth graders' preferences was:

1. Photographic
2. Realistic
3. Impressionistic
4. Cartoon
5. Abstract

Although there was no significant difference in preference between Caucasian and Native American fifth graders for illustrative style when the illustration accompanied the literary form, biography, the data indicated that there was a tendency for Caucasian fifth graders to choose realistic then photographic styles, whereas, there was a tendency for Native American fifth graders to choose photographic then realistic styles.

Table 18 depicts the degree of independence in preference for illustrative style between non-Caucasian and Caucasian fifth graders when the illustration accompanied the literary form, legend.

Table 18

Non-Caucasian and Caucasian Fifth Graders' Preference for
Illustrative Style When the Illustration
Accompanied the Literary Form, Legend

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Caucasian	39	9.09%	129	30.07%	192	44.76%	3	.70%	66	15.38%
Non-Caucasian	12	13.04%	46	50.00%	28	30.43%	1	1.09%	5	5.43%

Calculated Chi Square = 19.50

Null Hypothesis 13 - there is no significant difference in preference between non-Caucasian and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, legend.

Based on the analysis presented in Table 18, the critical value of the chi square test of independence with $df=4$ equals 9.49. Since the calculated chi square is greater than table value at .05, the null hypothesis of no significant difference is rejected.

From the data depicted in Table 18, it can be concluded that there was a significant difference in preference between non-Caucasian and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the

illustration accompanied the literary form, legend. The rank order for Caucasian fifth graders' preferences was:

1. Impressionistic
2. Photographic
3. Realistic
4. Cartoon
5. Abstract

The rank order for non-Caucasian fifth graders' preferences was:

1. Photographic
2. Impressionistic
3. Cartoon
4. Realistic
5. Abstract

The data indicated that there was a tendency for Caucasian fifth graders to choose impressionistic style; whereas, there was a tendency for non-Caucasian fifth graders to choose photographic style, when the illustration accompanied the literary form, legend.

Table 19 depicts the degree of independence in preference for illustrative style between non-Caucasian and Caucasian fifth graders when the illustration accompanied the literary form, poem.

Table 19

Non-Caucasian and Caucasian Fifth Graders' Preference for
Illustrative Style When the Illustration
Accompanied the Literary Form, Poem

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Caucasian	33	7.69%	179	41.72%	128	29.84%	2	.47%	87	20.28%
Non Caucasian	7	7.61%	47	51.09%	19	20.65%	1	11	19	20.65%

Calculated Chi Square = 4.23

Null Hypothesis 14 - there is no significant difference in preference between non-Caucasian and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, poem.

Based on the analysis presented in Table 19, the critical value of the chi square test of independence with $df=4$ equals 9.49. Since the calculated chisquare is less than table value at .05, the null hypotheses of no significant difference is retained.

From the data depicted in Table 19, it can be concluded that there was no significant difference in preference between non-Caucasian and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the

illustration accompanied the literary form, poem. The rank order for Caucasian fifth graders' preferences was:

1. Photographic
2. Impressionistic
3. Realistic
4. Cartoon
5. Abstract

The rank order for non-Caucasian fifth graders' preferences was:

1. Photographic
2. Impressionistic (same as realistic)
3. Realistic (same as impressionistic)
4. Cartoon
5. Abstract

The data indicated that there was a tendency for Caucasian and non-Caucasian fifth graders to choose photographic style when the illustration accompanied the literary form, poem.

Table 20 depicts the degree of independence in preference for illustrative style between non-Caucasian and Caucasian fifth graders when the illustration accompanied the literary form, biography.

Table 20

Non-Caucasian and Caucasian Fifth Graders' Preference for
Illustrative Style When the Illustration
Accompanied the Literary Form, Biography

	Cartoon		Photographic		Impressionistic		Abstract		Realistic	
	N	%	N	%	N	%	N	%	N	%
Caucasian	76	17.72%	136	31.70%	34	7.93%	8	1.86%	175	40.79%
Non Caucasian	16	17.39%	39	42.39%	11	11.96%	2	2.17%	24	26.09%

Calculated Chi Square = 8.33

Null Hypothesis 15 - there is no significant difference in preference between non-Caucasian and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanies the literary form, biography.

Based on the analysis presented in Table 20, the critical value of the chi square test of independence with $df=4$ equals 9.49. Since the calculated chi square is less than table value at .05, the null hypothesis of no significant difference is retained.

From the data depicted in Table 20, it can be concluded that there was no significant difference in preference between non-Caucasian and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when

the illustration accompanied the literary form, biography. The rank order for Caucasian fifth graders' preferences was:

1. Realistic
2. Photographic
3. Cartoon
4. Impressionistic
5. Abstract

The rank order for non-Caucasian fifth graders' preferences was:

1. Photographic
2. Realistic
3. Cartoon
4. Impressionistic
5. Abstract

Although there was no significant difference in preference between Caucasian and non-Caucasian fifth graders for illustrative style when the illustration accompanied the literary form, biography, the data indicated that there was a tendency for Caucasian fifth graders to choose realistic then photographic style; whereas, there was a tendency for non-Caucasian fifth graders to choose photographic then realistic style.

Tables-Illustrative Style and
Literary Form

Table 21 depicts the number and percentage of literary selections distributed among the various literary forms in the middle grade textbooks surveyed. Also contained in Table 13 is the number and percentage of illustrations distributed among various styles for particular literary forms.

The textbooks surveyed were those published by the following companies: Scott, Foresman, Houghton Mifflin, Harper and Row, Ginn, Holt, Rinehart and Winston.

Table 21

Number of Illustrations and Literature Selections Distributed Among Illustrative Styles and Literary Forms in Grades 4, 5, and 6 Middle Grade Reading Texts

	Traditional Literature		Drama		Modern Fantasy		Poetry		Contemporary Realistic Fiction	
Number of Selections	100		22		48		186		143	
Percentage of Total	10.35%		2.28%		4.97%		19.25%		14.80%	
	N	%	N	%	N	%	N	%	N	%
Cartoon	135	29.03%	42	40.78%	57	19.32%	57	22.80%	134	14.32%
Photographic	18	3.87%	8	7.77%	1	.34%	99	39.60%	24	2.67%
Impressionistic	149	32.04%	6	5.82%	65	22.03%	33	13.20%	153	16.35%
Abstract	77	16.56%	9	8.74%	23	7.80%	34	13.60%	37	3.95%
Realistic	86	18.49%	38	36.89%	149	50.51%	27	10.80%	587	62.71%
Total Number of Illustrations	465		103		295		250		936	

	Historical Fiction		Informational Article		Biography		Reading Activities	
Number of Selections	34		233		56		144	
Percentage of Total	3.52%		24.12%		5.80%		14.91%	
	N	%	N	%	N	%	N	%
Cartoon	0	.00%	57	6.03%	13	4.90%	76	44.97%
Photographic	0	.00%	621	65.71%	103	38.87%	6	3.55%
Impressionistic	61	34.86%	43	4.55%	59	22.26%	3	1.78%
Abstract	3	1.71%	21	2.22%	1	.38%	2	1.18%
Realistic	111	63.43%	203	21.48%	89	33.58%	82	48.52%
Total Number of Illustrations	175		945		265		169	

From the data depicted in Table 21 it can be concluded that the highest percentage of illustrative style for traditional literature (including legend) was impressionistic. The highest percentage of illustrative style for poetry was photographic. The highest percentage of illustrative style for biography was also photographic. The highest percentage of literary forms were informational articles, poetry, reading activities, contemporary realistic fiction, traditional literature, biography, modern fantasy, historical fiction, and drama. Although poem, legend, and biography ranked second, fifth, and sixth in occurrence, these forms were chosen for investigation in this study over others because of their recognizable and distinctive form. For example, contemporary realistic fiction can assume varied settings, characterization, and plot.

Table 22 compares illustrative style preference of fifth grade students and styles used in published reading materials.

Table 22

Ranks of Preference by Students and Utilization by Publishers of
Illustrative Styles for Selected Literary Forms

Illustrative Style	Legend		Poem		Biography	
	Student	Publisher	Student	Publisher	Student	Publisher
Impressionistic	1	1	2	4	4	3
Photographic	2	5	1	1	2	1
Realistic	3	3	3	5	1	2
Cartoon	4	2	4	2	3	4
Abstract	5	4	5	3	5	5

It is of interest to note that both students and publishers opted for impressionistic illustrative style for legend. Publishers utilized cartoon form more often than photographic while students chose photographic over cartoon.

Both publishers and students preferred a photographic style for the poem. Publishers, however, utilized cartoon and abstract forms more often than impressionistic and realistic. Students preferred impressionistic and realistic styles over cartoon and abstract styles. Photographic and realistic illustrations were ranked as the first and second preference for biography by both students and publishers. Impressionistic and cartoon styles were ranked in third and fourth preference and abstract illustrations were the least preferred style by both.

Summary

The purpose of this study was to investigate the type of illustrative style preferred by fifth graders in selected Montana schools. In order to test the efficiency of the procedures and the reliability of the instrument used in the study, a pilot study was conducted by the researcher. Seventy-three fifth grade students in four classrooms were chosen from three elementary schools. The design for the pilot study was a "before-after" design. Two measures of subjects' preference for illustrative style were obtained. The

second measure followed seven days after the initial session. Subjects in the order check group were presented the slides in a different order during the post-test part of the study. Subjects in the reliability check group were presented the slides in the same order during the pre-test and post-test part of the study.

Tables were presented to show the percent consistencies of fifth grade students' preference indications for an order check and a reliability check. The data indicated that percent consistencies of test-retest preference indications for both the order check and reliability check were above the 50 percent level.

Following the pilot study, the researcher initiated the procedures for the study. All five hundred twenty-one subjects participating in the study were fifth grade students from twenty-seven classes in elementary schools in Montana. Schools selected were those identified by a representative of the State Department of Public Instruction and school district principals as having a high proportion of Mexican American, Native American, and Caucasian students. Tables were presented to show the number of fifth graders distributed among ethnic groups, between non-Caucasian and Caucasian groups, and between male and female categories.

Data indicated that 1) the largest percentage of students were Caucasian, and the lowest percentages were Black and Japanese or Thai; 2) the larger percentage of students were Caucasian and the

lower percentage was non-Caucasian; and 3) females and males were fairly evenly distributed with 51.2 percent females and 48.8 percent males.

Tables were also presented to show the frequency of choice for a particular illustrative style when the illustration accompanied a certain literary form, the percentage of choice for a particular illustrative style when the illustration accompanied a certain literary form, and the calculated value of chi square. Each table was followed by a statement of hypothesis, a data analysis, and comments on the specific preferences of the groups of fifth graders and literary form in question.

The chi square goodness of fit calculation for the hypothesis of no preference for illustrative style indicated that there was a preference among fifth graders for illustrative style (i.e., realistic, cartoon, abstract, impressionistic, photographic) when the illustration accompanied the literary form, legend. The rank order for fifth graders' preference was 1) impressionistic, 2) photographic, 3) realistic, 4) cartoon, 5) abstract. The data indicated that there was a tendency among fifth graders to choose impressionistic style when the illustration accompanied the literary form, legend.

The chi square goodness of fit calculation for the hypothesis of no preference for illustrative style indicated that there was a preference among fifth graders for illustrative style (i.e., realistic, cartoon, abstract, impressionistic, photographic) when the

illustration accompanied the literary form, poem. The rank order for fifth graders' preferences was 1) photographic, 2) impressionistic, 3) realistic, 4) cartoon, 5) abstract. The data indicated that there was a tendency among fifth graders to choose photographic style when the illustration accompanied the literary form, poem.

The chi square goodness of fit calculation for the hypothesis of no preference for illustrative style indicated that there was a preference among fifth graders for illustrative style when the illustration accompanied the literary form, biography. The rank order for fifth graders' preferences was 1) realistic, 2) photographic, 3) cartoon, 4) impressionistic, 5) abstract. The data indicated that there was a tendency among fifth graders to choose photographic style when the illustration accompanied the literary form, biography.

The chi square test of independence calculations for the null hypotheses of no significant difference in preference for illustrative style indicated that there were four significant differences in preference for illustrative style (i.e., realistic, cartoon, abstract, impressionistic, photographic) between 1) male and female fifth graders when the illustration accompanied the literary form, poem; 2) Mexican American and Caucasian fifth graders when the illustration accompanied the literary form, biography; 3) between Native American and Caucasian fifth graders when the illustration accompanied the literary form, legend; and 4) between non-Caucasian and Caucasian

fifth graders when the illustration accompanied the literary form, legend.

1) There was a significant difference in preference between male and female fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanied the literary form, poem. The rank order for female fifth graders' preferences for illustrative style when the illustration accompanied the literary form, poem was: photographic, realistic, impressionistic, cartoon, abstract. The rank order for male fifth graders' preferences for illustrative style when the illustration accompanied the literary form poem was: photographic, impressionistic, realistic, cartoon, abstract. The data indicated that there was a tendency for female fifth graders to choose photographic, then realistic style; whereas, there was a tendency for male fifth graders to choose photographic then impressionistic style when the illustration accompanied the literary form, poem.

2) There was a significant difference in preference between Mexican American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanied the literary form, biography. The rank order for Caucasian fifth graders' preferences for illustrative style when the illustration accompanied the literary form biography was: realistic, photographic, cartoon, impressionistic, abstract.

The rank order for Mexican American fifth graders' preferences for illustrative style when the illustration accompanied the literary form, biography was: photographic, cartoon, realistic, impressionistic, abstract. The data indicated that there was a tendency for Caucasian fifth graders to choose realistic then photographic style; whereas, there was a tendency for Mexican American fifth graders to choose photographic then cartoon style when the illustration accompanied the literary form, biography.

3) There was a significant difference in preference between Native American and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanied the literary form, legend. The rank order for Caucasian fifth graders' preferences when the illustration accompanied the literary form, legend was: impressionistic, photographic, realistic, cartoon, abstract. The rank order for Native American fifth graders' preferences when the illustration accompanied the literary form, legend was: photographic, impressionistic, cartoon, realistic, abstract. The data indicated that there was a tendency for Caucasian fifth graders to choose impressionistic style; whereas, there was a tendency for Native American fifth graders' to choose photographic style when the illustration accompanied the literary form, legend.

4) There was a significant difference in preference between non-Caucasian and Caucasian fifth graders for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanied the literary form, legend. The rank order for Caucasian fifth graders' preferences for illustrative style when the illustration accompanied the literary form, legend was: impressionistic, photographic, realistic, cartoon, abstract. The rank order for non-Caucasian fifth graders' preferences for illustrative style when the illustration accompanied the literary form, legend was: photographic, impressionistic, cartoon, realistic, abstract. The data indicated that there was a tendency for Caucasian fifth graders to choose impressionistic style; whereas, there was a tendency for non-Caucasian fifth graders to choose photographic style when the illustration accompanied the literary form, legend.

The chi square test of independence for the null hypotheses of no significant difference in preference for illustrative style indicated that there were eight no significant differences in preference for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) between 1) male and female fifth graders when the illustration accompanied the literary form, legend, 2) male and female fifth graders when the illustration accompanied the literary form, biography, 3) Mexican American and Caucasian fifth graders when the illustration accompanied the literary form, legend,

4) Mexican American and Caucasian fifth graders when the illustration accompanied the literary form, poem, 5) Native American and Caucasian fifth graders when the illustration accompanied the literary form, poem, 6) Native American and Caucasian fifth graders when the illustration accompanied the literary form, biography, 7) non-Caucasian and Caucasian fifth graders when the illustration accompanied the literary form, poem, 8) non-Caucasian and Caucasian fifth graders when the illustration accompanied the literary form, biography.

1) The rank order for female and male fifth graders' preferences for illustrative style when the illustration accompanied the literary form, legend was: impressionistic, photographic, realistic, cartoon, abstract. The data indicated that there was a tendency for female and male fifth graders to choose impressionistic style when the illustration accompanied the literary form, legend.

2) The rank order for female fifth graders' preferences when the illustration accompanied the literary form, biography was: photographic, realistic, cartoon, impressionistic, abstract. The rank order for male fifth graders' preferences when the illustration accompanied the literary form, biography was: realistic, photographic, cartoon, impressionistic, abstract. Although there was no significant difference in preference between female and male fifth graders for illustrative style when the illustration accompanied the literary form, biography, the data indicated that there was a

tendency for female fifth graders to choose photographic style; whereas, there was a tendency for male fifth graders to choose realistic style.

3) The rank order for Caucasian fifth graders' preferences when the illustration accompanied the literary form, legend was: impressionistic, photographic, realistic, cartoon, abstract. The rank order for Mexican American fifth graders' preferences when the illustration accompanied the literary form, legend was: photographic, impressionistic, cartoon, realistic, abstract. Although there was no significant difference in preference between Caucasian and Mexican American fifth graders for illustrative style when the illustration accompanied the literary form, legend, the data indicated that there was a tendency for Caucasian fifth graders to choose impressionistic style; whereas, there was a tendency for Mexican American fifth graders to choose photographic style.

4) The rank order for Caucasian fifth graders' preferences when the illustration accompanied the literary form poem was: photographic, impressionistic, realistic, cartoon, abstract. The rank order for Mexican American fifth graders' preferences when the illustration accompanied the literary form, poem was: photographic, impressionistic, cartoon, realistic, abstract. The data indicated that there was a tendency for Caucasian and Mexican American fifth graders to choose photographic style when the illustration accompanied

the literary form, poem.

5) The rank order for Caucasian fifth graders' preferences when the illustration accompanied the literary form, poem was: photographic, impressionistic, realistic, cartoon, abstract. The rank order for Native American fifth graders' preferences when the illustration accompanied the literary form, poem was: photographic, realistic, impressionistic, cartoon, abstract. The data indicated that there was a tendency for Caucasian and Native American fifth graders to choose photographic style when the illustration accompanied the literary form, poem.

6) The rank order for Caucasian fifth graders' preferences when the illustration accompanied the literary form, biography was: realistic, photographic, cartoon, impressionistic, abstract. The rank order for Native American fifth graders' preferences when the illustration accompanied the literary form, biography was: photographic, realistic, impressionistic, cartoon, abstract. Although there was no significant difference in preference between Caucasian and Native American fifth graders for illustrative style when the illustration accompanied the literary form, biography, the data indicated that there was a tendency for Caucasian fifth graders to choose realistic then photographic style; whereas, there was a tendency for Native American fifth graders to choose photographic then realistic style.

7) The rank order for Caucasian and non-Caucasian fifth graders' preferences when the illustration accompanied the literary form, poem was: photographic, impressionistic, realistic, cartoon, abstract. The data indicated that there was a tendency for Caucasian and non-Caucasian fifth graders to choose photographic style when the illustration accompanied the literary form, poem.

8) The rank order for Caucasian fifth graders' preferences when the illustration accompanied the literary form, biography was: realistic, photographic, cartoon, impressionistic, abstract. The rank order for non-Caucasian fifth graders' preferences when the illustration accompanied the literary form, biography was: photographic, realistic, cartoon, impressionistic, abstract. Although there was no significant difference in preference between Caucasian and non-Caucasian fifth graders for illustrative style when the illustration accompanied the literary form, biography, the data indicated that there was a tendency for Caucasian fifth graders to choose realistic then photographic style; whereas, there was a tendency for non-Caucasian fifth graders to choose photographic then realistic style.

The middle grade reading textbooks of five major companies were surveyed to determine the number of literary selections and illustrations distributed among literary forms and illustrative styles. Tables were provided to show 1) the number and percentage

of literary selections distributed among the various literary forms in the middle grade textbooks surveyed, 2) the number and percentage of illustrations distributed among various styles for particular literary forms, and 3) the comparison of illustrative style preference of fifth grade students and styles used in published reading materials. The highest percentage of illustrative styles for traditional literature (including legend), poetry, and biography were impressionistic, photographic, and photographic, respectively. The highest percentage of literary forms were informational articles, poetry, reading activities, contemporary realistic fiction, traditional literature, biography, modern fantasy, historical fiction, and drama. Although poem, legend, and biography ranked second, fifth, and sixth in occurrence, these forms were chosen for investigation in this study over others because of their recognizable and distinctive form.

Data indicated that both students and publishers opted for impressionistic illustrative style for legend. Publishers utilized cartoon style more often than photographic while students choose photographic over cartoon. Both publishers and students preferred a photographic style for the poem. Publishers, however, utilized cartoon and abstract forms more often than impressionistic and realistic. Students preferred impressionistic and realistic styles over cartoon and abstract styles. Realistic and photographic

illustrations were ranked as the first and second preference for biography by students. Publishers utilized photographic and realistic illustrations in first and second order for biography. Cartoon and impressionistic styles were marked as third and fourth preference by students while publishers utilized impressionistic more often than cartoon style for biography. For biography abstract illustrations were the least preferred by students and the least used by publishers.

The final section of this study will be the summary, conclusions, and recommendations. This will be found in Chapter 5.

Chapter 5

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Although there has been much research in the teaching of reading, reading instruction still poses unique problems for the teacher. The teacher, for example, faces the authoritative and research-based opinion that no particular basal reading system should be considered a panacea. Teachers, accordingly have been encouraged by experts in the field to adjust to the strengths and weaknesses of a particular reading system. School personnel also have been encouraged to scrutinize closely the components of reading programs before purchasing a reading series. This challenge places a large burden on the public elementary schools, particularly the teachers and other personnel responsible for reading curriculum in those schools, because basal readers traditionally have been the main tool for teaching reading. Further, in order to make such appropriate purchases or adjustments, teachers and curriculum directors need valid information about many aspects of the specific materials and the general reading process. These aspects include, among others, the reasons and methods behind vocabulary control and the relationship of writing style, broadened content, and illustrative style to student interest. Studies and authoritative writings have pointed to the important potential that illustrations have for influencing the interests of children. Receiving particular attention in

publications have been questions regarding children's preferences for illustrative style.

The problem of the study was to investigate the type of art style (i.e., realistic, cartoon, abstract, impressionistic, photographic) preferred by fifth grade pupils in selected Montana schools when the illustration accompanied a particular literary form (i.e., legend, poem, biography). Another purpose was to examine illustrations from all the selections of the five major basal reading series texts written for middle grade children in order to classify the type of illustrative styles found in them. An additional element of the study entailed the reading, evaluating, and categorizing of approximately eight hundred selections from the same major basal reading series texts written for middle grade children.

Research indicated that adult views on the appropriateness of illustrations have not always coincided with children's preferences.

The need for this study was based on several points. Writers in the fields of reading and children's literature stated that today's children not only expect illustrations but expect higher quality ones. The likes and dislikes should be considered in the style of art incorporated in children's reading material, because children's interest may be correspondingly influenced. Illustration production also has assumed more space and has raised the price of reading

textbooks. Should the styles of illustrations in presently available basal readers not be line with children's preferences, the efficiency of reading instruction might be decreased. This study was undertaken to investigate children's preferences for illustrative styles used in major publishers' middle-grade reading textbooks.

Questions were posed relating to 1) the history of the use of illustrations in basal reading material; 2) the semantic functions and utility of illustrations in reading materials; 3) controversies in the use of illustrations; 4) research findings on children's preferences for illustrations; 5) the distribution of illustrations among the types of illustrative style in the five major basal reading texts written for middle grade children; 6) the distribution of selections among literary forms in the same five major basal reading texts written for middle grade children; 7) the preference among fifth graders for illustrative style when the illustration accompanied a particular literary form; 8) the difference in preferences between male and female fifth graders for illustrative style when the illustration accompanied a particular literary form; 9) the differences in preferences among Mexican American, Native American, non-Caucasian and Caucasian fifth graders for illustrative style when the illustration accompanied a particular literary form. Statistical hypotheses were established for the questions relating to the preference among fifth graders for illustrative style when the

illustration accompanied a particular literary form (i.e., legend, poem, biography), the differences in preference between male and female fifth graders for illustrative style when the illustration accompanied a particular literary form, and the differences in preference between Native American and Caucasian, Mexican American and Caucasian, and non-Caucasian and Caucasian fifth graders for illustrative style when the illustration accompanied a particular literary form.

General procedures for the study were presented which included a description of the review of literature, an examination of illustrations of five major reading series in order to classify the type of illustrative style in them, an examination of selections in the five major reading series in order to categorize them as to literary form, the identification of literary selections used from three major literary forms, the preparation of illustrations for each of five categories of style, the preparation of an instrument in the form of a ballot for the recording of subjects' preferences, the method by which stimuli were presented, and the method of reporting data, findings, conclusions, and recommendations. Information obtained from a representative of the State Department of Public Instruction and school district principals was used to select Montana elementary schools having a high proportion of the ethnic groups noted above.

Recognized limitations of the study were that 1) the majority of sources for the paper were taken from the Montana State University Library, a personal library, available sources through inter-library loan, and ERIC materials for the period of January, 1970 to October, 1976, 2) only selected Montana public school fifth grade children participated in the study, 3) three literary forms, five illustrative styles, and three illustrations were used, 4) individual artists prepared the illustrations in the different styles, and 5) an inadequate number of Black students were not sampled in order to determine illustrative preferences for the group.

The following terms were defined: abstract, basal reader, biography, cartoon, children's literature, contemporary realistic fiction, drama, drawing, grade, historical fiction, illustration, impressionism, informational article, instructional material, middle grades, modern fantasy, photograph, poetry, preference, primary grade, reading activity, realistic, and traditional literature.

The textbooks examined in this study were middle-grade reading series texts from five major basal reading publishers as determined by national sales. Sales information was provided by a data processing company, Market Data Retrieval. Illustrations in all the texts were classified according to illustrative style (i.e., realistic, photographic, cartoon, impressionistic, abstract). Literary selections from all the same texts were read, evaluated, and

categorized as to literary form (i.e., traditional literature, drama, modern fantasy, poetry, contemporary realistic fiction, historical fiction, informational article, biography, reading activity).

The five hundred twenty-one subjects in this study were fifth grade students from twenty-seven selected elementary schools in Montana. Schools were chosen which contained a high proportion of Mexican American, Native American, and Caucasian students.

Three selections were chosen from a middle-grade basal reading text: a legend, a poem, and a biography. The selections were chosen because they fairly represented subjects, themes, characterizations, and forms which regularly appeared in fifth grade reading programs and because the forms were considered distinguishable and recognizable by fifth grade students.

Illustrations in each of the five categories of style (i.e., realistic, cartoon, abstract, impressionistic, photographic) were prepared for a part of each selection. Each illustration was prepared by an artist or photographer of reputation who had experience with children's illustrations or children's materials. The illustration from the original text was also used. All illustrations were reproduced on 35mm slides. Each slide was prepared with a number and alphabetical letter so that when projected onto a screen, it was identifiable by the child.

An instrument in the form of a ballot was developed for the

subject's recording of preference for an illustration. Number and letter combinations which corresponded to combinations on the slides appeared on the ballot.

In all there were fifteen slides used in the study. Five slides were prepared for each of three literary selections. The five slides of illustrative styles for a single selection were ordered for presentation by assigning each a random number of one to five.

Copies of each selection were provided the students in order that they could read along with the oral taped recording of the selection. Instructions were given. The taped recording was played. Subjects were asked to consider the slide they liked best as if it were to accompany the selection. The five slides for the selection were shown twice.

An informal check on the reliability of the instrument, the clarity of instructions, and the efficiency of the procedures was made by conducting a pilot study with seventy-three fifth grade students in three public schools. Data from the pilot study appeared to affirm the efficiency of the procedures and the reliability of the method by which preference was obtained.

The responses of all the students were carefully hand tabulated and rechecked before computer analysis of the data. The Sigma Seven Computer at Montana State University was utilized to perform calculations.

An extensive review of literature was made to provide information regarding the history of the use of illustrations in basal readers, the semantic functions and utility of illustrations in reading materials, controversies in the use of illustrations, and research findings on children's preference for illustrations. The review pointed out that the history of the use of illustrations probably began with the earliest cave drawings and progressed through stone inscriptions to modern photographic and silk screen color processes. Various inventions and technological improvements added an important development to the history of reading materials and the use of illustrations. Although the alphabetic system of writing replaced pictographic and ideographic writing processes, many messages are still not capable of being communicated by the alphabetic system alone. Illustrations were described as one means of extending the meaning of written communication. A tracing of the history of reading texts pointed to the increasingly technical advancements in producing illustrations. Recognized as one of the first reading texts was the Hornbook, whose single illustration, a cross, intended to emphasize the religious function of reading. Other children's books which included early attempts at illustration were the Battledore, The New England Primer, the Blue Back Speller, A New Guide to the English Tongue, the North American Reader, and the Improved Reader. Pictures in McGuffey's Eclectic Series beginning readers

were more plentiful and more representative of objects and experiences familiar to children. The review noted that, at the turn of the century, a trend started toward the use of more illustrations and color. By 1925, the mechanical make-up of readers had reached a high degree of excellence with beginning readers often having as much as forty percent of the space devoted to three color combinations. Still more space was occupied by art work for basal reading systems published between 1940-50. Colors were used more freely for intermediate grade graders. Full page illustrations were found not uncommonly in upper grade readers. The 1950's saw artwork becoming more colorful and profuse at the early levels. At this time some black and white illustrations were re-introduced. Alternative placements of illustrations on the page and actual photographs were a unique feature for the readers of the 1960's. Although the linguistic movements of the 1960's saw illustrations omitted entirely from some reading textbooks, the 1970's found illustrations returning to a position of importance in all major reading texts.

Contemporary artists used media in various ways and the use of many techniques influenced the production of illustrations in modern basal series. The review also noted that although most linguists and reading authorities have recognized the utility of the use of illustrations in the teaching of reading, this utility has not been universally accepted. Illustrations were noted as providing

necessary vicarious experience, a fascination for children, an extension of meaning, significant particulars, a help for the child in learning to read, and a dramatization of the spoken word. Other authorities warned that although illustrations have value, they should not dominate a book or become a distraction. An illustration, as a symbol, could clarify the world of words, but still remain symbols, and have some limitations.

Controversies in the use of illustrations in basal readers included the relative value of illustrations in contributing to motivation, decoding, comprehension, and language stimulation. Textbook illustrations also have been under examination for sexual stereotyping and ethnic bias. The review noted that although some improvement in balance and fairness has been made in new materials, there was still some unevenness in the treatment of males and females. Text writers reportedly were becoming more aware of ethnic biases.

Research findings of studies which sought to determine children's preferences for illustrations were also reported. Writers claimed that no one particular style was most appropriate for children. General findings indicated that children preferred color, realism, and childhood experiences in illustrations. Another writer claimed that as children matured they appreciated more abstract and sophisticated art design.

In order to test the efficiency of the procedures and the

reliability of the instrument used in the study, a pilot study was conducted by the researcher. Tables were presented to show the percent consistencies of fifth grade students' preference indications for an order check and a reliability check. The data indicated that percent consistencies of test-retest preference indications for both the order check and reliability check were above the 50 percent level.

Following the pilot study, the researcher initiated the procedures for the study. Tables were presented to show the number of fifth graders distributed among ethnic groups, between non-Caucasian and Caucasian groups, and between male and female categories. Data indicated that 1) the largest percentage of students were Caucasian, and the lowest percentages were Black and Japanese or Thai; 2) the larger percentage of students were Caucasian and the lower percentage was non-Caucasian; and 3) females and males were fairly evenly distributed with 51.2 percent females and 48.8 percent males.

Tables were also presented to show the frequency of choice for a particular illustrative style when the illustration accompanied a certain literary form, the percentage of choice for a particular illustrative style when the illustration accompanied a certain literary form, and the calculated value of chi square. Each table was followed by a statement of hypothesis, a data analysis, and comments on the specific preferences of the groups of fifth graders and liter-

ary form in question.

The chi square goodness of fit calculation for the three hypotheses of no preference for illustrative style indicated that there was a preference among fifth graders for illustrative style (i.e., realistic, cartoon, abstract, impressionistic, photographic) when the illustration accompanied the literary form, legend, poem, and biography.

Significant values for the chi square goodness of fit were found for the following:

1. Fifth graders' preference for illustrative style when the illustration accompanied the literary form, legend. The rank order for fifth graders' preference was 1) impressionistic, 2) photographic, 3) realistic, 4) cartoon, 5) abstract. The data indicated that there was a tendency among fifth graders to choose impressionistic style when the illustration accompanied the literary form, legend.

2. Fifth graders' preference for illustrative style when the illustration accompanied the literary form, poem. The rank order for fifth graders' preferences was 1) photographic, 2) impressionistic, 3) realistic, 4) cartoon, 5) abstract. The data indicated that there was a tendency among fifth graders to choose photographic style when the illustration accompanied the literary form, poem.

3. Fifth graders' preference for illustrative style when

the illustration accompanied the literary form, biography. The rank order for fifth graders' preference was 1) realistic, 2) photographic, 3) cartoon, 4) impressionistic, 5) abstract. The data indicated that there was a tendency among fifth graders to choose photographic style when the illustration accompanied the literary form, biography.

The chi square test of independence calculations for the null hypotheses of no significant difference in preference for illustrative style indicated that there were four significant differences in preference for illustrative style (i.e., realistic, cartoon, abstract, impressionistic, photographic) when the illustration accompanied a particular literary form.

Significant values for the chi square test of independence were found for the following:

1. Male and female fifth graders preference for illustrative style when the illustration accompanied the literary form, poem. The rank order for female fifth graders' preferences for illustrative style when the illustration accompanied the literary form, poem was: photographic, realistic, impressionistic, cartoon, abstract. The rank order for male fifth graders' preferences for illustrative style when the illustration accompanied the literary form, poem was: photographic, impressionistic, realistic, cartoon, abstract. The data indicated that there was a tendency for female fifth graders to choose photographic, then realistic style; whereas, there was a

tendency for male fifth graders to choose photographic then impressionistic style when the illustration accompanied the literary form, poem.

2. Mexican American and Caucasian fifth graders' preference for illustrative style when the illustration accompanied the literary form, biography. The rank order for Caucasian fifth graders' preferences for illustrative style when the illustration accompanied the literary form, biography was: realistic, photographic, cartoon, impressionistic, abstract. The rank order for Mexican American fifth graders' preference for illustrative style when the illustration accompanied the literary form, biography was: photographic, cartoon, realistic, impressionistic, abstract. The data indicated that there was a tendency for Caucasian fifth graders to choose realistic then photographic style; whereas, there was a tendency for Mexican American fifth graders to choose photographic then cartoon style when the illustration accompanied the literary form, biography.

3. Native American and Caucasian fifth graders' preference for illustrative style when the illustration accompanied the literary form, legend. The rank order for Caucasian fifth graders' preferences when the illustration accompanied the literary form, legend was: impressionistic, photographic, realistic, cartoon, abstract. The rank order for Native American fifth graders' preferences when the illustration accompanied the literary form, legend was: photographic,

impressionistic, cartoon, realistic, abstract. The data indicated that there was a tendency for Caucasian fifth graders to choose impressionistic style; whereas, there was a tendency for Native American fifth graders to choose photographic style when the illustration accompanied the literary form, legend.

4. Non-Caucasian and Caucasian fifth graders' preference for illustrative style when the illustration accompanied the literary form, legend. The rank order for Caucasian fifth graders' preferences for illustrative style when the illustration accompanied the literary form, legend was: impressionistic, photographic, realistic, cartoon, abstract. The rank order for non-Caucasian fifth graders' preferences for illustrative style when the illustration accompanied the literary form, legend was: photographic, impressionistic, cartoon, realistic, abstract. The data indicated that there was a tendency for Caucasian fifth graders to choose impressionistic style; whereas, there was a tendency for non-Caucasian fifth graders to choose photographic style when the illustration accompanied the literary form, legend.

The chi square test of independence for the null hypotheses of no significant difference in preference for illustrative style indicated that there were eight no significant differences in preference for illustrative style (i.e., realism, cartoon, abstract, impressionistic, photographic) when the illustration accompanied a particular literary, form.

Non-significant values for the chi square test of independence were found for the following:

1. Female and male fifth graders' preference for illustrative style when the illustration accompanied the literary form, legend.

The rank order for female and male fifth graders' preferences for illustrative style when the illustration accompanied the literary form, legend was: impressionistic, photographic, realistic, cartoon, abstract. The data indicated that there was a tendency for female and male fifth graders to choose impressionistic style when the illustration accompanied the literary form, legend.

2. Female and male fifth graders' preference for illustrative style when the illustration accompanied the literary form, biography.

The rank order for female fifth graders' preferences when the illustration accompanied the literary form, biography was: photographic, realistic, cartoon, impressionistic, abstract. The rank order for male fifth graders' preferences when the illustration accompanied the literary form, biography was: realistic, photographic, cartoon, impressionistic, abstract. Although there was no significant difference in preference between female and male fifth graders for illustrative style when the illustration accompanied the literary form, biography, the data indicated that there was a tendency for female fifth graders to choose photographic style; whereas, there was a tendency for male fifth graders to choose

realistic style.

3. Mexican American and Caucasian fifth graders' preference for illustrative style when the illustration accompanied the literary form, legend. The rank order for Caucasian fifth graders' preferences when the illustration accompanied the literary form, legend was: impressionistic, photographic, realistic, cartoon, abstract. The rank order for Mexican American fifth graders' preferences when the illustration accompanied the literary form, legend was: photographic, impressionistic, cartoon, realistic, abstract. Although there was no significant difference in preference between Caucasian and Mexican American fifth graders for illustrative style when the illustration accompanied the literary form, legend, the data indicated that there was a tendency for Caucasian fifth graders to choose impressionistic style; whereas, there was a tendency for Mexican American fifth graders to choose photographic style.

4. Mexican American and Caucasian fifth graders' preference for illustrative style when the illustration accompanied the literary form, poem. The rank order for Caucasian fifth graders' preferences when the illustration accompanied the literary form, poem was: photographic, impressionistic, realistic, cartoon, abstract. The rank order for Mexican American fifth graders' preferences when the illustration accompanied the literary form, poem was: photographic, impressionistic, cartoon, realistic, abstract. The data indicated

that there was a tendency for Caucasian and Mexican American fifth graders to choose photographic style when the illustration accompanied the literary form, poem.

5. Native American and Caucasian fifth graders' preference for illustrative style when the illustration accompanied the literary form, poem. The rank order for Caucasian fifth graders' preferences when the illustration accompanied the literary form, poem was: photographic, impressionistic, realistic, cartoon, abstract. The rank order for Native American fifth graders' preferences when the illustration accompanied the literary form, poem was: photographic, realistic, impressionistic, cartoon, abstract. The data indicated that there was a tendency for Caucasian and Native American fifth graders to choose photographic style when the illustration accompanied the literary form, poem.

6. Native American and Caucasian fifth graders' preference for illustrative style when the illustration accompanied the literary form, biography. The rank order for Caucasian fifth graders' preferences when the illustration accompanied the literary form, biography was: realistic, photographic, cartoon, impressionistic, abstract. The rank order for Native American fifth graders' preferences when the illustration accompanied the literary form, biography was: photographic, realistic, impressionistic, cartoon, abstract. Although there was no significant difference in preference

between Caucasian and Native American fifth graders for illustrative style when the illustration accompanied the literary form, biography, the data indicated that there was a tendency for Caucasian fifth graders to choose realistic then photographic style; whereas, there was a tendency for Native American fifth graders to choose photographic then realistic style.

7. Non-Caucasian and Caucasian fifth graders' preference for illustrative style when the illustration accompanied the literary form, poem. The rank order for Caucasian and non-Caucasian fifth graders' preferences when the illustration accompanied the literary form, poem was: photographic, impressionistic, realistic, cartoon, abstract. The data indicated that there was a tendency for Caucasian and non-Caucasian fifth graders to choose photographic style when the illustration accompanied the literary form, poem.

8. Non-Caucasian and Caucasian fifth graders' preference for illustrative style when the illustration accompanied the literary form biography. The rank order for Caucasian fifth graders' preferences when the illustration accompanied the literary form, biography was: realistic, photographic, cartoon, impressionistic, abstract. The rank order for non-Caucasian fifth graders' preferences when the illustration accompanied the literary form, biography was: photographic, realistic, cartoon, impressionistic, abstract. Although there was no significant difference in preference

between Caucasian and non-Caucasian fifth graders for illustrative style when the illustration accompanied the literary form, biography, the data indicated that there was a tendency for Caucasian fifth graders to choose realistic then photographic style; whereas, there was a tendency for non-Caucasian fifth graders to choose photographic then realistic style.

The middle grade reading textbooks of five major companies were surveyed to determine the number of literary selections and illustrations distributed among literary forms and illustrative styles. Tables were provided to show 1) the number and percentage of literary selections distributed among the various literary forms in the middle grade textbooks surveyed, 2) the number and percentage of illustrations distributed among various styles for particular literary forms, and 3) the comparison of illustrative style preference of fifth grade students and styles used in published reading materials. The highest percentage of illustrative styles for traditional literature (including legend), poetry, and biography were impressionistic, photographic, and photographic, respectively. The highest percentage of literary forms were informational articles, poetry, reading activities, contemporary realistic fiction, traditional literature, biography, modern fantasy, historical fiction, and drama. Although poem, legend, and biography ranked second, fifth and sixth in occurrence, these forms were chosen for investigation in this study

over others because of their recognizable and distinctive form.

Data indicated that both students and publishers opted for impressionistic illustrative style for legend. Publishers utilized cartoon style more often than photographic while students choose photographic over cartoon. Both publishers and students preferred a photographic style for the poem. Publishers, however, utilized cartoon and abstract forms more often than impressionistic and realistic. Students preferred impressionistic and realistic styles over cartoon and abstract styles. Realistic and photographic illustrations were ranked as the first and second preference for biography by students. Publishers utilized photographic and realistic illustrations in first and second order for biography. Cartoon and impressionistic styles were marked as third and fourth preference by students while publishers utilized impressionistic more often than cartoon style for biography. For biography, abstract illustrations were the least preferred by students and the least used by publishers.

CONCLUSIONS

The review of literature, the chi square goodness of fit, and the chi square test of independence analysis of the data of this study made possible the following conclusions:

1. Important "milestones" in the history of the use of illustrations in children's reading materials and basal readers were

found. Included among these were early development of written communication systems, writing materials, and communication related inventions; recognition as early as the seventeenth century of the important role of illustrations in extending learning in books beyond written phases; the gradual change in the use of illustrations for limited purposes such as religious, moralistic, didactic, and patriotic teaching to a broader scope of purposes such as to increase comprehension, motivation, and aesthetic appreciation. Other purposes were to provide reading illustrations related to the child's world and to increase the child's knowledge of natural history. The latter half of the twentieth century saw 1) art work taking more space in basal readers, 2) specific illustrations being prepared on the basis of story content, 3) generous use of various artistic techniques and color, and 4) emphasis on the possibilities of the photograph.

Although some publishers in the 1960's responded to pressure from a group of linguists who called for omitting illustrations in beginning readers, the majority of publishers of basal reading series increased the quantity and quality of illustrations during the 1970's.

2. Important semantic functions and utilitarian purposes of illustrations were assumed by authorities in language, reading, communication, and children's literature. Included among these were the ability of illustrations to add a uniqueness of its own to reading material; to provide vicarious experience; to bridge the

gap between a real experience and the printed symbols of that experience; to enrich oral vocabulary; and to evoke expressive words. Other findings indicated that the function of illustrations were limited in that they could be a distraction from the main task of learning to read printed symbols.

3. Certain controversies related to the use of illustrations in children's reading materials were identified. Included among these were the relative value of illustrations in contributing to the development of decoding skills, the expansion of concepts, and the improvement of comprehension skills. Also included among the controversies were the charges of inadequate representation of ethnic groups, American life, and sexual roles. There seemed to be some agreement among authorities that newer basal series have tried to solve some of these problems, however, investigators identified some aspects of the materials that still needed improvement. Subtle ways of stereotyping females, for example, still existed in portrayal of role expectancy.

4. Aspects of children's preferences for illustrations as determined in research studies and as posited by authorities were recognized in the review of literature. Appropriate illustrations for children's reading texts were felt to be dependent on the age of the child, the child's experiential background, and type of material being illustrated. Findings indicated that, in general, children

preferred color, realism, and childhood experiences in illustrations. Other writers claimed that more mature children could appreciate more abstract and sophisticated art design.

5. The data obtained from an examination of literary selections in major middle grade reading texts indicated the distribution of selections among literary forms. The rank order of literary selections was informational article, poetry, reading activities, contemporary realistic fiction, traditional literature (including legend), biography, modern fantasy, historical fiction, and drama.

6. The data obtained from an examination of illustrations in the same major middle grade reading texts indicated the distribution of illustrations among literary forms. The highest percentage of illustrative style for traditional literature (including legend) was impressionistic. For poetry, the highest percentage of illustrative style was photographic. For biography, the highest percentage of illustrative style was photographic.

7. By calculating the values of the chi square goodness of fit test for the three hypotheses of no preference for illustrative style, it was determined that there was a preference among fifth graders for illustrative style when the illustration accompanied the literary forms, legend, poem, and biography. From this, credence can be given to the statement that Montana elementary school personnel involved in fifth grade reading instruction may expect

students to have a preference for illustrative style when illustrations accompany the literary forms, legend, poem, and biography.

8. By calculating the values for the chi square test of independence for the hypotheses of no significant difference in preference for illustrative style, it was determined that there were four significant differences and eight less than significant differences in preferences for illustrative style when the illustration accompanied a particular literary form. The four significant differences were found for the following: between male and female fifth graders' preference for illustrative style when the illustration accompanied the literary form, poem; between Mexican American and Caucasian fifth graders' preference for illustrative style when the illustration accompanied the literary form, biography; between Native American and Caucasian fifth graders' preference for illustrative style when the illustration accompanied the literary form, legend; and between non-Caucasian and Caucasian fifth graders' preference for illustrative style when the illustration accompanied the literary form, legend. The eight less than significant differences were found for the following: between female and male fifth graders' preferences for illustrative style when the illustration accompanied the literary form, legend and biography; between Mexican American and Caucasian fifth graders' preference when the illustration accompanied the literary form, legend and poem;

between Native American and Caucasian fifth graders' preference when the illustration accompanied the literary form, poem and biography; between non-Caucasian and Caucasian fifth graders' preference for illustrative style when the illustration accompanied the literary form, poem and biography. From this, credence can be given to the statement that Montana elementary school personnel involved in fifth grade reading instruction may expect a difference in preference for illustrative style between the groups noted above for the particular literary styles listed.

9. The data obtained from an examination of literary selections and illustrations in major middle grade reading texts and the data obtained from the analysis of students' preferences for illustrative style when the illustration accompanied particular literary forms indicated that 1) both students and publishers opted for impressionistic style for legend, 2) publishers utilized and students preferred photographic style for poem, and 3) both publishers and students opted for photographic and realistic styles for biography. From this, credence can be given to the statement that publishers utilized and students preferred mainly the same illustrative styles for particular literary forms. Publishers, however, did utilize cartoon styles more often for legend and poetry literary forms, than did fifth graders prefer them.

10. Early studies on other populations on children's

preference for illustrative style showed that students, in general, preferred realistic style. Findings from this study seemed to support this preference for realistic illustrative style with cartoon and abstract styles being preferred less.

RECOMMENDATIONS

1. Persons responsible for the purchase of material to use in the teaching of reading to middle grade students should receive training in critically evaluating illustrations as well as the text, due to the large amount of space and dollar outlay committed to illustrations and the resulting expense to school districts.

2. Montana elementary school personnel who are involved in teaching reading to middle grade students should be discerning in their judgment as to the appropriateness of illustrations in reading texts. As suggested by the findings in this study, cartoon and abstract styles were not given high preference by fifth graders; thus yielding a question concerning the high utilization of this style with certain literary forms such as legend, poem, and biography.

3. Photographs were utilized highly by publishers and students in the study tended to choose photographic styles for poem and biography. Personnel who are evaluating reading texts for use with middle grade students should be aware of these preferences. The trend in published materials to include more photographs should

be encouraged.

4. Montana educators should be careful in considering that certain illustrative styles will appeal more to boys or girls. The findings of this study indicated that, in general, boys and girls preferred similar illustrative styles with legend, poem, biography.

5. Montana elementary educators should make continuing assessment of children's preferences for illustrative style to determine if children's preferences change and if children have preferences for other aspects of illustrations.

6. Parallel studies should be conducted with other grade levels in order to investigate changes in illustrative preferences.

7. Similar studies should be made using other illustrators.

8. Based on the findings of this study, ethnic groups do not necessarily have extreme differences in preferences for illustrative style. Publishers should be cautioned in preparing parallel reading series containing different illustrative styles for the purpose of appealing to ethnic groups represented in this study.

9. Additional studies should be conducted to determine whether illustrative preference affects the attainment of reading skills.

Perhaps, then, illustrations play a vital role in children's reading material. Bruner (1968:102) noted that:

As between reading, listening, and speaking, one falls asleep most easily reading, next most easily listening, and only with the greatest difficulty while writing or speaking. . . .

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LITERATURE CITED

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APPENDICES

APPENDIX A

Literary Selections

Literary Selections

The Mud Ponies
Lack Kendall

A Sign

The wind was cold and hard and shook the thick walls of the earth lodges. A young Indian boy stood at a safe distance from the village. Running Star was the boy's name; for when he was born, a large star had fallen from its place in the sky. In his lodge it had been a sign that some day Running Star would become a great leader of his tribe.

But now he stood cold, hungry, and alone under the spring moon, with the wind stinging his bare legs and lifting his black hair. He had no lodge of his own, no father and mother, not even a grandmother or a great-grandmother whom he could remember. They had all gone into the world above the sky.

A very old, wrinkled squaw had told him the reason for this. "The star was evil; for when you were born, a great sickness came down upon the tribe. It took away your mother and father and even strong warriors into the sky. If we were to let you into our villages, the sickness may come again."

For a time Running Star had believed the squaw. Ashamed, he had crept off by himself to live on berries and roots.

Then one day a wise Pawnee priest found him. "It was not the

star," the priest said. "The sickness came out of the air. This was not your doing. Only, many of our people believe it is so. Therefore, Running Star, you must walk alone until you can find a great deed to do. A star did fall for you. But it was a clean, strong star."

Running Star breathed deeply of the night air, his face turned toward the sky. He knew that the wise man's words were true. And the star -- clean and strong -- had chosen to fall. Stars had once been human beings and had been given great powers. Evening Star was the chief power in the west even now, and Morning Star in the east. But even mightier than they was the Sky Father, Tirawa.

Beyond the stake fences that protected the village cornfield from wild animals, the prairie grass grew high. Running Star went to the grass and lay down in it and pulled the long, bright, green-smelling stems over him like a blanket. He put his hands under his head for a pillow and slept.

Sometime in the middle of his sleep, he had a strange and wonderful dream. All the stars in the heavens seemed to cluster together and then, suddenly, they began to fall. As they fell, they separated into two remarkable animal figures. The figures had four long, slender legs with hooves at the tips. They had graceful necks and glossy manes flying from them, and their noses had round, pinkish colored nostrils. Each strange animal had a flowing tail and a broad back wide enough and strong-looking enough to carry bundles far

heavier than any dog could carry.

Never, asleep or awake, had Running Star seen such beautiful creatures. How elegant their pointed ears were, standing up above their starbright foreheads! How fleet and noble and shining they looked! In his dream he saw every detail of the animals. Even more amazing, Running Star knew what they were. They were ponies, fallen from the sky. And they were meant for him!

Excerpted from "For You and Me," Unit 4, Freedom's Ground, New York: Holt, Rinehart and Winston, 1973, 288-304.

Buffalo Dusk
Carl Sandburg

The buffaloes are gone,

And those who saw the buffaloes are gone,

Those who saw the buffaloes by thousands and

how they pawed the prairie sod into dust with

their hoofs, their great heads down pawing

on in a great pageant of dusk,

Those who saw the buffaloes are gone.

And the buffaloes are gone.

Taken from "The Entrance Place of Wonders," Unit 5, Freedom's Ground,

New York: Holt, Rinehart and Winston, 1973, p. 381.

Thomas Jefferson, Architect
Sarah Elliott

You probably know that Thomas Jefferson was one of our early presidents. Do you also know that he was the first American architect to become world famous?

When Jefferson was young, there were no architects in the colonies. The settlers built their own houses, which were mostly box-shaped and considered ugly by Jefferson. Pictures of ancient Greek and Roman buildings in Europe fascinated him. He began to study the writings of European architects, especially those of Andrea Palladio.

After finishing college, Jefferson became a lawyer. When he was not practicing law, he was working on the design of the house he planned to build for himself. He had already chosen the site. It was called Monticello, which is an Italian word meaning "little mountain."

In 1768, he began to level the mountaintop. He cut trees to clear a road and saved the timber to use as beams in the house. He made bricks from the hard red clay dug up for the foundation. The first part of the house was a small, one-room, brick building. Jefferson and his wife moved into this room shortly after their marriage. But Monticello was not completed until after Jefferson left the Presidency in 1809.

In 1784, Jefferson was sent to Europe to set up trade agreements with European countries. The next year he became America's

minister to France. He studied the buildings of Paris and traveled to see other buildings in other European cities. These travels changed some of his ideas about architecture.

Before going to Europe, Jefferson had begun the design for a building that was to be the State Capitol in Richmond, Virginia. While in France, he was asked to send home plans for the new building. Jefferson imagined a building that would look like the ancient Roman temple in Nimes, a city in southern France. He had worked from pictures of the temple while still in the United States. On arriving in France, Jefferson went to see the temple for himself. He then worked with a French architect and sent finished plans and a plaster model to Richmond.

The State Capitol was completed in 1792. It was the first building in the United States modeled after an ancient Roman temple. Later this style of architecture became very popular.

Jefferson devoted most of his last years to the creation of the University of Virginia. He urged the state to start a public university and to pay for its construction. His work at the university enabled him to combine his love of education with his love of architecture. He designed all the buildings, organized the curriculum, hired faculty, and bought books. The university opened in March, 1825, with Jefferson as its first rector.

On July 4, 1826, Thomas Jefferson died. Although he is best

remembered as a great president and the author of the Declaration of Independence, he is also famous for being the foremost American architect of his time.

From "For You and For Me," Unit 4, Freedom's Ground, New York: Holt, Rinehart and Winston, 1973, 329-334.

APPENDIX B

Instruments

The Mud Ponies

Name: _____

Circle One: Boy Girl

School Name: _____

As I go over the slides, pick the illustration you like best as if it were going to appear with the selection you just read and listened to.

Circle the label of the slide.

1.A 1.B 1.C 1.D 1.E

Buffalo Dusk

Name: _____

Circle One: Boy Girl

School Name: _____

As I go over the slides, pick the illustration you like best as if it were going to appear with the selection you just read and listened to. Circle the label of the slide.

2.A 2.B 2.C 2.D 2.E

Thomas Jefferson, Architect

Name: _____

Circle One: Boy Girl

School Name: _____

As I go over the slides, pick the illustration you like best as if it were going to appear with the selection you just read and listened to.

Circle the label of the slide.

3.A 3.B 3.C 3.D 3.E

APPENDIX C

Instructions Given to Students

Instructions Given to Students

Since the study involved subject's preferences for illustrative style when illustrations were accompanied by a particular literary form (i.e., biography, poem, legend) the procedures were repeated for each particular literary selection and slide presentation.

1. A copy of the literary selection under investigation was provided each student in order that he or she could read along with the oral taped recording of the selection.

2. The following instructions were given to the class:

a. I am interested in your opinions as to what pictures you like best with certain kinds of stories and poems. Today I am going to ask you to read along with a taped recording of a story or poem similar to those in your own reading book.

After you read and listen to the story or poem I will show you five slides of illustrations that might appear with it in a reading book. I will then ask you to circle the letter of the slide that you like best with the story or poem.

b. First I would like to explain the way for you to mark the slide that you like best. (Copies of the instrument for the particular literary selection were provided the students. A transparency of the instrument was projected on a screen located at the front of the room.) Please look at the screen

and I will show you how to mark your own sheet. (The experimenter indicated how a circle might be drawn around one of the letters, i.e., 2.A.) A number and letter will appear on the bottom right side of each slide.

c. I will now bring the taped recording of the story or poem. You should read silently with the recording.

d. Now I would like to show you the slides. Look at the slides. All five slides were shown, ten seconds each.) I will show the slides a second time. Please circle the letter of the slide which you like best with the story (or poem) which you just read and listened to.

3. (After students have had sufficient time to mark their ballots the experimenter collected the instruments.)

4. (The procedures were repeated for the remaining two literary forms. With all students, the literary forms were dealt with in the following order: legend, poem, biography.)

APPENDIX D

Qualifications of Illustrators

Qualifications of Illustrators

Mark Sullivan is presently a junior at Linfield College in McMinnville, Oregon, majoring in art and music education. During the last three years at Linfield, Mr. Sullivan, has done all the promotional posters for the drama productions. He is presently working with elementary and junior high art classes in McMinnville.

Mr. Sullivan was hired as the summer recreational supervisor for parks in Bozeman last summer and again this summer especially because of his background in the arts. He has illustrated several books to use with children: Morris, G. S. Don. How to Change the Games Children Play, Minneapolis, Minnesota: 1976, Burgess Publishing Company; Sullivan, Gerald. Word Enrichment: A Vocabulary-Building Junior High School Textbook-Workbook, Book A: Introductory Lessons, Prefixes, Suffixes; Book B: Word Roots Part 1; Book C: Word Roots Part 2, Scientific Roots; Book T: Teachers' Section: Progress Chart, tests, Minneapolis, Minnesota: T. S. Denison and Company, Inc., 1976.

Donald M. Holz received his Bachelor of Science degree in Art Education in 1959. He obtained a Master of Arts in Teaching with major emphasis in art education. His experience includes three years of teaching fourth grade at the elementary level and eight years of teaching art at the high school level. He served as a

graduate teaching assistant in Art Education in the School of Art at the University of Washington. He presently is an associate professor in Art Education at Montana State University.

Mr. Holz has conducted art classes for children and has held art exhibits in Washington, Idaho, and Montana.

Mr. Holz specializes in batik, silk screening, resist techniques in painting, and collages.

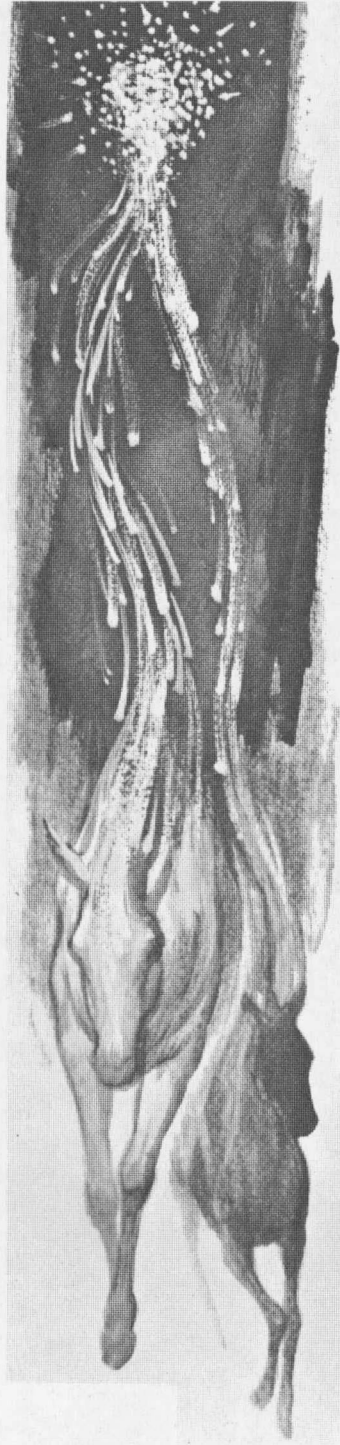
Donald A. Pilotte received his Bachelor of Science in Film and Television from Montana State University. He is currently manager-technician photographer for the Montana State University photographic services. Formerly, Mr. Pilotte worked with industrial and commercial photography. Mr. Pilotte has had experience in various aspects of photography: public relations, scenic and outdoor shots, graphic arts, publications, and brochures.

Mr. Pilotte's specializes in wildlife and recreational photography.

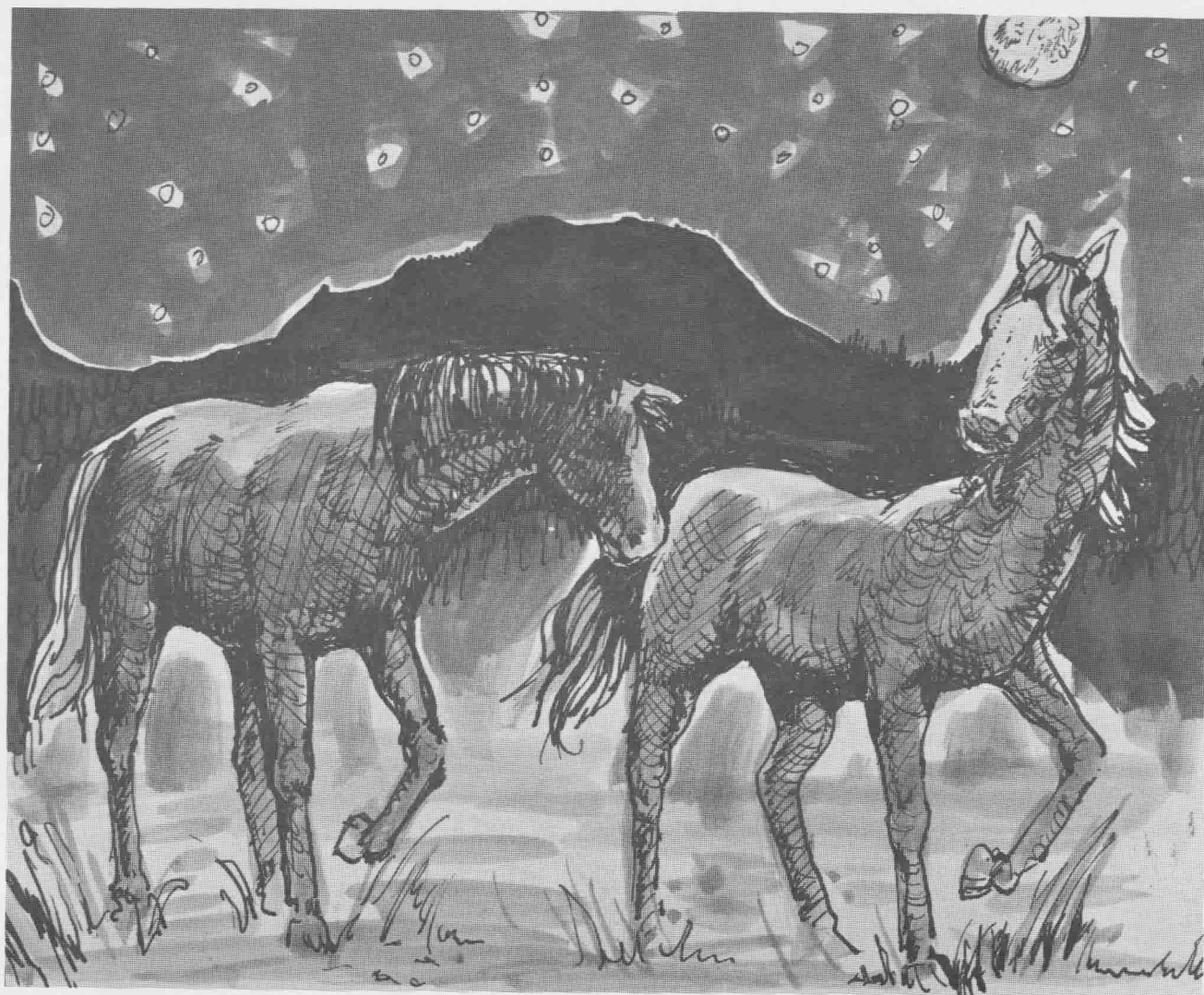
APPENDIX E
Illustrations













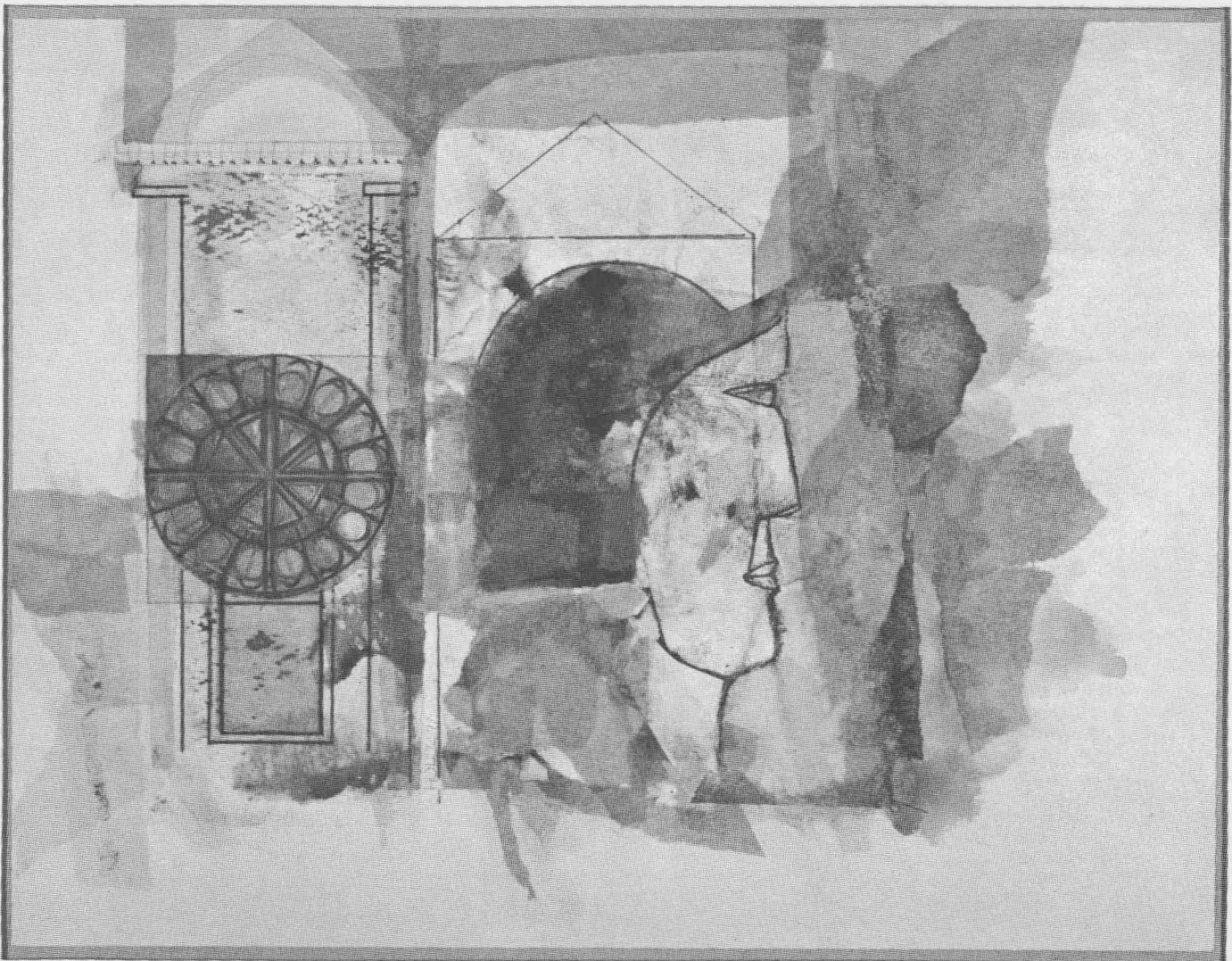


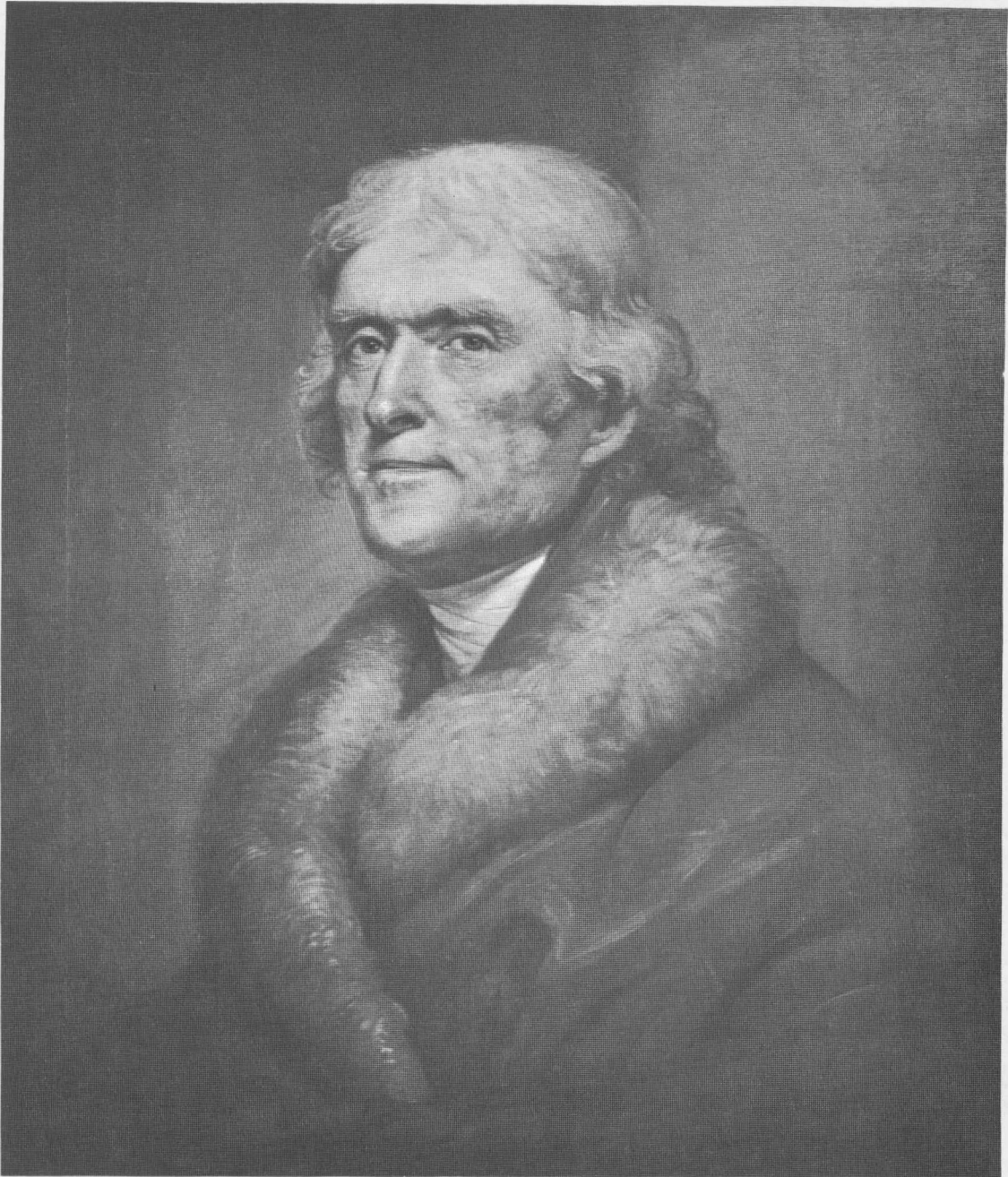


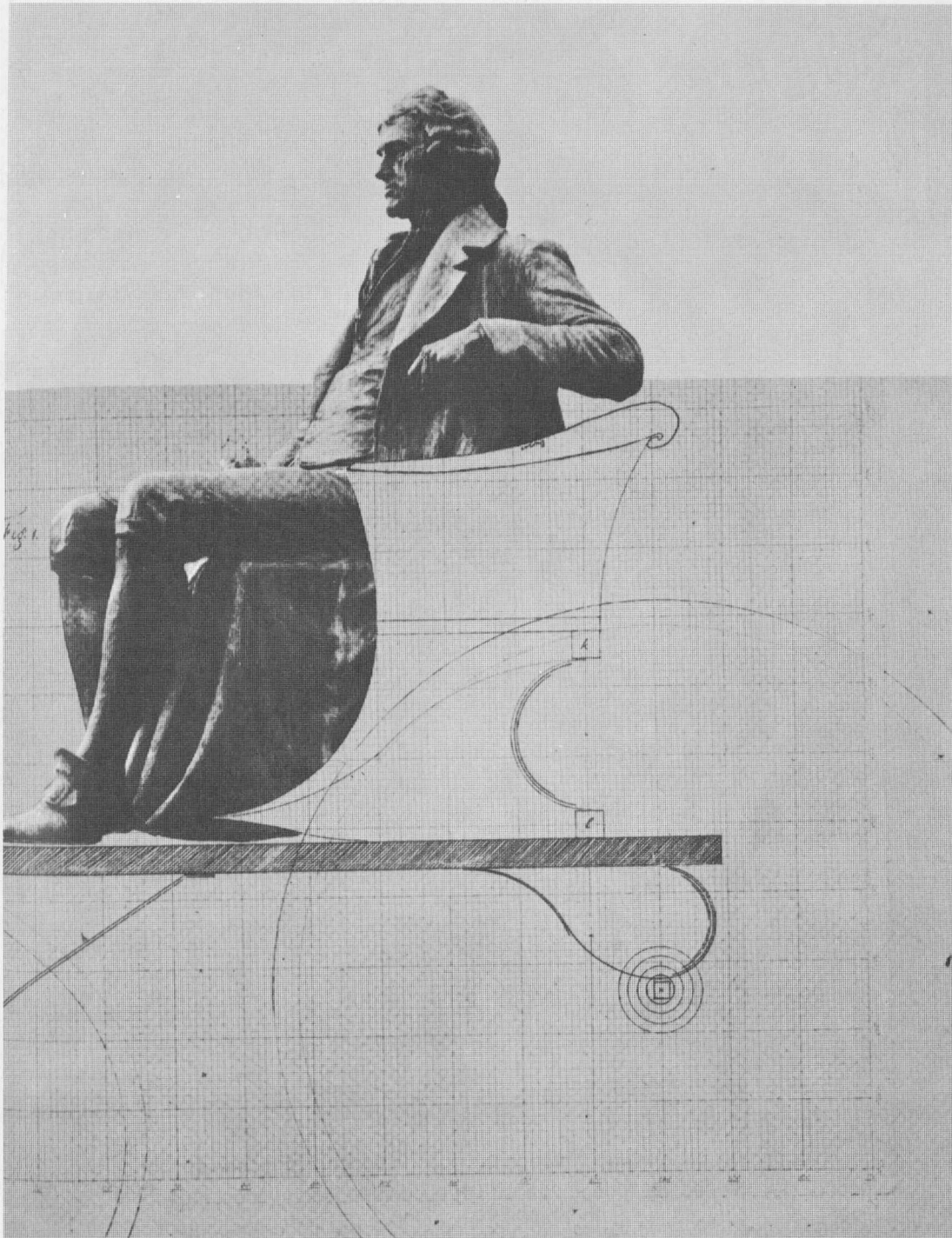


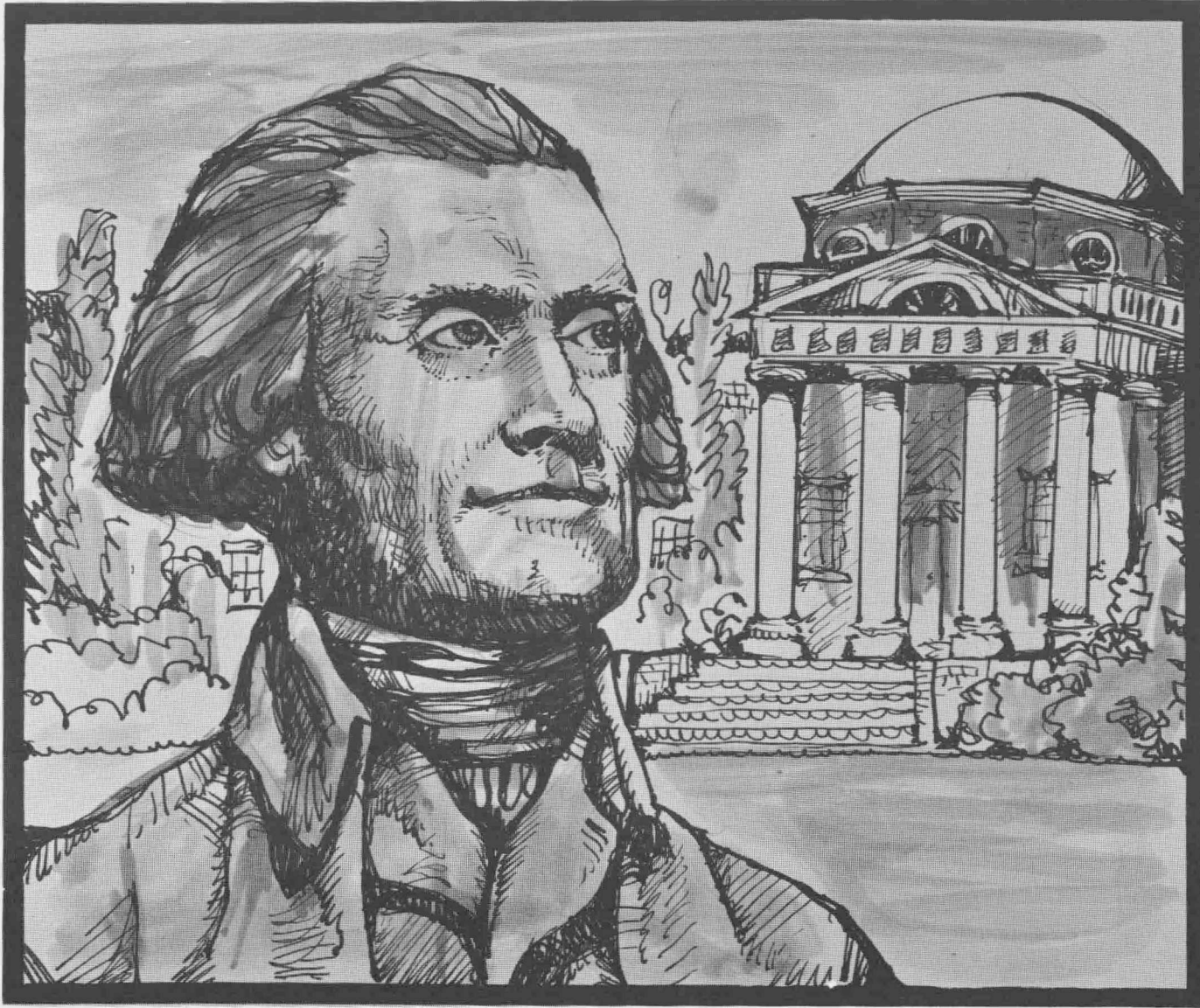












APPENDIX F

Random Number Assignment

Random Number Assignment

1. Illustrations for "Mud Ponies" -- Legend

	Random Assignment
Realistic -----	1.E
Impressionistic -----	1.C
Cartoon -----	1.A
Abstract -----	1.D
Photographic -----	1.B

2. Illustrations for "Buffalo Dusk" -- Poem

Realistic -----	2.D
Impressionistic -----	2.B
Cartoon -----	2.C
Abstract -----	2.E
Photographic -----	2.A

3. Illustrations for "Thomas Jefferson Architect" -- Biography

Realistic -----	3.E
Impressionistic -----	3.C
Cartoon -----	3.A
Abstract -----	3.B
Photographic -----	3.D

APPENDIX G

Major Basal Materials



800 BOSTON POST RD
WESTPORT, CT. 06880
203-226-7511

December 2, 1976

Mr. Daniel J. Lucas
Department of Elementary Education
Montana State University
Bozeman, MT 02107

Dear Mr. Lucas:

In 1974, Market Data Retrieval did a study of the basic reading market. At that time, the leading basal readers were

1. Ginn 68 ed.
2. Harper & Row 68 ed.
3. Holt Rinehart and Winston Basic Reading
4. Houghton Mifflin Company 71 ed.
5. Macmillan 70 ed.
6. Scott Foresman Reading 71 ed.

I have included 6 series because the statistical margin of error makes two series virtually identical. The series listed above are not in rank order.

Please note that companies such as Ginn and Houghton Mifflin had just published updated editions of their basal reading series. Because the series were so new, their sales did not exceed sales of older editions at the time the survey was conducted. For purposes of your study, the most recent edition of the basal program would be the one to study. As far as we can tell, the five or six major publishers would be the same although Harper & Row has slipped.

I hope this will be enough information for you to get on with your work. If you have additional questions, don't hesitate to contact me directly.

Sincerely,

A handwritten signature in cursive script, appearing to read "Martin E. Coughlin".

Martin E. Coughlin
Director of Research

MEC:cd

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D378 Lucas, Daniel Joe, 1947-
 L963 Fifth-grade children's
 cop.2 preferences for illust-
 rations in middle-grade
 basal reading materials

DATE	ISSUED TO
APR 23 1987	Linda Bordenner Holtzman Canyon
JUL 15 1987	Ray Ratt 6-7871 Holtzman Canyon
R	AUG
SEP 23 1987	Bill Bonner 204 N. T
OCT 12 1987	Bill Bonner 204 N. T
MAY 31 1988	Bill Bonner Jennit
AUG 13 1988	
MAY	
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