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THE EFFECTS OF A SPECIFIC INDIVIDUALIZED ACTIVITY
ON THE ATTITUDES TOWARD READING OF
FIRST AND SECOND GRADE PUPILS

by

Eleanor A. Barnette

A Dissertation Submitted to the Faculty of the
DEPARTMENT OF ELEMENTARY EDUCATION
In Partial Fulfillment of the Requirements
For the Degree of
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In the Graduate College
THE UNIVERSITY OF ARIZONA

1970
I hereby recommend that this dissertation prepared under my direction by Eleanor A. Barnette entitled THE EFFECTS OF A SPECIFIC INDIVIDUALIZED ACTIVITY ON THE ATTITUDES TOWARD READING OF FIRST AND SECOND GRADE PUPILS be accepted as fulfilling the dissertation requirement of the degree of Doctor of Education

Dissertation Director [signature]  Date [March 13, 1970]

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SIGNED: Eleanor A. Barnett
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ABSTRACT

This study was concerned with an investigation of several hypotheses derived from Sylvia Ashton-Warner's technique of teaching beginning reading to five-year-old Maori children in New Zealand. Ashton-Warner's technique is based on the premise that if the teacher could reach into the child's own mind and find the words that had real meaning for him, reading would become a relatively simple and natural task. Ashton-Warner called this technique Key Vocabulary. For the purpose of this study, the technique is referred to as an individualized activity.

Problem

The purpose of this study was to ascertain the effect of a specific individualized activity upon attitudes toward reading and attitudes toward self when included in the given first and second grade classes' reading program. An additional purpose of this study was to ascertain the effect of the child's ordinal position in the family upon his attitudes toward reading.

Procedure

The population from which the sample was drawn was composed of 264 first and second grade pupils in four schools of the Chandler Public Schools. The teachers of the pupils in the experimental group were volunteers while the teachers of the pupils in the control
group were randomly selected from six available schools comprising the elementary schools located in the district.

Because the groups were intact groups, the experimental design used was the pre-test--post-test, non-equivalent, control group design. The two treatment groups consisted of one experimental group and one control group. The instructional programs in the experimental and control groups were similar with the exception of the individualized activity being included in the experimental program. The duration of the experiment was from January 1, 1969, to June 1, 1969.

Data were submitted to an analysis of covariance, analysis of variance, Pearson product-moment correlation coefficient, or Kuder-Richardson reliability coefficient, with all hypotheses being tested at the five percent level of significance. A factor analysis of an instrument constructed by the investigator for the purpose of measuring pupils' attitudes toward reading resulted in eleven underlying factors for first grade children's responses and nine underlying factors for second grade children's responses.

**Findings**

The major findings of the study were:

1. First grade children exposed to a specific individualized activity included in the regular reading program, developed attitudes which were even more positive than those of first grade children exposed to the regular reading program only. The results were significant at the 0.05 level.
2. Second grade children exposed to the individualized activity included in the regular reading program did not increase the positive attitudes toward reading which they already possessed.

3. First grade children exposed to the individualized activity included in the regular reading program improved their attitudes toward themselves significantly more at the 0.01 level than did the first grade children exposed to the regular reading program only.

4. Second grade children exposed to the individualized activity included in the regular reading program had attitudes toward themselves which were no different from second grade children exposed to the regular reading program only.

5. First grade children exposed to the individualized activity included in the regular reading program had the same attitudes toward reading regardless of ordinal position in the family.

6. First grade children exposed to the regular reading program only, had the same attitudes toward reading regardless of ordinal position in the family.
CHAPTER I

THE PROBLEM, ASSUMPTIONS, LIMITATIONS AND DEFINITIONS OF THE STUDY

The Problem

Introduction to the Problem

This study is concerned with an investigation of several hypotheses derived from Sylvia Ashton-Warner's technique of teaching beginning reading to five-year-old Maori children in New Zealand.

Ashton-Warner (1964) originated a unique way to bring meaning to the child's language by using the child's own language to teach reading and writing. Ashton-Warner called this technique Key Vocabulary. It is a very simple but powerful technique. It is based on the premise that if the teacher could reach into the child's own mind and find the words that had real meaning for him, reading would become a relatively simple and natural task. Key Vocabulary is an individualized activity in that it provides that each child gives the teacher a word of his own that has powerful emotional connotations to him, but about which the teacher has no knowledge. Such a word might be "giant," "ghost," "monster," or "bogeyman." A child may give as many words a day to his teacher as time permits. The important point is that the words are the child's own words. He watches them being printed. He traces them and then performs many activities
of his own choice with each word. If he forgets one of his words, it gets thrown away, as it is apparently not important enough to remember. Thus, with Key Vocabulary, the child tells the teacher the word he wants the teacher to record for him. The teacher writes the word on a piece of 3½" x 11" oaktag while the child stands in a position that enables him to look over the teacher's right shoulder. As the teacher writes each letter of the word, she asks the child to say the letters that he knows. The teacher supplies the names of unknown letters. The child traces the word with his finger, then writes it.

By the time the child enters school, his vocabulary usually consists of several thousand words (Frost, 1967, p. 5). These words express fear, love, desire, hate, and anger. These words are the child himself, his life and his very being, his inner self. Each word is a part of him and has meaning for him. Each child has the desire and right to share these words with others. Key Vocabulary provides and encourages this opportunity to focus on the child as an individual and to nourish his feelings and thoughts.

In essence, this individualized activity is predicated upon the principle that not only is each child of value, but also his thoughts are of value. Combs, Kelley and Rogers (Combs [ASCD] 1962, pp. 92-93) stress the importance of each person's conception of himself, or the self concept. They assert that the adequate person is very largely determined by the manner in which he comes to perceive himself. This concern for the self concept and its importance in
behavior seems to be mutually shared by many psychologists in current times. We are told the self concept is one of the most important factors which determines the way in which an individual will behave. If this is true, then it would seem that any educational program which hopes to make a difference in its children must be concerned with the nature of the self and its development.

Rogers (1967, p. 13) suggests that the personal learnings are the truly significant ones. These are "independence, self-initiated and responsible learning; release of creativity, a tendency to become more of a person." Rogers also quotes from Sylvia Ashton-Warner's book, Teacher, to illustrate the central effects of such a climate, "The drive is no longer the teacher's but the children's own . . . The teacher is at last with the stream and not against it, the stream of children's inexorable creativeness."

While discussing Piaget's contribution to logical thought, Almy, Chittenden, and Miller (1966, p. 16) indicate that Piaget contends that the child is first able to grasp the most basic ideas. Almy, Chittenden, and Miller state, "Knowledge arises and becomes organized as the child interacts with his environment." Almy, Chittenden, and Miller also state, "From one point of view, this is the essence of Piaget's theory--the child comes to an understanding of the world through his own efforts. While he may accommodate this thought to the ideas of others, it is only as he tries those ideas out within the context of the ideas he has previously acquired that he makes them his own (p. 139)."
Adler (1954, p. 37) stresses the importance of speech in the development of the human soul. According to Adler

Logical thinking is possible only with the premise of speech, which gives us the possibility of building up concepts and of understanding differences in value; the fashioning of concepts is not a private matter, but concerns all society. Our very thoughts and emotions are conceivable only when we premise their universal utility... It follows that thoughts and concepts, like reason, understanding, logic ethics, and aesthetics, have their origin in the social life of man; they are at the same time bonds between individuals whose purpose is to prevent the disintegration of civilization.

Adler (1958, p. 156) conceives of school as the "prolonged arm of the family." He suggests that the teacher must understand the child, notice his difficulties, and attempt to correct the mistakes made by the parents. The teacher does this by connecting the child with himself and creating interest in him. Adler further states, "It is on the interest of the child that his whole future adjustment depends (p. 160)." Adler also places a great deal of emphasis on the family constellation. He suggests that a child's ordinal position in the family determines how he perceives himself and how he adapts himself to his own unique circumstances. According to Adler, "The position in the family leaves an indelible stamp upon the style of life. Every difficulty of development is caused by rivalry and lack of cooperation in the family (p. 154)."

Favorable attitudes are essential for a pleasant and successful learning environment. Hildreth (1954, p. 3) indicated this when she said,
The child's attitudes are definitely tied in with success or failure in learning the "Three R's." Fear and anxiety have inhibiting effects on learning. Confidence, feelings of security, knowledge that honest effort will be recognized, have the opposite effect. You cannot teach a child anything he refuses to learn because he sees no point in it. Every child must feel success in what he undertakes as motivation for continued effort to learn. He must see that his efforts count for something and he must be able to reach some concrete goal as a result of his effort.

Significance of the Study

The task of teaching children to read has been a primary concern to educators and parents for a very long time. It is recognized today that one of the vexing problems confronting American education is the inability to read, reports U. S. Commissioner of Education, James E. Allen, Jr. (1969, pp. 6-7).

The inability to read effectively, contaminating as it does every other dimension of education, is clearly one challenge deserving of our concentrated efforts. As we learn how to attack this deficiency cooperatively, we not only will be getting at this foundation of learning, but will be gaining the strength and the skills to meet many other educational problems.

From a variety of statistical information accumulated by the Office of Education regarding reading deficiencies throughout the country, these shocking facts stand out:

- One out of every four students nationwide has significant reading deficiencies.
- In large city school systems up to half of the students read below expectation.
- There are more than 3,000,000 illiterates in our adult population.
- About half of our unemployed youth, ages sixteen to twenty-one, are functionally illiterate.
- Three quarters of the juvenile offenders in New York City are two or more years retarded in reading.
- In a recent U. S. Armed Forces program called "Project 100,000," 68.2 percent of the young men fell below grade seven in reading and academic ability.
As U. S. Commissioner of Education, James E. Allen, Jr. has proposed "We should immediately set for ourselves the goal of ensuring that by the end of the 1970's the right to read shall be a reality for all; that no one shall leave our schools without the skill and the desire necessary to read to the full limits of his capability (p. 7)."

Learning to read, as conceived by Sylvia Ashton-Warner (1964) is best accomplished through "organic reading." The underlying concept here is that children can learn to read most readily those words which express basic emotional drives, words which carry intense emotional connotations.

In 1963 two well-known authorities in the field of education, David Ausubel and Sir Herbert Read, reviewed *Teacher*. Ausubel (1963, pp. 59-60) thought

Compared to most current practices the "organic" approach to reading makes a great deal of sense. It is small wonder indeed that so many beginning pupils find reading dull and difficult when they must learn from such insipid books as "Tom and Sally," which are completely drained of all human passion and are frequently incongruous with their everyday cultural experience.

The same book, viewed by Sir Herbert Read (1963, p. 60) received the following comments:

"... Miss Ashton-Warner has realized that teaching is an organic process. She defines the necessary attitude of the teacher and gives a practical demonstration of an effective method of teaching. ... He or she must be there, in the infant room, solely for the purpose of calling on the child's own resources, which in practice means that she must have the patience and wisdom to listen, to watch and wait, until the individual child's "line of thought" becomes apparent."
While Sylvia Ashton-Warner's books *Spinster* (1959) and *Teacher* (1964) are well read in teacher training circles there is little research literature reporting the strength of the practice of Key Vocabulary in beginning reading. One research study involving Key Vocabulary was conducted by Athol Packer (1969) in four cities in the United States. He compared the words elicited from children to the words introduced in their basal readers. His findings led him to conclude that Key Vocabulary words are more meaningful to children than the controlled vocabulary of the basal readers. The investigator has found no further research on Key Vocabulary.

Statement of the Problem

The purpose of this study was to ascertain the effect of a specific individualized activity upon attitudes toward reading and attitudes toward self when included in the given first and second grade classes' reading program. In addition, in these same classes this study was to ascertain the effect of the child's ordinal position in the family upon his attitudes toward reading.

Hypotheses Tested

The following hypotheses, which ordered and provided direction to the study, were tested:

1. There is no significant difference between the attitudes toward reading of first grade pupils exposed to a specific individualized activity and those not experiencing this specific individualized activity.
2. There is no significant difference between the attitudes toward reading of second grade pupils exposed to a specific individualized activity and those not experiencing this specific individualized activity.

3. There is no significant difference between the attitudes toward self of first grade pupils exposed to a specific individualized activity and those not experiencing this specific individualized activity.

4. There is no significant difference between the attitudes toward self of second grade pupils exposed to a specific individualized activity and those not experiencing this specific individualized activity.

5. There are no significant differences among the attitudes toward reading of first grade pupils in a specific individualized activity, whether they be the oldest child, middle child, or youngest child in the family.

6. There are no significant differences among the attitudes toward reading of first grade pupils not experiencing the individualized activity, whether they be the oldest child, middle child, or youngest child in the family.

7. There are no significant differences among the attitudes toward reading of second grade pupils in a specific individualized activity, whether they be the oldest child, middle child, or youngest child in the family.
8. There are no significant differences among the attitudes toward reading of second grade pupils not experiencing the individualized activity, whether they be the oldest child, middle child, or youngest child in the family.

For each hypothesis the .05 level of significance was selected for rejecting the null hypothesis.

Assumptions Underlying the Problem

It is assumed in this study that children have deep emotions that can usually be verbally expressed in single, all-encompassing words or phrases epitomizing fear, love, hunger and other powerful inner drives. It is assumed also that children even of bi-lingual background have enough language development to provide words under the proposed experimentation. It is also assumed that seven experimental classes and seven control classes are adequate to test the hypotheses. The length of time, spring semester, for the proposed investigation is assumed to be adequate.

Limitations of the Problem

The experimental classrooms were limited to those where the teachers volunteered and the administration approved. The control classrooms were randomly selected from the same school district from which the experimental classrooms volunteered.

A further limitation concerns the criterion instruments used in this study. The data gathered were limited to the reliability and
validity of the criterion instrument constructed by the investigator and used to measure the attitudes of the pupils toward reading.

Definitions

In order to facilitate understanding of several terms used in this study the following definitions are given:

Attitudes -- A mental state of readiness which is organized through experience and exerts a directive or dynamic influence upon the individual's response to all objects and situations with which it is related.

Family constellation -- The diverse psychological environments arising from the birth order of children in the same family.

Individualized activity -- An activity which permits the power of the inner self to provide the material for learning. It is termed Key Vocabulary by Sylvia Ashton-Warner.

Intelligence -- Thinking power or degree of maturity of the mind determined by standardized mental ability tests. The Otis Quick-Scoring Mental Abilities Test was used to measure intelligence in this study.

Key Vocabulary -- The captioning of the organic illustrations as seen by the inner eye (mind). It will also be referred to as individualized activity in this study.

Ordinal position -- The chronological birth order of children in the same family.
Organic reading -- Refers to words that have an intense meaning for the child. Sylvia Ashton-Warner used the term to describe Key Vocabulary.

Pictorial Differential Scale -- An instrument constructed by the investigator used to measure pupils' attitudes toward reading.

Reading achievement -- Status in ability to read determined by standardized reading tests. The Stanford Achievement Test was used in this study.

Self concept -- The depth of concept formation about one's self that is demonstrated by the amount of detail in drawings as determined by the judges.

Organization of the Dissertation

It has been explained in the present chapter that this investigation was designed to ascertain the effect of a specific individualized activity on attitudes toward reading and toward self of first and second grade pupils. Specifically, the introduction, the problem, assumptions underlying the problem, limitations of the problem, and definitions of terms used are contained in Chapter I.

Chapter II is concerned with a review of the literature related to language, the language arts, attitudes, self concept, and ordinal position in the family. Methods, procedures, techniques, and instruments used to collect and analyze data and findings are contained in Chapter III. Analyses of the data are presented in Chapter IV. The summary, conclusions, and recommendations for use
of the findings are elaborated in Chapter V, the final chapter. A
list of references and appendices follow the final chapter.
CHAPTER II

REVIEW OF THE LITERATURE

The books, periodicals, articles, and research reviewed in this chapter were limited to those studies concerning language, language arts, attitudes, self concept, and the ordinal position of the child in the family. These areas were basic to the purpose of this study, and the researcher found them to be pertinent to the present study.

The first section of this chapter includes a review of the major literature relating to language, one of the basic elements involved in teaching reading in the elementary school. The second section deals with a review of findings in the language arts relating to language experiences designed to promote language growth. The third section is a review of the findings of contributing factors to attitudes toward school, and, more specifically, toward reading. The fourth section deals with self concept--how it develops and how it affects behavior. The fifth section is a review of the literature on the ordinal position of the child in the family.

Language

Nature of Language

Language has made man distinct and has set him apart from all other forms of life. It has evolved from crude beginnings of
face-to-face encounters, using only a few simple sounds, to transmissions around the world, using any number of mother languages (Frost, 1967, p. 1).

There are two basic viewpoints regarding language: (1) a narrow or restricted viewpoint which sees language as being limited to sounds, speech, and writing, and (2) a broader or more encompassing viewpoint which suggests that language includes the whole process of acquiring and perpetuating the feelings and actions an individual expresses in his environment (McQuown, 1964).

The first point of view is adhered to by certain linguists who feel that "language is speech and language is systematic (Owen, 1964, p. 21)."

The second point of view is supported by others. Both Pei (1949) and Hayakawa (1939) indicate language is a completely arbitrary symbol of thought. Hayakawa points out that people are free to manipulate these symbols and they may also be free to create symbols of assigned value. Even though Pei considers words a barrier, he still proclaims the freedom of speech enjoyed in the United States, and he would promote words as guides rather than barriers to reality.

Laird (1963) asserts that language is an instrument with which people may think and that it results from the environment from which it is made. To Laird, language is more than an assortment of sounds in a certain order which must convey meaning.

Owen (1964, p. 23) indicates that language may be equated with communication. In its broadest sense, language encompasses all
of the ways individuals influence each other. Owen further suggests that it is generally agreed that language instruction largely consists of changing habits.

Theory of Language

One of the major recent advances regarding the intellectual development of the child is the systematic consideration of the acquisition of language. Linguists are mainly concerned with the evolution of syntax, while psychologists and educators focus on what and how much children understand at particular ages. There is much concern about the best ways to present information. Piaget (Huttenlocher, 1965, p. 114) indicates that the child has "characteristic ways of viewing the world" at different stages in his physical development.

The evolution of language and thought in children is described in Piaget's theory of cognitive development. He posits three stages in children's perception of spatial relationships during the sensorimotor stage of development. Piaget indicates "that young children perceive things differently from adults (Lansing, 1966, p. 33)."

The term "operation" as defined by Piaget is "the coordination of a perceptual action, which, if it has a stable point of reference, enables the person to fully understand the world from his perceptions. If he does not have a reference point he merely receives a number of unrelated images (Lansing, 1966, p. 37)."

Suchman (Suchman and Ashner, 1961, p. 456) interprets Piaget's levels of development in this manner: "Apparently, the age level for
the attainment of a given stage was task-specific rather than general, and a child could operate at stage one on one task and at stage two on another."

It would seem from this remark that according to Piaget, there is no fixed age scale. "Piaget's work gives further substance to the notion that a child's visual symbols are intimately related to his conceptual growth (Lansing, 1966, p. 41)."

A clinical study which investigated a preschool child's understandings of specific words which were selected from his free and spontaneous oral expressions incorporated similar techniques to those of Piaget to measure the child's responses. A conclusion which was drawn was that "Techniques commonly used for measuring verbal behavior may be used more effectively in a classroom as to teaching-learning devices (McIntire, 1965, p. 68)."

Bruner (1960, p. 33) asserts that "Any subject can be taught effectively in some intellectually honest form to any child at any stage of development." He advocates that the structure of the subject must be represented in terms of the way in which the child views things.

Language and Experiences

According to Shane, Reddin, and Gillespie (1961, p. 21), "If children are to acquire a rapidly growing and functional store of language meanings, they need a rich diet of experience rather than the thin gruel of rote learning."
Dewey (1933, pp. 232-35) indicates that language represents the meanings of a high level of thought. He views intellectual life to be dependent on a store of meanings, and language to be a "tool of preserving meanings." Dewey acknowledges the value of experiences; however, he suggests that experience is of use only when the meaning of past experience "abides in such a way as to be applicable in determining the character of the new." Dewey labels words as names of single meanings to "form sentences in which meanings are organized in relation to one another."

According to Shane, et al. (1962, p. 43), teachers should not expect children to react to an identical experience in an identical fashion. This statement leads the researcher to conclude that every experience will be expressed and interpreted in a fashion unique to the individual. Behavior is shaped by language, and both language and behavior are continually changing.

It would appear that experiences are significant to child development. Suchman and Ashner (1961, p. 451) write, "It may well be that conceptual structures growing out of early empirical experiences influence the entire course of language development."

In a study which was designed to determine if oral language practice which was based on structured and direct experiences resulted in improvement of the oral language facility of kindergarten pre-reading children in differing socio-economic environments, it was concluded that children from lower socio-economic levels did improve significantly at the .05 level. Cleveland (1967, p. 2438-A) states,
"It is inferred that children from upper socio-economic homes bring to school a wealth of verbal ability, while children from lower socio-economic homes require further development of verbal skills before beginning reading instruction." Shane, Reddin, and Gillespie (1961, p. 29) propose, "If we can make language meaningful with ever-increasing success for each group of youngsters, each—self-motivated and self-propelled by his initial success and satisfaction—will do a great deal to ensure his progress toward linguistic maturity by and for himself."

Vocabulary

Pei (1949, p. 135) asserts that the number of words at the command of a particular individual limits his number of concepts. Pei also believes that the number of words an individual knows will limit his ability to form sentences (pp. 95-96).

According to Loban (1963, p. 60), a large vocabulary represents a variety of concepts which are held by the child. Loban discerned from his study that language performance correlated with language abilities. That is, the boys in the study did poorly in language when they were low in language ability, and they excelled in language when they were high in language ability. Loban then concluded that pupils who lack skill in speech also have difficulty mastering written language, and that "competence in the spoken language appears to be a necessary base for competence in writing and reading (p. 88)."

Lieberman's study (1966, p. 960-A) dealt with the effects of teaching vocabulary concepts through direct experiences versus
teaching vocabulary concepts through conventional instruction. She reported no significant differences in reading achievement were found between the control and experimental groups; however, the experimental group (those using the direct experience method) achieved significantly higher gains in concept achievement than did the control group.

Summary of Related Research on Language

This section of literature on language has dealt with various definitions of language regarded by authorities in the field. It is believed that language is flexible, changing as human activity changes.

While researching language development, it was ascertained that language instruction should include opportunities for children to participate in meaningful experiences.

It was generally agreed that an increased vocabulary produced an increase in language growth, and that these abilities increased with age. From these findings, it was indicated that experiences produce language growth.

Language Arts

Nature of Language Arts

It is impossible to conceive of any activity in the classroom that does not in some way require the arts of communication.

Heffernan (1967, p. 44) believes that "The language arts have no
intrinsic content." The language arts are tools with which man relates to man and to his environment.

According to Shane, et al. (1962, p. 12), the language arts skills include "... reading, creative writing and expression, handwriting skill, children's literature, spelling, grammar, and usage, listening, vocabulary building, and, in some schools, instruction in a second language."

Parker et al. (1962, pp. 157-73) have identified the language arts skills according to primary and intermediate levels. The primary level includes the following: Reading—In preparation for reading, children should learn meaningful concepts in a meaningful context (experiences). They are to be able to interpret and understand simple materials, including oral and silent reading; Speaking—The pupil's basic language habits are improved through conversation. Words that express an exact meaning can be selected. The basic elements of audibility, distinctness, pronunciation, and voice control can be mastered; Listening—Every speaking audience should have a listener, with concern for ideas and reflection of thoughts; Writing—Muscular difficulties limit expression in writing. Writing as a natural means for communicating and for self-expression should be emphasized.

Since language entails social implications for communication, the language arts program includes the developmental skills of speaking, listening, reading, writing, and thinking. The researcher is in concordance with Parker et al. statement that the pupil should develop
interest skills which will enable the pupil to "increase, improve, and expand his language abilities long after he has left the classroom (p. 173)."

Theory of Language Arts

The essence of the theory of language arts is that communicative skills are augmented by the child's past experience. Shane et al. (1962, pp. 71-90) emphasize the developmental status of the child as a basis for planning language arts experiences. They chart eight phases of growth:

Phase I. Early language understandings being: first words are used in simple combinations; language begins to be recognized as a means of indicating and satisfying wants and needs and for gaining satisfaction.

Phase II. Effective communication begins: guided experiences promote readiness for using expressive language and for interpreting receptive communication.

Phase III. Functional use of language increases: the child begins to sense more fully the meaning and use verbal and visual symbols. There is a continuing need for readiness experiences.

Phase IV. Reading experiences begin to become a source of pleasure and satisfaction: simple creative oral expression begins to flower.

Phase V. Communications powers are extended and consolidated upward to increased recognition of language as a tool and as a means of controlling one's environment.

Phase VI. Many language skills grow rapidly, especially in effective oral expression and independence in reading.

Phase VII. Many language powers are highly developed in some children; reading is used as a tool and as a means to further learnings; accurate speech patterns are establishing themselves; good English usage and expressive writing often develop rapidly.

Phase VIII. Mature receptive and expressive communication power begins to be evident in most children.

It is emphasized that individual differences become more evident as the child proceeds through the grades; therefore, planning
for individual differences is essential. The elementary program should stress a concrete rather than an abstract approach to learning. While the number of concrete experiences become fewer in the elementary school, they never completely disappear.

Pell's study (1963) dealt with identifying language arts concepts as they applied in grades one through six at the elementary school level. A checklist of statements was utilized and presented to college teachers and classroom teachers. There were twenty-four persons in this group who were interviewed and the following concepts were among those identified in the study:

1. Words take on different meanings when they move from one context to another.
2. One interprets what he reads from his own experience.
3. One draws on his past experience to read meanings into printed symbols (p. 110).

Language Arts Curriculum

In the daily, weekly, and yearly schedule, Heffernan (1967) suggests that the teachers at all levels of the elementary school must provide for developmental experiences in all facets of the language arts—listening, speaking, reading, and written language. Some schools provide a course of study, teachers' guides to language arts instruction, or textbooks which indicate the grade placement of specific learnings.

Generally, the following topics are included and are applicable at all maturity levels:
Listening
Throughout the child's school years, he should be helped to realize the numerous benefits that come to a good listener... As he grows older, listening leads to a genuine interchange of ideas in conversation and discussion.

Speaking
Many teachers distinguish between two types of speaking activities: oral language and creative oral expression.

Oral language is functional when it is used to communicate information and express opinions. Creative oral expression... can be creative as a child is free to express his thoughts and feelings in his unique fashion.

Reading
Learning to read is a major purpose of the primary school child. Reading to learn becomes the purpose of the child in the middle grades. Reading is truly the path to many vicarious experiences... The emphasis should always be on the child rather than on materials to be covered and skills to be learned.

Written Language
Written language includes functional written expression, creative written expression, handwriting and spelling.

Functional written expression... major aim is to present information for a specific purpose.

Creative written expression... Teachers attempt to maintain a relaxed, flexible supportive classroom atmosphere in which children are encouraged to write.

Handwriting--no writing is effective unless it conveys ideas to others in a legible form.

Spelling--the ultimate test of a child's competence in spelling is not his daily grade on a list of spelling words but his correct and facile use of a correct spelling vocabulary in all his written expression (pp. 57-60).

According to Greene and Petty (1967, p. 10), "The language curriculum includes every type of communicative activity in which pupils engage." It includes activities that take place both inside and outside the classroom, such as "greeting and entertaining parents..."
and other guests, giving reports in the social studies class, listening to directions on the playground, writing a note of thanks for a birthday present, or reading instructions for doing arithmetic problems."

Language Arts and Experiences

Kendrick (1966, p. 35) concluded from a comparative study of two first grade language arts programs (Basal readers, herein called 'Traditional Method, and Experience Method') that, while no significant differences were observed,

1. The Experience Approach apparently does something to increase interest in reading in lower class males.

2. This method Experience Approach also favorably affects both males and females in writing as these subgroups excelled in the total number of words written.

3. The ratio of the number of different words to the total number of words spoken, which might be thought of as an efficient employment of available vocabulary, was also enhanced by the Experience Approach.

4. A somewhat curious finding is the superiority of upper class females in arithmetic when instructed by the Experience Approach (p. 36).

Investigations regarding the desirability of recognizing the interrelation of various language factors, and the logic of basing an instructional program upon an integrated approach, support the notion that further systematic research on the effectiveness of an integrated approach is needed. The paucity of valid information was also cited by a study group of the Project English Research Conference (Strickland, 1963, p. 4). This particular group stressed the need for studies of the relationship between the teaching and
learning of reading, speaking, listening, and writing. A dependence upon an accumulation of opinion and tradition, rather than upon reliable research in the above areas of language arts, was also pointed out by this group.

Clymer (1961, p. 117) indicates that much of the research in language arts has been carried out by means of short-term, single-variable studies. Such research does not permit us to clearly determine the influence of the development of one language art upon another. Although such studies are difficult to design and follow through, the importance of these studies makes it essential that this research be done.

There is a paucity of research that has focused directly on an experience approach to the teaching of language arts. In a review by Gunderson (1963, pp. 6-7) of Research in Reading at the Primary Level, she cites a study by Basting. This particular study compared the effectiveness of an experience approach to beginning reading taught by using a teacher's manual of a basal series. The population was limited to sixty students in two first grade groups. Basting found a significant difference in the number of words reproduced in favor of the experience approach but found no significant difference between the groups in comprehension or word recognition and meaning.

It is evident that well-conceived, carefully controlled, longitudinal studies with well-defined populations are needed before
any conclusions can be stated with accuracy regarding the characteristics of the complex interrelationships among the language arts.

Language Arts and Reading

Grace Fernald (1943, p. 35) developed a method of teaching reading to cases of total reading disability which is similar to Ashton-Warner's. In stage one, Fernald recommends,

The word is written for the child with crayola on paper in plain blackboard-size script, or in print, if manuscript writing is used. The child traces the word with finger contact, saying each part of the word as he traces it. He repeats this process as many times as necessary in order to write the word without looking at the copy. He writes the word once on scrap paper and then in his "story." After a story has been written by the child, it is typed for him and he reads it in print.

Fernald stresses the importance of finger contact in tracing the word by saying, "Our work with learning words by the tracing method, . . . shows that the learning rate is much more rapid with finger contact than when a stylus or pencil is used (pp. 35-37)."

The effects of children's oral language on reading was explored in a short term study by Lane (1963). This study yielded information on the value of in-service training with which teachers were provided for improvement in reading instruction. Martin (1955, pp. 167-71) studied developmental relationships among variables in first grade children. Coefficients of correlations among seven variables were determined at the beginning and end of the first grade of a population of 240 students. Only one oral language measure, the number of different words used, showed a low positive relationship to reading readiness at the beginning and achievement at the end of
the first year. Unfortunately, the relationship of oral language to the reading of first grade children which existed when the teacher used the children's actual language in making reading materials was not investigated in the Martin study.

Giles (1966, p. 139-A) compared the language experience approach and basal reader approach. He states: "Findings indicate that first-grade pupils taught beginning reading by the language experience approach do make greater gains in various aspects of oral language development than first-grade pupils taught beginning reading by the traditional basal reader method."

Russell and Fea (1963) have indicated that in reality there can be no single sensory approach to reading for normal children. The experience approaches were designed to use more than one of the senses. These approaches stressed meaning in reading rather than identification-recognition, although the two are indeed related. Anderson and Dearborn (1952) suggest that the main value of such approaches lies in the formation of context (experience) to enable the reader to test his attempts at word recognition and interpretation of reading material.

Summary of Related Literature on Language Arts

A review of related literature concerning the language arts shows that they are considered to be communicative skills which are interpreted in terms of past experiences. Evidence indicates that the language arts curriculum should include all the necessary skills of communication.
Investigations revealed a relationship between reading achievement and language achievement.

The need for in-depth longitudinal studies for the purpose of determining appropriate language arts experiences for vocabulary growth in terms of increased number of meanings as well as number of words has been indicated.

Effective teaching methods of words and meanings continues to be a challenge for future research studies in this area.

### Attitudes

#### Nature of Attitudes

Many definitions of attitudes have been generated. A few examples follow: "An attitude is a mental and neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual response to all objects and situations with which it is related (Allport, 1935, p. 810)"; "Attitude is primarily a way of being 'set' toward or against certain things (Murphy, Murphy, and Newcomb, 1937, p. 889)"; an attitude is a "relatively stable affective response to an object (Rosenberg, 1956, p. 367)"; "Actually, 'attitude' is a word used to refer to a 'general tendency' of an individual to act in a certain way under certain conditions (Mager, 1968, p. 14)." Allport's definition suggests that attitudes refer to a very general "state of readiness." Murphy, Murphy, and Newcomb, however, are more restrictive in their definition, since they limit the state of readiness or "set" to reactions "toward
or against" certain objects. Their phrase "toward or against"
denotes evaluation, pro or con. Rosenberg's definition tends to
focus on the affective tendency to favorably or unfavorably evaluate
objects and completely discard the notion that any overt behavior is
implied; while, on the other hand, Mager's definition bases the use
of the word "attitude" on visible behavior. Another definition which
is well-known and well-accepted is that of Krech and Crutchfield
(1948, p. 5). They contended that attitude is "an enduring organiza-
tion of motivational, emotional, perceptual and cognitive processes
with respect to some aspect of the individual's world."

Development of Attitudes Toward School

When the child enters school, he brings with him a long past
of social learning and a great variety of attitudes and interests.
He also brings with him perceptions of self and differentiations
of his social environment. In all likelihood, both are unstable,
and in some respects, indefinite; nevertheless, to many aspects of
the self and environment there may be affixed strong affects (Radke-
Yarrow, Trager, and Davis, 1965, p. 153).

For the most part, the social learning and the formulation
of attitudes and interests in these early years have taken place
within the family and peer groups. Upon entrance into school the
teacher is included as a major influence on the child's attitudes
(Mager, 1968). The question then is what can actually be done to
enable the teacher to influence the pupil with as favorable an attitude
toward school as possible. Interest seems to play a key role in the
formulation of a positive attitude. Strang (1968, p. 48) spoke of interest, or the lack of it, as directly affecting the attitudes brought to the materials used by the children. Oftentimes, materials considered to be interesting are more interesting to a researcher than to children (Chall, 1967, p. 95).

Hurlock (1956, p. 440) contended that interest in a child is created when he is engaged in a satisfying activity. When a child is permitted to choose activities, and he continues to choose the same activity, he is then preoccupied with that activity, reflecting his interest in it. This interest continues for as long as the particular activity is a satisfying one.

Attitudinal and Interest Factors in Reading

Colvin (1969, p. 182) held that the development of attitudes, appreciations, insights, and interests contributes as much or more to long-term reading growth as skills and abilities. She further submitted that the way children perceive reading, learning, and school can be affected by the kinds of materials used to introduce them to reading. Because of the way some materials are used in the beginning, "many children fail to see reading as useful, pleasant, or relevant of their life styles."

Ketchum (1964, p. 382) intimated that serious consideration must be given to the identification and use of children's interests and attitudes to promote achievement and to extend and enrich experiences. He believed
It is almost self-evident that early success in reading is apt to be vitally important to the future trend in a child's reading progress. The success has a very definite "impact." First of all it establishes the child's status. He wins self-approval and his ego confidence is bolstered. Group approval is implicit, a condition very important to many children. He wins teacher and parental approval. He has derived a great deal of satisfaction from the investment of his drives, his motivations, and his ego. He has started the habit of success and this is promoted willingness to deal with harder tasks on the basis of having solved earlier ones.

Gurney (1966) further extended this notion when he discussed the exploration of relationships between student perception of school and achievement in school. He cites Malpass' finding that a positive relationship existed between attitudes (as revealed in perception of the school situation) and current academic success.

According to Burton (1956, p. 236), the ways in which favorable attitudes and interests toward reading should be developed and maintained are:

1. The level of readiness for reading in all cases should be adequately determined.

2. The transition from using oral language to reading printed language should be natural, functional, and interesting. This type of transition requires the semantic, the experience or meaningful, approach, which already has been outlined, in detail.

3. The first reading materials should be realistic, sensible, and enjoyable, and the first informational materials should answer questions of interest and value.

4. Liberal quantities of supplementary materials, keyed to the child's maturing interests and needs, should be provided for free reading.

5. Difficulty in learning to read should be followed with immediate diagnostic and remedial techniques.
A similar point of view on developing and maintaining positive attitudes toward learning is that of Jeannette Veatch (1968). She states "Learning must come from the inside out and not the other way around . . . For surely as the sun rises we must help each other find himself. And when he does, he will seize learning with the enthusiastic ferocity of the newborn infant at his first feeding (p. 21)."

Studies of Attitudes Toward Reading

A number of studies concerning attitudes toward reading at the first grade level have been reported. There have been various findings. For example, Kendrick (1966) found in a comparison of two first grade language arts programs, traditional method (basal reader) and experience approach, that there were no significant differences in attitudes toward reading in the two groups when the San Diego Pupil's Inventory of Reading Attitudes was administered. On the other hand, an experimental study of group versus one-to-one instruction in first grade reading programs conducted by Macdonald, Harris, and Rarich (1966) revealed that while there were no significant differences in achievement, anxiety, and teacher judgment of achievement of the two groups, significant differences did exist in attitudes toward reading and patterns of friendship choices in favor of the group using the one-to-one method of instruction. The instrument used to measure attitudes was one in which the pupil was to mark a choice of two facial expressions to indicate which expressed his feelings toward the item.
A study in which Stauffer (1966) compared a language arts approach to beginning reading instruction with a basic reader approach and involved twenty first grade classes in three towns in Delaware revealed that while there were no significant differences in attitude toward reading expressed by the two populations, either on a total population basis or on a boy or girl basis, the experimental group scored higher at the .01 level of significance on certain subtests of the Stanford Achievement Test. The subtests were Word Reading, Paragraph Meaning, and Spelling. From the results of this study, Stauffer contended the language arts approach to beginning reading instruction was an effective method.

Vilscek, Morgan, and Cleland (1966) made a comparison of the basal reader approach and the integrated language arts approach to beginning reading. The population consisted of 300 first graders in the Pittsburg Public Schools. Three socio-economic levels were represented. The Stanford Achievement Test and the San Diego Pupils' Inventory of Reading Attitudes was administered to all subjects. Results showed the experimental group scored higher at the .01 level of significance on the Stanford Achievement Test, subtests Word Meaning, Paragraph Meaning, Vocabulary, and Word Study Skills, and on the San Diego Pupil's Inventory of Reading Attitudes than did the group using the basal reader approach.

Summary of Related Research on Attitudes

This section of pertinent literature on attitudes has regarded the varying definitions of attitudes as suggested by authorities in
the field. Attitude formation has, for the most part, taken place within the family and peer groups. Upon entering school, the teacher comes to play an important role in the formation of the child's attitudes. Authorities agree that attitudes and interests contribute as much or more to long-term reading growth as skills and abilities.

Studies concerning attitudes toward reading have revealed varying results. Some have shown no significant difference in attitude toward reading regardless of the method of reading instruction used, while others have found a significant difference in favor of the experience approach to beginning reading.

**Self Concept**

**Nature of Self Concept**

The term "self concept" had its beginning in early psychological thought. The "inner self" or "self concept" as it is purported in contemporary thought, was apperceived by the early exponents of introspection. Modern psychological theory places great importance on the child's perception of self and of the world about him as contributing causes of behavior (Combs and Soper, 1963). Combs (1965, p. 14) states, "The individual's self is the center of his world, the point of origin for all his behavior."

The self concept consists of a configuration of traits (embodied in the physical self) as they interact with others in a social milieu (Combs, Soper, and Courson, 1963). These same authors disclosed, "since the self concept is an organization or phenomenal
field, it is not open to direct observation. To study the self concept, it is necessary to infer its nature from observations of the behavior of the individual (p. 499)."

The self concept, based on the writings of Kinch (1963) is the individual's conception of himself as it emerges from social interaction, and, in turn, guides or influences the behavior of that individual. As formulated by Mead, Cooley, and Adler (Litman, 1962), self-conception was considered as a function of the individual's sense of personal worth and adequacy and his evaluation of the attitudes of others toward him.

Jersild (1965, pp. 196-97) gives a comprehensive definition of self concept.

The self includes, among other things, a perceptual component: the way a person perceives himself—the image he has of the appearance of his body, the picture he has of the impressions he makes on others. It also includes a conceptual component: his conception of his distinctive characteristics, his abilities, resources, assets, lacks, and limitations, his conception of his background and origins, and of his future. There is also an attitudinal component of the self, including the feelings a person has about himself, his attitudes concerning his present status and future prospects, his tendency to view himself with pride or shame, his convictions concerning his worthiness or unworthiness and his attitudes (which may be mixed) of self-esteem and self-reproach.

At least four psychologists (Combs [ASCD] 1962) assert that it is the function of the school to produce many more adequate personalities than are currently being produced. Teaching a positive view of self must serve as a major criterion in terms of how we judge the school's success or failure. The effectiveness of the school's practices are determined by the degree to which the positive view of
self is accomplished. According to the same four psychologists "the sense of self is learned through experience; a positive self is teachable. If the self is learned as a function of experience, then, whether we are aware of it or not, children learn about themselves in the classroom (p. 101)."

Development of Self Concept

The concept which a child forms of himself develops in the process of social interaction or socialization. According to Rose (1962), the first stage by which socialization takes place in the young infant is learning through some psychogenetic process, such as conditioning and trial and error. In the second stage, as maturation takes place, the infant internalizes the self as he interacts with others. In the third stage, socialization or the self arises when the infant's gestures become an object of others. The family provides the infant with this first socializing experience and with the people who are important to him. The reaction of these people toward the infant, together with the provoking stimuli in the culture, will, in most cases, determine the kind of self one develops.

Combs and Snygg (Combs, Soper, and Courson, 1963) purport the development of the self concept to be "what an individual believes about himself (p. 493)." They conceive of the self concept as "the organization of all that seems to the individual to be 'I' or 'me' . . . as parallel with the self report . . . a description of self reported to an outsider . . . but not identical (p. 497)."
In discussing the development of the self concept, Combs (1965, p. 15) states,

The self-concept is not something you are born with. It is something each of us learns as a consequence of his experience with those who surround him in the process of his growing up. We learn that we are men or women, able or unable, acceptable or unacceptable, liked or unliked, depending upon the kinds of experiences we have had in the process of growing up. Once established, the concepts we have of ourselves continue to affect our behavior, perhaps even for life.

Necessary requirements for development of competent and effective behavior and feelings of inner comfort which have aided the human personality to deal effectively with stress, have been expectations of success (hope), motivation to achieve, initiative, and the ability to deal with anxiety. Writers have felt that probably the most important requirement for effective behavior has been a feeling of personal worth or a positive self concept (Coopersmith, 1968).

Kinch (1963, p. 481) indicates that the "basic core of the self concept is not static; the configuration of traits are modified between the exigencies of the self and the environment."

The social processes of language are instrumental in furthering the concept of self. Fleming (1963, p. 93) states, "Inherent in the mastery of language is a powerful potential to focus, clarify, and refine thinking about the self, to bring his thinking to the point of conscious appraisal and reappraisal."

As the child acquires skills, knowledge, and understanding, he also is developing his self concept. The child learns that he can act upon his environment, as well as being affected by it. As the
pupil encounters group projects and associations, he becomes aware not only of his differences but also those of others. Through language, the individual can direct thinking about self, clarify and refine thinking, and reinforce the self concept (p. 93).

Self Concept and Behavior

In the classroom, which is a social situation, there has been found a direct relationship between a child's classroom performance and how he feels about himself. Brook (1967, p. 1) in his first year-end final report on the Three-S project quoted Gordon, who was reporting a reading research study with first grade children. He

refuted the idea inherent in most remedial programs, that more of the same would lead to improvement; . . . . The evidence suggested that a child's self concept and the perception he holds of himself are not only related to reading achievement, but may be a causal factor in reading.

In a study by Engel (1959, pp. 211-215), it was found that the self concepts of adolescents with positive attitudes remained stable. Data from her study revealed that those subjects whose self concepts were defensive-positive were significantly more stable than those who had negative self concepts.

Wattenberg and Clifford (1962) conducted a study on the relationship of self concept to beginning achievement in reading, using a sample population of children in the first semester of kindergarten in two Detroit elementary schools. These two particular schools were selected because of the socio-economic background of
the neighborhoods. One school serves a working-class neighborhood and the other a middle-class neighborhood, from which approximately half the pupils go to Catholic elementary schools. Measures and ratings were obtained on (1) self concepts, (2) ego strength, and (3) intelligence. The pupils were again measured in these same areas after two years. In addition their progress in reading was noted, and their achievement measured by using a test of the publisher of the textbook they were reading.

Results of this study included the following:

In general, the measure of self-concept and the ratings of ego strength made at the beginning of kindergarten proved to be somewhat more predictive of reading achievement two and one half years later than was the measure of mental ability, the Detroit Beginning First Grade Intelligence Test. The correlation between the measures of reading achievement and of changes in self-concept was slight, and inconsistent in direction. There was only a slight, and again, inconsistent correlation between the measures of self-concept and of intelligence, but a positive relationship was found between the intelligence test scores and the ratings both of ego strength and self-concept (p. 2).

A study by Combs and Soper (1963, pp. 140-48), dealing with relationships of child's perceptions to achievement and behavior in the early school years revealed

1. The feeling of personal adequacy seems to have an all-pervasive importance in the child's perceptual organization.

2. The values held by teachers are revealed in the judgment they make about the behavior of the children.

3. The relationship between child's perceptions and their behavior as described by their teachers shows a positive but low correlation . . .

4. Changes occur in children's perceptions and in their behavior with progression from kindergarten to first grade.
5. Significant predictions about behavior can be made a year in advance as a consequence of perceptually-oriented studies of children.

6. The use of the observer himself as an instrument can be made to provide stable and reliable data for research.

In commenting on need for further research in the area of exploration of self concept, Combs and Soper argued that "If the self concept has the important role we are beginning to believe it does in the determination of human behavior, we need to know a great deal more about the effects of school practices upon the development of both positive and negative self conceptions (p. 150)."

Bigge (1964, p. 289) has discussed this same topic. He asserts,

Along with the improvement of students' physical condition, teachers should do what they can to help children achieve adequate concepts of self. This may well be the most important recommendation we can make. To a large degree a person's goals and achievements are limited to what he thinks he can achieve. Virtually everyone eventually develops definite ideas about his limitations. It seems likely that more often than not, people "sell themselves short." Parents or teachers often act as if they think children are lazy or dull. If this happens frequently enough, children come to accept this evaluation of their motivation and abilities.

Summary of Related Literature on Self Concept

It was noted that modern psychological theory places great importance on the effect of the child's perception of self and of the world about him on his behavior. The self concept is something that is learned as a result of experiences with others. The nature of these experiences determines whether the self concept will be negative or positive.
Combs and Soper (1963) recommend that there is a need for further research in the area of exploration of self concept, since the self concept plays such an important role in the determination of human behavior.

**Ordinal Position of a Child in the Family**

**Nature of Family Constellation**

The theory that each person has an innate individuality from birth would appear to find support in the fact that children in the same family are dissimilar. It is recognized by those who uphold this theory that the parents' behavior can influence the child's attitude, and, through this, the development of his character; but they contend that the parents treat all the children alike, and that therefore the differences between the children must be attributed to their "equipment."

Dreikurs (1950, p. 37) observed that

Upon closer examination, however, it is found that each child has an essentially different position in the family and must see all the circumstances of his childhood in an entirely different light. Besides, in practice the parents never treat two children alike, but behave very differently to each. There may be a difference in the affection they feel for the children, and there certainly will be in opinions they hold about them. At this point it might be useful to suggest briefly some points of view which are characteristic of the different children in a family.

Adler (1958) placed emphasis upon the family constellation in his personality theory. Somé thirty or more years ago, Adler generated the notion that the children at the extreme positions in the family--the youngest and the oldest--are often problem children.
Both positions are in stress-producing situations because the eldest strives to maintain his first and dominant position, and the youngest strives to catch up.

The Characteristics of the Family Constellation

It has been noted previously that parents do not treat any two children in the same family alike, nor is the family environment the same for any two children. The different environment may be accounted for in several ways, according to Mrs. Floy Pepper (1964).

1. With the birth of each child, the situation changes.
2. Parents are older and more experienced.
3. Parents may have moved to another neighborhood.
4. Parents may be more prosperous and own home.
5. Possibility of step parents—due to divorce or death.

Mrs. Pepper lists certain characteristics of children occupying different positions in the family constellation. Among these positions, she lists the characteristics of the first child, the middle child of three, and the middle child of a large family, and the youngest child.

The First Child

The first child has a threatened position in life, his being the oldest should entitle him to the favored spot, and frequently does. However, he may become discouraged upon the birth of the second child, and refuse to accept responsibility.

1. Is an only child for a period of time and has therefore been the center of interest.
2. Has to be first—in the sense of gaining and holding superiority over the next children.
3. Becomes a "de-throned" child with the birth of the second child.
4. Could develop a good, competent behavior pattern or become extremely discouraged.
5. Sometimes strives to protect and help others in his struggle to keep the upper hand.
6. Sometimes death wishes or expressions of hate are directed toward the second child.
The Middle Child of Three

The middle child of three has an uncertain place in the family group—and may feel neglected: he discovers that he has not the privileges of the youngest nor the rights of an older child.

1. May feel unloved and abused.
2. Becomes a "squeezed child" whenever a third child is born.
3. May hold the conviction that people are unfair to him.
4. May be unable to find his place in the group.
5. May become extremely discouraged—and more prone to become a "problem child."

The Middle Child of a Large Family

Children who come in the middle of a family usually develop a more stable character, and the conflict between the children tends to be less fierce. In other words, the larger the family the less conflict and strife among the children.

The Youngest Child

The youngest child has quite a peculiar place in the family constellation and may become a "speeder" because he is outdistanced and may become the most successful; or he may become discouraged and have inferior feelings.

1. Is often like an only child.
2. Usually has things done for him—decisions made, and responsibility taken.
3. Usually is spoiled by the family.
4. Finds himself in an embarrassing position—is usually the smallest, the weakest and above all—not taken seriously.
5. May become the "boss" of the family.
6. Either attempts to excel his brothers and sisters or evades the direct struggle for superiority.
7. May retain the baby joke, and place others in his services.
8. Often allies with the first child as being different from the rest.

Studies of Birth Order and Academic Achievement

Tyler (1956, p. 484) states that "... practically all investigators agree that the intra-family correlations for intelligence test scores are of a magnitude comparable to those for structural
traits. They center around .50 for both kinds of characteristics."

She submits, then, that no evidence is furnished to suggest that intelligence is more dependent upon environmental influences than is eye color to height.

Analysis of sibling performance on intelligence and achievement tests utilizing longitudinal data by Sarah Schoonover (1959) shows that either boys or girls with brothers consistently had higher mental and achievement ages than did the siblings with sisters. The age and spacing of siblings showed insignificant differences.

Hodges and Balow (1961) conducted a study of 1,600 cases at the University of Minnesota to determine learning disability in relation to ordinal position in the family. They concluded that in two sibling families no significant differences exist between the ordinal position of the sibling and the subject experiencing learning difficulties. They also concluded from this study that boys with learning difficulties tend more often to have brothers than they do sisters.

A study pertaining to personality and behavioral differences among children due to birth order was conducted by Russell Lee Adams (1967, p. 1697-A). He discerned,

1. First-born, in contrast to later-born, are more highly motivated in academic endeavors.
2. First-born, in contrast to their later-born peers, tend to accentuate the positive and diminish the negative side of their school-related feelings, attitudes, and behaviors.

Blustein (1968, pp. 3,046-B--47-B) researched a similar type problem. Her study dealt with the relationship of birth order to
school behavior variables in elementary school children. The major findings of the study were

1. First and second borns did not differ in scholastic aptitude (in Lorge-Thorndike verbal, non-verbal, or total score).
2. First borns achieved at a higher level in teachers' evaluations (grade point averages) and on most parts of a standardized, objective achievement test (the Iowa Test of Basic Skills).
3. First borns were perceived by their teachers as working harder or more effectively, as measured by ratings of two sets of measures.
4. First born boys were rated by teachers as more conforming to classroom standards of behavior than second born boys.

Studies of Birth Order and Reading Attainment

In an article by Otto (1965), it is pointed out that theory provides inadequate help in predicting a child's success in reading on the basis of his ordinal position in the family. He does cite limited evidence that first-born children tend to be good readers, however. One study mentioned by Otto is that of Anderson and Kelley. They did a comparative study of a hundred poor readers and a hundred good readers. These readers were matched on the basis of sex, age, and intelligence. The only apparent difference was that only and eldest children tended to be better readers than children who occupied other ordinal positions. Otto also reported the study by Bennett, who found twice as many eldest children in a group of good readers as in a group of poor readers. Since his study was limited to small numbers of subjects, he was unable to draw any reliable conclusions. Otto studied samples of 300 good readers and 300 poor readers to determine whether there would be significantly more
eldest and only children in the group of good readers. The study revealed, "The chi square tests reveal significant tendencies for eldest and only children to be good readers and for middle and youngest children to be poor readers (p. 122)."

Summary of Related Literature on Ordinal Position

There is a persisting interest in the behavioral effects of a child's ordinal position in the family. This belief is supported by the number of researches that have been carried out in this area. Only a few of these studies have dealt with the relationship of birth order and school achievement. Rather, they have been concerned with personality and social development.

Adler placed emphasis upon the family constellation in his personality theory. Dreikurs operates with an Adlerian point of view. He emphasized ordinal position as a determiner of personality development. Mrs. Pepper's characteristics of certain positions in the family were noted in this section.

Summary

It is the purpose of this study to test the hypotheses outlined in Chapter I, specifically, that there are no statistically significant differences in the attitude of first and second grade pupils toward reading and toward themselves after exposure to treatments.

Reviewed in this chapter is research pertaining to language, language arts, attitudes, self concept, and ordinal position of a
child in the family. The literature reveals the complexity of the variables in early childhood learning ability in the language arts relating to language ability.

Research discloses that the formation of the child's attitudes is influenced by the teacher as well as family and peers. It was discerned that attitudes and interests contribute greatly to long-term reading growth and abilities.

The importance of the self-concept is recognized by many psychologists today. They urge teachers to become cognizant of the effects of school practices upon the development of both positive and negative self conceptions.

Existing studies dealing with positional psychology have thus far offered no reliable basis for predicting individual behavior, or, more specifically, reading achievement. However, some highly significant tendencies have been observed. These tendencies imply a need for both formal research studies and action research in the classroom.
CHAPTER III

PROCEDURES, METHODS, AND INSTRUMENTS

The purpose of this chapter is to describe the procedures, methods, and instruments used in testing the hypotheses posed in this study. The location of the experimental subjects, their numbers, instruments used, their application and appropriateness, and the statistical methods used to analyze the data are described in detail.

Procedures

The procedures in this study consisted of (1) a survey of existing literature related to the study; (2) selection of methods, techniques, and instruments used to collect necessary data; (3) description of community; (4) selection of teachers; (5) selection of subjects; (6) in-service training for teachers; (7) application of methods, techniques, and instruments; (8) submitting the data to analysis of covariance, analysis of variance, Pearson product-moment correlation coefficient, and Kuder-Richardson, KR-20, reliability coefficients; (9) analysis and interpretation of results; and (10) writing the final report.

Survey of the Literature

Prior to conducting the study, a survey of the literature was made by the investigator. This survey was done in order to examine the principles on which present methods of teaching reading
are based, to define the problems and needs, and to interpret assumptions inherent in current practices.

The survey covered a study of pertinent research completed in the areas of language, language arts, attitudes, self concept, and ordinal position in the family.

Selection of the Methods, Techniques, and Instruments

The experimental method of research was selected by the investigator for the study as well as the comparative group technique. The Stanford Achievement Test, Primary I, Form W, (subtests Word Reading, Paragraph Meaning, Vocabulary, and Word Study Skills) and the Otis Quick-Scoring Mental Ability Test, Alpha Short Form, were selected as the instruments to be administered for the pre-test in January. The Otis Quick-Scoring Mental Ability Test, Alpha Short Form, consists of two parts, non-verbal and verbal. These instruments yield measures of individual differences, which were necessary to control criterion measures. In other words, the Stanford Achievement Test and Otis Quick-Scoring Mental Ability Test, as well as the pupils' chronological age, were used as control variates in the analysis of the data. Attitudes of pupils toward reading were measured by a Pictorial Differential Scale that was constructed by the investigator. Attitudes of pupils toward themselves were measured by an analysis of pupils' drawings of themselves by three judges in the field of art. The Pictorial Differential Scale and pupils' drawings of themselves were administered in May and served as the criterion instruments.
Description of Community

The population of the Chandler Elementary District #80 is approximately 15,000 people, with a total public school enrollment of 4,289 students (Perry and Potts, 1968). Chandler is located in an agricultural area, but is presently moving toward a suburban community within easy commuting distance of Phoenix and other cities in the metropolitan area. A large portion of the population has employability only as unskilled labor, according to an analysis of the school district.

A disadvantaged population survey by the City of Chandler in 1965 revealed that 518 households were classified as disadvantaged. From the 518 households, there were 521 children who attended Chandler Elementary Schools.

On the next page are listed the educational needs of the Chandler Elementary School District, as well as relevant information regarding the general population of the school district (Perry and Potts, 1968). It is apparent from a study of this information that existing elementary classroom practice is not able to prevent educational and emotional handicaps in children.
1 (1) Percentage of first grade students retained (1966-67) 20%

1 (2) Percentage of students reading two grade levels below national norms at the end of third grade 33%

1 (3) Secondary School dropout percentage (1966-67) 10%
   (a) dropout percentage from educational handicapped 20%

1 (4) Standardized Achievement Tests Contrasted with Standardized I.Q. Tests (Three grade levels)

September, 1967

<table>
<thead>
<tr>
<th>National Stanine Norm</th>
<th>Percentage Chandler Below Stanine 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Fourth Grade</td>
<td></td>
</tr>
<tr>
<td>Achievement Mean</td>
<td>5</td>
</tr>
<tr>
<td>I.Q. Mean</td>
<td>100</td>
</tr>
<tr>
<td>25%</td>
<td>102</td>
</tr>
<tr>
<td>(b) Fifth Grade</td>
<td></td>
</tr>
<tr>
<td>Achievement Mean</td>
<td>5</td>
</tr>
<tr>
<td>I.Q. Mean</td>
<td>100</td>
</tr>
<tr>
<td>24%</td>
<td>101</td>
</tr>
<tr>
<td>(c) Sixth Grade</td>
<td></td>
</tr>
<tr>
<td>Achievement Mean</td>
<td>5</td>
</tr>
<tr>
<td>I.Q. Mean</td>
<td>100</td>
</tr>
<tr>
<td>26%</td>
<td>102</td>
</tr>
</tbody>
</table>

5 (5) School District Population Breakdown

Spanish surname 22%

Non-White 6%

Indian 2%

Anglo 70%

1 (6) Students from families designated as economically disadvantaged 26%

2 (7) Disadvantaged Population median education level 4.9

3 (8) Unemployment Ratio Non-white and Spanish surname 8.6%

\[
\frac{1}{2} = \text{Chandler School District Records} \\
\frac{2}{3} = \text{U. S. Census of 1960*} \\
\frac{3}{4} = \text{Arizona State Unemployment Service Research Bureau*} \\
* \text{(Perry and Potts, 1968)}
\]
Selection of Teachers

Five first grade teachers and two second grade teachers from the Chandler Elementary School District volunteered to participate in this study. In addition, five first grade classrooms and two second grade classrooms were randomly selected from within the same school district and used as the control group. Therefore, a total of fourteen classrooms were involved in the experiment: ten classrooms for first grade children and four classrooms of second grade children.

The approach used to obtain teachers for the experiment was that of asking for teachers to volunteer to use the experimental method in their teaching. Such an approach resulted in seven teachers and their assigned students from three elementary schools in the Chandler Elementary School District volunteering, as was previously explained. Thus, the three schools do not represent a random sample of schools from the population of schools in the Chandler Elementary School District. Rather than attempt to select other schools for a sample of control classrooms, a number of classrooms equal to the number of volunteer experimental classrooms were selected at random from within the same school district. In this fashion, the control group was representative of the same school district as the experimental group. The possibility of the confounding variables, or variables which could account for the results other than the experimental variable, such as different kinds of teachers and administration, resulting from selection of different school districts was eliminated. As far as the present study was concerned, the possibility of contamination
of the control classrooms in the same school as the experimental classrooms was remote for these reasons: (1) the control classrooms had teachers who preferred not to volunteer, which meant they preferred their own methods; (2) the likelihood of first and second grade children delving into different methods of teaching to an effective degree was also extremely remote, and (3) although the control teachers did not volunteer, they did agree to the pre-treatment and post-treatment testing which was necessary for comparing the groups. The one remaining source of confounding not contended for was the intra-session biases of teachers (as mentioned by Campbell and Stanley, 1963) who were clearly volunteers in the experimental group. Any such biases, however, were extremely remote. First, because of the number of teachers, which suggested that individual biases were obscured or averaged out; and, second, the danger of volunteer versus non-volunteer participation was considered negligible because the non-volunteer group by not volunteering was in effect reaffirming a commitment to using their own techniques; whereas the volunteer group by volunteering was affirming a commitment to new techniques. Therefore, the degree of commitment of both the volunteer and non-volunteer groups was assumed to be approximately the same.

Selection of Subjects

The subjects used in this study were necessarily from intact groups because first and second grade classrooms were used which had been formed by the procedural practices of establishing classrooms in elementary schools of the Chandler Elementary Schools. In other
words, there was reason to believe that classrooms were established either on the basis of ability or age or both ability and age, which would as a consequence make the classrooms initially different and in need of adjustment in analysis of data. Accordingly, the groups were considered non-equivalent because random assignment of pupils to classrooms was not assured.

In-Service Training for Teachers

**Experimental Teachers.** The teachers in the experimental program were trained in the Key Vocabulary activity. It was important that they were aware of eliciting a word from a child rather than requesting one. This was necessary to insure the organic nature of the word. Equally as important were techniques, such as having the teacher write the word on a tough card and having the pupil by her side so the pupil could see the word being printed. This was accomplished through demonstrations and a list of the guidelines on page 58 of this study.

On September 25, 1968, seventy-one interested first and second grade teachers attended an initial presentation and demonstration using six children. This meeting was held at the Mesa Center for Educational Advancement. The purpose of the meeting was to demonstrate for teachers the technique of using Key Vocabulary and to arouse interest in its use.

In November there were two in-service training sessions for the purpose of orienting the teachers to the techniques of
Key Vocabulary. The first session was a thirty minute demonstration, using one child, for the seven teachers participating in the experimental program. The second session was a forty minute demonstration for the same seven teachers.

On December 9, 1968, a one hour session with the seven teachers was held for the purpose of assisting the teachers in utilizing Key Vocabulary in phonics training.

A one hour meeting was held on January 5, 1969, for all teachers participating in the study to set up minimum requirements of the study and to answer any questions they might have.

On March 3, 1969, the experimental teachers met for one hour to share on-going activities for the benefit of principals, visitors, and other non-participants present. There were no teachers of control classrooms present.

There was approximately a total of four and one half hours for the Chandler experimental teachers spent in in-service training. There was no external assistance available to the experimental teachers that could be considered in-service training. The only visitation occurring in January was for the purpose of testing.

Control Teachers. All of the teachers in the control program were offered help in all areas of reading. The investigator met with the control teachers to define the study, explain testing, and get their permission to include the classrooms in the study. Every teacher who was contacted agreed to serve as a teacher in the control group. She was then offered the consulting service of the investigator.
Each control teacher was contacted for approximately thirty minutes in all.

Application of Methods, Techniques, and Instruments

Application of methods, techniques, and instruments covered the 1968-69 school year from January 1, 1969, through June 1, 1969. The necessary data for each group were obtained from the following sources:

1. Pre-test scores in reading:
   A. Stanford Achievement Test, Primary I, Form W
      a. Word Reading
      b. Paragraph Meaning
      c. Vocabulary
      d. Word Study Skills

2. Pre-test scores in intelligence:
   B. Otis Quick-Scoring Mental Ability Test, Alpha Form
      a. Non-verbal
      b. Verbal

3. Chronological age of each subject as of January 1, 1969
4. Post-test scores in attitudes toward reading
5. Post-test scores in attitudes toward self

Analysis of Covariance, Analysis of Variance, Pearson Product-Moment Correlation Coefficient, and Kuder-Richardson Reliability Coefficient

All statistical data were submitted to an analysis of covariance, analysis of variance, Pearson product-moment correlation
coefficient, or Kuder-Richardson reliability coefficient, with all hypotheses being tested at the five percent level of significance. Data were punched into IBM cards and processed by the computer.

The post-treatment measures of attitudes toward reading and attitudes toward self were analyzed using the analysis of covariance, where pre-treatment measures of intelligence, age, and achievement were covariate measures of individual differences and controls on intact groups.

An analysis of variance of a five percent sample of judges' ratings of children's drawings of self was accomplished so as to establish inter-judge reliability.

The Pearson product-moment correlation coefficient was used to correlate the criterion measures of attitudes toward reading and attitudes toward self for experimental and control groups within the first and second grades.

The Kuder-Richardson reliability coefficient was used to establish the internal consistency of the Pictorial Differential Scale within the first and second grades.

Analysis and Interpretation of Results

The data collected on attitudes toward reading and attitudes toward self were analyzed, first, individually in order to determine if they were related to treatment, and, second correlationally to ascertain if they were related to each other.

The analysis and interpretation of results are found in Chapter IV and Chapter V.
Methods

The experimental method of research was used by the investigator in this study.

In this study the pupils were administered the Stanford Achievement Test, Primary I, Form W, (subtests Word Reading, Paragraph Meaning, Vocabulary, and Word Study Skills) and the Otis Quick-Scoring Mental Ability Tests, Alpha Short Form. They were then subjected to an experimentation period from January 1, 1969, through June 1, 1969, during which the experimental groups were exposed to Sylvia Ashton-Warner's technique of eliciting words from children, called Key Vocabulary. The control group was exposed to a state adopted basal reader series. The two groups, experimental and control, spent approximately the same amount of time each day in reading activities.

The following guidelines are the steps used by the experimental teachers (Sawicki, et al., 1969, pp. 25-26).

1. The word a child gives you must have an emotional impact for him otherwise it will probably not be retained. You tell the class that you want them to tell you their "best" word, one that makes them feel happy, sad, or angry, or a word that is funny or scary.

2. Have each child whisper his word into your ear. This is a technique that adds intrigue to the activity for some children while for shy children, it is a security factor. In time, most children will naturally discard the "whisper technique."
3. Write the word on a 3½" x 11" card with a felt pen. Let the children name the letters they know and tell them the ones they don't know. Thus, the beginning of letter identification. Point to the wall alphabet if desirable.

4. Have the child trace the word with his finger. Check for left to right, top to bottom direction on the child's writing. Immediately correct any handwriting errors or reversals. It also affords the child an opportunity to "feel" his word as well as name the letter.

5. The child "does something" with his word. The activity is of his own choosing and may be such things as painting a picture of the word, writing the word on the board or an individual chalk slate, writing "other" words about his word, etc.

6. The next day, the words are reviewed. The words the child does not know are discarded. Words the child does not remember are not significant to him. No attempt should be made to teach the word. Throw them away with such comments as "You will get a good one next time."

At the end of the experiment the groups were administered the Pictorial Differential Scale which was used to measure the pupils' attitudes toward reading. Pupils were asked to draw a picture of themselves, which was used to measure attitudes toward self. These tests were subjected to an analysis of covariance.
The data evolving from the study were reported from the point of view of the objectives, basic assumptions, and hypotheses underlying the study.

**Instruments**

Four instruments were used to collect the data necessary to test the hypotheses. Two pre-tests, the Stanford Achievement Test, Primary I, Form W (subtests Word Reading, Paragraph Meaning, Vocabulary, and Word Study Skills), and the Otis Quick-Scoring Mental Ability Test, Alpha Short Form, were administered in January. These tests, along with the child's chronological age, were used as covariates. Two post-tests, the Pictorial Differential Scale and children's drawings of themselves, were administered in May. These tests were used as criterion instruments to measure attitudes of pupils toward reading and attitudes of pupils toward self.

The Stanford Achievement Test, Primary I, Form W, was selected as the instrument to be administered for the pre-test, for the purpose of measuring reading achievement and to be used as a covariate. This test meets the necessary requirements of measuring reading ability at both the first and second grade level.

The Stanford Achievement Test, Primary I, Form W, includes tests of word reading, paragraph meaning, vocabulary, and word study skills. Working time for the Primary I Achievement Test is one hour, twenty-five minutes.
The nature and content of the subtests of the Stanford Achievement Test are described briefly below (Kelley, et al., 1964, pp. 4-5).

**Word Reading**—This sub-test consists of thirty-five items, graduated in difficulty, which measure the ability of a pupil to analyze a word without the aid of context.

**Paragraph Meaning**—This sub-test consists of a series of paragraphs, graduated in difficulty, from each of which one or more words have been omitted. The pupil's task is to demonstrate his comprehension of the paragraph by selecting the proper word for each omission from four choices.

**Vocabulary**—This sub-test employs a multiple-choice type of item in which the pupil is required to select from a series of three alternatives the proper answer to a question or a statement read by the teacher. This sub-test measures a pupil's vocabulary independent of his reading skill.

**Word Study Skill**—This sub-test includes fifty-six multiple-choice items which deal with auditory perception of beginning sounds, auditory perception of ending sounds, phonics, and rhyming words.

Reliability and Validity (Stanford)

Table 1 (Kelley, et al., 1964, p. 30) presents odd-even split-half reliability coefficients, Kuder-Richardson reliability coefficients, and standard errors of measurement in terms of grade scores for each subject in the test for a random sample of 1,000 pupils in Grade 1.
### Table 1
Reliability Coefficients and Standard Errors of Measurement for Tests in Primary I Battery

<table>
<thead>
<tr>
<th>Test</th>
<th>$r_{11}$</th>
<th>$r_{KR20}$</th>
<th>St. Error of Measurement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Word Reading</td>
<td>.85</td>
<td>.85</td>
<td>1.5</td>
</tr>
<tr>
<td>Paragraph Meaning</td>
<td>.90</td>
<td>.88</td>
<td>.5</td>
</tr>
<tr>
<td>Vocabulary Meaning</td>
<td>.79</td>
<td>.83</td>
<td>2.5</td>
</tr>
<tr>
<td>Word Study Skills</td>
<td>.88</td>
<td>.88</td>
<td>1.5</td>
</tr>
</tbody>
</table>

1. Values reported are based on sample of 1,000 cases from Grade 1.6 drawn randomly from 76 school systems testing in all grades 1-8 in national standardization.

2. Split-half reliability coefficients corrected by the Spearman-Brown Prophecy Formula.

3. Estimate of Kuder-Richardson Formula 20 using Saupe's Formula
   \[
   K = \frac{1}{K - 1} \left( 1 - CK \right)
   \]

4. Standard error of measurement in terms of grade scores.
The Stanford authors sought to insure content validity by examining appropriate courses of study and textbooks as a basis for determining the skills, knowledges, and understandings to be measured.

The Otis Quick-Scoring Mental Ability Test, Alpha Short Form, was selected as the instrument to be administered as a pre-test for the purpose of measuring intelligence and to be used as a covariate. The purpose of this test is to measure thinking power or the degree of maturity of the mind. The test consists of two parts, nonverbal and verbal. The time limit for the nonverbal part of the test requires about twelve minutes, and the time limit for the verbal part of the test requires about ten minutes.

Reliability and Validity (Otis)

Otis Alpha scores were converted to Short Form scores and correlated with the subtests of the Stanford Achievement Test which were selected from within random samples. The resulting coefficients are shown in Table 2 (Otis, 1954, p. 12).

Split-half reliability coefficients were computed for Form As for two samples of third grade pupils (N=370 in each sample). The resulting coefficients, corrected by Spearman-Brown formula were .87 and .88.

The Pictorial Differential Scale, which was used as a criterion measure to measure attitudes of pupils toward reading, was constructed by the investigator. The investigator researched existing differential and attitudinal scales for guide lines in the construction of the instrument. Since there were no instruments available that met the
Table 2
Correlations Between Alpha Short Form A's and Stanford Achievement Test

<table>
<thead>
<tr>
<th>Stanford Subtest</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paragraph Mean</td>
<td>.31</td>
<td>.56</td>
<td>.56</td>
<td>.62</td>
</tr>
<tr>
<td>Word Meaning</td>
<td>.32</td>
<td>.57</td>
<td>.55</td>
<td>.60</td>
</tr>
<tr>
<td>Spelling</td>
<td>.45</td>
<td>.50</td>
<td>.34</td>
<td>.44</td>
</tr>
<tr>
<td>Language</td>
<td></td>
<td></td>
<td>.48</td>
<td>.55</td>
</tr>
<tr>
<td>Arithmetic Reason.</td>
<td>.51</td>
<td>.60</td>
<td>.52</td>
<td>.63</td>
</tr>
<tr>
<td>Arithmetic Comp.</td>
<td>.48</td>
<td>.46</td>
<td>.43</td>
<td>.53</td>
</tr>
<tr>
<td>Number of Cases</td>
<td>1,374</td>
<td>395</td>
<td>424</td>
<td>276</td>
</tr>
</tbody>
</table>
specific needs of this investigation, the investigator deemed it necessary to construct an instrument. After the instrument was completed, it was sent to Dr. Sidney Schnayer, Director of the Reading Center, Chico State College, Chico, California, for his perusal. Modifications were then made before administration of the instrument.

The instrument consisted of twenty-six items which reflected either a positive or negative attitude toward reading. A scale value of 1.0 to 3.0 was assigned to each response, and when the items were checked by the pupil and were treated statistically, the attitude of the pupil toward reading was determined.

The scale items were read to the pupils. The pupils responded by marking their own emotional reaction as depicted on the faces of three cartoon characters on the answer sheet. The choices consisted of a happy face, a sad face, or a neutral face (see Appendix A).

The reliability of this instrument was determined by the computation of the Kuder-Richardson, KR-20, reliability coefficient. The results are explained in Chapter IV. A factor analysis of the twenty-six items was accomplished in order to isolate clusters of items which were closely correlated with each other. In this way, the content validity of the instrument was determined. According to Shaw and Wright (1967, p. 18), "Content validity is evaluated by determining the degree to which the items of the scale sample the content of the attitude domain, i.e., the degree to which the content
of the attitude scale corresponds to the content of the attitude system." The results of the factor analysis will be explained fully in Chapter IV.

In May all pupils in the study were asked to draw pictures of themselves, which were used as a criterion instrument to measure the pupils' attitude toward self as demonstrated by the amount of detail in the drawings as determined by the judges. Three judges rated these drawings for the amount of detail shown in the pictures. Ratings were based on a five-point scale, where five was minimum of detail and one was a large amount of detail. Criteria for rating the drawings are explained in Appendix B.

Reliability of the judges' ratings was obtained by computing a reliability coefficient using analysis of variance on a five percent sample of randomly selected drawings from the population of 264. The remainder of drawings were then divided equally among the three judges. An analysis of covariance was utilized to test for differences between the experimental and control groups at the first and second grade levels. The judges consisted of three faculty members specializing in art at Arizona State University.

In discussing the importance of art in understanding children, Lowenfeld and Brittain (1964, p. 134) assert, "Not only are the drawings and paintings of a child a record of his concepts, feelings, and perceptions of his environment, but these drawings and paintings also provide the sensitively aware adult with the means for a better understanding of the child."
Treatment of the Data

The customary statistical procedure used with groups that are randomly assigned is the analysis of variance, but when intact groups are used, the conventional procedure is the analysis of covariance. The groups in this study were intact groups; therefore, the analysis of covariance was utilized. The usefulness of this procedure for statistical analysis as discussed by Garrett (1965, p. 295) is as follows:

Co-variance analysis is especially useful to experimental psychologists when, for various reasons, it is impossible or quite difficult to equate control and experimental groups at the start: a situation which often obtains in actual experiments. Through co-variance analysis one is able to effect adjustments on final or terminal scores which will allow for differences in some initial variable.

Analysis of covariance incorporates elements of the analysis of variance and regression. Generally, it will provide tests of significance for the comparison groups whose members may have been stratified, and whose members have been measured with regard to one or more variable characteristics by means of pre-tests and the criteria post-tests (Wert, Neidt, and Ahmann, 1954, p. 343).

Part of the data in this experiment have been statistically controlled for the individual differences in reading attitudes and attitudes toward self by using the pre-test scores of the Stanford Achievement Test, Primary I, Form W, and the Otis Quick-Scoring Mental Ability Test, along with the pupils' chronological age on January 1, 1969, as control variates when the null hypotheses were tested.
The post-test scores on the Pictorial Differential Scale and pupils' drawings of themselves became the criterion measures.

Each hypothesis stating a null relationship between the mean criterion scores of the groups was tested at the 0.05 level of significance. Where significant results appeared, the mean scores on the post-treatment Pictorial Differential Scale and pupils' drawings of themselves were adjusted, using the covariate scores and their respective regression coefficients.

The ratings of the three judges for detail in drawings were analyzed, using the analysis of covariance. These were tested at the .05 level of significance.

Two analyses of covariance of the Pictorial Differential Scale were accomplished to ascertain whether there was a difference between first grade children classified as the youngest, middle, or oldest child in the family. There were not sufficient numbers of second grade children who could be classified as either the youngest, middle, or oldest child in the family to yield enough data to warrant analyses of second grade children.

The Pictorial Differential Scale and pupils' drawings of themselves of first and second grade children were correlated, using the Pearson product-moment correlation coefficient to determine the relationship between attitudes toward reading and attitudes toward self. The four coefficients were then compared using the Fisher T transformational test.
A factor analysis of data collected from the administration of the Pictorial Differential Scale was accomplished in order to isolate distinct factors. Factor scores for each person were computed along with total scores. These scores were used to establish differences between experimental and control groups and to determine the content validity of the instrument.

**Summary**

This experimental study was designed to control the sources of variations through the use of experimental design and analysis of covariance. Five first grade teachers and two second grade teachers in the Chandler Elementary School District volunteered to comprise the experimental group, while five first grade classrooms and two second grade classrooms from within the same elementary school district were randomly selected to comprise the control group. The total number of pupils participating in the study consisted of 264 first and second grade pupils.

The techniques of measurements involved the use of the Stanford Achievement Test, Primary I, Form W, (subtests Word Reading, Paragraph Meaning, Vocabulary, and Word Study Skills), and Otis Quick-Scoring Mental Ability Test, Alpha Short Form, as pre-tests; the Pictorial Differential Scale and pupils' drawings of themselves as post-tests. The pre-test measurements were made in the Chandler Elementary School District during the first week of January, 1969. The post-test measurements were made during the last week of May, 1969.
The data gathered by these measuring techniques were treated statistically by methods explained in this chapter. The method of treatment of data discussed in this chapter was used in the presentation of the findings and analysis of data which is included in Chapter IV. A summary of the study, conclusions, and recommendations is presented in Chapter V.
CHAPTER IV

ANALYSIS OF THE DATA

This study conducted in ten first grade and four second grade classrooms in Chandler Elementary School District, Chandler, Arizona, investigated the effects of a specific individualized activity on the attitudes toward reading and attitudes toward self when included in the given first and second grade classes' reading program. In addition, in these same classrooms, this study investigated the effect of the child's ordinal position in the family upon his attitude toward reading.

Method of Analysis

In order to investigate the eight hypotheses set forth in this study, the first and second grade pupils included in the experimental and control group were administered the Pictorial Differential Scale and were asked to draw a picture of themselves. Pre-treatment scores for intelligence, age, and achievement (four scores) were obtained from administration of the Otis Quick-Scoring Mental Ability Test and Stanford Achievement Tests (Word Reading, Paragraph Meaning, Vocabulary, and Word Study Skills). The pupils' drawings of themselves instrument was used as a measure of attitudes toward self, and the Pictorial Differential Scale was used as a measure of attitudes toward reading, as was explained in Chapter III.
The measures of attitudes toward self and attitudes toward reading were analyzed to test for differences between experimental and control groups at each grade level, to test for relationships between attitudes toward self and attitudes toward reading within each grade level and between grade levels, and to isolate underlying factors related to attitudes toward reading.

Attitudes Toward Reading

First and second grade pupils in both experimental and control groups responded to the Pictorial Differential Scale after treatment. The pupils selected one of three facial expressions; happy, no expression, or sad, for each of twenty-six items. The positive attitude was rated a one, the neutral attitude was rated a two, and the negative attitude was rated a three. This rating procedure resulted in a maximum score of seventy-eight and a minimum score of twenty-six. Thus, a completely positive attitude toward reading would be twenty-six, a completely negative attitude would be seventy-eight, and a completely neutral attitude would be fifty-two. Also, less than fifty-two would be more positive than negative, and above fifty-two would be more negative than positive. The computation of the Kuder-Richardson, KR-20, reliability coefficient resulted in a reliability of 0.87 for the first grade and 0.89 for the second grade (Wert, Neidt, and Ahmann, 1954, p. 334). These coefficients indicate a high level of internal consistency for the Pictorial Differential Scale for both grade levels. The first and second grade scores were analyzed, using analysis of covariance in order to
test for differences between the experimental and control groups at each grade level.

**First Grade.** Null hypothesis one states:

There is no significant difference between the attitudes toward reading of first grade pupils exposed to a specific individualized activity and those not experiencing this specific individualized activity.

The analysis of covariance, summarized in Table 3, resulted in an F-ratio of 4.62, which was significant at the 0.05 level. Therefore, null hypothesis one was rejected at the 0.05 level. The adjusted mean of 35.50 for the experimental group, shown in Table 4, was significantly less than the adjusted mean of 37.32 for the control group. Although both groups had positive attitudes toward reading, the attitudes of the experimental group were more positive than those of the control group.

### Table 3

**Pictorial Differential Scores for First Grade Pupils**

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>141.89</td>
<td>4.62*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>178</td>
<td>30.74</td>
<td></td>
</tr>
</tbody>
</table>

* p < 0.05
Table 4
Scores for First Grade on the Pictorial Differential Scale

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Adjusted Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>35.36</td>
<td>35.50</td>
</tr>
<tr>
<td>Control</td>
<td>37.47</td>
<td>37.32</td>
</tr>
</tbody>
</table>

Second Grade. Null hypothesis two states:
There is no significant difference between the attitudes toward reading of second grade pupils exposed to a specific individualized activity and those not experiencing this specific individualized activity.

The analysis of covariance of the second grade, summarized in Table 5, resulted in an F-ratio of 0.56, which was not significant at the 0.05 level. Therefore, null hypothesis two could not be rejected at the 0.05 level of significance. Thus, the adjusted means of 35.15 and 36.18 for the experimental and control groups, shown in Table 6, were considered to be statistically equal.
### Table 5

Pictorial Differential Scores for Second Grade Pupils

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Group</td>
<td>1</td>
<td>15.91</td>
<td>0.56</td>
</tr>
<tr>
<td>Within Group</td>
<td>71</td>
<td>28.21</td>
<td></td>
</tr>
</tbody>
</table>

### Table 6

Scores for Second Grade on the Pictorial Differential Scale

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Adjusted Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>34.71</td>
<td>35.15</td>
</tr>
<tr>
<td>Control</td>
<td>36.68</td>
<td>36.18</td>
</tr>
</tbody>
</table>

Attitudes Toward Self

Three judges rated the first and second grade pupils' drawings of themselves. A five percent sample of the drawings was rated by all three judges. The reliability coefficient computed by the method of analysis of variance was 0.80 (Lindquist, 1953, pp. 359-61). The remainder of the drawings were then divided among the three judges because of the high agreement. An analysis of covariance was utilized
to test for differences between the experimental and control groups at the first and second grade levels.

**First Grade.** Null hypothesis three states:

There is no significant difference between the attitudes toward self of first grade pupils exposed to a specific individualized activity and those not experiencing this specific individualized activity.

The analysis of covariance of first grade attitudes toward self scores, summarized in Table 7, resulted in an F-ratio of 14.14. This F-ratio was significant at the 0.01 level. Therefore, null hypothesis three was rejected at the 0.01 level of significance. The alternative hypothesis that the means are different was accepted. The direction of this difference was shown in Table 8, where the adjusted mean for the experimental group, 2.80, was less than the adjusted mean for the control group, 3.41. In other words, the attitudes toward self of the experimental group were more positive than those of the control group.
Table 7
Attitudes Toward Self Scores for First Grade Pupils

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>15.82</td>
<td>14.14*</td>
</tr>
<tr>
<td>Within Groups</td>
<td>178</td>
<td>1.12</td>
<td></td>
</tr>
</tbody>
</table>

* p < 0.01

Table 8
Scores for First Grade on Attitudes Toward Self

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Adjusted Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>2.84</td>
<td>2.80</td>
</tr>
<tr>
<td>Control</td>
<td>3.37</td>
<td>3.41</td>
</tr>
</tbody>
</table>

Second Grade. Null hypothesis four states:

There is no significant difference between the attitudes toward self of second grade pupils exposed to a specific individualized activity and those not experiencing this specific individualized activity.

The analysis of covariance of second grade attitudes toward self scores, summarized in Table 9, resulted in an F-ratio of 3.06.
Table 9
Attitudes Toward Self Scores for Second Grade Pupils

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>2.52</td>
<td>3.06</td>
</tr>
<tr>
<td>Within Groups</td>
<td>71</td>
<td>.82</td>
<td></td>
</tr>
</tbody>
</table>

This F-ratio was not significant at the 0.05 level. Consequently, null hypothesis four could not be rejected at the 0.05 level of significance. The adjusted means of 3.10 and 3.51 for the experimental and control groups, respectively, were assumed to be statistically equivalent. Qualitatively, this means that the attitudes toward self of second grade pupils were not affected by treatment, as summarized in Table 10.

Table 10
Scores for Second Grade on Attitudes Toward Self

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Adjusted Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>3.10</td>
<td>3.10</td>
</tr>
<tr>
<td>Control</td>
<td>3.51</td>
<td>3.51</td>
</tr>
</tbody>
</table>
Relationship of Ordinal Position in Family and Attitudes Toward Reading of First Grade Pupils

Null hypothesis five states:
There are no significant differences among the attitudes toward reading of first grade pupils in a specific individualized activity, whether they be the oldest child, middle child, or youngest child in the family.

Null hypothesis six states:
There are no significant differences among the attitudes toward reading of first grade pupils not experiencing the individualized activity, whether they be the oldest child, middle child, or youngest child in the family.

Two analyses of covariance of the Pictorial Differential Scale scores were accomplished to ascertain whether there was a difference among first grade children classified as oldest, middle, or youngest child in the family. Both analyses resulted in F-ratios, which were not significant at the 0.05 level as shown in Table 11. Thus, the adjusted mean scores, shown in Table 12, were considered to be statistically equivalent.
Table 11

Pictorial Differential Scale Scores for First Grade Pupils Classified by Ordinal Position of Child in the Family

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>df</th>
<th>MS</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>77.80</td>
<td>3.09</td>
</tr>
<tr>
<td>Within Groups</td>
<td>61</td>
<td>25.15</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>96.33</td>
<td>2.95</td>
</tr>
<tr>
<td>Within Groups</td>
<td>50</td>
<td>32.65</td>
<td></td>
</tr>
</tbody>
</table>

Table 12

Pictorial Differential Scale Scores for First Grade Pupils Classified by Ordinal Position in the Family

<table>
<thead>
<tr>
<th>Group</th>
<th>Youngest Adjusted Mean</th>
<th>Middle Adjusted Mean</th>
<th>Oldest Adjusted Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>33.05</td>
<td>37.29</td>
<td>35.09</td>
</tr>
<tr>
<td>Control</td>
<td>34.71</td>
<td>38.08</td>
<td>39.48</td>
</tr>
</tbody>
</table>
Second Grade. Null hypothesis seven states:

There are no significant differences among the attitudes toward reading of second grade pupils in a specific individualized activity, whether they be the oldest child, middle child, or youngest child in the family.

Null hypothesis eight states:

There are no significant differences among the attitudes toward reading of second grade pupils not experiencing the individualized activity, whether they be the oldest child, middle child, or youngest child in the family.

There were not sufficient numbers of second grade children who could be classified as either youngest, middle, or oldest child in the family to yield enough data to test hypothesis seven and hypothesis eight; therefore, these questions remain unanswered.

Relationship Between Attitudes Toward Self and Attitudes Toward Reading

The analyses of covariance for first and second grade pupils demonstrated differences between experimental and control groups at the first grade level for both attitudes toward self and attitudes toward reading, but there were no differences between experimental and control groups at the second grade level for either attitudes toward self or attitudes toward reading. Accordingly, it might be assumed that there is a relationship between attitudes toward self
and attitudes toward reading. This apparent relationship depends upon adjustment of the attitudes toward self scores and attitudes toward reading scores because the analysis of covariance was used.

When attitudes toward self scores and attitudes toward reading scores were correlated, using Pearson product-moment correlation coefficient, shown in Table 13, the coefficient for first grade control group, 0.342, was significantly different from zero at the 0.01 level. When the three other coefficients were compared to 0.342 using the Fisher's F transformation, they were significantly different from 0.342 at either the 0.05 level or 0.01 level (Wert, Neidt, and Ahmann, 1954, pp. 74-89). Thus, it can be assumed that there is a low correlation between attitudes toward self and attitudes toward reading among first grade pupils not exposed to treatment, but there is no correlation among first grade and second grade pupils exposed to treatment and second grade pupils not exposed to treatment.

Factor Analysis

A factor analysis was accomplished for each of the two grade levels in order to isolate cluster of items from the Pictorial Differential Scale that were closely correlated with each other.

Grade One. The factor analysis of the twenty-six items on the Pictorial Differential Scale uncovered eleven underlying factors, as shown in Table 14. The percentages of variance accounted for by the factors ranges from 4.90 for Factor X to 8.71 for Factor I.
Table 13

Attitude Toward Self and Attitude Toward Reading
Within the First and Second Grade

<table>
<thead>
<tr>
<th>Group</th>
<th>Grade</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>First</td>
<td>Second</td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>-0.023 (n=97)</td>
<td>0.006 (n=42)</td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>0.342* (n=88)</td>
<td>-0.178 (n=37)</td>
<td></td>
</tr>
</tbody>
</table>

* p < 0.05
### Table 14

Factor Loadings for Each Item and Each Factor for First Grade

<table>
<thead>
<tr>
<th>Item</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.09</td>
<td>0.01</td>
<td>0.07</td>
<td>-0.10</td>
<td>0.85</td>
<td>0.10</td>
<td>0.05</td>
<td>-0.15</td>
<td>-0.08</td>
<td>0.02</td>
<td>0.03</td>
</tr>
<tr>
<td>2</td>
<td>0.09</td>
<td>0.73</td>
<td>-0.16</td>
<td>0.03</td>
<td>-0.14</td>
<td>-0.21</td>
<td>0.15</td>
<td>0.10</td>
<td>-0.03</td>
<td>0.00</td>
<td>0.04</td>
</tr>
<tr>
<td>3</td>
<td>0.33</td>
<td>0.24</td>
<td>-0.37</td>
<td>0.24</td>
<td>0.40</td>
<td>-0.10</td>
<td>0.31</td>
<td>0.27</td>
<td>-0.17</td>
<td>-0.13</td>
<td>0.03</td>
</tr>
<tr>
<td>4</td>
<td>-0.01</td>
<td>0.40</td>
<td>-0.03</td>
<td>0.49</td>
<td>0.06</td>
<td>-0.10</td>
<td>-0.35</td>
<td>-0.20</td>
<td>0.02</td>
<td>-0.45</td>
<td>0.19</td>
</tr>
<tr>
<td>5</td>
<td>-0.06</td>
<td>-0.01</td>
<td>0.02</td>
<td>-0.02</td>
<td>-0.00</td>
<td>-0.12</td>
<td>0.04</td>
<td>-0.02</td>
<td>0.87</td>
<td>-0.11</td>
<td>0.07</td>
</tr>
<tr>
<td>6</td>
<td>0.58</td>
<td>0.03</td>
<td>-0.07</td>
<td>-0.07</td>
<td>0.47</td>
<td>-0.32</td>
<td>-0.04</td>
<td>0.14</td>
<td>0.09</td>
<td>-0.25</td>
<td>0.01</td>
</tr>
<tr>
<td>7</td>
<td>0.14</td>
<td>0.05</td>
<td>0.04</td>
<td>0.87</td>
<td>-0.02</td>
<td>0.06</td>
<td>0.08</td>
<td>0.11</td>
<td>-0.22</td>
<td>-0.25</td>
<td>-0.07</td>
</tr>
<tr>
<td>8</td>
<td>0.45</td>
<td>0.13</td>
<td>-0.01</td>
<td>-0.15</td>
<td>0.08</td>
<td>-0.58</td>
<td>0.20</td>
<td>-0.11</td>
<td>-0.22</td>
<td>-0.25</td>
<td>-0.07</td>
</tr>
<tr>
<td>9</td>
<td>0.23</td>
<td>-0.03</td>
<td>-0.74</td>
<td>0.03</td>
<td>-0.08</td>
<td>-0.09</td>
<td>0.10</td>
<td>-0.18</td>
<td>0.03</td>
<td>-0.15</td>
<td>-0.20</td>
</tr>
<tr>
<td>10</td>
<td>0.74</td>
<td>0.07</td>
<td>-0.07</td>
<td>0.20</td>
<td>-0.23</td>
<td>0.07</td>
<td>-0.16</td>
<td>-0.07</td>
<td>-0.15</td>
<td>0.06</td>
<td>-0.04</td>
</tr>
<tr>
<td>11</td>
<td>0.80</td>
<td>-0.16</td>
<td>0.03</td>
<td>0.14</td>
<td>0.24</td>
<td>-0.06</td>
<td>0.02</td>
<td>-0.09</td>
<td>0.10</td>
<td>0.01</td>
<td>0.13</td>
</tr>
<tr>
<td>12</td>
<td>0.30</td>
<td>-0.30</td>
<td>-0.33</td>
<td>0.09</td>
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The small range for percentages indicates that all factors contributed approximately the same to the variance. The small magnitude of the percentages also suggests that there was no predominant or major factor underlying the pupils' attitudes toward reading, but, rather, that there were several minor factors. According to Guilford (1954, p. 500), a factor loading of 0.30 can be used as a cut-off point for inclusion of an item in a factor.

Factor I--There were five items included in Factor I:

3. If I am told that we are not going to have reading today, I would feel

6. If there were no books around at all, I would feel

8. If I don't get to tell about what I just read, I feel

10. If I can't draw a picture about what I read, I feel

11. If I can't get a library book, I feel

Factor II--There were seven items included in Factor II:

2. If I had more time to read, I would feel

4. If I didn't have to read so much I would feel

12. If I don't have a chance to read aloud in my reading group, I feel

16. When I am asked to draw a picture about what I read, I feel

20. When someone tells me about a good book they have read, I feel

25. When someone tells me that learning to read is very important, I feel
26. When someone tells me how they think I read, I feel

**Factor III** -- There were six items included in Factor III:

3. If I am told that we are not going to have reading today, I would feel

9. If there were more books around to read, I would feel

12. If I don't have a chance to read aloud in my reading group, I feel

13. If I read a book, I feel

15. When I see a new book, I feel

16. When I am asked to draw a picture about what I read, I feel

**Factor IV** -- There were three items included in Factor IV:

4. If I didn't have to read so much I would feel

7. If I didn't have to learn to read, I would feel

22. When I can't read to someone, I feel

**Factor V** -- There were six items included in Factor V:

1. If someone gave me a new book, I would feel

3. If I am told that we are not going to have reading today, I would feel

6. If there were no books around at all, I would feel

12. If I don't have a chance to read aloud in my reading group, I feel

18. When I think about reading, I feel

20. When someone tells me about a good book they have read, I feel
Factor VI--There were eight items included in Factor VI:

6. If there were no books around at all, I would feel
8. If I don't get to tell about what I just read, I feel
12. If I don't have a chance to read aloud in my reading group, I feel
17. When I am asked to tell about what I just read, I feel
18. When I think about reading, I feel
20. When someone tells me about a good book they have read, I feel
22. When I can't read to someone, I feel
23. When I can't read a book, I feel

Factor VII--There were four items included in Factor VII:

3. If I am told that we are not going to have reading today, I would feel
4. If I didn't have to read so much, I would feel
14. When I listen to other children read, I feel
15. When I see a new book, I feel

Factor VIII--There were five items included in Factor VIII:

16. When I am asked to draw a picture about what I read, I feel
17. When I am asked to tell about what I just read, I feel
20. When someone tells me about a good book they have read, I feel
21. When I read aloud in my reading group, I feel
Factor IX—There were five items included in Factor IX:

5. If I read to someone, I feel

15. When I see a new book, I feel

16. When I am asked to draw a picture about what I read, I feel

20. When someone tells me about a good book they have read, I feel

25. When someone tells me that learning to read is very important, I feel

Factor X—There were three items included in Factor X:

4. If I didn't have to read so much I would feel

19. When I get a library book, I feel

23. When I can't read a book, I feel

Factor XI—There were two items included in Factor XI:

12. If I don't have a chance to read aloud in my reading group, I feel

24. When I can read my own story, I feel

Grade Two. The factor analysis of the twenty-six items on the Pictorial Differential Scale uncovered nine underlying factors, as shown in Table 15. The percentages of variance accounted for by the factors ranges from 5.37 for Factor I to 7.94 for Factor VII. As for Grade One, the small range of percentages indicates that all factors contributed approximately the same to the variance. In addition, the small magnitude of the percentages also suggests that
Table 15
Factor Loadings for Each Item and Each Factor for Second Grade

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Percentage Variance  5.37  7.61  6.23  7.71  5.99  6.00  7.94  5.81  5.59
there was no predominant or major factor underlying the pupils' attitudes toward reading, but, that there were several minor factors.

**Factor I**—There were six items included in Factor I:

3. If I am told that we are not going to have reading today, I would feel

10. If I can't draw a picture about what I read, I feel

16. When I am asked to draw a picture about what I read, I feel

17. When I am asked to tell about what I just read, I feel

21. When I read aloud in my reading group, I feel

26. When someone tells me how they think I read, I feel

**Factor II**—There were six items included in Factor II:

6. If there were no books around at all, I would feel

8. If I don't get to tell about what I just read, I feel

10. If I can't draw a picture about what I read, I feel

11. If I can't get a library book, I feel

22. When I can't read to someone, I feel

23. When I can't read a book, I feel

**Factor III**—There were four items included in Factor III:

1. If someone gave me a new book, I would feel

18. When I think about reading, I feel

23. When I can't read a book, I feel

24. When I can read my own story, I feel

**Factor IV**—There were seven items included in Factor IV:

2. If I had more time to read, I would feel
3. If I am told that we are not going to have reading today, I would feel
5. If I read to someone, I feel
7. If I didn't have to learn to read, I would feel
17. When I am asked to tell about what I just read, I feel
23. When I can't read a book, I feel
25. When someone tells me that learning to read is very important, I feel

Factor V--There were three items included in Factor V:

9. If there were more books around to read, I would feel
10. If I can't draw a picture about what I read, I feel
14. When I listen to other children read, I feel

Factor VI--There were four items included in Factor VI:

4. If I didn't have to read so much I would feel
7. If I didn't have to learn to read, I would feel
16. When I am asked to draw a picture about what I read, I feel
19. When I get a library book, I feel

Factor VII--There were five items included in Factor VII:

2. If I had more time to read, I would feel
8. If I don't get to tell about what I just read, I feel
13. If I read a book, I feel
15. When I see a new book, I feel
18. When I think about reading, I feel
Factor VIII -- There were three items included in Factor VIII:
12. If I don't have a chance to read aloud in my reading group, I feel
21. When I read aloud in my reading group, I feel
22. When I can't read to someone, I feel

Factor IX -- There were two items included in Factor IX:
20. When someone tells me about a good book they have read, I feel
25. When someone tells me that learning to read is very important, I feel

Summary
In summary, the first grade experimental group had attitudes toward reading which were significantly more positive than the positive attitudes toward reading of the control group. However, there was no significant difference in the positive attitudes toward reading between the second grade experimental and control groups. The attitudes toward self of first grade children in the experimental group were more positive than in the control group, but the attitudes toward self of second grade children in the experimental group were not significantly different from the control group. The attitudes toward reading among first grade children who were classified as oldest, middle, or youngest child in the family were not significantly different, regardless of whether they were in the experimental or control group. There were not sufficient numbers of second grade
children who could be classified as the oldest, middle, or youngest child in the family to yield enough data to test the hypotheses.

A factor analysis was accomplished for each of the two grade levels in order to isolate clusters of items from the Pictorial Differential Scale that were closely correlated with each other. The factor analysis of the first grade children's scores uncovered eleven underlying factors, while the factor analysis of the second grade children's scores uncovered nine underlying factors.
CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The Problem

It was the purpose of this study to ascertain the effect of a specific individualized activity upon attitudes toward reading and attitudes toward self when included in the given first and second grade classes' reading program. An additional purpose of this study was to ascertain the effect of the child's ordinal position in the family upon his attitudes toward reading.

Answers to these questions were found by testing the following hypotheses:

1. There is no significant difference between the attitudes toward reading of first grade pupils exposed to a specific individualized activity and those not experiencing this specific individualized activity.

2. There is no significant difference between the attitudes toward reading of second grade pupils exposed to a specific individualized activity and those not experiencing this specific individualized activity.

3. There is no significant difference between the attitudes toward self of first grade pupils exposed to a specific
individualized activity and those not experiencing this specific individualized activity.

4. There is no significant difference between the attitudes toward self of second grade pupils exposed to a specific individualized activity and those not experiencing this specific individualized activity.

5. There are no significant differences among the attitudes toward reading of first grade pupils in a specific individualized activity, whether they be the oldest child, middle child, or youngest child in the family.

6. There are no significant differences among the attitudes toward reading of first grade pupils not experiencing the individualized activity, whether they be the oldest child, middle child, or youngest child in the family.

7. There are no significant differences among the attitudes toward reading of second grade pupils in a specific individualized activity, whether they be the oldest child, middle child, or youngest child in the family.

8. There are no significant differences among the attitudes toward reading of second grade pupils not experiencing the individualized activity, whether they be the oldest child, middle child, or youngest child in the family.

For each hypothesis the .05 level of significance was selected for rejecting the null hypothesis.
The Sample

The population from which the sample was drawn was composed of first grade and second grade pupils in four schools of the Chandler Public Schools. The teachers of the pupils in the experimental group were volunteers, while the teachers of the pupils in the control group were randomly selected from six available schools comprising the elementary schools located in the district.

There were ninety-seven children in the first grade experimental group, eighty-eight children in the first grade control group, forty-two children in the second grade experimental group, and thirty-seven children in the second grade control for a total N of 264.

The Design

The groups were intact because of the procedural practice of the elementary schools in the Chandler Elementary School District. That is, there was reason to believe that classrooms were established either on the basis of ability or age or both ability and age. Therefore it could not be assumed that the groups were equal. The experimental design can be as a pre-test--post-test, non-equivalent, control group design.

Instruments Used to Collect Data

During the week of January 1, 1969, the Stanford Achievement Test, Primary I, Form W (subtests Word Reading, Paragraph Meaning, Vocabulary, and Word Study Skills), and the Otis Quick-Scoring Mental
Ability Test, Alpha Short Form, were administered to determine individual differences in reading achievement and intelligence for use as control variates. Each pupil's chronological age was computed as of January 1, 1969, for use as a control variate. Instruments used for the post-treatment testing were (1) Pictorial Differential Scale, used to measure pupils' attitudes toward reading, and (2) ratings by three judges in the field of art for an evaluation of attitudes toward self expressed by pupils' drawings of themselves.

Procedures

The two treatment groups established consisted of one experimental group and one control group. The instructional programs in the experimental and control groups were similar with the exception of the individualized activity being included in the experimental program. The experimental group followed the guide lines for eliciting words from the pupils. The control group did not have exposure to the suggested guide lines. The objectives of the experimental group were to accept the words the child gave as being important to him and important enough for him to do "something" with the words. Thus, the child was involved in relevant learning.

Pre-tests for the pupils were administered during the first week of January, 1969. The Pictorial Differential Scale and pupils' drawings of themselves, used as post-tests, were administered during the last week of May, 1969. The five-month period intervening between tests formed the interval of treatment for the experiment.
The Pictorial Differential Scale consisted of twenty-six items which reflected either a positive or negative attitude toward reading. A scale value of 1.0 to 3.0 was assigned to each response, and when the items were checked by the pupil and were treated statistically, the attitude of the pupil toward reading was determined. The pupils' drawings of themselves were rated by three judges in the field of art for the amount of detail in the drawings. A basis for the rating was a five-point scale in which the numeral one denoted a large amount of detail. The three judges rated the same sample of five percent of the pupils' drawings of themselves. A reliability coefficient was computed from this sample in order to determine the agreement among the judges. The remainder of the sample was equally divided among the three judges.

In order to control for pre-treatment differences between the experimental and control groups, data collected from administration of the criterion instruments, attitude toward reading and attitude toward self, were analyzed by analysis of covariance, where covariates were achievement, intelligence, and age. In other words, post-treatment means on attitude toward reading and attitude toward self for the experimental and control groups were adjusted for pre-treatment differences on the basis of pre-treatment measures of achievement, intelligence, and age. A factor analysis of attitudes toward reading was accomplished to ascertain that the items were actually measuring different things.
In addition, correlation coefficients were computed between attitude toward reading and attitude toward self in order to ascertain the relationship between attitudes toward reading and attitudes toward self. Total scores of the first grade experimental group were classified according to ordinal position in the family, that of the oldest child, middle child, and youngest child, to ascertain the relationship, if any, that existed between attitude toward reading and ordinal position in the family. Similarly, total scores of the first grade control group were classified to ascertain if a relationship existed between attitudes toward reading and ordinal position in the family. There were not sufficient numbers of second grade children who could be classified as either the youngest, middle, or oldest child in the family to yield enough data to warrant analyses of second grade children.

Conclusions

The results of tests of null hypotheses were:

The adjusted mean attitude toward reading score of first grade children in the experimental group was significantly greater at the 0.05 level than that of the control group. Both, however, had adjusted means above the median for the scale. The adjusted mean attitude scores of first grade children classified by ordinal position in the family were not significantly different at the 0.05 level. The adjusted mean attitude score of second grade children in the experimental group were positive and not significantly different at the 0.05 level.
The adjusted mean attitude toward self score of first grade children in the experimental group was significantly better than that of first grade children in the control group. The adjusted mean attitude toward self score of second grade children in the experimental group was not significantly different at the 0.05 level from that of second grade children in the control group.

Finally, there was a significant correlation at the 0.01 level between attitudes toward self and attitudes toward reading for children in the first grade control group, but the correlations in the remaining groups were not significantly different from zero at the 0.05 level. The significant correlation was such that the better the attitude toward self, the better the attitude toward reading.

The factor analysis of first grade children's responses resulted in eleven underlying factors, and the factor analysis of second grade children's responses resulted in nine underlying factors. Each factor's contribution to variance was approximately the same in the order of 5 to 9 percent.

Six of the eight null hypotheses can be ascertained from these findings. It can be concluded that

1. First grade children exposed to a specific individualized activity included in the regular reading program do develop attitudes which are even more positive than those of first grade children exposed to the regular reading program only.
2. Second grade children exposed to the individualized activity when included in the regular reading program do not increase the positive attitudes toward reading which they already possess.

3. First grade children exposed to the individualized activity when included in the regular reading program improve their attitudes toward themselves.

4. Second grade children exposed to the individualized activity when included in the regular reading program have attitudes toward themselves which are no different from second grade children exposed to the regular reading program only.

5. First grade children exposed to the individualized activity when included in the regular reading program have the same attitudes toward reading regardless of ordinal position in the family.

6. First grade children exposed to the regular reading program only have the same attitudes toward reading regardless of ordinal position in the family.

7 & 8. There were not sufficient numbers of second grade children who could be classified as either the youngest, middle, or oldest child in the family to yield enough data to warrant analyses of second grade children. Therefore, hypotheses 7 and 8 remain unanswered in this study.

In addition to these specific conclusions, there were two additional statements resulting from factor analyses and correlation
investigations: (1) The Pictorial Differential Scale does measure identifiable factors, and (2) attitudes toward self lose correlations with attitudes toward reading as a consequence of exposure to the individualized activity.

Recommendations

The findings and conclusions have ramifications both for application and additional research.

The likelihood of the individualized activity program affecting changes in attitudes toward reading among second grade children is apparently remote; however, it has been established that effect in first grade children is pronounced. For this reason it is recommended that the individualized activity program be developed and adopted for use among first grade children, at least among those similar to the sample included in this study.

The additional finding that attitudes toward self are improved as a consequence of the individualized activity program also suggests that the individualized activity program be adopted into the first grade reading program.

Because the improvement in attitudes toward self ranges from a direct correlation with attitudes toward reading to no correlation at all, it is recommended that additional research be accomplished in order to ascertain whether the attitudes toward self can become directly correlated with attitudes toward reading.
The failure of the individualized activity to effect changes in second grade children with regard to both attitudes toward self and attitudes toward reading also suggests that additional research with regard to intensity of the individualized activity be accomplished in order to determine whether a greater frequency of the individualized activity could, in fact, effect the desired changes.

The results of this study show the specific individualized activity to be a beneficial addition to the reading program in first grade and should be adopted as part of the program. It is also recommended that the specific individualized activity be varied with regard to frequency of activity so as to determine if it can also be beneficial to the second grade.
APPENDIX A

PICTORIAL DIFFERENTIAL SCALE

Directions:
I am going to give you some papers which have faces on them. When you get the papers do not write on them or open them until I tell you to do so.

Look at the front page, where it says, "Name." Write your first and last name there.

Now listen carefully to what I tell you. I am going to read some sentences to you. You are to put an "X" on the face which tells how you feel about each sentence that I read. I will read each sentence 2 times.

Look at the row of faces with the "1" beside it.
Mark the face that shows that you are happy. (Yes, it is the first face).

Next, look at the row of faces with the "2" beside it.
Mark the face that shows that you are unhappy (or sad). (Yes, it is the second face).

Next, look at the row of faces with the "3" beside it.
Mark the face that shows that you don't care. (Yes, it is the third face).

Now turn to the page with the letter "A" under the word "name."
Put your finger on the row with the "1" beside it.
Listen carefully while I read the sentences, and you mark the face that tells how what I say makes you feel. Remember, I will read each sentence twice.

1. If someone gave me a new book, I would feel
2. If I had more time to read, I would feel
3. If I am told that we are not going to have reading today, I would feel
4. If I didn't have to read so much, I would feel
5. If I read to someone, I feel

1. If there were no books around at all, I would feel
2. If I didn't have to learn to read, I would feel
3. If I don't get to tell about what I just read, I feel
4. If there were more books around to read, I would feel
5. If I can't draw a picture about what I read, I feel

1. If I can't get a library book, I feel
2. If I don't have a chance to read aloud in my reading group, I feel
3. If I read a book, I feel
4. When I listen to other children read, I feel
5. When I see a new book, I feel

1. When I am asked to draw a picture about what I read, I feel
2. When I am asked to tell about what I just read, I feel
3. When I think about reading, I feel
4. When I get a library book, I feel
5. When someone tells me about a good book they have read, I feel

1. When I read aloud in my reading group, I feel
2. When I can't read to someone, I feel
3. When I can't read a book, I feel
4. When I can read my very own story, I feel
5. When someone tells me that learning to read is very important, I feel

1. When someone tells me how they think I read, I feel
APPENDIX B

CRITERIA FOR RATING CHILDREN'S DRAWINGS

The basis for rating the pupils' drawings of themselves on the amount of detail represented the following judgments:

1. Detailed people plus environment
2. Detailed people and/or environment
3. Medium (recognition-normative 6-7 year old behavior)
4. Slight people schema and/or environment
5. Weak people schema and/or environment scattered

The criteria were based on judgments of art educators proficient in the field of judging children's art works:

(1) Miss Virginia Brouch, Instructor, Arizona State University,
(2) Jimmie Lee Cromer, Instructor, Arizona State University, and
(3) Mrs. Anne P. Taylor, Faculty Associate, Arizona State University.

All three of the judges are near completion of the Ph.D. program in art education.
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