

THE EFFECT OF CERTAIN FACTORS IN THE HOME ENVIRONMENT  
UPON THE READING ACHIEVEMENT OF FIRST GRADE CHILDREN

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## TABLE OF CONTENTS

Chapter I	
Introduction	
Statement of the Problem	1
Background of the Problem	3
Hypothesis	6
Chapter II	
Review of Related Literature	9
Chapter III	
Procedures	33
Selection of Subjects	33
Evaluation of Instrument	34
Chapter IV	
Analysis of Data	37
Test of Hypotheses	38
Hypothesis 1	38
Hypothesis 2	42
Hypothesis 3	47
Hypothesis 4	48
Hypothesis 5	49
Hypothesis 6	56
Hypothesis 7	57
Hypothesis 8	58
Hypothesis 9	59
Hypothesis 10	60
Hypothesis 11	61
Chapter V	
Summary, Conclusions, and Recommendations	63
Summary	63
Conclusions	65
Recommendations	66
Appendix	70
Bibliography	73

## Chapter I

### Introduction

The importance of the home environment in learning, specifically learning to read, has been well established. Drews and Tehan (1957) contended that there are two contradictory viewpoints regarding the type of familial atmosphere which is most conducive to achievement motivation, namely the free permissive type of environment and the more authoritarian or restrictive type of home setting.

A source of confusion in this issue has been the tendency to use such words as "democratic" to stand for the "good" parent, and "authoritarian" to stand for the "bad" parent, while the actual operational definitions of these terms vary from investigator to investigator (Drews and Tehan, 1957).

Baldwin (1949) utilized the Fels Parent Behavior Rating Scales to describe the home environment of a group of children. The analysis of the scale showed the fundamental importance of three syndromes of variables, leveled warmth, democracy, and indulgence.

The results of the analysis showed that democracy was by far the most important of the three factors in terms of accounting for the variability of the various subgroup means. Those variables which showed significant effects of democracy in the home seemed to have reflected three sorts of consequences of democracy. First, children in the Fels population who were raised democratically seemed

to have rated higher on behavior reflecting an active, socially outgoing type of activity, the hostile and domineering kinds of activity as well as the friendly kinds. Second, children from democratic homes were in a favored position in the groups to which they belonged. Their aggression and bossing was on the whole successful, and they were not likely to have inferior status within groups. Third, children from democratic homes were generally rated high on activities demanding intellectual curiosity, originality and constructiveness.

Coleman's (1966) landmark Equal Opportunity Survey suggested that family background is the single most important factor in determining pupil achievement. Studies conducted by Dave (1963); Weiss (1969); Keeves (1970); and Hanson (1975) to link measures of home environment to school achievement for typical children at various age/grade levels, support Coleman's position.

Educational researchers have found that children's ability to use receptive and expressive language affects their learning to read (Anselmo, 1978). For example, Fox (1976) cited studies in which a positive relationship was found between oral language and reading; she concluded that "oral language ability may be considered a basis for developing reading skills." However, Bellugi (1971) found that it turns out that most language learning takes place well before children enter kindergarten.

Given this situation, if educators--administrators and teachers alike--want to be more successful in helping children learn

to read, they must begin to work with the people with whom children interact while learning to talk. These people can be found in two places: At home, i.e., parents and other caregivers who interact in a more or less individualized manner with children during most of the typical day; and in group programs, e.g., teachers and peers who interact with children in preschool and day centers (Anselmo, 1978).

#### Statement of the Problem

The purpose of this investigation was to determine the effects of certain factors in the home environment upon the reading achievement of first-grade children. Specifically, the purpose of this investigation was to determine the effect of such factors as family income, family size, home conditions, education of parents or guardians, parental attitudes toward children and their education, social acceptance of parents and children, and attitudes toward religion upon the reading achievement of first-grade children.

For the purpose of this investigation, reading achievement meant the amount of improvement made in the process of interpreting written or printed verbal symbols from one testing period to another (Bush and Heubner, 1970).

#### Background of the Problem

Havinghurst (1965) reported that there is much evidence to point to the fact that the greatest task facing education today is the attempt to cope with the integration of schools, both in urban and rural areas. So swift has been the change of educational settings, that trying to keep abreast of the change will, in time, become one of education's major endeavors. Trying to predict, much less prepare

for, near cataclysmic changes in the population and ethnic backgrounds of school children and youth will require more and more of the adjustment efforts of the education profession.

Every effort possible must be designed to aid the education profession in gaining intimate knowledge and understanding of the individual youth actions and reactions of the American children and youth within his/her particular school setting. This reciprocal relationship constitutes the frame of reference around which the information for this investigation was organized. Urbanization, the rate of social change, automation, conservation, the formation of the inner cities are current social forces influencing today's schools and shaping proposals for the future (Havinghurst, 1965). Educators, anthropologists, and sociologists seem to feel that the greatest challenge to education is the ability of its practitioners to keep pace with the rapidity of change in this physical, social, emotional and intellectual environment.

At no time in the history of the United States has it been more necessary that the average citizen be able to read (Wann, 1967). Our time is one in which changes of all kinds occur so rapidly that only the most backward nonreader can enjoy the security and comfort of thinking they know what makes the world go around. Technical knowledge has increased man's leisure time and brought the world closer together. Although further advanced than ever, knowledge of man, the earth he inhabits, and the space in which it exists, the earth will become outmoded at a more rapid pace than ever before.

In such a world there is no question of the need for increasing factual information and reading skills. But there is no question either of the great need for agility and maturity in coping with new ideas. Children need not only facts; they must learn to think, and must be prepared to grow and learn continuously if they are to cope successfully with the coming eras of expanding research and knowledge (Wann, 1967).

Gray (1966) contended that reading, like walking, is a developmental task. Many educators would like to see it included in a total program of language growth that includes perceptual skills, verbal accuracy, vocabulary expansion, meaningful listening, and other language abilities. Aware that language patterns are firmly implanted by the age of six, communities seem to be turning to preschool programs for help with the reading and language problems that exist in our society.

There are a number of reasons for the need for increased efficiency in reading skills. Efficiency will save time and allow the reader more time for other activities that are included in the school curriculum. Then too, efficiency in reading will enable each student to attain a higher degree of skill in other academic disciplines. In addition, with the best teaching methods and techniques being employed, it is likely that children will develop more positive attitudes toward reading and reading skills (Gray, 1966).

This investigation was significant in that it attempted to identify such factors as family income, family size, home conditions, education of parents or guardians, parental attitudes toward



children and their education, social acceptance of parents and children, and attitudes toward religion, and to determine the relationships with the reading achievement of first-grade children. This investigation was of further significance in that it suggested ways and means of identifying certain factors that tend to impede reading achievement, and also suggested methods and techniques for aiding teachers in helping young children to overcome environmental factors that tend to impede their reading achievement.

### Hypotheses

This investigation compared the reading achievement of two groups of first-grade children with certain environmental factors. The investigation further attempted to determine the relationship of certain environmental factors with the reading achievement of these two groups of first-grade children. The environmental factors included family income, family size, home conditions, education of parents or guardians, parental attitudes toward children and their education, social acceptance of parents and children, and attitudes toward religion.

For the purpose of this investigation, the following hypotheses were tested:

1. There will be no significant correlation between the total reading achievement of two groups of first-grade children and certain environmental factors.
2. There will no significant correlation between the Word Analysis achievement of two groups of first-grade children and certain environmental factors.

3. There will be no significant correlation between the Vocabulary achievement of two groups of first-grade children and certain environmental factors.
4. There will be no significant correlation between the Important Details achievement of two groups of first-grade children and certain environmental factors.
5. There will be no significant correlation between the total reading achievement of two groups of first-grade children and the financial income of their families.
6. There will be no significant correlation between the reading achievement of two groups of first-grade children and the size of their families.
7. There will be no significant correlation between the reading achievement of two groups of first-grade children and the parental attitudes toward children and their education.
8. There will be no significant correlation between the total reading achievement of two groups of first-grade children and the social acceptance of the parents and the children.
9. There will be no significant correlation between the total reading achievement of two groups of first-grade children and the home conditions of the parents and children.
10. There will be no significant correlation between the reading achievement of two groups of first-grade children

and the attitude of parents toward religion.

11. There will be no significant correlation between the reading achievement of two groups of first-grade children and the education of their parents or guardians.

The organization of the remainder of this investigation is as follows: (1) Chapter 2 presents a survey of the related literature; (2) Chapter 3 contains a detailed presentation of the research procedures utilized in this investigation; (3) Chapter 4 contains an analysis of the data obtained from the administration of the evaluation of instruments and a presentation of the findings; (4) Chapter 5 presents the summary, conclusions, and recommendations for the investigation; and (5) Chapter 6 contains references.

## Chapter 2

### Review of Related Literature

This section of the investigation contains a review of the related literature concerned with the effects of certain environmental factors upon the reading achievement of children. The following areas were identified for the purpose of reviewing the literature: (1) studies related to reading achievement, (2) studies related to reading achievement and financial status, (3) studies related to reading achievement and family size, (4) studies related to reading achievement and parental attitudes toward children and their education, (5) studies related to reading achievement and social acceptance of parents and their children, (6) studies related to reading achievement and parental attitudes toward religion, (7) studies related to reading achievement and the home conditions of the parents and children, and (8) studies related to reading achievement and education of parents or guardians.

Della-Piana (1968) reported that the role of the parent in facilitating school learning and achievement is slowly receiving increased attention throughout the world as is evidenced in a UNESCO sponsored survey. In the realm of parent-teacher cooperation only five of thirty countries reporting had more than moderate home-school contacts. In at least forty U.S. cities there are full-time supervisors, consultants, or specialists under the Department of Education concerned with education for family life and parent education.

Harding (1964) reported that the increase in programs of reading and achievement in America for influencing family life through parent education or providing compensatory school-community programs is evidenced by the torrent of action programs stimulated by the Economic Opportunity Act of 1964 and the trickle of research programs on their effects on achievement. Hunt (1964) has outlined the psychological bases for using preschool enrichment as an antidote for cultural deprivation. One of the boldest new projects currently in the planning stage is the development of a new town under the auspices of Arizona State University, several school districts, and a Goodyear Tire and Rubber Company subsidiary (Education Recaps, 1966). Some of the guiding principles on which there is apparent agreement are: three or four years of age is the proper time to begin school, early schooling might be in small structures about the size of a one-bedroom house, and the parents' knowledgeable participation can have a major effect on the enjoyment value of the school experience. These trends will put increased pressure on researchers to answer practical questions of how parents can effectively influence school achievement of their children and how schools and communities can effectively compensate for or prevent culturally disadvantaged backgrounds of children (Della-Piana, 1968).

While there are innumerable parent education programs, there are few directly focused on helping parents improve reading achievement of their children and even fewer with built-in evaluation of treatment effects. Brzeinski (1964) reported on a study, which

was without much controlled evaluation which was nevertheless very promising. This study, Denver's Beginning Reading Project, involving parents in preschool readiness and achievement programs, yielded significant results according to reports of a continuing longitudinal study of parents and preschoolers who participated in TV instruction (about 150) and a control group who did not (about 150). Experimental group children showed significantly greater gains than controls in letter names and sounds, sight-word recognition, and ability to identify words by using the beginning sound and context. Parents participated in assisting children using a study guide *Preparing Your Child for Reading* (Houghton-Mifflin Co., 1963). The program ran for 16 consecutive Tuesdays at 8:30 p.m. Parents generally found it satisfying to work with their children in home situations. The final report on the effects of the program plus accelerated reading instructions over a six-year period (grades K-5) indicated that: (a) children receiving kindergarten reading training followed by five years accelerated reading instruction were significantly ahead of three other groups studied; (b) children receiving kindergarten reading training and then moving to regular class instruction in grade one and beyond were ahead of regular students not receiving kindergarten reading instruction for a period of time, but by the end of grade three the measurable advantages of early reading instruction had faded for those not in an accelerated reading program.

Almy (1949) investigated children's experiences prior to first-grade by interviewing both the children and the children's

parents. Children's achievement in reading was evaluated by use of teacher's ratings, Gates Primary Reading Tests, and Kuhlman-Anderson Test of Intelligence. One hundred and six pupils attending half-day sessions comprised the population. She reported that a significant positive relationship existed between success in beginning reading and the pupil's responses to opportunity for reading prior to first grade, and that interest in one kind of reading goes with interest in another kind of reading. A significant relationship was not found between beginning reading success and either mental age or occupational status of the parents.

That girls are superior to boys in reading achievement in elementary school is generally accepted (Keyser, 1952). This generalization is substantiated in an investigation by Carroll (1948), who found significant differences in favor of girls for reading achievement and visual discrimination. Ilg and Ames reported also that girls as a group appear to be advanced over boys as a group at every stage of reading. A trend toward more equal achievement of girls and boys is noted in several other studies (Reyser, 1952).

Fox (1976) has indicated that there appears to be little in the literature to statistically verify that oral language is the basis for the development of reading skills; it simply seems to make sense that oral language and reading are but two kinds of symbolism. Oral language is an agreed-upon sound system which codes and identifies objects and events in our environment. The written system of language is merely a symbolization of speech.

Reading may be performed orally; hence, it is adaptable to the oral form; in addition, development in oral language occurs prior to reading achievement. Therefore, it would appear that oral language should influence reading success.

Loban (1963), Bougere (1968), and Brittain (1970) found a relationship between oral language and reading achievement. Each attempted to measure various aspects of oral language performance and compare their findings to reading achievement. Although all did report some correlation, it was not to the extent that one would wish. For example, Bougere (1968) looked at aspects of oral language to determine their predictive power on children's reading achievement at the end of the first grade. While she found that none of her measures of oral language maturity could substantially predict reading achievement, she did discern that the Metropolitan Reading Readiness Test's predictive power could be increased by adding oral language factors of vocabulary range and of syntactic maturity.

Brittain (1970) conducted a more restricted investigation of the relationship between reading success and language control. Using a revision of Berko's test of morphology (studying the use of inflectional endings) she compared these scores with reading achievement on a standardized test. A positive relationship was reported for both first- and second-grade subjects.

Comparing the high and low extremes of language proficiency in a longitudinal study beginning with kindergarten children, Loban (1963) reported a significant difference in favor of the high



language ability group in all six grade levels studied. The two groups were selected on the basis of a vocabulary test and teacher ratings of language ability. He concluded that those children who rank high in general language ability, rank high in reading achievement. And those who rank low in general language ability, rank low in reading achievement.

These studies support, although not directly, the idea that greater linguistic sophistication facilitates reading achievement (Fox 1976). Recent investigations of the reading process applying psycholinguistic analysis indicate that children learn to read in ways similar to those in which they acquire oral language. Goodman (1970) described reading as a "psycholinguistic guessing game" in which the reader predicts which words will occur on the basis of cues provided in the text and his or her own knowledge about the language system. With this interrelationship in mind, oral language ability may be considered a basis for developing reading skills (Fox 1976).

Shea and Hanes (1977) investigated the relationship between measures of home environment and school achievement. The investigators hypothesized that home environment variables--as measured by the Home Environment Review, administered upon entrance to kindergarten--account for the variance in children's reading achievement at the end of kindergarten, first, and second grade. One hundred fifty-three children, representing a longitudinal traced sample from two communities in the Florida Parent Educational Follow Through Model, were involved in the study. The first community, located in the rural

northwestern United States, included a sample of 51 children, most of whom were white. The second sample was taken from a southwestern U.S. city and included 102 children, most of whom were black. Each child's parents were interviewed in their home by a trained paraprofessional who observed the home environment. The interviewer rated the home on nine dimensions: expectations for the child's schooling; awareness of the child's development; rewards for intellectual attainment; press for language development; availability and use of supplies for language development; outside learning opportunities; materials for learning in the home; reading press, and trust in school. Each child completed a standardized achievement test at the end of kindergarten, first, and second grade. Stepwise multiple regression analysis revealed that the home environment variables accounted for a significant portion of the variance in reading achievement at all three grade levels.

Reynolds (1974) conducted a comparative evaluation of the effects of an open classroom instructional program and a traditional instructional program. Approximately 250 students in grades 1-6 of two elementary schools, one utilizing an open classroom instructional program and the other a traditional instructional program, comprised the sample in this first year of a planned 2 year study. The study focused on the assessment of the comparative effects of the two instructional programs on three student variables: (1) self concept, (2) attitude toward school, and (3) academic achievement. Pretests on these were administered in May and June of 1973. Analysis of covariance was used to analyze this data. In addition, data related to

teacher attitudes and classroom environment and practices was collected and analyzed. The first-year results indicated that there were no statistically significant differences between the two programs in relation to the three major student variables, although questionnaires administered to the parents and pupils of the open classroom school indicated an improved attitude toward school.

Schroder (1971) and Palmer (1967) investigated the relationship between academic achievement of children and the financial status or the social status of the family. Although other home environmental factors were included in both of these studies, it is important to note that the financial/social status factor was of major significance.

Schroder (1971) collected data from 518 students and their mothers. Interviews with mothers covered topics such as: family background and parental expectations and aspirations; parental contact with the school; use of communication media; child management and personal qualities important to the child; family income; and interviewer's rating of type and quality of the family's dwelling. Data collected from the pupils included: ability and achievement test scores; an index ranking the pupil as an under-, average-, or over-achiever; teacher rating questionnaires; and children's questionnaire. Although study results identified a number of home background factors relating to achievement status and socio-economic background, the author felt that future studies ought to explore the influence of peer groups, the "caretaker" versus "learning environment" of different

homes, and the ways in which parental occupations and educational aspirations and expectations are communicated to the child. Palmer (1967) stated:

When the quality of the family's influence on the child's academic performance is identified and evaluated, educators can more fully understand and aid the child in the classroom.

Palmer's (1967) survey of research oriented literature probed the relationship between home environment and achievement. Social class, power-structure, child-rearing practices, religious affiliation, and parental attitude in the home were identified as environmental factors that could be positive or negative influences upon academic progress. Among the findings in this investigation were the indications that high academic motivation and achievement were prevalent among children from: (1) small, middle-class status, Protestant families; (2) families in which the parents are college educated; (3) families in which the parents are moderate in power in child rearing. Since these studies indicated that achievement motivation is learned in the home, the implied need is for educators to foster special programs for children with different value systems and encourage active participation of the parent in school.

Edgerly (1971) reported on a parent counseling system utilized in a junior high school. The junior high school selected for this investigation was located in a residential community of about 8,000 persons located 30 miles south of Boston, Massachusetts. The school had a population of about 2,440 children. The socio-economic level was mixed and ranged from working class to upper-middle class,

with a substantial number of professional and geographically mobile executive level residents.

The school system was a tri-level institution with Primary Grades K-6, Junior High Grades 7 and 8 and High School Grades 9 through 12. The three elementary schools were placed according to the concept of "neighborhood schools" but in reality, were in three different socio-economic locales. Although different problems and attitudes existed in the different classes, the most important variable involved in the counseling was the amount of genuine concern the parents had for their children.

Families of seventh grade students were chosen for counseling on the basis of the underachiever's marks, I.Q., and achievement test scores. The first requirement was that grades from the previous year averaged "C"; the second requirement that the child's Lorge-Thorndike I.Q. score be between 105 and 120; and the third that the reading and math achievement test scores for each child be between the 50th and 70th percentiles.

A pool of students were randomly selected for the experimental (counseling) group. Fifteen (15) cases were randomly selected from this pool of students. Four pairs of parents were selected from this pool for the experimental group and four pairs of parents were randomly selected for the control group. All of the parents met through the course of at least fifteen sessions.

At the first session, all the parents were interviewed about their families. Information about their children, especially about the target child, was elicited. Following this, the parents were then

asked to rate their child in three areas of behavior: (1) child's interaction, (2) child's school performance, and (3) child's communication. The parents assessed their child's behavior in the above areas on the basis of a seven-point scale ranging from the very poor (1) to excellent (7). The rating procedure was repeated at the end of the counseling experience (15 sessions) to determine any changes in the views of parents or their children.

A statistical comparison of the academic grades of both the experimental and control groups was made at the end of the third marking period in April 1971 and again at the close of the school year in June. In each group the rate of improvement was determined by a comparison with the end of the previous school year grades. In April the grades of students whose parents were counseled (the experimental group) showed more improvement than those of students whose parents were not counseled (control group). When a t-test was applied to these differences the  $t$  of 1.53 approached but did not quite reach significance at the .05 level.

Results of the analysis of the data showed that 75% of both mothers and fathers felt more positive about their children after counseling took place. The most interesting change in the Parents' Rating Scale was the smaller differences between mothers' and fathers' ratings at the end of the counseling experience. Before counseling, the mean difference was 10.2. After seven months of counseling, this mean dropped to a difference of 5.37 between each of the parents.

These results, contended Edgerly (1971), are particularly meaningful in the context of current psychological views that

state that children (and adults) require a trustworthy and non-threatening environment in order to function productively. Edgerly (1971) stated:

If a child is to function well in school, he must feel that his (total) environment is secure, rewarding, and without severe stress or threats. He cannot change his behavior until there is a prior change in his environment. This study found that by recognizing and rewarding their child's abilities and worth as human beings, parents can effectively help their child to develop and perform well in his appropriate role as a student.

It is apparent that parent counseling is a successful method of helping students in the acquisition of academic and social skills. School officials would be well advised to develop a full time program to be included in its services to the community. In our study the eight hours per set of parents produced an increase in grades in 75% of the children. Counselors are fortunate if they perceive changes in 30% of their students. School administrators should seriously consider where it is best to spend money in these times of increasing demands for more economy in school budgets.

Home and family background are dominant in determining achievement in reading, wrote Thorndike (1973) in summarizing an extensive international evaluation of reading comprehension. In the United States, the 1974 National Assessment of Educational Progress reported that differences in reading performances were related consistently to level of parents' education, community, religion, race, and sex. Neither these studies nor those summarized in 1972 by Jencks should be construed as absolving schools of influence or responsibility. However, they do suggest that more factors are at work than unsuccessful experiments with open education, as some critics have alleged (Early, 1976).

Koutrelakos (1971) investigated the perceived parental attitudes and demographic variables as related to maladjustment. As predicted the perception of parents as encouraging independence was negatively associated with maladjustment and better predicted maladjustment in the students than did the seven demographic variables employed. Factor analysis identified four (4) parental attitudinal patterns; mother's trust in subject's judgment, father's trust in subject's judgment, parental encouragement of independent living, and parental encouragement of independent effort. Although the joint father and mother attitude encouraging independent living was significant, it was the father's trust in the student's judgment which was found to be more important to the student's adjustment.

Unruh (1966) contended that the parents can help their children succeed in school. She indicated that poor parent-teacher relations stress the need for the parent and teacher to examine their roles in trying to find better ways of helping children succeed in school.

In learning how to help children learn, both parents and teachers must recognize the necessity of providing a warm, supportive climate at home as well as in school. From the very beginning of his efforts to learn, the child needs to experience the thrill of success, no matter how slight. He needs to perceive himself as personally important and capable of mastering new skills and new concepts.

Certain attitudes and behaviors of adults, however, can stifle a child's urge to learn. Sarcasm, belittlement, suspicion,



and constant reprimands make children nervous and anxious. The teacher or parent who discourages questions, who makes the child feel insecure about his ability and afraid to hazard opinions, is likely to kill the urge to learn.

The indifferent adult who brushes aside a child's plea for attention and help or who is too easily satisfied with a child's response to questions is failing to inspire him to explore, to reason, and to develop judgment. Equally damaging is the rigid parent or teacher who sees only one right way and who fails to take into account individual styles of learning and the differing needs of children (Unruh, 1966).

Bilby (1973) investigated parental variables as predictors of student self-conceptions of ability. Parental control of children's academic performance was discussed in terms of two perspectives in social psychology; behaviorial modification and symbolic interactionism. A synthesis of the two approaches provided a multiple view of self-conceptual behavior, in which self-concept was considered a social psychological concept subject to variation across time and situations. This investigation dealt with fifth and sixth-graders' verbalizations about their abilities and competencies associated with their roles as students. Self report categories consisted of nine variables derived from the behaviorial modification and symbolic interactional treatments of parental control. Child-parent pairs (N = 20) from four communities served as subjects. Children's self-conceptualizations were assessed using the Michigan State Self Concept of Abilities Scale; parental behavior was assessed directly

through interviews. Analysis of the results indicated further empirical support for the notion that parent's evaluations are crucial in sharing children's self-conceptualizing behaviors with regard to their competence as students. The magnitude of all measured associations, however, was moderate to weak. Discussion of results concerned strategies to increase parental effectiveness in positively affecting children's academic attitudes and behavior.

Many students of child personality development tend to play down the importance of the early school years (Stenner 1976). Psychoanalytically oriented theorists view the preschool years (birth to age 5) as the crucial developmental years; others emphasize the stormy years of adolescence. In general, theorists agree that the early school years (ages 5 to 11), often called the "latency period," are the quiet years.

Children (ages 5-8) with positive self-concepts are confident of their ability to meet everyday problems and demands and are at ease in their relationships with other people. They compare themselves favorably with their peers and feel that authority figures are supportive and interested in them as individuals. These children tend to be comparatively independent and reliable and are relatively free from anxiety, nervousness, excessive worry, tiredness, and loneliness. They are seldom considered behavior problems. As for their schoolwork, these children tend to be above average in reading and mathematics. They generally attain higher scores on standardized achievement tests than would be predicted from ability tests. They view school as a happy, worthwhile place to be (Stenner 1976).

The results of the analysis of data obtained by Stenner (1976), revealed that 80% of the children believed that they were important persons to their families, leaving one child in five who did not believe so. Nearly 50% of the first-graders believed that their parents expected too much of them or wanted too much of them. At third grade this percentage had dropped to about 35. A higher percentage of girls than boys reported getting upset easily at home.

Self-security is related to nervousness, tiredness, loneliness, worries, and fears. Between one-third and one-half of the children evidenced more problems in this area than was expected. The results suggested that the early school years are far from being free of anxiety and worry.

More than 90% of the children studied answered positively to questions about whether they enjoyed learning. Nearly 95% of the children reported liking to have their parents commend them for their work (Stenner 1976).

According to Rogers, Bailey and Mettetal (1977), the self-concept includes perceptions of ourselves and of how others see us, along with more perfected images of ourselves which serve as standards of evaluating the self. Inconsistencies in adult self-perceptions are thought to be associated with personal maladjustment.

While there is a plethora of studies on male/female self-concept differences, surprisingly little research has been conducted on sex differences in self-concept congruency. Bailey (1974) conducted an earlier study which examined the congruency between the

self and ideal self, the sexes were found to be remarkably similar on this measure.

Bailey and Mettetal (1977) utilized 22 males and 22 females, matched on intelligence as subjects for their investigation. Each of these subjects completed a Self-Rating Scale of Intelligence, Mehrabian's Achievement Tendency Scales, The Otis Quick-Scoring Test of Mental Ability, and provided information regarding their grade-point averages. The Self-Rating Scale of Intelligence provided the subjects with the opportunity to estimate their intelligence and their parents' perceptions of their intelligence. The purpose of the investigation was to determine if sex differences exist in the congruency between the self-rating of intelligence and expected parental ratings, actual intelligence, achievement motivation, and achievement performance. The results revealed that while the males' self-rating of intelligence correlated with these measures, the females' self-rating did not. The results were discussed in terms of of a possible sex difference in the meaning of the concept of intelligence.

The behavior of the mother toward the child provides the stimulus for his emotional adjustment during adolescence (Nikelly 1967). Nikelly (1967) conducted an investigation which explored the relationship between poor emotional adjustment in the college students necessitating psychiatric treatment and the manner in which these patients view their mothers as having treated them, compared with ratings of mothers in a nonpsychiatric population.

The results of the investigation revealed that students in need of psychiatric consultation rated their mothers, for not letting

them make their own decisions and for favoring them over other family members, significantly higher than the nonpsychiatric group. However, the author contended, one must bear in mind that perceiving the mother as favoring and indulgent may not be an accurate observation but may simply reflect a desire by the patient to be pampered.

The control group rated their mothers as not expecting them to repay what they received, whereas the psychiatric group rated their mothers as more demanding, selfish, and expecting of repayment for what they provided for their children. It can be inferred that the psychiatric group felt rejected and devoid of interest from their mothers, whereas the mothers of the controls were seen as unselfish and marked by care for the needs of their children. The psychiatric group perceived their mothers as having exhibited less personal concern for and tolerance toward their personal faults. The intolerance of mothers of the psychiatric group can alienate a child and cause him to seek assistance in resolving his personal difficulties, as did the psychiatric groups of this study, rather than relying on his inner resources (Nikelly 1967).

Buck (1979) investigated factors affecting the socio-economically disadvantaged child in an educational setting. This investigation sought to study the socio-economically disadvantaged child and his levels of achievement as related to the control of positive and negative reinforcements, personality constructs, classroom behavior, and parental attitudes about classroom behavior and school achievement. The sample consisted of 50 matched pairs of eighth grade black boys and girls.

The findings obtained from this investigation tended to support previous research--which suggested that a belief in self-responsibility is a motivational influence on achievement. Additional support was also found for the construct-validity of the internal-external control variable as a generalized personality construct. Significant sex differences were found as well. Few significant differences were found among the mothers of under-achievers and adequate achievers in their responses to the personal interview.

Williams (1971) in investigating educational aspirations, was concerned with an explanation of the way in which social origins affect the desire for post-secondary education. The author constructed and quantified a model incorporating influences due to: (1) three reference groups (parents, teachers, peers); (2) the student's academic achievements; (3) his intellectual ability; and (4) his socio-economic background. The model measured three variables at two points in time, to provide evidence regarding their relative stability over time. The model was quantified separately by sex so as to specify sex differences in the process by which educational aspirations are generated. Conclusions included: (1) the effects of social origins on educational aspirations are indirect through the expectations/aspirations of parents, teachers, and peers (in that order of importance); (2) these effects are more potent and more pervasive for girls; and (3) the role played by academic performance for girls in this process reflected a sex differential in the value placed on higher education.

Levin (1970) conducted an investigation which was designed to estimate a model of the schools reflecting what is known of the educational process. The model proposed represented the variables of achievement, students' sense of efficiency motivation, and parents' attitudes as completely interdependent. Thus, the latter three variables are of interest because not only do they affect achievement levels but they themselves are affected by achievement. The data used to estimate this system were derived from the Equal Opportunity Survey on which the Coleman Report was based. The sample was composed of sixth grade students in a large eastern city who had attended only the school in which they were enrolled at the time of the survey, 1965-66. Teacher characteristics were based upon averages for all the teachers in each school who were teaching in grades three to five.

Since both explanatory variables and those which were going to be explained were interdependent, their values were solved simultaneously in order to obtain unbiased estimates of their effects. The findings indicated that educational programs focusing on student attitudes may be able to compensate for "disadvantages" in socioeconomic backgrounds (Levin 1970).

Shaw (1961), in discussing the apparent conflicting results of research in academic underachievement, made the point that too often the conclusions based upon studies of low achievers do not take into consideration, among other things, the sex of the students, the academic level at which underachievement was determined (i.e., whether by academic grades, achievement test results, or both), and the chronicity of the underachievement. Gough (1952, 1953) on the basis

of his studies of successful high school, college, and graduate students, has also concluded that different personality characteristics might be more effective at different stages of the educational process.

Teahan (1963) conducted a study which investigated the child rearing attitudes of college high and low achievers and their parents. None of these students were chronic under-achievers in that 11 had done extremely well in high school and all had demonstrated high levels of achievement on standardized tests. In many respects these students fitted one of Shaw's (1961) definitions of "hidden under-achievers" for, in spite of the fact that on the basis of past history they seem to be performing far above the level of other students, they suddenly fell down in their performance when placed into a new setting (college) where demands differed or competition was greater.

The subjects utilized in this investigation consisted of two groups of college freshmen (46 females and 44 males), their fathers and their mothers. All of the subjects had a history of academic excellence in high school and had graduated in the upper 20% of their classes and all demonstrated high scores on the College Qualification Test upon entering the university. Half of these students, 23 females and 22 males, had received at least a 3.0 grade-point average by the end of their freshman year and these were designated as high achievers. The other half of the students, 23 females and 22 males, who were matched to the first groups, both on the basis of College Qualification Test scores and father's occupational level, had received a less than 2.0 grade-point average and they were designated as low achievers.



The results obtained from this investigation revealed that no differences were found in the child rearing attitudes of high and low achieving female students. However, there was a statistically significant difference between the attitudes of mothers and their daughters in the low achieving group. Mothers of low achievers were more dominating than their daughters while no such disparity was found among high achievers. The fathers of both female groups were similar in the sense that they were significantly higher than their daughters on the domination and possessive scales. However, there were qualitative differences between the fathers which were reflected in an item analysis of the scales.

While among the females it was mother's disparate attitudes which seemed to separate high and low achievers, among the males it was primarily father's attitudes which appeared to set these two groups apart. Fathers of low achievers were significantly higher than their sons on the possessive and ignoring scales while no such differences appeared when the high achievers and their fathers were compared. Fathers of high achievers were also significantly lower on the possessive scale than fathers of low achievers. Only in the case of the high achievers did a difference appear between sons and mothers, with the latter having a significantly lower score than their offspring on the ignoring scale. The results of the investigation suggested that insufficient development in self-sufficiency and independence handicapped the underachievers.

Holden (1976) investigated the academic achievement of black students, as viewed by black parents. The author utilized 713 black

children enrolled in the third, fifth, and eighth grades of the Madison, Wisconsin Public Schools, and their parents. Three variables, self-concept of black children, their authority orientation, and their loyalty, were selected for testing purposes. The results obtained from the survey of obtained scores for the children, questionnaires, and personal interviews revealed (1) instilling a positive self-image in black children remains a problem for parents: a complex problem of supreme importance; (2) coping skills of black youngsters are more important than their self-images; (3) parents have great confidence that their children could take care of themselves without constant parental supervision; (4) loyalty was defined as the responsibility to the black community felt by children and their parents.

In concluding, Holden stated:

I would contend that there is no more wrong with the black child than with any other child; and that, like every child, he would profit by being understood and treated as a human being. Admittedly, the black child represents a minority in white schools, schools which are generally financed, furnished, staffed and run by whites. The black child often suffers from negative attitudes; we must understand these attitudes for what they are. What attitudes do teachers have toward black children and black parents? What attitudes do black parents and black children have toward teachers and administrators? Only when full and mutual respect and cooperation can exist among them will it be possible for the black child to reach his potential in the public schools (1976).

Schools, contend Cain (1978) can ensure that children grow up in the presence of adults to whom reading and literacy are important parts of living. They can also make a serious effort to help parents enhance their children's literacy. Some suggested ways in which schools might make an effort to create a reading culture are: (1) take time for growing literacy, (2) be a model, (3) follow a natural sequence to make every child an author, (4) teach reading all day long, (5) include community people and expand experience and vocabulary, (6) use "real" materials, (7) teach skills from children's demonstrated needs, (8) use cross age groupings, (9) keep records, and (10) work with parents.

Cain concluded by stating:

Efficient use of resources and cooperative efforts can make an atmosphere that is bursting with the accomplishments of growing literacy and that generates community support. When children are part of such a community, they will be inhabitants of a true reading culture based on the faith that children are born to read (1978).

Parents often complain that the schools do not keep them informed of their children's reading progress (Criscuolo 1979). Criscuolo (1979) reported on specific procedures and activities which had been used successfully in the New Haven, Connecticut, public school system. The procedures and activities included were: (1) newspaper column for parents, (2) parents resource rooms, (3) reading progress letters, (4) reading homework programs, (5) programs involving children and materials, and (6) reading recipes.

In summary the author wrote:

Parents have an important role in supporting the work of the schools, and there are many practical and effective ways to involve parents in the reading program. Interaction between home and school helps parents help their children become better readers, as well as letting parents know that the schools are fulfilling a commitment to provide the best possible reading program for their children (1979).

## Chapter 3

### Procedures

The purpose of this investigation was to determine the amount of correlation which existed between certain factors in the home environment upon reading achievement of first-grade children. Specifically, the purpose of this investigation was to determine the amount of correlation between such factors as family income, family size, home conditions, education of parents or guardians, parental attitudes toward children and their education, social acceptance of parents and children, and attitudes toward religion and the reading achievement of first-grade children. For the purpose of this investigation, reading achievement was considered to be the amount of improvement made in the process of interpreting written or printed verbal symbols for one testing period to another.

### Selection of Subjects

Sixty families, with at least one member of the family enrolled in the first-grade, were nonrandomly selected for participation in this investigation. All of the 60 families resided in the southeastern section of Dallas County, Texas. Sixty first-grade children participated in the testing phase of this investigation, and 60 parents or guardians participated in the interview and responded to a questionnaire phase of this investigation. The 60 nonrandomly

selected parents or guardians all resided in the southeastern section of Dallas County, Texas. The 60 first-grade children were nonrandomly assigned to two groups for both the pretest and the post-test of the evaluative instrument.

#### Evaluation Instrument

On January 5, 1981, the two groups of nonrandomly selected first-grade children were administered the pre-test of the Iowa Test of Basic Skills. Each of the two groups of subjects consisted of 30 first-grade children. The Iowa Test of Basic Skills was composed of three test items: (1) Important Details Items, (2) Word Analysis Items, and (3) Vocabulary Items.

The information section of the Iowa Test of Basic Skills, Primary Battery, Level 7, Form 5, indicated that the scores for the second test, the post-test, might be slightly higher due to the experience of having previously taken the test. However, since all of the subjects received the same exposure, the rise should be compatible.

Tests must give generally consistent or reliable results for any use of the scores to be appropriate. The Kuder-Richardson Formula 20 has given a .97 reliability rating, as is normal procedure for establishing norms for tests, to the Iowa Test of Basic Skills. Its standard error of measurement is 1.7. When testing specialists speak of the content validity of a test is established, they are referring to the extent to which desired content-based interpretations match the actual content domain of the test. Meaning is given to the test score by relating it to the particular content of the test. The issue of content validity of a test requires two important steps by

users. First, users must examine in detail the content limits of the array of appropriate or valid content-based interpretations which can be made. Second, users must judge whether this array of appropriate content-based interpretations is useful to the particular needs of the local situation. They can judge the content validity of the test for the type of interpretations needed in the particular planned use of the test. The Iowa Testing Program tried out questions on school populations of over 300,000. Questions that did not measure well (almost half) were dropped. The above criteria assisted the investigator in selecting this measure instrument for the purpose of determining reading and reading achievement of the subjects included in this study (Hieronymus and Lindquist 1972).

The three subsections, Important Details, Vocabulary, and Word Analysis, of the Iowa Test of Basic Skills--Primary Battery, Level 7, Form 5, were used. The three subsections required, respectively, sixteen (16) minutes, fourteen (14) minutes, and twenty (20) minutes. The three subsections were administered over a three-day period with one subtest being given each testing session. The investigator carried out testing and observed carefully the administration directions to insure consistency.

Utilizing the Spearman-Rho Coefficient of Correlation formula, and a computer program provided by the University of Pittsburgh, SPSS-20, Release 7.02A (14-March-81), the data were placed on punch cards and processed. The .05 level of confidence was utilized to determine significance. In cases where significance

occurred, the Fisher's  $t$  was utilized to determine significant difference between means.

Chapter 4 of this investigation contains an analysis of the pretest and the post-test scores and the relationship of environmental factors to the reading achievement of first-grade children. The two groups consisted of 60 pupils, and the responses of parents or guardians, who were nonrandomly assigned to two groups.



## Chapter 4

### Analysis of Data

The purpose of this investigation was to determine the relationship between certain environmental factors and reading achievement among first-grade children. The purpose of the investigation was further concerned with determining whether or not there was a significant difference in the reading achievement of two groups of nonrandomly assigned first-grade children. The investigation was further concerned with reading achievement of first-grade children and whether or not this achievement had any correlation with such environmental factors as: 1) the financial income of the family, 2) the size of the family, 3) parental attitudes toward children and their education, 4) social acceptance of the parents and their children, 5) the attitude of parents towards religion, 6) the home conditions of the parents and children, and 7) the education of parents or guardians.

From the original population of seventy-two first-grade children, and seventy-two parents or guardians, twelve parents decided not to participate in this investigation, and not to allow their children to participate. The two intact groups were composed of sixty first-grade pupils, and sixty parents of these children.

The Student-Newman-Keuls correlation statistical procedure was utilized for analyzing the results of this investigation. The

pretest and post-test scores were obtained for sixty first-grade children on the Iowa Tests of Basis Skills, primary Battery-Level 7, Form 5. Responses to a questionnaire were obtained from sixty parents or guardians of the first-grade children included in this investigation. F ratios were calculated in order to determine whether or not significant correlations occurred between the reading achievement of the sixty first-grade pupils and certain environmental factors. Fisher's t, following an F test, was utilized to test significant correlations in comparing adjusted means on reading achievement.

For the purpose of discussion here the groups involved in this investigation were identified as follows: Group I, thirty, nonrandomly assigned first-grade pupils; Group II, thirty nonrandomly assigned first-grade pupils; Group III, the thirty nonrandomly assigned parents or guardians of the first-grade pupils included in Group I; Group IV, the thirty nonrandomly assigned parents or guardians of the first-grade pupils included in Group II.

#### Test of Hypothesis

Hypothesis 1. There will be no significant correlation between the total reading achievement of two groups of first-grade children and certain environmental factors.

This hypothesis was rejected. Data contained in Table I presents the results of the correlation statistic used in this investigation.

TABLE I  
CORRELATION OF TOTAL READING ACHIEVEMENT SCORES  
AND CERTAIN ENVIRONMENTAL FACTORS OF  
SIXTY FIRST GRADE PUPILS

SOURCE	df	SUM OF SQUARES	MEAN SQUARES	F
BETWEEN GROUPS	1	138.11	138.11	5.45 <sup>a</sup>
WITHIN GROUPS	58	144.44	25.34	
TOTAL	59	1582.57		

<sup>a</sup>Significant beyond the .05 level of significance.

The .05 level of significance was accepted as of the level for rejection or acceptance. With 1 and 58 degrees of freedom an F ratio of 4.00 or greater was required for acceptance or rejection. Since the F ratio acquired, and presented in Table I, was greater than 4.00, this hypothesis was rejected. It can be stated that there is a significant correlation between total reading achievement of first-grade children and certain environmental factors. Further analysis was done in order to determine the source or sources of this difference. Fisher's suggestion for t tests following an F test was used. Data contained in Table II present the compared adjusted means for the two groups.

TABLE II

t VALUES FOR ADJUSTED READING ACHIEVEMENT TEST MEANS ON  
THE WORD ANALYSIS SECTION OF THE IOWA TESTS  
OF BASIC SKILLS, PRIMARY BATTERY,  
LEVEL 7, FORM 5

	TEST ITEM	WORD ANALYSIS	
		GROUP	
		I	II
G			
R	I		
O			
U			
P	II	2.37 <sup>a</sup>	

<sup>a</sup>Significant at the .05 level of significance.

With 59 degrees of freedom a t value of 2.01 was required for significance at the .05 level. An inspection of the data presented in Table II reveals that when the adjusted means of the two groups were compared with each other on Word Analysis, there was a significant correlation between achievement in word analysis and certain environmental factors.

Data contained in Table III present the compared adjusted means for two groups of first-grade pupils, on the Vocabulary Section of the Iowa Tests of Basic Skills, Primary Battery, Level 7, Form 5. As revealed in Table III, there was not a significant correlation between reading achievement on the vocabulary section of the Iowa

TABLE III

t VALUES FOR ADJUSTED READING ACHIEVEMENT TEST MEANS ON  
THE VOCABULARY SECTION OF THE IOWA TESTS OF  
BASIC SKILLS, PRIMARY BATTERY, LEVEL 7,  
FORM 5

	TEST ITEM	VOCABULARY	
		GROUP	
		I	II
G R O U P	I		
	II	0.78	

Tests of Basic Skills, Primary Battery, Level 7, Form 5 and certain environmental factors for sixty first-grade pupils.

Table IV contains the compared adjusted means for two groups of first-grade pupils on the Iowa Tests of Basic Skills, Primary Battery, Level 7, Form 5. The data presented in Table IV contains the results of the compared adjusted means for two groups of first-grade pupils on the Important Details Section of the measuring instrument.

TABLE IV

t VALUES FOR ADJUSTED READING ACHIEVEMENT TEST MEANS ON  
THE IMPORTANT DETAILS SECTION OF THE IOWA TESTS  
OF BASIC SKILLS, PRIMARY BATTERY  
LEVEL 7, FORM 5

	TEST ITEM	IMPORTANT DETAILS	
		GROUP	
		I	II
G			
R			
O	I		
U			
P	II	0.07	

With 59 degrees of freedom a t value of 2.01 was required in order to reveal a significant correlation between reading achievement in the Important Details Section of the Iowa Tests of Basis Skills, Primary Battery, Level 7, Form 5. The analysis presented in Table IV revealed that the obtained t value failed to reach significance. It can be concluded that certain environmental factors do not show a significant correlation with reading achievement in the area of Important Details.

Hypothesis 2. There will be no significant correlation between the Word Analysis achievement of two groups of first-grade children and certain environmental factors. This hypothesis was rejected. Data presented in Table V show the results of the correlation statistic used to test the hypothesis.

TABLE V

CORRELATION OF TOTAL WORD ANALYSIS ACHIEVEMENT  
SCORES AND CERTAIN ENVIRONMENTAL FACTORS  
OF SIXTY FIRST-GRADE PUPILS

SOURCE	df	SUM OF SQUARES	MEAN SQUARES	F
BETWEEN GROUPS	1	66.00	66.00	5.08 <sup>a</sup>
WITHIN GROUPS	58	753.92	12.99	
TOTAL	59	819.93		

<sup>a</sup>Significant beyond the .05 level of significance.

The .05 level of significance was accepted as the level for acceptance or rejection. With 1 and 58 degrees of freedom an F ratio of 4.00 or greater was required for acceptance or rejection. Since the F ratio acquired, and presented in Table V, was greater than the required F ratio of 4.00, this hypothesis was rejected. It can be stated that there was a significant correlation between reading achievement in the area of word analysis and certain environmental factors. Further analysis was done to determine the source or sources of this correlation.

Data contained in Table VI present the results of the correlation statistic utilized in this investigation relative to determining if there was a significant correlation between the reading achievement in the area of word analysis and certain environmental factors. The hypothesis was rejected. The acquired F ratio of 4.05 reached the .05 level of significance. It can be stated that there

was a significant correlation existing between the area of word analysis and financial status of the families of the sixty first-grade pupils.

TABLE VI  
CORRELATION OF TOTAL WORD ANALYSIS ACHIEVEMENT SCORES  
AND THE FINANCIAL STATUS OF THE FAMILIES OF  
SIXTY FIRST GRADE PUPILS

SOURCE	df	SUM OF SQUARES	MEAN SQUARES	F
BETWEEN GROUPS	6	619.63	103.26	4.05 <sup>a</sup>
WITHIN GROUPS	53	1351.34	25.49	
TOTAL	59	1970.98		

With 6 and 53 degrees of freedom an F ratio of 2.27 was required for significance at the .05 level of significance. The acquired F ratio of 4.05 was significant beyond the .05 level of significance. It can be stated that there is a very positive correlation existing between the financial status of the family and the reading achievement of first-grade children in the area of word analysis. Further analysis was done in order to determine the source or sources of this significant correlation. Fisher's t test, following an F test, was utilized to compare the adjusted means of the two groups of sixty first-grade pupils on Word Analysis achievement and the financial status of the families. Table VII contains the results of the t test evaluation which compared word analysis achievement of sixty first-grade pupils with two parents working and providing financial status for the family.



TABLE VII

t VALUES FOR ADJUSTED WORD ANALYSIS ACHIEVEMENT TEST MEANS  
AND A FAMILY SITUATION WITH TWO PARENTS EMPLOYED

WORD ANALYSIS ACHIEVEMENT		TWO EMPLOYED PARENTS	
		GROUP	
	I	I	II
	II	2.27 <sup>a</sup>	

With 59 degrees of freedom a t value of 2.01 was required for significance at the .05 level. An inspection of the data presented in Table VII reveals that when the adjusted means of the two were compared with each other, there was a significant correlation between word analysis achievement and a household where both parents were employed.

Data contained in Table VIII present the t values for adjusted means on word analysis achievement of sixty first-grade pupils compared with a household situation with one parent employed.

TABLE VIII

t VALUES FOR ADJUSTED WORD ANALYSIS ACHIEVEMENT TEST MEANS  
AND A HOUSEHOLD SITUATION WITH ONE PARENT EMPLOYED

WORD ANALYSIS ACHIEVEMENT		- ONE PARENT EMPLOYED	
GROUP			
G R O U P	I	I	II
	II	1.05	

The obtained t value for adjusted word analysis achievement test means for sixty first-grade pupils living in a household situation with one parent employed failed to reach the required level of significance. To be significant at the .05 level, a t value with 59 degrees of 2.01 was required.

Data contained in Table IX present the t values for adjusted means on word analysis achievement of sixty first-grade pupils compared with a household situation with others (uncle, aunt, etc.) employed.

TABLE IX

t VALUES FOR ADJUSTED WORD ANALYSIS ACHIEVEMENT TEST MEANS  
AND A HOUSEHOLD SITUATIONS WITH OTHERS EMPLOYED

WORD ANALYSIS ACHIEVEMENT		OTHERS EMPLOYED	
GROUP			
G R O U P	I	I	II
	II	1.29	

The obtained t value for adjusted word analysis achievement test means for sixty first-grade pupils living in a household situation with someone other than parents employed failed to reach the required level of significance. To be significant at the .05 level, a t value with 59 degrees of freedom was required to reach 2.01.

Hypothesis 3. There will be no significant correlation between the Vocabulary achievement of two groups of first-grade children and certain environmental factors. This hypothesis was accepted. Data presented in Table X show the results of correlation statistic used to test the hypothesis.

TABLE X

CORRELATION OF TOTAL VOCABULARY ACHIEVEMENT SCORES  
AND CERTAIN ENVIRONMENTAL FACTORS OF SIXTY FIRST-GRADE PUPILS

SOURCE	df	SUM OF SQUARES	MEAN SQUARES	F
BETWEEN GROUPS	1	225.27	225.27	2.17
WITHIN GROUPS	58	5915.90	103.78	
TOTAL	59	6141.18		

The .05 level of significance as accepted as the level of acceptance or rejection. With 1 and 58 degrees of freedom an F ratio of 4.00 or greater was required for acceptance or rejection. Since the F ratio acquired, and presented in Table X, was less than the required F ratio of 4.00, this hypothesis was accepted. It can be stated that there was no significant correlation between total vocabulary achievement scores and certain environmental factors.

Hypothesis 4. There will be no significant correlation between the Important Details achievement of two groups of first-grade children and certain environmental factors. This hypothesis was accepted. Data presented in Table XI present the results of the correlation statistic used to test the hypothesis.

TABLE XI

CORRELATION OF TOTAL IMPORTANT DETAILS ACHIEVEMENT  
SCORES AND CERTAIN ENVIRONMENTAL FACTORS OF  
SIXTY FIRST GRADE PUPILS

SOURCE	df	SUM OF SQUARES	MEAN SQUARES	F
BETWEEN GROUPS	1	8.70	8.79	0.315
WITHIN GROUPS	58	1573.87	27.61	
TOTAL	59	1582.57		

The .05 level of significance was accepted as the level of acceptance or rejection. With 1 and 58 degrees of freedom an F ratio of 4.00 or greater was required for acceptance or rejection. Since the F ratio acquired, and presented in Table XI, was less than the required F ratio of 4.00 this hypothesis was accepted. It can be stated that there was no significant correlation between total important details achievement scores of two groups of first-grade pupils and certain environmental factors.

Hypothesis 5. There will be no significant correlation between the total reading achievement of two groups of first-grade children and the financial income of their families. This hypothesis was rejected. Data presented in Table XII show the results of the correlation statistic utilized in this investigation. To be significant at the .05 level of significance, with 1 and 58 degrees of freedom, an F ratio of 4.00 or greater was required.

TABLE XII

CORRELATION OF TOTAL READING ACHIEVEMENT SCORES AND  
FINANCIAL INCOME OF THE FAMILIES OF TWO  
GROUPS OF FIRST GRADE PUPILS

SOURCE	df	SUM OF SQUARES	MEAN SQUARES	F
BETWEEN GROUPS	1	738.76	106.36	4.54 <sup>b</sup>
WITHIN GROUPS	58	1501.35	26.67	
TOTAL	59	2240.12		

<sup>b</sup> Significant at the .05 level of significance.

The acquired F ratio of 4.54 was greater than the required F ratio of 4.00. Therefore, it can be stated that there was a significant correlation between total reading achievement scores and the financial income of the families of two groups of first-grade pupils. The hypothesis was rejected. Further analysis was done in order to determine the source or sources of this difference. Fisher's t test following an F test was utilized to compare the adjusted means of the two groups of thirty first-grade pupils on the total reading achievement test scores and the financial income of their families.

Data contained in Table XIII present the t values of adjusted means on total achievement scores of sixty first-grade pupils compared with a total family income of \$5,000 or less.

TABLE XIII

t VALUES FOR ADJUSTED TOTAL READING ACHIEVEMENT SCORES  
OF SIXTY FIRST-GRADE PUPILS COMPARED WITH A TOTAL  
FAMILY INCOME OF \$5,000 OR LESS

ACHIEVEMENT SCORES		- FAMILY INCOME OF \$5,000 OR LESS	
GROUP			
G R O U P	I	I	II
	II	0.59	

To be significant at the .05 level of confidence, a t value with 59 degrees of freedom was required to reach 2.01. With a t of 0.59, it can be stated that there was no significant correlation between the total reading achievement of sixty first-grade pupils with a total family income of \$5,000 or less.

Data contained in Table XIV present the t values for adjusted means on total reading achievement scores of sixty first-grade pupils compared with a total family income of \$6,000 to \$9,000.

TABLE XIV

t VALUES FOR ADJUSTED TOTAL READING ACHIEVEMENT SCORES  
OF SIXTY FIRST GRADE PUPILS COMPARED WITH A TOTAL  
FAMILY INCOME OF \$6,000 to \$9,000

ACHIEVEMENT SCORES		- FAMILY INCOME OF \$6,000 to \$9,000	
		GROUP	
G R O U P	I	I	II
	II	1.03	

The acquired t value of 1.03 failed to reach the required t value of 2.01. It can be stated that there was not a significant correlation between total reading achievement and a total family income of \$6,000 to \$9,000.

Data contained in Table XV present the t values for adjusted means on total achievement scores of sixty first-grade pupils compared with a total family income of \$10,000 to \$13,000. The acquired t value of 2.13 was greater than the required t value of 2.01, with 59 degrees of freedom. It can be stated that there is a positive correlation between total reading achievement scores of sixty first-grade pupils and a total family income of \$10,000 to \$13,000.



TABLE XV

t VALUES FOR ADJUSTED TOTAL READING ACHIEVEMENT SCORES OF  
SIXTY FIRST-GRADE PUPILS COMPARED WITH A TOTAL  
FAMILY INCOME OF \$10,000 to \$13,000

ACHIEVEMENT SCORES		- FAMILY INCOME OF \$10,000 to \$13,000	
		GROUP	
G R O U P	I	I	II
	II	2.13 <sup>a</sup>	

<sup>a</sup>Significant beyond the .05 level of significance.

Data contained in Table XVI present the t values for adjusted means on total reading achievement scores of sixty first-grade pupils, randomly assigned to one of two groups, compared with a total family income of \$14,000 to \$17,000. To be significant at the .05 level of significance an acquired t value of 2.01.

The acquired t value of 1.67, and presented in Table XVI, failed to reach the .05 level of significance. It can be stated that there was not a significant correlation between the total reading achievement scores of sixty first-grade pupils and a total family income of \$14,000 to \$17,000.

TABLE XVI

t VALUES FOR ADJUSTED TOTAL READING ACHIEVEMENT SCORES OF  
SIXTY FIRST GRADE PUPILS COMPARED WITH A TOTAL  
FAMILY INCOME OF \$14,000 to \$17,000

ACHIEVEMENT SCORES		- FAMILY INCOME OF \$14,000 to \$17,000	
		GROUP	
G R O U P	I	I	II
	II	1.67	

Data contained in Table XVII present the t values for adjusted means on total reading achievement scores of two groups of first-grade pupils. The adjusted means of these two groups of thirty pupils were compared for the purpose of determining if there was a significant correlation between the total reading achievement and the total income of their families with incomes of \$18,000 to \$21,000.

TABLE XVII

t VALUES FOR ADJUSTED TOTAL READING ACHIEVEMENT SCORES OF  
SIXTY FIRST GRADE PUPILS COMPARED WITH A TOTAL  
FAMILY INCOME OF \$18,000 to \$21,000

ACHIEVEMENT SCORES		- FAMILY INCOME OF \$18,000 to \$21,000	
		GROUP	
		I	II
G	I		
R			
O			
U			
P	II	1.87	

With 59 degrees of freedom a t value of 2.01 was required to be significant at the .05 level of significance. Although the acquired t value of 1.87 failed to reach the required t value, it can be stated that there was some correlation between total achievement reading test scores and the total family income of \$18,000 to \$21,000. Although the acquired t value of 1.87 failed to reach the significant level by 0.14, it is still not significant, but does provide area for some concern.

Data presented in Table XIX present the t values for adjusted total reading achievement scores of sixty first-grade pupils compared with a total family income of \$22,000 and above.

TABLE XIX

t VALUES FOR ADJUSTED TOTAL READING ACHIEVEMENT SCORES OF  
SIXTY FIRST GRADE PUPILS COMPARED WITH A TOTAL  
FAMILY INCOME OF \$22,000 AND ABOVE

ACHIEVEMENT SCORES		- FAMILY INCOME OF \$22,000 AND ABOVE	
		GROUP	
		I	II
G	I		
R			
O			
U			
P	II	2.49 <sup>a</sup>	

<sup>a</sup>Significant beyond the .05 level of significance.

With 59 degrees of freedom a t value of 2.01 or greater was required at the .05 level of significance. The acquired t value of 2.49, and which is presented in Table XIX, was significant beyond the .05 level of significance. It can be stated that there is a very positive correlation between total reading achievement scores and the total family income when the total family income is \$22,000 and above.

Hypothesis 6. There will be no significant correlation between the reading achievement of two groups of first-grade pupils and the size of their families. This hypothesis was accepted. Data presented in Table XX contains the results of the correlation statistic utilized in this investigation.

TABLE XX

CORRELATION OF TOTAL READING ACHIEVEMENT SCORES  
OF TWO GROUPS OF FIRST GRADE PUPILS AND  
THE SIZE OF THEIR FAMILIES

SOURCE	df	SUM OF SQUARES	MEAN SQUARES	F
BETWEEN GROUPS	1	298.32	298.32	2.91
WITHIN GROUPS	58	5842.85	102.50	
TOTAL	59	6141.18		

To be significant at the .05 level of significance, an F ratio of 4.00 or greater, with 1 and 58 degrees of freedom. Since the acquired F ratio of 2.91 failed to reach significance, it can be stated that there was no significant correlation between total reading achievement scores of two groups of first-grade pupils and the size of their families.

Hypothesis 7. There will be no significant correlation between the reading achievement of two groups of first-grade children and the parental attitudes toward children and their education. This hypothesis was accepted. Data presented in Table XXI contains the results of the correlation statistic utilized in this investigation.

TABLE XXI

CORRELATION OF TOTAL READING ACHIEVEMENT SCORES  
OF TWO GROUPS OF FIRST-GRADE PUPILS AND  
PARENTAL ATTITUDES TOWARD CHILDREN AND  
THEIR EDUCATION

SOURCE	df	SUM OF SQUARES	MEAN SQUARES	F
BETWEEN GROUPS	1	0.96	0.96	0.049
WITHIN GROUPS	58	1115.74	19.57	
TOTAL	59	116.71		

With 1 and 58 degrees of freedom and a .05 level of significance for acceptance or rejection, an F ratio of 4.00 or greater was required. Since the acquired F ratio of 0.049 was less than the required F ratio, it can be stated that there was not a significant correlation between total reading achievement scores of two groups of first-grade pupils and the parental attitudes toward children and their education.

Hypothesis 8. There will be no significant correlation between the total reading achievement of two groups of first-grade pupils and the social acceptance of the parents and the children. This hypothesis was accepted. Data presented in Table XXII contains the results of the correlation utilized in this investigation. The acquired F ratio of 0.780, and presented in Table XXII failed to reach the .05 level of significance. With 1 and 58 degrees of freedom, an F ratio of 4.00 or greater was required to be significant at the .05 level. It can be stated that there was not a significant correlation

TABLE XXII

CORRELATION OF TOTAL READING ACHIEVEMENT SCORES OF  
TWO GROUPS OF FIRST-GRADE PUPILS AND THE SOCIAL  
ACCEPTANCE OF THE PARENTS AND THE CHILDREN

SOURCE	df	SUM OF SQUARES	MEAN SQUARES	F
BETWEEN GROUPS	1	11.06	11.06	0.780
WITHIN GROUPS	58	808.45	14.18	
TOTAL	59	819.52		

between total reading achievement scores of two groups of first-grade pupils and the social acceptance of the parents and the children.

Hypothesis 9. There will be no significant correlation between the reading achievement of two groups of first-grade children and the home conditions of the parents and children. This hypothesis was accepted. Data contained in Table XXIII present the results of the correlation utilized in analyzing the data obtained for this investigation.

To be significant at the .05 level of significance, an acquired F ratio, with 1 and 58 degrees of freedom, of 4.00 or greater was required. The acquired F ratio of 0.004 failed to reach significance. It can be stated that there was not a significant correlation between total reading achievement scores of two groups of first-grade pupils and the home conditions of the parents and children.

TABLE XXIII

CORRELATION OF TOTAL READING ACHIEVEMENT SCORES OF  
TWO GROUPS OF FIRST GRADE PUPILS AND THE HOME  
CONDITIONS OF THE PARENTS AND CHILDREN

SOURCE	df	SUM OF SQUARES	MEAN SQUARES	F
BETWEEN GROUPS	1	0.11	0.11	0.004
WITHIN GROUPS	58	1582.45	27.76	
TOTAL	59	1582.57		

Hypothesis 10. There will be no significant correlation between the total reading achievement of two groups of first-grade children and the attitude of parents toward religion. This hypothesis was accepted. The acquired ratio of 0.717 failed to reach the required F ratio of 4.00 or greater. With 1 and 58 degrees of freedom, an F ratio of 4.00 or greater was required to be significant at the .05 level of significance.

Data contained in Table XXIV present the results of the correlation statistic utilized in this investigation.



TABLE XXIV

CORRELATION OF TOTAL READING ACHIEVEMENT SCORES OF  
TWO GROUPS OF FIRST GRADE PUPILS AND THE  
ATTITUDES OF PARENTS TOWARD RELIGION

SOURCE	df	SUM OF SQUARES	MEAN SQUARES	F
BETWEEN GROUPS	1	13.87	13.87	0.717
WITHIN GROUPS	58	1102.83	19.34	
TOTAL	59	1116.71		

The acquired F ratio of 0.717 failed to be significant at the .05 level of significance. It can be stated that there was no significant correlation between total reading achievement scores of two groups of first-grade pupils and the attitudes of parents toward religion.

Hypothesis 11. There will be no significant correlation between the total reading achievement of two groups of first-grade children and the education of their parents or guardians. This hypothesis was accepted. The acquired F ratio of 2.307 was not significant at the .05 level of significance. An F ratio, to be significant at the .05 level of confidence, with 1 and 58 degrees of freedom, must be 4.00 or greater.

Data contained in Table XXV presented the correlation statistic results utilized in this investigation.

TABLE XXV

CORRELATION OF TOTAL READING ACHIEVEMENT SCORES  
TWO GROUPS OF FIRST GRADE PUPILS AND THE  
EDUCATION OF THEIR PARENTS  
OR GUARDIANS

SOURCE	df	SUM OF SQUARES	MEAN SQUARES	F
BETWEEN GROUPS	1	31.87	31.87	2.397
WITHIN GROUPS	58	787.64	13.81	
TOTAL	59	819.52		

An observation of the acquired F ratio of 2.397 will reveal that the F ratio failed to reach the required F ratio of 4.00, with 1 and 58 degrees of freedom. It can be stated that there was a nonsignificant correlation between the total reading achievement scores of two groups of first-grade pupils and the education of their parents or guardians.

Chapter 5 of this investigation contains the summary, conclusions, and recommendations.

## Chapter 5

### Summary, Conclusions, and Recommendations

#### Summary

The purpose of this investigation was to determine the effects of certain factors in the home environment upon the reading achievement of first-grade children. Specifically, the purpose of this investigation was to determine the effects of such factors as family income, family size, home conditions, education of parents or guardians, parental attitudes toward children and their education, social acceptance of parents and children, and attitudes toward religion upon the reading achievement of first-grade children. For the purpose of this investigation, reading achievement meant the amount of improvement made in the process of interpreting written or printed verbal symbols from one testing period to another.

Sixty families, with at least one member of the family enrolled in the first-grade, were nonrandomly selected for participation in this investigation. All of the 60 families resided in the southeastern section of Dallas County, Texas. Sixty firstgrade children participated in the testing phase of this investigation, and 60 parents or guardians participated in the interview, and responded to a questionnaire phase of this investigation. The 60, nonrandomly selected, parents or guardians all resided in the southeastern section

of Dallas County, Texas. The 60 first-grade children were nonrandomly assigned to two groups for both the pretest and the post-test of the evaluative instrument.

On January 5, 1981, the two groups of nonrandomly selected first-grade children were administered the pretest of the Iowa Test of Basic Skills. Each of the two groups of subjects consisted of thirty first-grade children. The Iowa Test of Basic Skills was composed of three test items: (1) Important Details Items, (2) Word Analysis, and (3) Vocabulary Items, over three days with the investigator as administrator of the tests.

The post-test of the Iowa Tests of Basic Skills was administered on February 16, 1981. The raw scores for the 60 first-grade pupils, assigned to one of the two groups, from both the pretest and post-test of the Iowa Tests of Basic Skills were compared as a means of determining the achievement of the pupils between the two testing periods. A correlation formula was utilized in order to determine the relationship between achievement in reading and certain environmental factors. The environmental factors included family income, family size, home conditions, education of parents or guardians, parental attitudes toward children and their education, social acceptance of parents and children, and attitudes toward religion.

Findings obtained from the statistical procedure employed in this investigation revealed:

1. There was a significant positive correlation between total reading achievement of first-grade children and

certain environmental factors. Specifically, there was a significant correlation between reading achievement in word analysis and certain environmental factors.

2. There was a significant positive correlation between reading achievement in word analysis and the financial income of the family.
3. There was a significant positive correlation between reading achievement in word analysis and a household where there were two parents or guardians working.
4. There was a significant positive correlation between total reading achievement scores of 60 first-grade pupils and a total family income of \$10,000 to \$13,000.
5. There was a very significant positive correlation between reading achievement scores and the total family income when the total family income was \$22,000 and above.

### Conclusions

The results of this investigation support the following conclusions:

1. Environmental factors positively correlate with the reading achievement of first-grade children.
2. The financial income of the family positively correlate with the reading achievement of first-grade children in the area of word analysis.

3. More than one working parent in the home positively correlate with the reading achievement of first-grade children in the area of word analysis.
4. A family income between \$10,000 and \$13,000 positively correlate with the reading achievement of firstgrade children.
5. A family income of \$22,000 and above very positively correlate with the reading achievement of first-grade children.
6. There was no significant correlation between vocabulary achievement of first-grade children and certain environmental factors.
7. There was no significant correlation beteen Important Details achievement of first-grade children and certain environmental factors.

#### Recommendations

In view of these findings, this investigator feels there are strong implications the school, teacher, administrator as well as the parent must face and accept. For education to be an effective as well as a positive element in the student's development, the school program must meet the learning needs of the students. In a free society, education is the single most important factor in students becoming functioning citizens.

Each student in public education must be given the opportunity to fulfill his potential ability. Therefore, the school must overcome any handicap the student may face in this home environment

in assisting the student in reaching his potential.

For the school reading program to be effective, it must acknowledge the effect the home environment has on reading achievement. The reading program must be structured to teach reading within the classroom itself. That is, realizing that oftentimes there is only one parent in the home, or both parents work, the reading program should be so structured that the effort a student must do for learning to take place, may be accomplished in the classroom and not overburden the home with school instruction.

However, this is not to imply that the parent is devoid of responsibility. Parents must realize the amount of time actually spent in the classroom on reading instruction is limited. Therefore, it is needful for students to actually practice the skills they have learned at home. This becomes the parents' responsibility to ensure the students put forth the effort at home for effective learning to take place.

The administration, be it local or state, needs to scrutinize its adopted reading program to determine whether or not it meets the needs of the students. What part of the educational program is actually basic and conducive to learning? The limitations, if any, of the reading program must be dealt with on an administrative level. Consistency within the school system itself is necessary in our present time of mobility.

1. An investigation should be made to determine the effects of other environment upon the reading achievement of first-grade children.

2. An investigation should be made to determine the effects of parent involvement in the reading process and the achievement of their children.
3. An investigation should be made to determine the reading achievement of first-grade children and deprived environmental factors.



## APPENDIX

Please give your response to each of the items listed below.

## I. FAMILY AND ECONOMIC FACTORS

## 1. Head of household.

- a. Mother and father \_\_\_\_ b. Mother only \_\_\_\_  
c. Father only \_\_\_\_ d. Others \_\_\_\_

## 2. Number of children in the family.

- 0-3 \_\_\_\_ 4-7 \_\_\_\_  
8-11 \_\_\_\_ 12 and above \_\_\_\_

## 3. Number of children in school.

- Preschool to grade 3 \_\_\_\_  
Grade 4 to grade 6 \_\_\_\_  
Grade 7 to grade 9 \_\_\_\_  
Grade 10 to grade 12 \_\_\_\_

## 4. Number of parents/guardians in your home who are full-time employed \_\_\_\_.

## 5. Check the approximate range of the total family income.

- \$5,000 or less \_\_\_\_  
\$6,000-\$9,000 \_\_\_\_  
\$10,000-\$13,000 \_\_\_\_  
\$14,000-\$17,000 \_\_\_\_  
\$18,000-\$21,000 \_\_\_\_  
\$22,000 and above \_\_\_\_

## II. EDUCATIONAL FACTORS

1. Highest scholastic attainment of parents/guardians.

ELEMENTARY: 1-3 \_\_\_\_ 4-6 \_\_\_\_ 7-8 \_\_\_\_

SECONDARY: 9-10 \_\_\_\_ 11-12 \_\_\_\_

COLLEGE: 1 \_\_\_\_ 2 \_\_\_\_ 3 \_\_\_\_ 4 \_\_\_\_  
Graduate

GRADUATE SCHOOL \_\_\_\_\_

2. Are the following education materials in your home?

Dictionary: Yes \_\_\_\_ No \_\_\_\_ Encyclopedias: Yes \_\_\_\_ No \_\_\_\_

Children's Books (such as Childcraft) Yes \_\_\_\_ No \_\_\_\_

Typewriter: Yes \_\_\_\_ No \_\_\_\_

Calculator: Yes \_\_\_\_ No \_\_\_\_

Film Projectors: Yes \_\_\_\_ No \_\_\_\_

3. Does your family subscribe to any of the following:

Daily newspapers: Yes \_\_\_\_ No \_\_\_\_

Time Magazine: Yes \_\_\_\_ No \_\_\_\_

Newsweek Magazine: Yes \_\_\_\_ No \_\_\_\_

Saturday Evening Post: Yes \_\_\_\_ No \_\_\_\_

Others: (Please indicate)

## III. SOCIAL ACTIVITIES

1. Does your family participate in Church programs?

Yes \_\_\_\_ No \_\_\_\_

2. Does your family participate in any of the following formal groups?

Social clubs: Yes \_\_\_\_ No \_\_\_\_

Church groups: Yes \_\_\_\_ No \_\_\_\_

Discussion groups: Yes \_\_\_\_ No \_\_\_\_

3. Do you or your spouse participate in any of the following informal groups?

Card-playing groups: Yes ☐ No ☐

Neighborhood groups: Yes ☐ No ☐

Travel groups: Yes ☐ No ☐

Hunting groups: Yes ☐ No ☐

Fishing groups: Yes ☐ No ☐

Others: (Please list)

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