



A Comparison of Two Methods of Teaching Beginning Reading
by Earl William Britton

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

Montana State University

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Abstract:

This study dealt with an attempt to determine which method of teaching beginning reading to first grade children was most efficacious: a meaning-emphasis or code-emphasis method? Through a review of literature and an analysis of data, it was hoped that the following questions would be answered: 1) What composite factors determine the reading ability of a child? 2) What are the definitions of code-emphasis and meaning-emphasis programs of teaching reading? 3) What is the current philosophy in these two methodologies? 4) Will there be a significant difference in final standardized achievement test scores between groups taught beginning reading by the two methodologies? In order to answer the preceding questions and complete the study, the following procedures were followed: 1) establishment of a workable definition of the reading process, 2) development of an experimental design in which the control of natural processes is attempted and observed, 3) review of literature and related research dealing with the two methods for teaching beginning reading, and 4) analyzing and interpreting tests administered to the children in the program.

Based on the results of the procedures outlined, some of the major conclusions reached were: 1) the mechanics of the reading process are merely a means to an end in the communication process that occurs between an author and a reader, 2) the abilities that a child brings to beginning reading are determined by a combination of social, genetic and environmental factors, 3) the code-emphasis method of teaching beginning reading produced, in this study, statistical evidence of greater achievement than did the meaning-emphasis method.

Major recommendations, based on this study, are: 1) a predominantly code-emphasis method of beginning reading instruction could be used in a middle class area school to produce greater achievement than a meaning-emphasis method, 2) further research should be conducted to determine which method of teaching beginning reading would be more effective in other socio-economic areas, 3) all school personnel could profit from more training in the teaching of reading concept as it is a basic and complicated process, 4) schools should emphasize the importance of early childhood development to parents, 5) both methods of teaching reading should be included in all basal beginning reading texts, 6) further research should be conducted to gain greater insight into the complexities of teaching beginning reading.

A. COMPARISON OF TWO METHODS OF TEACHING BEGINNING READING

by

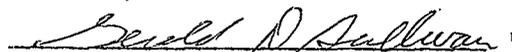
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ABSTRACT

This study dealt with an attempt to determine which method of teaching beginning reading to first grade children was most efficacious: a meaning-emphasis or code-emphasis method?

Through a review of literature and an analysis of data, it was hoped that the following questions would be answered: 1) What composite factors determine the reading ability of a child? 2) What are the definitions of code-emphasis and meaning-emphasis programs of teaching reading? 3) What is the current philosophy in these two methodologies? 4) Will there be a significant difference in final standardized achievement test scores between groups taught beginning reading by the two methodologies?

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CHAPTER 1

INTRODUCTION

One of the most oft-discussed subjects in elementary education concerns that of arriving at a productive and effective means of teaching children to read. Strangely enough, in addition to the effectiveness controversy, there seems to exist a confusion as to the definition of the term "reading." Spache (64:4) noted:

Although it is often avoided in books about reading, one of the major problems in reading instruction is a definition of reading. Without a clear-cut concept of the nature of the reading act and the reading process it is almost impossible to plan the goals of instruction.

Reading has been defined in various ways. These definitions range in complexity from simply stating that reading is understanding the intent of the author to the more comprehensive, sophisticated statement that to read is a mechanical process involving many physiological and cognitive skills.

Dr. Vandiver, Professor at Montana State University, (69) says "reading is a decoding process, in which the reader interprets and evaluates the author's intended meaning in terms of the reader's background, experience and understanding."

Rosner (35:3) states that:

learning to read, regardless of instructional method, necessitates the establishment of visual-vocal equivalences. To progress beyond a very limited sight vocabulary level, the child must acquire the discrete equivalences represented by the grapheme-phoneme interrelationships. He must discriminate and

relate a visual symbol to its phonetic counterpart and produce the latter in organized, connected sequences.

Rosner's expressed viewpoint above, in reference to a definition of reading sets the focus of this paper. He indicates that a complicated process occurs at the beginning of the formal, schooling stage of a child's reading development.

Reading appears to be more than a mechanical process and can only be measured by determining the level of understanding attained by the individual within whom the process is occurring.

The consummate level of judging the success of reading as a process is undoubtedly measured by the individual himself in the manner that he interprets meaning represented by the written symbols into meaningful thoughts and then puts these thoughts to functional use. Prior to reaching this degree of proficiency in the reading process, the individual must first learn to interpret or decode the written symbols.

Rosner (55:9) also mentioned that:

...although reading undoubtedly is dependent upon the presence of many skills, the ability to analyze verbal acoustic information seems critical to competency at the decoding level.

According to Tinker and McCullough (68:67), "Only when printed symbols stand for words used meaningfully in his own speech is the child ready to read successfully." Generally speaking, this initial aspect of the reading process begins formally at the kindergarten or

first grade levels in the traditional school.

George (29:2) pointed out that:

Proponents of beginning reading instruction approaches often fail to point out important variables, other than the mechanics of the approach, which contribute to success or failure in beginning reading. Three other major factors, the teacher, the child and the environment are infinitely variable and must be given due consideration.

Development of perception and the opportunities for sensory-perceptual training, which involve home environment, socio-economic status of the parents, motivation of the individual child, physiological development and the teacher, all play a role in the development of a child's reading skill.

Perception involves visual and auditory receptors and the assimilation of these types of stimuli into the total cognitive and affective process. Deutch (17:15) states that:

Studies investigating the auditory perceptual skills of disadvantaged subjects are fewer in number, but the findings are more consistent. Results indicate that subjects from impoverished environments achieve lower auditory modality functioning in comparison to visual functioning and reveal inadequate auditory perceptual skills coexistent with retarded achievement.

Apparently, then, some thought must be given to the socio-economic status of the parents which might be translated into a home environment that is deficient in the provision of sensory stimuli and/or the inculcation of perception skills necessary for successful reading.

A child from a low socio-economic home or a different

cultural orientation from so called "middle class American society" then, might be subjected to different cultural experiences that could influence his reading success.

Hockman (41:581) says that:

Alarming numbers of urban Black children have trouble learning to read. Attention has been focused on the Black child's dialect since his language development may make it difficult for him to learn to read with standard materials.

She (41:583) mentions that "studies investigating the speech of black headstart and grade school children indicate that they do speak a different dialect."

Motivation and psychological readiness for reading must also be considered in terms of the total social milieu that nurtures the children who are sent to school.

Recognizing these various dimensions of a child's development that have some effect on his success in the act of reading could be helpful to people dealing with the teaching of beginning reading. Teachers also must consider a child's physical and emotional well being.

Bannatyne (1:6) writing in this area tells us that:

reading is a very complex psychological process, the varied ingredients of which may differ in amounts from one individual to the next. One child may have slight central nervous system (CNS) defects; one child may find decoding to be a particular problem while another may have difficulty in remembering sound symbol associations. Still others may lack the necessary motivation to speak or to read their native language.

Generally speaking, the initial aspect of the reading process begins formally at the kindergarten or first grade levels in school. However, many times the success of the individual child in learning to read is determined to a large degree by previous verbal background interaction and sensory experiences that he had before coming to the formal school situation. Perhaps the pre-school experiences are more important than the procedure used for reading instruction during the first year at school. Tinker and McCullough (68:67) point out that "Successful reading required that the child come to the reading situation with a background of relevant information derived from experience."

Heilman (38:26) corroborates this statement when he says:

many black, Chicano, American Indian and impoverished white children have grown up in ghettos. The educational significance of this is that their contact with the main cultural stream was systematically curtailed.

To further substantiate that a child's pre-school experiences shape his reading destiny, Bannatyne (1:19), speaking of the culturally deprived child, says:

during the critical phase of language development and differentiation from birth to four years of age, the mother or mother-surrogate has not given her child sufficient verbal stimuli for the child to develop an accurately differentiated appreciation of the spoken language and/or clarity of speech.

Obviously, then, reading qualitatively must be concerned with the intimate domestic environment of the child. The dyadic relationship in which mother and child interact during the formative

developmental years shape the linguistic response patterns of the individual child. The development of language has a direct bearing on successful reading patterns. Fries (26:113) says that:

an understanding of the nature and functioning of language must form the foundation upon which to build an understanding of the derived processes of writing and reading. Language must come first.

Chomsky (15:25) added that:

....to learn a language, the child must have a method for devising an appropriate grammar, given primary linguistic data. As a pre-condition for language learning, he must possess, first, a linguistic theory that specifies the form of the grammar of a possible human language and, second, a strategy for selecting a grammar of the appropriate form that is compatible with the primary linguistic data.

During this period of language development, it is also necessary to provide motivation and materials for the encouragement of pre-reading skills. Brzeinski and Howard (9:241) found that pre-primary children should be "surrounded with reading materials of many types, ...it was found that many of the top first-grade pupils were read to regularly before they entered first grade."

For the most part, authorities agree that the experiences in the formal reading program, as provided in the first year of school, to a great degree determine the future success in the attainment of the highest level of reading ability that any individual will reach. Heilman (39:81) indicates that "attitudes and habits acquired by children during the beginning reading period influence later reading

behavior." In another reference Heilman (38:27) continues by saying that "the beginning stage of reading is extremely important," and that "It is during this period that the child develops attitudes toward himself, toward reading and toward competition."

The beginning reading process, for any individual child at the first grade level of development, is also dramatically influenced by the child's teacher.

An editorial (65:415) in The Reading Teacher stated that a teacher's responsibility "is helping children and young people to develop as whole persons...by leading from a child's interests to a greater level of personal capability and self-awareness."

From these statements an idea may be gained of the importance of the role the teacher plays in shaping the beginning reader. Hafner and Jolly (35:1) confirm this by noting that:

it is essential that the classroom teacher know what reading is, for his idea of what reading is determines how he teaches it...some people teach as if reading were just calling words accurately. Others think it is the ability to get a rough idea of the meaning of a passage.

Another area of influence in the beginning reading success of the individual child is the sex factor. Being a boy or a girl, according to some authors, is a significant aspect of successful beginning reading.

Heilman (38:38) reports that a study carried out at the University of Michigan indicates that girls learn to read at the

beginning stages more rapidly than boys. Bannatyne (1:15) when speaking of reading problems of children, says that the incidence "will be at least two percent of the school population and will be mainly boys."

The male deficit in the beginning stages of reading is soon obliterated, however. Good and Brophy (32:257) state that:

...girls learn to read faster than boys...In any case, the educational deficit does not appear to be exceedingly important-- boys for the most part suffer no harm from the initial gap and eventually catch up.

Heilman (39:38) corroborates this statement when he says, "Once children achieved a reading age of eight years, four months on the Gates Primary Reading Test, no difference between boy's and girl's rate was found."

There is also some evidence to suggest that the superiority which girls hold over boys in learning to read at the beginning stage is cultural and may not be true in societies other than the United States. Bannatyne (1:75) tells us that "Now, it is very obvious that many sex differences are at least partially caused by nurturance, social and other environmental influences."

Heilman (38:37) says that:

Preston's study of reading achievement of German children reports sex differences favoring boys. In addition, he reports more variability among scores made by girls, which is at variance with most findings of American studies.

There appears to be much concern with the contemporary implication that the schools are failing to meet the reading needs of many students. Herber (40:499) suggests that:

there is a segment of our population whose reading needs have not been met because our methods and materials have been inappropriate. It is necessary for us to concentrate on finding and demonstrating methods and materials appropriate to their needs.

Brzeinski and Howard (9:240) state that:

...the writings of Chall, Durkin, Cohen, Robinson, Smith, among others, and the current United States Office of Education 'Targeted Programs in Reading' are indicants that the basic quest remains unfulfilled--namely that every child will attain reading competence to meet both his individual needs and those of an urban, technical, industrialized culture"

The selection of methods and materials has created many heated debates in the field of the teaching of reading. On the contemporary scene, much of the debate is concentrated at the beginning stages of the decoding process. Generally speaking, the debate concerns materials and methods stemming from two basic philosophies, which Chall (14:75) identifies as that emphasizing a code (synthetic) approach and the other emphasizing a meaning (analytic) approach, which is in turn based on a sight word concept of instruction.

STATEMENT OF THE PROBLEM

In the area of the teaching of reading to elementary school children there is much concern in professional educational circles regarding what constitutes an effective method or combination of

methods to use which enable the children to achieve the best reading skills and attitudes.

Much relevant research has already been done to find a clear-cut answer to the problems involved in determining an effective method of teaching children to read, yet, the question seems to remain unsolved and appears to demand further research.

The problem of this study is to investigate whether there are differences in the reading achievement of four comparable groups of first grade children when two groups are taught by the code-emphasis method and the others by the meaning-emphasis method.

NEED OR PURPOSE OF THE STUDY

Reading is one of the most important of the educational skills that a child learns in school. It is also the basis for learning in our culture and as such has been subjected to much scrutiny by educators and lay people alike.

According to Chall (14:73), children may learn to read with the use of both the meaning emphasis and the code emphasis methods, but advocates of each claim superiority. The results of this study could have some importance for future selection of reading series and basic methodology implemented into individual school reading programs. At least it might serve to answer the question of which method proved most effective in teaching beginning reading in a certain situation

and geographical area.

GENERAL QUESTIONS TO BE ANSWERED

This study attempts to answer five questions: (1) What factors, on a composite basis, determine the reading ability of a child? (2) What is the definition of a code-emphasis program of teaching reading? (3) What is the definition of a meaning emphasis program of teaching reading? (4) What is the current philosophy in the code-emphasis and meaning-emphasis methodologies of teaching reading? and (5) Which group of first graders, the group taught by the meaning-emphasis or the group taught by the code-emphasis method, will achieve the highest scores on two different standardized achievement tests?

GENERAL PROCEDURES

The general procedures in conducting this study are as follows:

- (1) Establishing a workable definition of the reading process.
- (2) The development of an experimental design in which, according to Sax (59:340), "those ideas, issues, principles, and techniques peculiar to these investigations (study) in which the control of natural processes is actually attempted and directly observed."

The two first grades in each of two schools in the Billings Public Schools were selected for the purposes of this study. Some of the techniques involved in this experimental design will be discussed

at this point:

All of the children in the four classrooms selected participated in the study, except those who came to any room later than November 1, 1971.

The individuals for the two participating classrooms in each building were selected on the basis of a sampling procedure that would relate the sample to the population. Also the sample would insure that sex, age and socio-economic categories have been considered.

The children in the four classrooms had their vision and hearing checked so that these contaminating factors were controlled in terms of the final achievement. All of the children's vision was checked by the Lazy Eye Clinic and no child had non-correctable problems as determined by the Clinic. The school nurse administered an audiology test to each child. None of the children in the study had either vision problems or hearing problems that would impede their learning to read. According to Bannatyne (1:31), "it is no doubt true that many normal people do have poor visio-spatio skills, this is not . . . a handicap to reading." Apparently, even if some deficiencies do exist, this is not necessarily a deterrent to learning to read.

The teachers to whom the control and experimental groups were given for instruction were selected on the basis of the two in each building who were most similar in education, technique and ability, as determined by the building principal and the reading supervisor.

All the teachers had experience teaching at the first grade level, and had orientation regarding the nature and purposes of the study.

All four teachers had a minimum of four years of professional teacher's preparation, and all received the baccalaureate degree from Eastern Montana College in Billings, Montana. None of the teachers had the Master's degree. All of the teachers had at least two years of successful teaching experience in the Billings Schools. Each of them had taught two years in the building in which they were teaching when the study was conducted.

All four of the teachers were considered by the building principals and reading supervisor to be at least average first grade teachers who taught in a conservative, traditional context of methodology. Despite the similarities in back ground, education and orientation for the study, teachers do have individual and sometimes unique approaches included in their teaching methodologies. This is a factor that could not be controlled.

In selecting the schools used in the study, it was desirable that a population be utilized which was, to as great an extent as possible, representative of the general population of Billings, Montana, where the study was carried out.

The writer chose schools which were located in areas which encompass the major socio-economic levels to be found in Billings.

Thus, the three major socio-economic divisions (upper, middle, and lower) were represented in approximately the same proportion as they were found in the city of Billings as a whole. The two schools, Rose Park and Grand Avenue Elementary Schools, were located within seven blocks of one another and some of the parents had the option of sending their children to one or the other school on the peripheral borders of each. A majority of the parents of both schools were average-income, white and blue collar workers. These could be considered as belonging to the middle class. An even smaller proportion of the parents of each school were higher income, professional people such as doctors and lawyers and could be relegated to the so called upper class. The smallest proportion of the parents of the two schools were composed of welfare, transient and casual labor elements. These people could be considered to belong to the lower class economic strata.

According to the City-County Planning Board of Yellowstone County and Billings, Montana (75), Table I indicates the proportion of socio-economic groupings as discussed above. (This table is based on the 1970 U.S. Census and information survey by the Planning Board done in the spring of 1972.)

Table I bears out the statement (categories defined by the Yellowstone Planning Board) that these two schools have populations that can be categorized as low, middle and upper socio-economic strata and that the smaller percentages of the populations lie at the extreme

ends of the spectrum, with the largest number in the middle income group. The schools, then have proportional samples of each of these categories and are fairly representative of the City of Billings as a whole.

TABLE I
LEVELS-OF-INCOME TABLE (Percentages)

	Grand Avenue School Area	Rose Park School Area	City of Billings
Under \$4,000 (low income)	18.3	9.2	12.0
\$10,000-\$14,999 (middle income)	22.5	38.0	29.0
Over \$25,000 (high income)	2.3	6.2	5.0

The Metropolitan Reading Readiness Test was used to determine the comparative reading readiness abilities of the children as they entered first grade and the scores derived were used as the co-variant which could not be controlled. It includes four scores related to reading readiness: word meaning, listening, matching and alphabet recognition.

Two instruments were used to measure the reading achievement at the end of the school year. One test was The Durrell Analysis of Reading Difficulty (an individual test), which includes sub-test

categories of: oral reading, silent reading, listening, word recognition (flash words) and word analysis. The other test was the Stanford Achievement Test (a group test) and includes sub-test categories of: word reading, paragraph meaning, and vocabulary (word meaning) categories. These listed sub-test categories were used to measure the reading achievement at a point seven months after the student had entered the first grade in school.

The two groups were taught by the control method which was the basal series used in the Billings school district at the present time. This series was the Scott-Foresman text and, according to Chall (14:202), utilizes the meaning-emphasis approach to the teaching of reading. An examination of the literature, however, indicates that neither code-emphasis nor meaning-emphasis approaches are pure in terms of methods of teaching phonics elements and thus cannot strictly insure that each of the teachers would teach one approach for the code-emphasis and another for the meaning-emphasis methods.

The two groups taught by the experimental method used the basal series referred to as the Lippincott Series. Chall (14:233-257) classifies the Lippincott Series as a phonics-first basal reader. The series utilizes the code-emphasis approach to decoding in the use of regularly introduced words that are graphemically-phonemically consistent, and it stresses meaning from the very beginning lesson. Dykstra (22:18) also labels the Lippincott Series as a phonics-first basal which uses the

code-emphasis approach.

Many linguistics textbooks use the code-emphasis approach also and, as Bloomfield (6:7) mentions, the child is taught to read at the beginning stage of instruction "by teaching him to associate letters and sounds in a vast number of different patterns." However, according to Dr. Vandiver (69), "Using the 'linguistics method' utilizes the regularly introduced word concept, sometimes to the point of ridiculousness." For this reason, a phonics-first rather than a linguistic basal was selected for use by the experimental groups in this study.

The basic difference, then, between the Scott-Foresman basal text used by the group taught by the control method and the group taught by the Lippincott basal, experimental method is that the Scott-Foresman series uses the meaning-emphasis method and the Lippincott uses the code-emphasis method. The Lippincott basal series also stresses the introduction of short vowels earlier than does the Scott-Foresman series.

Literature and related research dealing with current thinking regarding two basic methods of teaching beginning reading--code-emphasis and meaning-emphasis--will be reviewed and presented in Chapter 3.

The tests administered to the children yielded data that will be analyzed and interpreted in Chapter 4 of this study.

The final procedure will be the writing of the summary, noting conclusions and recommendations as a direct result of the content of the Review of Literature and the analysis of data.

LIMITATIONS

The study will be limited in the following ways:

(1) This paper is limited to the study of four first grade classrooms in Billings, Montana, which comprised the population sample. In terms of the scope of the study, this sample was limited in size. It would not be intended to be used for broad, comprehensive recommendations for the most effective method of teaching reading but, would hopefully be useful to the Billings Public Schools. It included members of the three basic socio-economic groups--lower, middle and upper, however.

(2) The writer found it nearly impossible to control the teacher variable. The teachers were not of identical qualifications, but attempts were made to include teachers with a minimum of four years of college and who had similar philosophies of teaching. The ages of teachers, their years of experience and their exact methods of teaching phonics could not be controlled. Every teacher has her own individual style of teaching methodology. The concept of teaching by an analytical method or a synthetic method of teaching reading with its emphasis upon phonics and word analysis, will be interpreted differently by

each individual teacher and must be admitted to. The controls of the teacher variable will be discussed in Procedure number two of Chapter 2.

(3) The two philosophies of teaching reading, code-emphasis and meaning-emphasis, are not completely polarized in terms of their philosophic approaches to the teaching of phonics in beginning reading.

(4) The pre-school experiences that each child had prior to coming to the first grade varied.

(5) The research done for the review of literature section of this paper was confined to the libraries of Montana State University and Eastern Montana College and included the ERIC Documents for the period of time 1970-1972. The two libraries are accredited and should have materials diverse enough to allow a comprehensive review.

(6) The principals in the two buildings perhaps had varying philosophies of supervision, but the reading supervisor was the same for both schools.

(7) The time devoted to teaching the reading process could possibly vary in each of the four classrooms. The time for teaching of the reading process was for the main part, from 8:30 in the morning to 11:00 in the morning.

(8) The ages of the children in the groups varied to some degree. An attempt was made to control the age categories in each of the classrooms, but this was impossible to do to the degree that each

age category was completely represented on an equal basis.

(9) An attempt was also made to control the sex category in each classroom so that an equal proportion of both boys and girls were in each. This too was impossible, so that in the final analysis, there was a slightly uneven distribution.

(10) New children that entered the classrooms later than September could have an effect upon the group achievement results in that they would not have equal time in either of the two teaching programs as did the original children involved in the study.

Each of the ten limitations will be discussed more intensively in procedure two of Chapter 2.

DEFINITION OF TERMS

This portion of the paper deals with the key terms of the investigation.

Auditory discrimination - The ability to hear likenesses and differences in speech sounds. Hafner and Jolly (35:37)

Basal reader - This is a textbook, usually part of a graded series, used for instruction in reading. Good (30:472)

Code-emphasis - This is the teaching of reading which emphasizes instruction by the use of an alphabetic code capable of being arranged in specific categories or combinations. The emphasis on letters and letter combinations is used. Chall (14:75)

Decoding - The process in reading of translating printed symbols into speech sounds. Savage (58:xv)

Encoding - intentional selection of meaningful (information) units, their grammatical integration and expression via motor pathways [writing] . Bannatyne (1:53)

Graphemes - A graphic symbol used in writing; a basic unit of the writing system of a language. Refers to letters of the alphabet, punctuation marks, and so forth. Savage (58:xvi)

Linguistics - The scientific study of language. Savage (58:xvii)

Meaning-emphasis - When meaning is emphasized from the start in reading instruction. This teaching of reading approach places its emphasis on teaching whole words or groups of words as they are used to produce a meaningful idea or thought. Chall (14:75)

Morpheme - A single, basic, meaning-bearing unit of a language. Savage (58:xvii)

Phonemes - A basic, indivisible, minimal unit of sound. The smallest usable unit of speech sound in a language. Savage (58:xviii)

Phonics - Phonics is the study of those letters, letter combinations and syllables consistently representing sounds, that are taught as a means of enabling the reader to recognize and pronounce words independently. The phonic method is that method of teaching reading based on the analysis of words into their basic speech sounds. Good (31:329)

Phonic-first basal - This is a basal reader that introduces words in a meaningful reading context only after the words have been analyzed through a phonics, code-emphasis process. Dykstra (22:22)

Sight Word - The known with which teachers work to help pupils learn techniques that will aid them in attacking unknown words independently. Gray (34:3)

Visual Discrimination - Seeing likenesses and differences among visual forms. Hafner and Jolly (35:37)

SUMMARY

One of the most oft-discussed subjects in elementary education concerns that of arriving at a productive and effective means of teaching children to read.

The two of the most discussed methods manifest themselves in the philosophies of the code-emphasis and the meaning-emphasis methods.

There are many diverse definitions of reading but generally it is defined in terms of understanding what the author intended to be understood.

The background that a child brings to the first grade plays a great role in the success that the child experiences in reading. The formative years of birth to first grade, including the various social interactions involved in the individual child's home environment, have great impact on the success.

During the first year of school, the teacher, the child's past experiences, his self-image and the materials utilized all play a role in determining the pupil's reading success. Motivation and psychological readiness for reading must be considered.

Another factor usually considered is a child's sex, especially in the first few months of the first grade experience. This factor does not matter too much and as one author Good (32:257) says that, . . . boys for the most part suffer no harm from the initial gap and

eventually catch up."

The establishment of a working definition for the process of reading was the first procedure in the study. The next procedure will be the development of an experimental design by which to conduct the study. Two schools were selected, each of which had a representative sampling of parents belonging to the three major socio-economic groups. These representative samples were equal in size in each school and were also representative of these three major socio-economic groups in the city of Billings.

From these two schools, two classrooms of first grade children were selected in each school; one classroom in each school was taught beginning reading with the Scott-Foresman basal reading series--a meaning-emphasis method. Also, one classroom of children from each school was taught with the Lippincott basal reading series, a code-emphasis method.

The children were tested in May of the following year so that a statistical evaluation could be conducted from which to make inferences, as to which groups of youngsters made the greatest achievement in several areas of reading ability.

The next procedure in this study will be to review literature and research related to current thinking regarding two methods of teaching beginning reading--the code-emphasis and the meaning-emphasis approaches. This review is found in Chapter 3.

The next procedure in the study will be to present and analyze the data gathered as a result of administering the three tests; Metropolitan Reading Readiness Test, The Durrell Analysis of Reading Difficulty and the Stanford Achievement Test. This will be done in Chapter 4.

The final procedure will be to discuss the data that will be presented in Chapter 4 in the form of a summary and to offer recommendations and conclusions based on the observations of the data. These recommendations and conclusions will be presented in Chapter 5 of the study.

CHAPTER 2

PROCEDURES

The procedures to be used in this study and the criteria for their inclusion will be discussed in this chapter. It should be noted that the procedures discussed below appear in chronological order and are as follows:

PROCEDURE ONE

The first procedure of this study was to establish a working definition of the reading process. This procedure was discussed in Chapter 1 with the presentation of what the writer felt was a workable definition of the process involved in reading.

This definition of reading then set the stage for setting up an experimental design that indicates the parameters of the study and the procedures for carrying it out.

PROCEDURE TWO

Procedure two will be the development of the experimental design that will be intensively discussed to indicate the depth of the study and the statistical methods involved.

This section deals with the experimental design to be used in conducting the study. The problem in the study will be to investigate whether there are differences in reading achievement of comparable

groups of children at the first grade level when two classes are taught by the code-emphasis method of beginning reading and the other two classes are taught by the meaning-emphasis method of teaching beginning reading.

Population Description
and Sampling Procedure

The two sample groups are comprised of all children in the four classrooms selected to participate in the study. The population is the total number of first grade pupils in the Billings, Montana Public School System.

To choose the sample groups from the total population, two schools were selected: Grand Avenue and Rose Park Schools. Each school had two classrooms of first grade children. At each school one classroom was placed in the sample group taught by the experimental method and one classroom was placed in the sample group taught by the control method. Both schools have populations representative of the typical socio-economic levels found in the city.

For the purposes of the study, children entering the first grade in each of the selected schools were matched on the basis of age and sex as far as this was possible.

PROCEDURE THREE

The third procedure will be to review related literature and research discussing two methods of teaching children beginning reading.

The scope of this review will include research regarding a code-emphasis method and a meaning-emphasis method of teaching beginning reading.

This review was organized to discuss the following areas pertaining to the two preceding methods of teaching reading:

Early Childhood Socialization

This section will deal with the importance of the first years that a child is involved with the interaction processes as he proceeds through life's experiences. These experiences will be, for the purposes of the paper, viewed from the symbolic interactionist perspective. These social experiences will be viewed in terms of the impact that a child's formative environment make on the type of reading success that he experiences in school.

The Ability of the Child

This section will deal with the concept that the acquisition of verbal ability to the degree necessary for the child to learn to read can be thought of in terms of a facet of intelligence.

One of the difficulties to be discussed is that of selecting an instrument to measure a child's ability to read.

Some definitions of intelligence will also be discussed.

The Code-Emphasis Method

The code-emphasis method of teaching reading will be discussed in respect to learning to read. The child, in the beginning reading stage, proceeds from parts to wholes and learns letter-sound relationships that are later combined to form words.

The decoding process as an integral portion of the code-emphasis method will be discussed and reviewed in this section.

Similarities in methodology between the Code-Emphasis and Phonics method of beginning reading instruction will be discussed in this section also.

The author will also rely upon documentary research in an attempt to indicate the similarities among Linguistic, Phonics and Code-Emphasis methods of teaching reading.

An attempt will be made to discuss the reading process as a function of portions of the cerebral area and central nervous system in this section.

Then, some of the literature reviewed will be presented that indicates some reservations concerning the use of the code-emphasis method of teaching beginning reading.

The Meaning-Emphasis Method

The section of the review of literature will be used to illustrate a working definition of the meaning-emphasis method of teaching beginning reading.

In addition, it will be brought out in the review that the meaning-emphasis method of reading instruction does attempt to promote the gaining of meaning as the primary purpose of reading.

The procedures involved in the teaching methodology will be discussed for a comparison between the code-emphasis and meaning-emphasis methods of teaching reading.

Limitations and Explanations of the Limitations

(1) The small sample, in that the study was limited to four classrooms in two schools was necessary because of the cost of supplying textbooks and other related materials to the students. The cost of these materials had to be completely borne by the writer.

The sample could not be considered either a random or stratified random sample, since not every pupil entering the first grade in the Billings Public Schools had the opportunity to be involved in the study on the basis of being placed on a table of random samples. Also, there was no way to anticipate or have prior knowledge of the ages and sex of the beginning first graders involved in the study, so it could not be a stratified random sample.

The writer agreed with Furgason (27:135) as he says, "It (the sample) may not differ from a random sample as far as these characteristics are concerned, the investigator may be prepared to regard it as representative of the larger group." The sample was thought to be representative of the larger group.

(2) The teachers to whom the control and experimental groups were given for instruction were as equal in terms of technique and ability as possible. However, no teachers were transferred for the purposes of the study.

The teachers were of comparable training with a minimum of four years and a maximum of five years of college education. The age and experience of the teachers could not be controlled due to the fact that teachers were not transferred on an inter-building basis for the purpose of this study. However, all four teachers had identical in-service orientation regarding the nature and purpose of the study. This orientation could not completely control the variable of individual teacher differences in methodology, however. Teacher variability in terms of unique methodology is inevitable in any study of this nature. However, the reading supervisor for the school district stated, that as he knew the teaching styles of all four teachers, he would evaluate them all as having traditional teaching philosophies and methodology. So from his viewpoint there was similarity of philosophy.

(3) Another limitation is the problem that each of the two teaching methods as implemented by the Scott-Foresman and Lippincott programs have overlapping philosophy and teaching procedures. Neither is pure in terms of a polarization of teaching procedures. However, there are some differences that are consistent enough to allow for and justify the rubric of analytic and synthetic methodology, as will be discussed in the explanation of the two methods in the Review of Literature in Chapter 2 of this paper.

(4) Yet another limitation that must be admitted to is the pre-school experiences that each individual child undergoes prior to his formal school attendance. The home environment of the child and all of his learning experiences that occur before school began (to be discussed in the Review of Literature) could not be controlled for the purposes of this study. An attempt to make a statistical adjustment for this uncontrolled variable was made in the selection of the analysis of covariance statistical technique used for the purposes of the study.

(5) The research done for this paper was not completely exhaustive. It was done in only two libraries, at Montana State University and at Eastern Montana College, and included the ERIC Documents for the period of time 1970-1972. The two libraries are accredited and should have materials diverse enough to allow a comprehensive review of literature, however.

(6) The principals in the two buildings perhaps had varying philosophies of supervision. This is a factor that could not be controlled as the two were different people. However, there was communication between the two and the basic goal of attempting to determine which of the two reading methods would produce the greatest achievement, was agreed upon by the two principals, as was the procedure involved in the study.

In addition to the agreement between the two, the reading supervisor was the same for both schools, which could add a dimension of continuity as far as supervision was concerned.

(7) In an attempt to control the time variable, the teaching schedules with regard to the teaching of reading, were reserved for the period of time from 8:30 in the morning to 11:00 five days per week. During this 2½ hour period, each child was receiving teacher to pupil group instruction for approximately 30 minutes per day. The remainder of this block of time was devoted to independent work such as workbook completion, coloring activities, copying and writing exercises related to the reading process.

The supplementary materials were similar in all four classrooms. During the afternoons, the children worked in materials designed to promote the learning of reading skills. Books from the Ginn Basal Reading Series, and other meaning-emphasis materials were used by all four classrooms. No supplementary phonetic materials were

used for any of the four groups of children. This was an attempt to control the differences in materials that could have been a contaminating variable in the study.

(8) The age category took into consideration the aspect of different maturational levels of ability for different chronological ages. Each classroom had a mean age distribution of 77.4 as illustrated in Table II below.

TABLE II
AGE DISTRIBUTION OF THE PUPILS IN THE SCOTT-FORESMAN
PROGRAM AND LIPPINCOTT PROGRAM

Scott Foresman \bar{X}	Lippincott \bar{X}
77.4 months	77.4 months

The pupils were divided into age categories on a linear scale of 5-10 to 7-10. The categories were divided into ages with a four month differential as follows: 5-10 to 6-2, 6-3 to 6-7, 6-8 to 7-0, 7-1 to 7-5, and 7-6 to 7-10. One child from each age category was placed in the alternate classroom in each school so that the pupils in the Scott-Foresman program had as equal as possible age distribution with those pupils in the Lippincott program.

The age factor was then treated by the statistical technique, the mean (\bar{X}) to relate the samples

for both the Scott-Foresman method and the Lippincott method of instruction.

It may not have been important to have similar age groupings in each classroom, however, because as Heilman (39:31) says, "Research data appear to be in agreement that mental age is more closely related to success in reading than is chronological age or I.Q." At any rate this factor was considered.

(9) The sex category took into consideration the feeling of some that being a male or female makes some difference in attaining various intellectual skills. Wechsler (71:148) mentions that "our findings do confirm . . . that men not only behave but think differently from women." Vandiver (69) mentioned, that, "Boys have different problems, according to various experts, than do girls, in the learning-to-read process." Because of these ideas, an attempt was made to place an equal number of boys and girls in each of the four classrooms.

The pupils were placed in each of the two classrooms at each of the schools as follows: a boy in one room, then a boy in the other room; after this procedure, a girl in one room, then a girl in the other.

There were twenty two children in the classroom taught by the Lippincott method at Rose Park School and twenty three in the classroom taught by the Scott-Foresman method, for a total of forty five; but there were only nineteen children in each of the rooms at Grand

Avenue School for a total of thirty eight. Thus there was a greater number of boys than girls when the total group taught by the Scott-Foresman method of instruction was compared with the total group taught by the Lippincott Method. The distribution is shown below:

	<u>Boys</u>	<u>Girls</u>	<u>Total</u>
For Lippincott	20	21	41
For Scott-Foresman	<u>23</u>	<u>19</u>	<u>42</u>
Total	43	40	83

Consideration was given to placing children in each of the groups taught by the experimental method and the control method of beginning reading instruction. It would have been desirable to place children in each group on the basis of potential success in beginning reading. This success might have been predicted by the results of a reading readiness test, since Heilman (39:29) points out that "in general, the experimental data indicate a positive relationship between scores on readiness tests and success in beginning reading . . ."

This placement of children on an equal paired basis (in terms of readiness) in the two groups was impossible, however, because the readiness tests could not be administered prior to the first or second week of school, at which time the children had already been placed and settled into their rooms. This factor of inability to place by readiness test and inability to control pre-school

experiences was the justification for the selection of the analysis of covariance as a statistical procedure.

(10) Children entering either of the two schools at a later date than the beginning of school, might prove also to be a limiting factor. These children, not having been exposed to the procedures as defined by the format of the study could possibly affect the results of the pupil achievement at the end of the testing period.

If any child entered any classroom later than the first of October, they were simply not considered in the final testing.

The contaminating variables controlled were the vision and hearing of the children involved in the study. If any child had severe deficiencies in either of these areas, his or her test scores were to be excluded from the study to eliminate the contamination. There were no children in this category of deficiency, as all children were checked by a nurse with an audiometer for hearing deficiencies and all of the children also were screened for vision deficiencies by the Lazy Eye Clinic. Several were also checked by the Keystone Telebinocular Eye Test.

Method of Collecting Data

The data necessary to complete this study was obtained from the results of formal, standardized tests administered to the sample groups of children used for the study.

