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The Effect of Frequency of Home Visits on Parent Behavior and Child Achievement

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THE EFFECT OF FREQUENCY OF HOME VISITS ON PARENT BEHAVIOR AND CHILD ACHIEVEMENT

A Dissertation

Presented to

the Faculty of the Department of Education

East Tennessee State University

In Partial Fulfillment

of the Requirements for the Degree

Doctor of Education

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by

William W. Locke

August 1976

APPROVAL

This is to certify that the Advanced Graduate Committee of

William W. Locke

met on the

17th day of August, 1976

The committee read and examined his dissertation, supervised his defense of it in an oral examination and decided to recommend that his study be submitted to the Graduate Council and the Dean of the School of Graduate Studies in partial fulfillment of the requirements for the degree Doctor of Education.

Chairman, Advanced Graduate Committee

Dean, School of Graduate Studies

THE EFFECT OF FREQUENCY OF HOME VISITS ON PARENT BEHAVIOR AND CHILD ACHIEVEMENT

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August 1976

B. S., East Tennessee State University, December 1966.
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THE EFFECT OF FREQUENCY OF HOME VISITS ON PARENT BEHAVIOR AND CHILD ACHIEVEMENT

Statement of the Problem

The problem of this study was to determine if the frequency of home visits made to families enrolled in a home-based early childhood education program was related to changes in parental behavior and student achievement.

Design of the Study

The procedural analysis for the study was the randomized three group pretest-posttest design. One hundred twenty low income families who had one or more children between three and five years of age, and who volunteered to participate in the home-based early childhood education program, were selected for the study. The early childhood program consisted of three basic components: (1) a half-hour television program ("Captain Kangaroo") broadcast five days per week, (2) a once-per-week group experience for the children, and (3) paraprofessional home visitors who made weekly visits to homes in order to deliver to and instruct parents how they should teach their own children.

Four measurement instruments were used to secure data on parent behavior and child achievement. Each instrument was administered at the beginning and end of the project year. The High/Scope Home Environment Scale and the Schaefer Behavior Inventory were administered to parents in an attempt to determine the degree of parental behavior change. Children who participated in the program were administered the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory in an effort to determine their degree of cognitive growth. Records of parent participation in group meetings and child attendance at group sessions were also recorded in order to determine the amount of parent and child participation in the program.

Summary and Conclusions

(1) A visit to parents once per week was no more effective in influencing parent behavior than a visit once every two weeks. However,

a parent who received a visit once per week or once every two weeks was more likely to develop a positive change in parent behavior toward his/her children than a parent who received no visits; (2) a visit once per week was no more effective in influencing child achievement than a visit once every two weeks. The child who received a visit once per week or once every two weeks, however, was more likely to have a higher level of achievement than a child who received no visits; (3) parent behavior was not significantly related to parent and child participation in the program as measured by the number of group sessions attended by the children and the number of parent meetings attended by the parents during the program year; (4) the greater the degree of positive change in parent behavior, the greater the degree of child achievement; (5) the number of parent meetings attended by parents and the number of group sessions attended by the children were not significantly related to the level of achievement attained by the children.

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Dissertation directed by Dr. Charles W. Burkett, Dr. Cecil N. Blankenship, Dr. William R. Fowler, Dr. Clyde L. Orr, and Dr. Ben F. Eller.

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Chapter 1

INTRODUCTION

The school administrator has been identified as the individual most significant in planning, implementing, and evaluating educational programs. Today's society has exerted unprecedented pressure on school leaders to improve quality and expand the programs provided its young. A study designed to help meet those needs by maximizing human and economic resources was considered both timely and necessary. Therefore, the researcher attempted to determine if one home-based early childhood education program could be improved in two ways: (1) could the number of families participating be increased without significant loss in quality of the program and (2) could the monetary cost per family served be reduced.

The major purpose, in the execution of this study, has been to provide information relative to the effect of frequency of home visits to families enrolled in a home-based early childhood education program. The data compiled provide this information.

THE PROBLEM

Statement of the Problem

The problem of this study was to determine if the frequency of home visits to families enrolled in a home-based early childhood education program was related to changes in parental behavior and student achievement.

Identification of Variables

Certain variables were identified and dealt with in order to deal with the above problem. In this research plan, changes in parental behavior and student achievement were the dependent variables. The first consideration was related to the development of more positive attitudes in parents toward their children. The enhancement of cognitive growth in children was considered second. Third consideration was given to parental behavior and its relationship to parent and child participation in the program and child achievement. The fourth area of consideration was the relationship between parental and child participation in the program and child achievement. Finally, the fifth consideration was given to home visitor perceptions of change in parental behavior and degree of child achievement as they related to the number of visits each family received.

Several factors led to changes in parental behavior and child achievement. The independent variables were such factors. They were the frequency of home visits, the degree of change in parental behavior, and the amount of parent and child participation in the program.

Hypotheses Tested

Several hypotheses were tested during this study to determine the relationship between the foregoing variables. They were:

1. Parents receiving a visit once per week will show a significant increase in positive behavior toward their children when compared to parents receiving a visit once every two weeks.

2. Parents receiving a visit once per week will show a significant increase in positive behavior toward their children when compared to parents receiving no visit.

3. Parents receiving a visit once every two weeks will show a significant increase in positive behavior toward their children when compared to parents receiving no visit.

4. Children receiving a visit once per week will show a significantly greater gain in achievement when compared to children receiving a visit once every two weeks.

5. Children receiving a visit once per week will show a significantly greater gain in achievement when compared to children receiving no visit.

6. Children receiving a visit once every two weeks will show a significantly greater gain in achievement when compared to children receiving no visit.

7. There will be a significant positive relationship between parent behavior and child participation in the program.

8. There will be a significant positive relationship between parent behavior and parent participation in the program.

9. There will be a significant positive relationship between parent behavior and child achievement.

10. There will be a significant positive relationship between parent participation and child achievement.

11. There will be a significant positive relationship between child participation and child achievement.

Significance of the Study

Early childhood education has been named a top priority by officials of the Office of Child Development of the Department of Health, Education, and Welfare, the Appalachian Regional Commission, and many

state departments of education. School administrators have been well aware of the expansion of educational programs for young children sponsored by these agencies. While the importance of the value of early intervention in the child's life has seldom been debated, increased expenditure of public funds for such efforts has become a subject of great controversy, especially among those who must account for and administer those funds and programs.

Recent research in early childhood education has suggested the need for early childhood education programs which incorporate the parent as the child's most important teacher. Various programs, often referred to as home-based because the instruction occurs in the home, have been implemented in an effort to study the effects of the parents as teachers of their own children. Seldom, however, has an effort been made to determine if programs of this nature are cost efficient.

School administrators who operate home-based early childhood programs have been concerned primarily with two issues: (1) the quality of the program services and (2) the operational cost of providing these services. The cost of operation has depended primarily upon the geographic area served and the scope of services provided to the families enrolled in such programs. Typically, the major cost has been that of salary expenditures for program employees.

Most home-based programs utilize paraprofessional rather than professional employees in an effort to cut operational costs. These paraprofessionals usually visit parents enrolled in the program once per week in their homes and instruct them in how to teach their children. In studies thus far conducted relative to home-based early childhood education programs, the optimal rate of home visits to families has not

been determined. Several educational agencies which have operated projects of this nature indicate a home visitor can adequately serve from eight to fifteen families, and up to twenty children.[1]

The question of the number of families a home visitor can adequately serve and the frequency of the visits to those families has been a most important one for the school administrator. The researcher concluded, for example, that if the frequency of the home visit does not significantly affect parental behavior and subsequently, student achievement, then a home visitor may be able to serve more families and children than the number presently recommended. Moreover, additional families could receive the benefits of such an educational program at no additional cost in salaries to the operating agency.

Limitations of the Study

1. This study was limited to the Eastern Tennessee Counties of Campbell, Claiborne, and Union.

2. The testing period was October, 1975-May, 1976.

3. All families participating were low income as defined by the Title XX Standards Computation Document of the Social Security Act.

4. All participants were volunteers.

5. All home visitors were females.

6. Individual qualifications, differences in level of skill development, and mastery in job performance by home visitors were not considered as factors influencing the study.

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[1]U. S. Department of Health, Education, and Welfare, A Guide for Planning and Operating Home-Based Child Development Programs (Washington: Kirschner Associates, Inc., 1974), p. 26.

Assumptions

1. Home visits to a parent participating in a home-based early childhood education program influence parental behavior.

2. The frequency of the home visits determines the degree of change in parental behavior.

3. Parental behavior influences student participation and achievement.

4. The behavioral scales and achievement tests used were valid and reliable.

Definition of Terms

There were terms essential to the study that need to be defined in order to more nearly clarify the study. The following terms were defined and hereinafter used:

Home-based early childhood education. An early childhood education program which stresses parents' teaching their own children in their own homes.

Focal parent. The parent in each family who assumes the role of primary care-giver for the children.

Paraprofessional home visitor. An individual with less than a four-year college degree who visits parents in their homes on a regularly scheduled basis.

PROCEDURES FOR DATA COLLECTION AND TREATMENT

Description of the Program

The subjects of this study were participants in a home-based early

childhood education program operated by the Clinch-Powell Educational Cooperative. The Cooperative, a regional educational service agency, was comprised of three rural school systems in northeast Tennessee. These systems were Campbell, Claiborne, and Union Counties, Tennessee.

The Appalachian Regional Commission provided the Cooperative with funds to operate the program which considered the parent to be the principal educator of the child. Basic goals were designed to: (1) involve parents directly in the educational development of their children, (2) help strengthen parents' capacity for facilitating the general development of their own children, (3) insure the child's future through specific preventive measures, such as health and nutrition education of his parents, (4) provide a wide spectrum of educational activities for the children designed to stimulate maximum physical, intellectual, emotional, and social development.

The program utilized the early childhood education model originally field-tested by the Appalachian Educational Laboratory located in Charleston, West Virginia. The model used an integrated three-phase approach to learning.

Television. The television component consisted of a daily program which was viewed by the parent and child. This television program served as a catalyst for getting the parent and child mutually involved. It acted as a basis, or focal point, upon which parent-child interaction could be built.

The "Captain Kangaroo" show was used as the television program component. Production was aired over the Columbia Broadcasting System (CBS) network five days per week. Network officials pledged their

cooperation and support to the Clinch-Powell Educational Cooperative, and members of the "Captain Kangaroo" staff were receptive to input by the Cooperative's early childhood education staff.

CBS provided the Cooperative's Executive Director with an advance copy of each week's "Captain Kangaroo" television program script. A curriculum specialist, employed by the Cooperative, used the scripts in planning the curriculum materials used in the program. The curriculum materials consisted of a "parent's guide" and related activities.

The "parent's guide" was published weekly and consisted of two major sections. The first section was designed to give the parents information on how to improve parenting skills as they worked with their children. The second section of the guide contained a synopsis of each day's "Captain Kangaroo" television program, and a suggested daily educational activity which the parent and child could do together. Accompanying each suggested daily educational activity was a list of materials necessary in carrying out that activity.

Supplemental materials with the "parent's guide" were provided to the classroom teacher and home visitors who were employed in the program. These materials were designed to correlate the work of the teacher and home visitor with the suggested educational activity in which the parent and child participated each day.

Home visitation. The home visitation component was conducted by home visitors who, on a regular basis, visited the homes of the families enrolled in the program. During these visits to the home, the home visitor delivered the "parent's guides" and helped prepare the parent to teach the child by explaining the curriculum materials and, when

needed, demonstrated each suggested daily educational activity. The home visitor also took books, toys, and child-centered materials which were loaned to the parent and child for short periods of time. In addition, she did other things to assist the parent in areas related to child development. Some examples were making referrals to the public health nurse when needed, scheduling appointments with county welfare agencies, community action agencies, and other public service groups.

Classroom. The classroom component was under the direction of a teacher, certificated in early childhood education, and a paraprofessional aide. The teacher and aide traveled to selected locations in the three participating counties and spent approximately one-half day per week teaching the children who lived near that location. During the classroom sessions, the children had the opportunity to socialize and learn in a group situation. The planned educational activities directed by the teacher in the classroom were related to the other interrelated components of the program, thus reinforcing what the children may have learned in the television and home visitation phases.

Design of the Study

The procedural analysis for the study was the randomized three-group pretest-posttest design recommended by Fred N. Kerlinger.[2] According to Donald Campbell and Julian Stanley,[3] a design of this nature

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[2]Fred N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart, and Winston, Inc., 1973), p. 335.

[3]Donald T. Campbell and Julian C. Stanley, Experimental and Quasi-Experimental Designs for Research (Chicago: Rand McNally College Publishing Company, 1963), p. 8.

controls the following sources of internal invalidity: history, maturation, testing, instrumentation, statistical regression, selection, mortality, and interaction of selection. Sources of external invalidity partially controlled for by this design include interaction of testing and treatment, and interaction of selection and treatment. Reactive arrangements were also partially controlled by the use of alternative forms of one of the test instruments.

Determining the Sample

One hundred twenty families who had one or more children between three and five years of age, and who volunteered to participate in the home-based early childhood education program, were selected for the study. These families met the low income guidelines established under Title XX of the Social Security Act.[4] A copy of the income guidelines is included in Appendix A.

Recruitment of Subjects

The director of the Early Childhood Education Program met with the Department of Human Services County Managers in each of the three participating counties (Campbell, Claiborne, and Union) and secured a list of names of families who met eligibility standards. The director prepared duplicate copies of these lists and gave each of the six para-professional home visitors employed in the program a sheet which contained the names of the eligible families who resided in the same county as the home visitor. Each home visitor had two weeks in which to visit

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[4]Horace Bass, "Outline Guide for Developing a Proposal for Purchase of Services Under Title XX of the Social Security Act" (Nashville: Tennessee Department of Human Services, 1975), pp. 1-6. (Mimeographed.)

these families and recruit twenty of them to participate in the program.

The home visitors explained the nature of the program to the focal parent of each family during the recruitment visit. They informed them that due to funding patterns every family which was recruited would not be able to participate and requested that each parent sign a statement of commitment to support the program in the event they were selected.

Assignment of Subjects to Experimental and Control Groups

The home visitor listed, from A to Z and one through twenty, in alphabetical order, the names of families he recruited. This list of participants was given to the program director after the twenty families were identified.

A chart of numbers was selected from A Million Random Digits[5] and placed in a column. The twenty families recruited by a home visitor were assigned to one of three groups: experimental 1, experimental 2, and control. Experimental group 1 consisted of the first eight numbers which appeared in the chart of random numbers. The next four numbers which appeared in the chart were assigned to the control group. Experimental group 2 consisted of the remaining eight numbers in the chart of random numbers. Utilizing the same groups of numbers selected from the chart, each list of twenty families recruited by the other five home visitors was assigned in the same manner.

Experimental group 1 contained a total of forty-eight families. Each family in this group participated in all program components and

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[5]Rand Corporation, A Million Random Digits (New York: The Free Press, 1956), p. 119.

received a weekly visit by the home visitor who recruited them for the program.

Experimental group 2 also consisted of forty-eight families. Each family in this group received the same program as experimental group 1, with the exception that they were visited by the home visitor biweekly.

The control group was comprised of a total of twenty-four families. The number of families participating in this group was smaller than those in the experimental groups because of the program director's desire to provide services for as many families as possible. Each family in this group did not participate in any phase of the program or receive home visits except those when pretests and posttests were administered.

Measurement Instruments

Four standardized instruments were used to measure data of parents and children who participated in the program. A brief description of each instrument used in the study included:

Peabody Picture Vocabulary Test. The Peabody Picture Vocabulary Test was designed to provide an estimate of verbal intelligence through measuring subjects' vocabulary. The subject indicated in some fashion which one of four pictures best fit a stimulus word read aloud to him. The test consisted of Forms A and B, each of which differed only in the stimulus word and picture which was the correct response for each of the test items.[6]

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[6]Oscar Krisen Buros, ed., The Sixth Mental Measurements Yearbook (Highland Park, New Jersey: The Gryphon Press, 1965), pp. 530-532.

Cooperative Preschool Inventory. The Cooperative Preschool Inventory was a general measure of children's achievement in areas which are often considered as necessary for success in school. Children were asked general knowledge questions (e.g., "What does a dentist do?") and questions involving basic concepts (e.g., "Put the blue car under the green box"). The test included sixty-four items with national norms based on children enrolled in eleven Head Start centers.[7]

High/Scope Home Environment Scale. The High/Scope Home Environment Scale (included in Appendix B) was a thirty-seven item parent questionnaire designed to obtain information on the child's home environment.[8] Of these thirty-seven items, twenty-nine were "yes-no" questions on three different checklists. The remainder were single questions which presented to the parent three responses from which to choose. There were six scale analyses in the test with only twenty-six of the thirty-seven test items being used in the scales. Most of the extra items were included as fillers. Because these fillers were likely to be answered favorably by the mothers, a more pleasant interviewing experience would result.

The six scale areas measured by the test included:

1. Warm Mother Involvement Scale, a measure of how often mothers spend time with their children in games, pleasant conversation, and other activities children like,

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[7]Oscar Krisen Buros, ed., The Seventh Mental Measurements Yearbook (Highland Park, New Jersey: The Gryphon Press, 1972), pp. 404-405.

[8]John M. Love, "National Home Start Evaluation: Final Report" Ypsilanti, Michigan: High/Scope Educational Research Foundation, February, 1976), pp. 45-54. (Mimeographed draft.)

2. Playthings Scale, a measure of how many of some common, ordinary playthings, which many children like, are found in the home,

3. Mother Teaching Scale, a measure of elementary reading and writing skills the parents are trying to teach their children,

4. Child Does Household Tasks Scale, a measure of how often the children help their parents with some simple household tasks,

5. Books and Reading, a measure of the number of children's books in the home, and how often someone reads stories to the children, and

6. Television Scale, a measure of how often children watch television.

Schaefer Behavior Inventory. The Schaefer Behavior Inventory (included in Appendix C) consisted of fifteen descriptive statements of child behavior that were read to the child's parent.[9] The parent indicated the degree to which the description applied to the child by responding to a seven-point scale ranging from "never" to "always." The instrument contained three scales of five items each and measured the following:

1. Task Orientation Scale, a measure of children's task involvement and motivation to complete tasks,

2. Extroversion-Introversion, a measure of children's interest in relating to other people, and

3. Hostility-Tolerance Scale, a measure of children's ability to refrain from emotional outbursts when things do not work out just right (a low score reflects "tolerance").

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[9]Ibid.

The Peabody Picture Vocabulary Test was purchased from American Guidance Service, Incorporated, while the Cooperative Preschool Inventory was bought from the Educational Testing Service. Copies of the High/Scope Home Environment Scale and Schaefer Behavior Inventory were secured from the High/Scope Educational Research Foundation.

A Home Visitor Attitude Questionnaire was used to gather information concerning the home visitor's attitude toward the effects of the program. Utilizing procedures recommended by Goode and Kerlinger, the questionnaire was developed by the project director in conjunction with several other individuals knowledgeable in early childhood education.[10] It was field tested with home visitors employed in another early childhood learning project in West Tennessee.

The instructions contained in the study requested that the home visitor supply data about his attitudes toward the frequency of home visits and their effect on (1) change of the parent's behavior and (2) level of children's achievement. Therefore, questions were specifically designed to secure these data. The nature of the variables determined the number and kinds of questions included in the questionnaire. A copy of the questionnaire is included in Appendix D.

Testing Timeline

Pretest. The home visitors visited each of the families recruited during the first four days of the first operational week of the program and informed them that they would receive either a weekly visit, a visit

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[10]William J. Goode and Paul K. Holt, Methods in Social Research (New York: McGraw-Hill Book Company, Inc., 1952), pp. 273-274; see also Kerlinger, op. cit., pp. 484-485.

every two weeks, or would not be permitted to participate in the program. If questions arose from any parent as to the frequency of these visits, the home visitors informed them that the funding was not sufficient to permit every family to be visited weekly. They further informed them that each family received equal and fair treatment in the selection and assignment process. If the home visitors felt that they had not adequately answered the parent's questions, they requested that the project director visit the parent and describe fully the assignment process.

The fifth day of the first program operational week was set aside for group training of home visitors in the proper procedures of administering Form A of the Peabody Picture Vocabulary Test, the Schaefer Behavior Inventory, and the High/Scope Home Environment Scale. Training was conducted by a school psychologist and a speech therapist, both of whom had experience in administering these tests, and were certificated by the State of Tennessee.

The Schaefer Behavior Inventory and the High/Scope Home Environment Scale were administered by the home visitors to focal parent participants during the first four days of the second program operational week. They also administered to each three-, four-, and five-year-old child Form A of the Peabody Picture Vocaculary Test.

The home visitors returned the completed instruments to the school psychologist on the fifth day of the second operational week of the program. During this same day, the school psychologist and the speech therapist instructed the home visitors as to the proper procedures for administering the Cooperative Preschool Inventory.

The first four days of the third operational week were scheduled for the home visitors to visit each home of the family participants and

administer to each of the three-, four-, and five-year-old children the Cooperative Preschool Inventory. When the administration of this instrument was completed, the home visitors returned them to the school psychologist on the first day of the third operational week of the program. The school psychologist scored all pretest instrument response sheets and gave them to the director.

Posttest. The fifth day of the thirtieth program week was devoted to a group training session in which the school psychologist and speech therapist again instructed the home visitors in the proper procedure for administering Form B of the Peabody Picture Vocabulary Test, the Schaefer Behavior Inventory, and the High/Scope Home Environment Scale.

The home visitors visited the home of each participating family in the program and administered to the focal parent the Schaefer Behavior Inventory and the High/Scope Home Environment Scale during the first four days of the thirty-first operational week of the program. Form B of the Peabody Picture Vocabulary Test was administered to each of the three- and four-year-old children at that time.

The home visitors returned the completed instruments to the school psychologist on the fifth day of the thirty-first program operational week. During this same day, the school psychologist and the speech therapist again instructed the home visitors in the proper procedures for administering the Cooperative Preschool Inventory.

The first four days of the thirty-second operational week of the program were scheduled for the home visitors to visit the home of each participating family recruited for the program, and administer to each of the three- and four-year-old children the Cooperative Preschool

Inventory. They were returned to the school psychologist on the fifth day of the thirty-second operational week of the program. The school psychologist scored all posttest instrument response sheets and gave them to the program director.

The Home Visitor Attitude Questionnaire was administered to each home visitor by the school psychologist at the time the Cooperative Preschool Inventory posttest data were returned. This instrument provided data on home visitors' attitudes toward the participating parents and children visited. These data were completed immediately by the home visitor and returned to the school psychologist. The school psychologist scored these instruments and returned them to the project director.

Two additional record-keeping tools were utilized in addition to the measurement instruments administered to the parent and child. These records were maintained throughout the program year and provided additional information about parent and child participation in the program.

The first instrument, the Classroom Attendance Record, was kept by the classroom teacher. The teacher utilized this instrument to record the attendance of those children who participated in the classroom sessions. Three times during the year--December 30, February 28, and March 30--the classroom teacher gave the classroom attendance record to the project director. The project director prepared a summary report for each reporting period, and a final report at the end of the program year.

A second instrument which provided data on parent participation was the Parent Advisory Council Attendance Record. The project director

maintained this record and prepared a year-end report denoting the record of attendance of parents who participated in parent meetings during the program year.

STATISTICAL TREATMENT OF THE DATA

The null hypothesis asserts that there is no difference between two population means, and that any difference found between the sample means is incidental and unimportant. The null hypothesis was tested in each instance throughout this study.

The scope of the investigation demanded the use of automatic computation of the data. The data gathered from the measurement instruments administered to the parents and children were recorded and, depending on the hypothesis tested, a program for analysis of covariance or coefficient of correlations was used for statistical treatment of the data.

ORGANIZATION OF THE STUDY

Chapter 1 introduced the study, stated the problem, established procedures for data collection and treatment, reviewed the plan for statistical treatment of the data, and briefly described the overall study.

Chapter 2 presents a review of related literature pertinent to the study.

Chapter 3 describes the data analysis and interpretation.

Chapter 4 contains the summary, conclusions, implications, and recommendations of the study.

Chapter 2

REVIEW OF RELATED LITERATURE

INTRODUCTION

Studies pertinent to this investigation were reviewed in this chpater. These studies served as a background for presentation of findings in the present study. References to studies were compiled in this chapter concerning the increased interest in early childhood education. They were further selected to provide specific information about several intervention programs involving young children and their parents.

INCREASED INTEREST IN EARLY CHILDHOOD EDUCATION

Interest in the study of the education of young children increased tremendously during the past decade. This interest was aroused primarily by research conducted during the 1950's which pointed to the beneficial effects of early stimulation in animals and humans. J. McV. Hunt, in his book entitled Intelligence and Experience,[1] implicated the findings of this research for early childhood education. He suggested that cognitive powers were malleable and at specific sensitive periods these powers may be enhanced by direct intervention. Additional support for Hunt's hypothesis came from an extensive review of the

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[1]J. McV. Hunt, Intelligence and Experience (New York: Ronald Press, 1961), p. 346.

literature dealing with intelligence test scores by Benjamin Bloom and his widely quoted statement that, "about 50 percent of intellectual development takes place between conception and age four."[2]

Norma Howard reviewed several preschool intervention programs which were initiated on the basis of the assumptions made by Hunt and Bloom. She found that agencies such as the Appalachian Educational Laboratory in Charleston, West Virginia, and the High/Scope Educational Research Foundation in Ypsilanti, Michigan, were instrumental in the development of such programs. The Institute for the Development of Human Resources at the University of Florida and the Demonstration and Research Center for Early Education, George Peabody College, Nashville, Tennessee, were among others contributing to experimentation in preschool intervention programs.[3]

Dramatic initial gains of up to fifteen I.Q. points produced by children participating in these programs, coupled with the prevailing social policy expressed by national governmental leaders, caused widespread adoption of programs of young children at the federal level. The most notable of these programs was Head Start.

Research in the area of early childhood education has increased since the initiation of Head Start in 1965. Several studies, with new groups of children, have been replicated; in other instances, programs with new approaches have been implemented.

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[2]Benjamin S. Bloom, Stability and Change in Human Characteristics (New York: John Wiley and Sons, 1974), p. 88.

[3]Norma K. Howard, Mother-Child Home Learning Programs: An Abstract Bibliography, ERIC Clearinghouse on Early Childhood Education ERIC Document ED060 962, April 1974; see also U. S. Department of Health, Education, and Welfare, Office of Child Development, Bibliography: Home-Based Child Development Program Resources (Washington: Government Printing Office, 1973).

Follow-up information on the children who were enrolled in these programs and have since entered elementary schools has been compiled. According to Urie Bronfenbrenner, these data were available from two types of early intervention projects.[4] The first centered on a pre-school program conducted in a group setting outside the home, e.g., nursery school, kindergarten. The second was used both independently and as a supplement to the first type of project. It involved a regularly scheduled home visit by an especially trained person who worked with both the child and his parents, usually the mother.

Results from the studies conducted on these two early learning approaches revealed similar findings. The most common was that both approaches produced substantial point gains in I.Q. scores. They were generally maintained so long as the program lasted. There was, however, one major difference between the types of projects. Children enrolled in group intervention programs conducted outside the home did not continue to make gains when the intervention was continued beyond one year. Additionally, the increases achieved in the initial year, even the largest ones, tended to dissipate. Generally, one year after intervention was terminated the I.Q. scores of those children enrolled in the program began to drop. Any differences existing between the experimental and control groups began decreasing and the once impressive gains were reduced to only a few points.[5]

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[4]Urie Bronfenbrenner, A Longitudinal Evaluation of Preschool Programs, Volume 11: Is Early Intervention Effective, Department of Health, Education, and Welfare, Publication No. 74-25 (Washington: Government Printing Office, 1974), p. 2.

[5]Ibid., p. 14.

Children enrolled in the home-based programs maintained and improved the gains made during the initial program year in contrast of the group intervention projects. Additionally, the differences existing between experimental and control groups, while decreasing slightly, were still discernible for up to three or four years after intervention was discontinued.[6] A review of some of the home intervention studies provided information on why this approach to educating young children had merit. Programs included in this review were selected because of the recognition they had received as being exemplary in nature as perceived by the researcher.

HOME-BASED PROGRAMS FOR NORMAL CHILDREN

The majority of the programs reported have involved children who were classified as being normal in their physical, emotional, social, and cognitive growth. These children most usually came from low income families since many of the projects were supported by federal funds, and as indicated earlier, the major emphasis of such efforts was to determine if the life of disadvantaged children could be improved through participation in early intervention programs.

The Infant Education Research Project

Directed by Earl Schaefer, the Infant Education Research Project involved sixty-four black male infants who were selected as subjects for the study. They were equally divided into experimental and control groups. Trained tutors worked with each child in his home for one hour per day, five days per week. This was continued from the

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[6]Ibid., p. 21.

time the participant was fifteen months old until he was three years of age. The major emphasis was placed on development of verbal and conceptual abilities through the use of pictures, games, reading, and puzzles. Parent participation in the education of the infant was encouraged, but not required. Comparisons between the groups after program termination revealed only small differences, many which favored the control group. The average I.Q. score of the tutored, as well as the untutored children, dropped after termination of the program. Both groups were equal in their performance on the Stanford Achievement Test administered at the end of the first grade. After a careful reanalysis of the data gathered during the operation of this program, Schaefer concluded that early childhood education should be family centered rather than child centered.[7]

Early Training Project

The Early Training Project was a preschool intervention project implemented by Susan Gray. It was designed for eighty-eight three- to five-year-old black children from low income families. The program focused on two major variables: attitudes and aptitudes toward achievement. Also of special interest was the parents' attitudes toward achievement, particularly in their aspirations for their children as they related to schooling.

The subjects entered the program at age three and were assigned to one of four treatment groups. The program design included summer

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[7]Earl S. Schaefer and May Aaronson, "Infant Education Research Project: Implementation and Implications of the Home-Tutoring Program," The Preschool in Action, ed. Ronald K. Parker (Boston: Allyn and Bacon, 1972), pp. 410-436.

school experiences for the children, and home visits during the winter in varying combinations for the different treatment groups. The summer school provided group experiences for the children, and was conducted by a black first-grade teacher with the aid of three or four teaching assistants. The work with parents was conducted largely through a home visitor program in which especially trained preschool teachers made weekly visits to the participating mothers and children.

The summative evaluation included a follow-up study of the children through the fourth grade. Results at the end of the fourth grade indicated that the experimental groups scored significantly higher I.Q. test scores than either of the two control groups.[8]

Florida Parent Education Early Intervention Project

A phased sequence program in which family-centered intervention was begun when the child was three months old was directed by Ira Gordon. It continued to be the primary focus of activity during the early years. A weekly home visit was conducted during the first two years of the child's life by non-professional parent educators who delivered to the parent an activity designed to stimulate intellectual growth in the child. During the third year of study, the children met in small groups in the homes of various mothers enrolled in the project.

Subjects in the program were comprised of 150 experimental families and two control groups of about thirty each. They all lived in twelve Florida counties. Significant research findings which evolved

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[8]Susan W. Gray and Rupert A. Klaus, "The Early Training Project: A Seventh Year Report," Child Development, XLI (December, 1970), 909-924.

from these Florida Parent Education Early Intervention projects included: (1) infants' and toddlers' I.Q. score levels were higher than the control groups' scores at age three, and these differences were still maintained three years after the project ended; (2) children's gains were highest through a combination of factors--time of entry in the program, length of time in the program, and consistency of involvement; (3) there were teaching patterns which related to child performance at age one; and (4) there was a clear relationship between maternal language behavior and child performance.[9]

Four years after intervention was begun, Gordon's follow-up studies helped support the following conclusions:[10] (1) The earlier parent intervention is begun, the more lasting its effects. (2) The effects of the program are greater upon children, at least through the preschool years, when parent intervention precedes group intervention. (3) The addition of a group program after a parent intervention program has operated for a one- or two-year period does not result in additional gains in children's I.Q. test scores, at least when the group intervention is introduced as early as the third year of life.

Home-Oriented Pre-School Education

The Home-Oriented Pre-School Education (HOPE) program was developed by the Appalachian Educational Laboratory of Charleston, West Virginia, because the geographical and financial constraints of the

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[9]Ira J. Gordon and others, Research Report on Parent Oriented Home-Based Early Childhood Education Programs (Gainesville: Institute for Development of Human Resources, University of Florida, 1975), pp. 111-39, 41.

[10]Bronfenbrenner, op. cit., pp. 38-39.

Appalachian Region prohibited the establishment of a traditional early childhood education program classroom. The model served children aged three through five years and their parents. It consisted of three basic components: (1) a half-hour television program broadcast five days per week, (2) paraprofessional home visitors who made weekly visits to homes to orient parents and children as to the upcoming programs, and provide both with relating learning materials, and (3) a once-per-week group experience for the children. The sample consisted of 450 children divided into three groups. Group one received television instruction, home visits, and attended the classroom sessions. Group two received the television instruction and home visits. Group three received only the television instruction. The summative evaluation of child performance indicated that children who participated in the HOPE program scored more favorably on a test of cognitive skills, tended to have increased language development, and achieved a significantly higher level of motor coordination and perceptional learning ability.[11] Television lessons and home visits (but not the mobile classroom) had positive effects on the children's cognitive development.

A follow-up study of children in the original HOPE field test was initiated during 1975. More than 300 youngsters who participated in that field test were located. The normal range of grades for these children was found to be third through seventh grades. According to the data, children who participated in some or all components of the HOPE program, as compared to children who had not participated, had

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[11]Appalachian Educational Laboratory, Evaluation Report: Early Childhood Education Program, 1969 Field Test, ERIC Clearinghouse on Early Childhood Education, ERIC Document ED 041 626, December, 1970.

significantly higher attendance during elementary school, had higher grade point averages in grades one through three, and achieved higher scores on a standardized test of basic skills in reading, English, and mathematics when the battery was given in the third grade.[12]

Supplementary Kindergarten Intervention Program

David Weikart and his co-workers established the Supplementary Kindergarten Intervention Program in order to provide a meaningful follow-up experience in school for children completing preschool programs. The program involved two components. The first component consisted of a special class emphasizing cognitive development. The second component utilized a "home counselor" who, in a series of visits, suggested activities for the mother to carry out with her child. These activities were designed to meet the child's developmental needs as diagnosed by his kindergarten teacher.

Subjects were comprised of thirty-six children who had I.Q. scores in the upper 40 percent of their class and who had recently completed local preschool programs and were ready to enter kindergarten. Matched on sex, race, and Binet I.Q. scores, they were placed into three groups. Group one received the full program, which included attending a supplementary SKIP class four half-days per week when the regular kindergarten was not in session, plus a weekly visit to the mother by a "home counselor." Group two attended the supplementary SKIP classes, but their mothers received no visits by the "home counselor." Group three participated in

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[12]Appalachian Educational Laboratory, "Follow-Up of 1968-71 HOPE Field Test Being Conducted," Appalachian Educator (Charleston: Appalachian Educational Laboratory, April, 1976), pp. 2-3.

no program beyond their regular half-day kindergarten class.

Group one made a gain of fourteen I.Q. test score points while groups two and three had test point score increases of six and seven respectively during the program year. The mothers' responses to a questionnaire measuring stimulation present in the home before and after the program indicated significant improvement for group one only.[13]

Perry Pre-School Project

David Weikart implemented the Perry Pre-School Project in an effort to increase parents' knowledge about the educational process. The subjects of the study consisted of twenty-four three- and four-year-old black children from low income families in Ypsilanti, Michigan. The program was comprised of a daily three-hour nursery class and a weekly ninety-minute home visit conducted by the classroom teacher. The purpose of the home visit was to individualize instruction through a one-to-one tutorial relationship with the student and to make the parents aware of the educational process. This would, it was hoped, bolster their child's cognitive growth through their everyday lives.

The evaluation revealed that mothers became involved in the educational process and maintained this interest over a two-year period. Children who participated in the program had a median gain of seventeen I.Q. test points. Home conditions were also studied in an attempt to determine if the home environment attributed to the differences in the high versus low I.Q. test scores made by some children. Two factors proved to account for the differences in these scores: residence in a

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[13]Norma Radin, "The Impact of a Kindergarten Home Counseling Program," Exceptional Children, XXXVL (December, 1969), 251-256.

government housing project, and participation in the instructional session by other children.[14]

Saturday School Program

The Saturday School Program was a home learning program for four-year-old children from middle income families living in a suburb of St. Louis, Missouri. Each Saturday children came to Saturday School where they participated in a two-and-one-half-hour session which included opening activities, small group instructional periods, creative play, and a closing activity. Parents were actively encouraged to participate in the classroom sessions. In addition, three teachers made weekly visits to the home, discussed the child's progress during the previous week, and reviewed with the parent a weekly home activity guide suggesting activities to be done at home in an informal, natural, and spontaneous way. The overall evaluation of the program indicated that in each of the three years it was assessed, children participating in the project made significant gains in personal, social, language, concept, and motor skill development.[15]

HOME-BASED PROGRAMS FOR CHILDREN WITH SPECIAL NEEDS

Legislation has been recently enacted at the federal and state government levels which mandated equal educational opportunity for those

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[14]Norma Radin and David Weikart, "A Home Teaching Program for Disadvantaged Preschool Children," The Journal of Special Education, I (Winter, 1966), 183-187.

[15]Reports on the Saturday School Parent-Child Early Education Program (available from the Ferguson-Florissant School District, Ferguson, Missouri), Saturday School's Impact on Students, Parents and Teachers, January 1, 1975.

children who were classified as having special needs or handicapping conditions. In an effort to determine if the home-based concept would be successful with such children and their parents, some individuals and agencies have implemented home-based early childhood education programs.

Program for Early Education for Children with Handicaps (PEECH)

The PEECH program, designed for children aged six months through six years, operated in Texas through the Region IX Education Service Center. The major objective was to train parents of handicapped children to conduct learning activities with their children on a daily basis. Handicapped was defined as including mentally retarded, visually impaired, emotionally disturbed, hearing impaired, physically handicapped, speech or language deficit, or any combination of those handicapping conditions.

The basic approach for instruction was to provide training for parents who would work with their child on a daily basis. Professional and paraprofessional home visitors made weekly visits of approximately one and one-half hours. They reviewed the child's progress made during the past week, prescribed additional activities for the child, and trained the parent to implement the newly-prescribed daily activities.

Each parent and child was evaluated upon entering and leaving the program. Pre- and posttest comparisons for project children indicated significant gains in academic age, communication age, I.Q. test scores, mental age, and combined I.Q. and mental age scores. The evaluation also indicated significant changes in parental attitudes toward child behavior and expectations.[16]

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[16]Gordon and others, Research Report on Parent Oriented Home-Based Early Childhood Education Programs, pp. 111-23-24.

The Portage Project

The program operated in the region served bv the Cooperative Educational Service Agency 12, Portage, Wisconsin, under the direction of David Shearer. It was designed to be completely home based after an informal needs assessment indicated that a classroom program for preschool handicapped children would be insufficient because of the rural nature of the area served.

The program served families with children in the age range of birth to six years. Each week a home visitor visited the parents in their home, observed the child, and established baseline data about the child's level of development. Further, the home visitor created and left with them an activity chart with three or four tasks for the parent to teach the child during the remainder of that week.

Product evaluation indicated that program children gained an average of fifteen months in mental age after participating in the project for eight months. In addition, nearly 60 percent of the children's parents were able to fully plan the curriculum without assistance from the home visitor.[17]

HOME-BASED PROGRAMS CONSIDERING THE EFFECT OF FREQUENCY OF HOME VISITS

The effect of home visit frequency upon parents and children has not been thoroughly investigated. This has been one area where a concentrated study should be conducted. Those studies which have reported on

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[17]Reports on the Portage Project: A Home Approach to Education of Handicapped Children (available from the Portage Project, 412 East Slifer Street, Portage, Wisconsin), reported by David Shearer, December, 1975.

the topic have usually given it little emphasis, and only a role of secondary importance. In those studies where a primary importance was attached to the subject, the results indicated that home visit frequency affected the parents and children.

Experimental Programs for Disadvantaged Mothers

Merle Karnes conducted a series of studies involving different approaches of working with parents and children. The first study dealt with fifteen low income mothers (of which fourteen were black) who had infants one to two years of age. It lasted for a period of fifteen months. During the program, the mothers attended a two-hour class each week in which they were provided a sequential program to use at home with their children. They were also instructed in the principles of teaching which emphasized positive reinforcement. In addition to the child-centered activities, some time in each meeting was devoted to mother-centered goals. These goals related to fostering a sense of dignity and worth as the mother demonstrated self-help capabilities within the family setting and community at large. Staff members made at least monthly home visits to help the mothers establish a positive working relationship with their children and reinforce the teaching principles introduced at the meetings. When the program ended, the performance of the experimental group was significantly superior to those of the control group. The mean I.Q. test scores of the children whose mothers had worked with them were sixteen points higher than those scores of children who had received no intervention.[18]

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[18]Merle B. Karnes, "Educational Intervention at Home by Mothers of Disadvantaged Infants," Child Development, XLI (December, 1970), 92.

A second study by Karnes was similar to the first. There were, however, three major differences. The children were older (four years of age), the program was shorter (lasting only twelve weeks), and the home visits were made every two weeks by a teacher who demonstrated teaching techniques to the mother. Evaluation of this program after termination yielded mean I.Q. test scores difference of seven points for the experimental group versus no gain for the control group.[19]

The third study Karnes made attempted to combine the mother involvement program with a group-centered preschool program for disadvantaged four-year-old children. This experiment was similar to the first two experiments with the following exceptions: first, the program lasted seven months; second, the children received instruction in the center as well as in the home; third, the number of home visits made by the teachers was reduced to three during the program year. Comparison between gains in I.Q. test scores of children in this program and children in similar preschool programs whose mothers did not participate in a special involvement program revealed a non-significant difference in favor of the control group children. Karnes attributed these findings to a marked reduction in the number of at-home visits and the mother's corresponding change of role in the program.[20]

Verbal Interaction Project/Mother-Child Home Program

Phyllis Levenstein initiated the Verbal Interaction Project in Freeport, Long Island, New York. It has been replicated in over twenty

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[19]Merle B. Karnes, Research and Development Program on Preschool Disadvantaged Children: Final Report (Washington: U. S. Office of Education, 1969), pp. 197-203.

[20]Ibid., pp. 205-212.

sites throughout the United States. Subjects in the study were fifty-four black children aged twenty to forty-eight months, and their mothers. Home visitors, referred to as toy demonstrators, made semi-weekly visits in the homes of these parents and children for a period of seven months. During these visits, he stimulated interaction between the mother and the child with the aid of a kit of toys and books referred to as Visual Interaction Stimulus Materials.[21]

A number of research studies on the children in the program produced the following selected findings: that children averaged an I.Q. test score gain of seventeen points, and these gains remained stable into the elementary school even though the program ended for the children at age four; that children had a positive mental health attitude; that children had fewer school problems; and that younger siblings of the children had an I.Q. test score higher than other children, indicating a downward diffusion of the program in the home.[22]

The experimental groups received an abbreviated program during the second year of the project. Because of this, data became available in an indirect way relative to the effect of frequency of the visits into the homes. Experimental group one received seven visits, experimental group two received half as many visits as the first year, and experimental group three received the same number of visits as during the first year. Gains in I.Q. test performance scores continued for each group. However, these gains varied directly with the intensity of the program received.[23]

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[21]Phyllis Levenstein, "Cognitive Growth in Preschoolers Through Verbal Interaction with their Mothers," American Journal of Orthopsychiatry, XXXII (April, 1970), 427-429.

[22]Gordon, op. cit., pp. 35-38. [23]Bronfenbrenner, op. cit., p. 24.

National Home Start Demonstration Program

In 1971, the National Office of Child Development initiated the National Home Start Demonstration Project. The project began in the Spring of 1972, and continued through June, 1975. The program was designed to demonstrate alternative ways of providing Head Start type comprehensive services for young children by enhancing mothers' skills in dealing with their own children in their homes. The evaluation of the program assessed its effects at various time points during the three operational years in both process and product areas. In addition, it was designed to compare the cost effectiveness of Home Start and Head Start, a center-based early learning program.[24]

The program was comprehensively evaluated in six of the sixteen Home Start Programs which were located in different areas of the United States. Several of the findings were of great significance, especially those which dealt with areas not previously considered by other researchers as equal in importance to the question of intellectual growth in children. Of particular importance were the questions relative to the impact of Home Start on families and children, cost effectiveness findings, and programmatic findings.

Impact on families and children. The impact of Home Start on families and children was significant. On a number of dimensions, Home Start produced significant changes in the experimental group as compared to the control group of parents. Home Start children were found to differ

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[24]John M. Love and others, "National Home Start Evaluation: Final Report" (Ypsilanti, Michigan: High/Scope Educational Research Foundation, February, 1976), p. 1. (Mimeographed draft.)

significantly from the control group children in several aspects of their growth and development.[25]

Comparisons of Home Start and Head Start were made to determine if one program was more effective for parents and children than the other. Although some differences were noted, ". . . for most variables there were no differences in the effects of the two programs."[26]

Cost effectiveness findings. The costs per child of Home Start were slightly less than the costs per child of Head Start. Since both programs had essentially comparable effects, Home Start was considered a more cost-effective program. Based on data from the sixteen Home Start sites, the cost of Home Start to the federal government was $1,400 per family served. Based on figures for projects in the five summative sites, the cost per child in Head Start was $1,730 per year. Home Start, therefore, appeared to be the less expensive of the two programs.[27]

Programmatic findings. One set of programmatic findings dealt with the relationship among implementation variables, program and staff characteristics, and outcomes. Of special significance were the findings relative to the effects of the home visitor upon the parent and child. The following summary outlines some of the important aspects concerning this phase of the program.[28]

1. Home visitors working with more than thirteen families had difficulty maintaining frequent and regular contact with the family.

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[25]Ibid., p. 14.

[26]Ibid., p. 16.

[27]Ibid., p. 17.

[28]Ibid., pp. 23-25.

2. Home visitors with children at home made fewer home visits than those with no children at home.

3. Home visitors' age and length of employment by the project affected home visit focus and content.

4. Variations in the frequency and duration of home visits affected parent and child outcomes.

The evaluators, with respect to the frequency and duration of the home visits, stated:

> There was a statistically significant relationship between frequency and duration of home visiting activity with families and parent and child outcomes. The language abilities of focal children developed more slowly in instances where home visitors made fewer than three visits per month. Significant declines in child development were associated with contact time between the family and the home visitor falling below an hour and a half to two hours per home visit.[29]

SUMMARY OF RELATED LITERATURE

The literature reviewed dealt with the increased interest in early childhood education. Also reviewed were home-based early childhood programs for normal children, and children with special needs. In addition, home-based early childhood programs reporting the effect of the frequency of home visits upon children and parents were reviewed. In no instance was a study found which had been designed specifically to test the eleven basic hypotheses examined in the present study.

The general literature revealed writings concerning, either directly or indirectly, each of the independent variables of the present study. A great amount of literature specifically addressed to these

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[29]Ibid., p. 25.

variables was not found. However, indications were that the frequency of the home visits does affect the cognitive growth in children, the behavior of parents, and the attitude of home visitors. On the whole, the literature was inadequate to determine the relationship between the frequency of home visits and each of the dependent variables considered in the hypotheses of this study.

Chapter 3

DATA ANALYSIS AND INTERPRETATION

Findings of the results obtained from the data are reported in this chapter. Data were gathered and treated to test the hypotheses set forth in Chapter 1. These hypotheses were tested to determine the effect of frequency of home visits upon parent behavior and child achievement.

RELATIONSHIP OF INDEPENDENT AND DEPENDENT VARIABLES

Basic statistical procedures were used to test for differences or relationships between the dependent and independent variables found in each of the hypotheses in this study. To determine if differences existed between variables, an analysis of covariance was used. Where relationships between variables were needed, the coefficient of correlations was used. The .05 level of significance was used as an acceptable level by which to accept the hypotheses. For purposes of statistical analysis, the numbers in each of the groups in this study were: experimental group one--N = 41; experimental group two--N = 39; and control group--N = 16.

Effects of Frequency of Home Visits on Parent Behavior--One Visit per Week Versus One Visit Every Two Weeks

The Schaefer Behavior Inventory and the High/Scope Home Environment Scale were used to measure parent behavior toward their children. Parents

who were visited by the home visitor once per week (experimental group one) were compared to parents who were visited once every two weeks (experimental group two). Table 1 reflects these data.

These data indicated no significant differences between the two groups on any of the Schaefer Behavior Inventory Scales. Neither were there any differences which were of a highly positive nature.

The High/Scope Home Environment Scale scores also indicated that no significant differences existed between the two groups. There were, however, two scale scores which were very positive and nearly significant. Parents who were visited once every week appeared to permit their children to help them more in the performance of household tasks. They also provided more books and reading material for their children and read more often to them. Positive, but very slight, differences were also found in the Mother Teaching and Television Scales.

Findings provided in Table 1 did not substantiate hypothesis number one. Parents who received a visit once per week did not show a significant increase in positive behavior toward their children when compared to parents who received a visit once every two weeks. Therefore, the null hypothesis, that there were no significant differences between the two groups, was accepted.

Effects of Frequency of Home Visits on Parent Behavior--One Visit per Week Versus No Visits

The Schaefer Behavior Inventory and the High/Scope Home Environment Scale were used to compare parents who were visited by the home visitor once per week (experimental group one) with parents who received no visits (control group). Table 2, page 43, shows the differences in parents'

Table 1

Comparison of Experimental Group One and Experimental Group Two Pretest-Posttest Differences on the Schaefer Behavior Inventory and High/Scope Home Environment Scale

Measurement Instrument	Pretest-Posttest Differences	Significant at the .05 Level.[a]
Schaefer Behavior Inventory Scales		
Task Orientation	.262	NO
Extroversion-Introversion	1.008	NO
Hostility-Tolerance	.155	NO
High/Scope Home Environment Scales		
Warm Mother Involvement	1.108	NO
Playthings	.779	NO
Mother Teaching	1.149	NO
Child Does Household Tasks	3.714	NO
Books and Reading	3.482	NO
Television	.042	NO

[a]An F of 4.00 was required for acceptance at the .05 significance level.

Table 2

Comparison of Experimental Group One and Control Group Pretest-Posttest Differences on the Schaefer Behavior Inventory and High/Scope Home Environment Scale

Measurement Instrument	Pretest-Posttest Differences	Significant at the .05 Level[a]
Schaefer Behavior Inventory Scales		
Task Orientation	.078	NO
Extroversion-Introversion	3.662	NO
Hostility-Tolerance	.081	NO
High/Scope Home Environment Scale		
Warm Mother Involvement	.018	NO
Playthings	5.312	YES
Mother Teaching	1.336	NO
Child Does Household Tasks	1.847	NO
Books and Reading	1.432	NO
Television	1.558	NO

[a]An F of 4.08 was required for acceptance at the .05 significance level.

behavior toward their children which existed in these two groups.

No significant differences were found to exist on any of the Schaefer Behavior Inventory scales when parents who were visited by the home visitor once per week were compared with parents who received no visits. A highly positive difference was evident on the Hostility-Tolerance scale. Positive, but very slight, differences also existed on the Task Orientation and Extroversion-Introversion scales.

The High/Scope Home Environment Scale scores showed that significant differences existed on only one scale, Playthings. Parents who received a visit once per week had significantly more things at home with which their children could play. Differences in a positive direction also occurred on the five other scales: Warm Mother Involvement, Mother Teaching, Child Does Household Tasks, Books and Reading, and Television.

Data in Table 2 suggested that in one area parents who received a visit once per week did show a significant positive increase in parent behavior toward their children when compared to parents who received no visits. This finding partially substantiates hypothesis number two. Therefore, the null hypothesis that there was no significant difference between the two groups was not accepted for the Playthings scale. The null hypothesis was accepted for Task Orientation, Extroversion-Introversion, Hostility-Tolerance, Warm Mother Involvement, Mother Teaching, Child Does Household Tasks, Books and Reading, and Television scales.

Effects of Frequency of Home Visits on Parent Behavior--One Visit Every Two Weeks Versus No Visits

The Schaefer Behavior Inventory and the High/Scope Home Environment Scale scores were also used to compare parent behavior toward their

children for those in experimental group two (parents who were visited by the home visitor once every two weeks) and the control group (parents who received no visit). Table 3 displays these data.

No significant differences were found to exist between the two groups on any of the three scales of the Schaefer Behavior Inventory. However, positive, but slight, differences were evident on each of the scales.

Highly significant differences were found to exist on the High/Scope Home Environment Scale in three areas: Playthings, Child Does Household Tasks, and Books and Reading. These findings suggested that parents in experimental group two perceived their children as having more common, ordinary playthings in the home, permitted their children to help them more with simple household tasks, provided more books and reading material, and read more often to them. Slight positive differences were also evident on the Warm Mother Involvement, Mother Teaching, and Television scales.

Hypothesis number three stated that, "Parents receiving a visit once every two weeks will show a significant increase in positive behavior toward their children when compared to parents receiving no visits." Findings presented in Table 3 partially support this hypothesis. Therefore, the null hypothesis that there was no significant difference between the two groups was not accepted for the Playthings, Child Does Household Tasks, and Books and Reading Scales. The null hypothesis was accepted for the Task Orientation, Extroversion-Introversion, Hostility-Tolerance, Warm Mother Involvement, Mother Teaching, and Television Scales.

Table 3

Comparison of Experimental Group Two and Control Group Pretest-Posttest Differences on the Schaefer Behavior Inventory and High/Scope Home Environment Scale

Measurement Instrument	Pretest-Posttest Differences	Significant at the .05 Level[a]
Schaefer Behavior Inventory Scales		
Task Orientation	.265	NO
Extroversion-Introversion	1.144	NO
Hostility-Tolerance	2.027	NO
High/Scope Home Environment Scales		
Warm Mother Involvement	.176	NO
Playthings	7.821	YES[b]
Mother Teaching	.043	NO
Child Does Household Tasks	9.328	YES[b]
Books and Reading	5.378	YES
Television	1.979	NO

[a]An F of 4.08 was required for acceptance at the .05 significance level.

[b]An F of 7.31 was required for acceptance at the .01 significance level. Therefore, this scale met the .01 significance requirement.

Effects of Frequency of Home Visits on Child Achievement--One Visit per Week Versus One Visit Every Two Weeks

The Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory were used to measure cognitive growth in children who participated in the program. Children who were visited by the home visitor once per week (experimental group one) were compared to children who were visited once every two weeks (experimental group two). Table 4 reflects these data.

Table 4

Comparison of Experimental Group One and Experimental Group Two Pretest-Posttest Differences on the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory

Measurement Instrument	Pretest-Posttest Differences	Significant at the .05 Level[a]
Peabody Picture Vocabulary Test	1.354	NO
Cooperative Preschool Inventory	2.311	NO

[a]An F of 4.00 was required for acceptance at the .05 significance level.

No significant differences existed between children who were visited once per week and children who were visited every two weeks as measured by these two instruments. However, slight positive differences were found to exist on both the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory.

These findings did not substantiate hypothesis number four that, "children receiving a visit once per week will show a significantly greater gain in achievement when compared to children receiving a visit once every two weeks." Therefore, the null hypothesis that there were no significant differences between the two groups was accepted.

Effects of Frequency of Home Visits on Child Achievement--One Visit per Week Versus No Visits

Children who were visited by the home visitor once per week (experimental group one) were compared to children who received no visits (control group) in an effort to determine if differences in achievement existed between each group. Table 5 presents these differences as measured by the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory.

Table 5

Comparison of Experimental Group One and Control Group Pretest-Posttest Differences on the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory

Measurement Instrument	Pretest-Posttest Difference	Significant at the .05 Level[a]
Peabody Picture Vocabulary Test	3.748	NO
Cooperative Preschool Inventory	4.962	YES

[a]An F of 4.08 was required for acceptance at the .05 significance level.

A highly significant difference was found to exist between experimental group one and the control group on the Cooperative Preschool Inventory. While not significant, the Peabody Picture Vocabulary Test yielded a noticeable positive difference.

Hypothesis number five was substantiated since one instrument produced a highly significant difference and the other instrument a noticeable difference in a positive direction. Therefore, the null hypothesis that there was no significant difference between the two groups was not accepted for the Cooperative Preschool Inventory. The null hypothesis was accepted for the Peabody Picture Vocabulary Test.

The achievement level of children who were visited by the home visitor once every two weeks (experimental group two) were compared to those of children who received no visits (control group) based on scores from the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory. These differences are displayed in Table 6.

Table 6

Comparison of Experimental Group Two and Control Group Pretest-Posttest Differences on the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory

Measurement Instrument	Pretest-Posttest Difference	Significant at the .05 Level[a]
Peabody Picture Vocabulary Test	4.050	NO
Cooperative Preschool Inventory	11.051	YES

[a]An F of 4.08 was required for acceptance at the .05 significance level.

[b]An F of 7.31 was required for acceptance at the .01 significance level. Therefore, this score met the .01 significance requirement.

Scores on the Cooperative Preschool Inventory indicated there was a significant difference in the achievement level of children who received a visit once every two weeks when compared to children who received no visits. A highly positive difference, although not significant, was also evident on the Peabody Picture Vocabulary Test.

Hypothesis number six stated that experimental group two would show a significantly greater gain in achievement than the control group. These findings substantiate this claim. Therefore, the null hypothesis that there were no significant differences between the two groups was not accepted for the Cooperative Preschool Inventory. The null hypothesis was accepted for the Peabody Picture Vocabulary Test.

Relationship Between Parent Behavior and Child Participation

The relationships between parents' behavior and children's participation in the program were measured by comparing posttest scale scores for the Schaefer Behavior Inventory and the High/Scope Home Environment Scale with the children's participation in the program as determined by the number of classroom sessions attended during the program year. Table 7 and Table 8, page 53, display these data for experimental group one (children who were visited by the home visitor once per week) and experimental group two (children who were visited once every two weeks).

Table 7 presents the relationships between experimental group one posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale scores and child participation in the program. No significant relationships were found to exist between any of the Schaefer Behavior Inventory scales and the number of classroom sessions attended by children

Table 7

Relationship Between Experimental Group One Posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale Scores and Child Participation in the Program

Measurement Instrument	r	Significant at the .05 Level[a]
Schaefer Behavior Inventory Scales		
Task Orientation	.274	NO
Extroversion-Introversion	.132	NO
Hostility-Tolerance	-.252	NO
High/Scope Home Environment Scales		
Warm Mother Involvement	.128	NO
Playthings	.096	NO
Mother Teaching	.078	NO
Child Does Household Tasks	.031	NO
Books and Reading	.012	NO
Television	-.026	NO

[a]An r of .325 was required for acceptance at the .05 significance level.

in experimental group one. A noticeable positive relationship existed on the Task Orientation scale, while a slight relationship was evident on the Extroversion-Introversion scale. As anticipated, an inverse relationship existed on the Hostility-Tolerance scale.

No significant relationships were found to exist in any of the six scales of the High/Scope Home Environment Scale. Positive, but very slight, correlations did exist in the Warm Mother Involvement, Playthings, Mother Teaching, Child Does Household Tasks, and Books and Reading scales. An inverse relationship existed on the Television scale.

The relationships between experimental group two posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale scores and child participation in the program are presented in Table 8.

The Schaefer Behavior Inventory Scale scores suggested that in experimental group two there were no significant relationships between the number of group sessions attended by children and parent behavior. A slight positive relationship was evident on the Task Orientation scale, while no relationship existed, either in a positive or negative direction, on the Extroversion-Introversion scale. As expected, an inverse, but slight, difference existed on the Hostility-Tolerance scale.

The High/Scope Home Environment Scale yielded similar results. No significant relationships were found to exist on any of the six scales measured by the test and the number of classroom sessions attended by children. Slight positive relationships existed on the Warm Mother Involvement, Playthings, Mother Teaching, Child Does Household Tasks, and Books and Reading scales. The Television scale yielded an inverse relationship.

Table 8

Relationship Between Experimental Group Two Posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale Scores and Child Participation in the Program

Measurement Instrument	r	Significant at the .05 Level[a]
Schaefer Behavior Inventory Scales		
Task Orientation	.128	NO
Extroversion-Introversion	.000	NO
Hostility-Tolerance	-.249	NO
High/Scope Home Environment Scales		
Warm Mother Involvement	.258	NO
Playthings	.090	NO
Mother Teaching	-.001	NO
Child Does Household Tasks	.123	NO
Books and Reading	.175	NO
Television	-.038	NO

[a]An r of .325 was required for acceptance at the .05 significance level.

Data in Table 7 and Table 8 indicated that, in both experimental group one and experimental group two, parent behavior was not related to the number of group sessions attended by children. These findings did not support hypothesis number seven which stated that, "There will be a significant positive relationship between parent behavior and child participation in the program." Therefore, the null hypothesis that there was no significant relationship between parent behavior and child participation was accepted.

Relationship Between Parent Behavior and Parent Participation

The relationships between parents' behavior and parents' participation in the program were measured by comparing the posttest scale scores for the Schaefer Behavior Inventory and the High/Scope Home Environment Scale with parent participation in the program as determined by the number of parent meetings attended by parents during the program year. Table 9 and Table 10, page 57, display these data for experimental group one (parents who were visited by the home visitor once per week) and experimental group two (parents who were visited once every two weeks).

Table 9 presents the relationship between experimental group one posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale scores and parents' participation in the program.

No significant relationships were found to exist between parent behavior and parent participation in the program as measured by any of the scales on the Schaefer Behavior Inventory. Slight positive relationships were detected on the Task Orientation and Hostility-Tolerance scales. A slight inverse relationship appeared on the Extroversion-Introversion scale.

Table 9

Relationship Between Experimental Group One Posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale Scores and Parent Participation in the Program

Measurement Instrument	r	Significant at the .05 Level[a]
Schaefer Behavior Inventory Scales		
Task Orientation	.080	NO
Extroversion-Introversion	-.215	NO
Hostility-Tolerance	.144	NO
High/Scope Home Environment Scales		
Warm Mother Involvement	-.024	NO
Playthings	-.128	NO
Mother Teaching	-.103	NO
Child Does Household Tasks	.086	NO
Books and Reading	.047	NO
Television	-.153	NO

[a]An r of .325 was required for acceptance at the .05 significance level.

No significant relationships were found to exist on any of the six scales of the High/Scope Home Environment Scale. Positive, but slight, relationships were found on the Child Does Household Tasks, and Books and Reading scales. Slight inverse relationships also existed on the Warm Mother Involvement, Playthings, and Mother Teaching scales.

The relationship between experimental group two posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale scores and parents' participation in the program are presented in Table 10.

Scale scores on the Schaefer Behavior Inventory indicated that, in experimental group two, no significant relationships existed between parent behavior and parent participation in the program. A noticeable positive relationship existed on the Task Orientation scale. Slight positive relationships also existed on the Extroversion-Introversion and Hostility-Tolerance scales.

No significant relationships between parent behavior and parent participation were apparent in experimental group two as measured by the High/Scope Home Environment Scale. A noticeable positive relationship existed on the Books and Reading scale. Strong inverse relationships were found on the Mother Teaching, Child Does Household Tasks, and Television scales. Slight inverse relationships were evident on the Warm Mother Involvement and Playthings scales.

Findings displayed in Tables 9 and 10 did not substantiate hypothesis number eight that parent behavior influences parent participation in the program. Therefore, the null hypothesis that there was no significant relationship between parent behavior and parent participation in the program was accepted.

Table 10

Relationship Between Experimental Group Two Posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale Scores and Parent Participation in the Program

Measurement Instrument	r	Significant at the .05 Level[a]
Schaefer Behavior Inventory Scales		
Task Orientation	.182	NO
Extroversion-Introversion	.152	NO
Hostility-Tolerance	.010	NO
High/Scope Home Environment Scales		
Warm Mother Involvement	-.062	NO
Playthings	-.022	NO
Mother Teaching	-.271	NO
Child Does Household Tasks	-.200	NO
Books and Reading	.266	NO
Television	-.233	NO

[a]An r of .325 was required for acceptance at the .05 significance level.

Relationship Between Parent Behavior and Child Achievement

Relationships between parent behavior and child achievement were measured by comparing the Schaefer Behavior Inventory and the High/Scope Home Environment Scale posttest scale scores with posttest scores on the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory. Data for experimental groups one and two (parents who were visited once per week and once every two weeks), and the control group (parents receiving no visits) are presented in Tables 11 through 16.

Table 11 reflects the relationships between experimental group one posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale and posttest Peabody Picture Vocabulary Test scores.

No significant relationships between parent behavior and child achievement were found to exist in experimental group one when the Schaefer Behavior Inventory posttest scale scores were compared with posttest Peabody Picture Vocabulary Test scores. Noticeable relationships in a positive direction existed on the Task Orientation and Extroversion-Introversion scales. As expected, a strong inverse correlation existed on the Hostility-Tolerance scale.

When the posttest scores of the High/Scope Home Environment Scale were compared with the posttest scores on the Peabody Picture Vocabulary Test, significant relationships were found to exist in four areas: Playthings, Mother Teaching, Child Does Household Tasks, and Books and Reading. These scale scores indicated the number of playthings found in the child's home, the effort by the parent to teach his child, how often the child was permitted to help the parent with some simple household tasks, the number of books and reading materials available, and the amount of time

Table 11

Relationships Between Experimental Group One Posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale Scores and Posttest Peabody Picture Vocabulary Test Scores

Measurement Instrument	Posttest Differences	Significant at the .05 Level[a]
Schaefer Behavior Inventory Scales		
Task Orientation	.194	NO
Extroversion-Introversion	.271	NO
Hostility-Tolerance	-.297	NO
High/Scope Home Environment Scales		
Warm Mother Involvement	.297	NO
Playthings	.344	YES
Mother Teaching	.350	YES
Child Does Household Tasks	.401	YES
Books and Reading	.339	YES
Television	-.305	NO

[a]An r of .325 was required for acceptance at the .05 significance level.

spent reading to the child had a direct influence on the level of achievement. A noticeable positive relationship was also evident on the Warm Mother Involvement scale. An inverse, but strong, relationship existed on the Television scale.

The relationships between experimental group one posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale scores and Cooperative Preschool Inventory posttest scores are displayed in Table 12.

A highly significant relationship was found to exist between posttest scores on the Schaefer Behavior Inventory Extroversion-Introversion scale, and the posttest scores on the Cooperative Preschool Inventory. This finding indicated that the child's achievement level as measured by the Cooperative Preschool Inventory was influenced by parents who perceived their children as being interested in relating to other people. A noticeable positive relationship was also evident on the Task Orientation scale. As expected, a strong inverse relationship existed on the Hostility-Tolerance scale.

The High/Scope Home Environment Scale yielded a significant relationship on two scales when compared with the Cooperative Preschool Inventory. These were Playthings and Mother Teaching. The findings suggested that the number of playthings found in the child's home and the effort made by the parent to teach the child influenced the achievement level of the child. Strong positive relationships existed, but not at the .05 level of significance, on the Warm Mother Involvement, Child Does Household Tasks, and Books and Reading scales. A slight positive relationship also existed on the Television scale.

Table 12

Relationship Between Experimental Group One Posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale Scores and Posttest Cooperative Preschool Inventory Test Scores

Measurement Instrument	Posttest Differences	Significant at the .05 Level[a]
Schaefer Behavior Inventory Scales		
Task Orientation	.271	NO
Extroversion-Introversion	.342	YES
Hostility-Tolerance	-.287	NO
High/Scope Home Environment Scales		
Warm Mother Involvement	.247	NO
Playthings	.366	YES
Mother Teaching	.704	YES[b]
Child Does Household Tasks	.317	NO
Books and Reading	.242	NO
Television	.052	NO

[a]An r of .325 was required for acceptance at the .05 significance level.

[b]An r of .418 was required for acceptance at the .01 significance level. Therefore, this scale score met the .01 significance requirement.

Table 13 shows the relationships between experimental group two posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale scores and posttest Peabody Picture Vocabulary Test scores.

Highly significant relationships between parents' behavior and their children's achievement were found to exist in experimental group two on all scales when the Schaefer Behavior Inventory scales were compared with posttest Peabody Picture Vocabulary Test scores. These findings suggested that the achievement level of the child as measured by the Peabody Picture Vocabulary Test was positively influenced by parents who perceived their children as being task-oriented and motivated to complete tasks, interested in relating to other people, and being tolerant or able to refrain from emotional outbursts when things did not suit them.

Highly significant positive relationships were also found to exist in experimental group two between the Playthings and Mother Teaching scale scores of the High/Scope Home Environment Scale and the posttest scores of the Peabody Picture Vocabulary Test. A highly significant inverse correlation was evident on the Television scale. These data indicated that the number of playthings found in the children's homes, effort by the parents to teach their children, and the amount of time spent by the children viewing television (several times a week or less) were related to their achievement level. Noticeable positive relationships also existed on the Warm Mother Involvement, Child Does Household Tasks, and Books and Reading scales.

Table 14, page 65, reflects the relationships between experimental group two posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale scores and Cooperative Preschool Inventory posttest scores.

Table 13

Relationship Between Experimental Group Two Posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale Scores and Posttest Peabody Picture Vocabulary Test Scores

Measurement Instrument	Posttest Differences	Significant at the .05 Level[a]
Schaefer Behavior Inventory Scales		
Task Orientation	.490	YES[b]
Extroversion-Introversion	.356	YES
Hostility-Tolerance	-.367	YES
High/Scope Home Environment Scales		
Warm Mother Involvement	.306	NO
Playthings	.465	YES[b]
Mother Teaching	.429	YES[b]
Child Does Household Tasks	.247	NO
Books and Reading	.178	NO
Television	-.501	YES[b]

[a]An r of .325 was required for acceptance at the .05 significance level.

[b]An r of .418 was required for acceptance at the .01 significance level. Therefore, this scale met the .01 significance requirement.

A highly significant relationship was found to exist in experimental group two between the Schaefer Behavior Inventory Task Orientation posttest scale score and posttest scores on the Cooperative Preschool Inventory. This finding suggested that the children's levels of achievement as measured by the Cooperative Preschool Inventory were influenced by parents who perceived their children as being task-oriented and motivated to complete a task. A noticeable positive relationship was also found to exist on the Extroversion-Introversion scale, while a noticeable inverse relationship was evident on the Television scale.

Highly significant positive relationships were found to exist in experimental group two between the Mother Teaching posttest scale score on the High/Scope Home Environment Scale and the Cooperative Preschool Inventory posttest scores. These data indicated that the effort made by the parents to teach their children and the amount of time spent by the children watching television (several times a week or less) were related to their achievement level. Strong positive relationships were found to exist on the Playthings and Child Does Household Tasks scales. Slight positive relationships also were evident on the Warm Mother Involvement and Books and Reading Scales.

Table 15, page 66, shows the relationships between the control group posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale scores and the Peabody Picture Vocabulary Test posttest scores.

No significant relationships between parents' behavior and the children's achievement were found to exist in the control group when the posttest Schaefer Behavior Inventory scale scores were compared with posttest Peabody Picture Vocabulary Test scores. A noticeable positive inverse relationship existed on the Extroversion-Introversion scale, while a slight

Table 14

Relationship Between Experimental Group Two Posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale Scores and Posttest Cooperative Preschool Inventory Test Scores

Measurement Instrument	Posttest Differences	Significant at the .05 Level[a]
Schaefer Behavior Inventory Scales		
Task Orientation	.595	YES[b]
Extroversion-Introversion	.300	NO
Hostility-Tolerance	-.220	NO
High/Scope Home Environment Scales		
Warm Mother Involvement	.082	NO
Playthings	.186	NO
Mother Teaching	.564	YES[b]
Child Does Household Tasks	.303	NO
Books and Reading	.027	NO
Television	-.394	YES

[a]An r of .325 was required for acceptance at the .05 significance level.

[b]An r of ,418 was required for acceptance at the .01 significance level. Therefore, this score met the .01 significance requirement.

Table 15

Relationship Between Control Group Posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale Scores and Posttest Peabody Picture Vocabulary Test Scores

Measurement Instrument	Posttest Differences	Significant at the .05 Level[a]
Schaefer Behavior Inventory Scales		
Task Orientation	.482	NO
Extroversion-Introversion	-.053	NO
Hostility-Tolerance	-.267	NO
High/Scope Home Environment Scales		
Warm Mother Involvement	-.056	NO
Playthings	.685	YES[b]
Mother Teaching	.630	YES[b]
Child Does Household Tasks	.219	NO
Books and Reading	.448	NO
Television	-.123	NO

[a]An r of .497 was required for acceptance at the .05 significance level.

[b]An r of .623 was required for acceptance at the .01 significance level. Therefore, this scale score met the .01 significance requirement.

relationship, in an inverse direction, was evident on the Hostility-Tolerance scale.

Highly significant relationships were found to exist in the control group when the Playthings and Mother Teaching categories in the High/Scope Home Environment Scale were compared with posttest scores on the Peabody Picture Vocabulary Test. These findings indicated that the number of common, ordinary playthings found in the home, and the effort made by the parents to teach their children were related to the children's level of achievement. A noticeable positive relationship was also found to exist on the Books and Reading scale while a slight positive relationship existed on the Child Does Household Tasks scale. Slight inverse relationships were also evident on the Warm Mother Involvement and Television scales.

Table 16 displays the relationships between the control group posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale scores and posttest scores on the Cooperative Preschool Inventory.

A highly significant relationship was found to exist in the control group between posttest scores on the Schaefer Behavior Inventory Task Orientation scale and posttest scores on the Cooperative Preschool Inventory. This finding suggested that the children's level of achievement was related to parents who perceived their children as being oriented and motivated toward task completion. A strong inverse relationship existed on the Hostility-Tolerance scale, while a slight inverse relationship existed on the Extroversion-Introversion scales.

The posttest scale scores on the High/Scope Home Environment Scale, when compared with the Cooperative Preschool Inventory, yielded a significant relationship on only one scale; Books and Reading. This finding

Table 16

Relationship Between Control Group Posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale Scores and Posttest Cooperative Preschool Inventory Test Scores

Measurement Instrument	Posttest Differences	Significant at the .05 Level[a]
Schaefer Behavior Inventory Scales		
Task Orientation	.589	YES
Extroversion-Introversion	-.082	NO
Hostility-Tolerance	-.432	NO
High/Scope Home Environment Scales		
Warm Mother Involvement	.214	NO
Playthings	.433	NO
Mother Teaching	.370	NO
Child Does Household Tasks	.297	NO
Books and Reading	.509	YES
Television	.076	NO

[a]An r of .497 was required for acceptance at the .05 significance level.

indicated that the achievement level of children in the control group was related to the number of books and reading materials available in the home, and the amount of time in the home spent reading to the child. Noticeable positive relationships were found on the Playthings, Mother Teaching, and Child Does Household Tasks scales. Positive, but slight, relationships were also found on the Warm Mother Involvement and Television scales.

Data presented in Tables 11 through 16 lent support to hypothesis number nine which stated that, "There will be a significant positive relationship between parent behavior and child achievement." Therefore, the null hypothesis that there was no significant relationship between parent behavior and child achievement was not accepted. The non-acceptance of the null hypothesis is more easily understood when a review of the relationships between scores which occurred within the groups was examined.

The null hypothesis was not accepted for the Playthings, Mother Teaching, Child Does Household Tasks, and Books and Reading scales when experimental group one posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale scores compared with posttest Peabody Picture Vocabulary Test scores. Since no significant relationships were found, the null hypothesis was accepted for the Task Orientation, Extroversion-Introversion, Hostility-Tolerance, Warm Mother Involvement, and Television scales. A comparison of the posttest Schaefer Behavior Inventory and High/Scope Home Environment Scale scores with the Cooperative Preschool Inventory posttest scores yielded a non-acceptance of the null hypothesis for the Extroversion-Introversion, Playthings, and Mother Teaching scales. The null hypothesis was accepted for the Task Orientation, Hostility-Tolerance, Warm Mother Involvement, Child Does Household Tasks, Books

and Reading, and Television scales.

The null hypothesis was not accepted for the Task Orientation, Extroversion-Introversion, Hostility-Tolerance, Playthings, Mother Teaching, and Television scales when experimental group two Schaefer Behavior Inventory and High/Scope Home Environment Scale posttest scale scores were compared with posttest scores on the Peabody Picture Vocabulary Test. The null hypothesis was accepted, however, for the Warm Mother Involvement, Child Does Household Tasks, and Books and Reading scales. When the Schaefer Behavior Inventory and High/Scope Home Environment Scale posttest scale scores were compared with the Cooperative Preschool Inventory posttest scores, the null hypothesis was not accepted for the Task Orientation, Mother Teaching, and Television scales. The null hypothesis was accepted for the Extroversion-Introversion, Hostility-Tolerance, Warm Mother Involvement, Playthings, Child Does Household Tasks, and Books and Reading scales.

A comparison of the control group Schaefer Behavior Inventory and High/Scope Home Environment Scale posttest scores with the posttest Peabody Picture Vocabulary Test scores produced a non-acceptance of the null hypothesis for the Playthings and Mother Teaching scales. The null hypothesis was accepted for the Task Orientation, Extroversion-Introversion, Hostility-Tolerance, Warm Mother Involvement, Child Does Household Tasks, Books and Reading, and Television. When the Schaefer Behavior Inventory and High/Scope Home Environment Scale posttest scores were compared with posttest scores on the Cooperative Preschool Inventory, the null hypothesis was not accepted for the Task Orientation and Books and Reading scales. The null hypothesis was accepted for the Extroversion-Introversion, Hostility-Tolerance, Warm Mother Involvement, Playthings, Mother Teaching,

Child Does Household Tasks, and Television scales.

Relationship Between Parent Participation and Child Achievement

Scores on the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory were compared with parent participation in the program in order to measure relationships between children's achievement and parents' participation. Parents' participation was determined by the number of parent meetings attended during the program year. Table 17 and Table 18, page 72, display these data for experimental group one (parents who were visited by the home visitor once per week) and experimental group two (parents who were visited once every two weeks).

The relationships between experimental group one Peabody Picture Vocabulary Test and Cooperative Preschool Inventory posttest scores and parent participation in the program are displayed in Table 17.

Table 17

Relationship Between Experimental Group One Posttest Peabody Picture Vocabulary Test and Cooperative Preschool Inventory Test Scores and Parent Participation in the Program

Measurement Instrument	r	Significant at the .05 Level[a]
Peabody Picture Vocabulary Test	-.055	NO
Cooperative Preschool Inventory	-.208	NO

[a]An r of .325 was required for acceptance at the .05 significance level.

No significant relationships were found to exist in experimental group one between the number of parent meetings attended by parents and the achievement level of children. A noticeable inverse relationship did exist on the comparison between parent meetings attended and scores on the Cooperative Preschool Inventory. A slight relationship, also inverse, existed between parent meetings attended and scores on the Peabody Picture Vocabulary Test.

Table 18

Relationship Between Experimental Group Two Posttest Peabody Picture Vocabulary Test and Cooperative Preschool Inventory Test Scores and Parent Participation in the Program

Measurement Instrument	r	Significant at the .05 Level[a]
Peabody Picture Vocabulary Test	.109	NO
Cooperative Preschool Inventory	.099	NO

[a]An r of .325 was required for acceptance at the .05 significance level.

No significant relationships were found to exist in experimental group two between parent participation and child achievement. Slight, but positive, correlations did exist on both the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory when these measures were compared with parent meeting attendance.

Findings in Tables 17 and 18 did not substantiate hypothesis number ten which stated, "There will be a significant positive relationship

between parent participation and child achievement." Therefore, the null hypothesis that there were no significant relationships between parent participation and child achievement was accepted.

Relationship Between Child Participation and Child Achievement

The relationships between child participation in the program and child achievement were measured by comparing the number of classroom sessions attended by the children with scores on the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory. Data for experimental group one (children who were visited by the home visitor once per week) have been compiled in Table 19. Table 20, page 74, displays these data for those children who were visited by the home visitor once every two weeks (experimental group two).

Table 19 shows the relationships between experimental group one posttest scores on the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory and child participation in the program.

Table 19

Relationship Between Experimental Group One Posttest Peabody Picture Vocabulary Test and Cooperative Preschool Inventory Test Scores and Child Participation in the Program

Measurement Instrument	r	Significant at the .05 Level[a]
Peabody Picture Vocabulary Test	.270	NO
Cooperative Preschool Inventory	.223	NO

[a]An r of .325 was required for acceptance at the .05 significance level.

No significant relationships were found to exist in experimental group one between child participation in the program and child achievement. This indicated that the number of classroom sessions attended by the children was not significantly related to the level of child achievement.

The relationship between experimental group two posttest scores on the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory and child participation in the program are reflected in Table 20.

Table 20

Relationship Between Experimental Group Two Posttest Peabody Picture Vocabulary Test and Cooperative Preschool Inventory Test Scores and Child Participation in the Program

Measurement Instrument	r	Significant at the .05 Level[a]
Peabody Picture Vocabulary Test	-.295	NO
Cooperative Preschool Inventory	-.025	NO

[a]An r of .325 was required for acceptance at the .05 significance level.

No significant relationships were found to exist in experimental group two between child participation in the program and child achievement. This suggested that scores on the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory were not significantly affected by the number of classroom sessions attended by the children.

Findings presented in Table 19 and Table 20 did not support hypothesis number eleven which stated that a significant positive relationship would exist between child participation in the program and child achievement. Therefore, the null hypothesis that there was no significant positive relationship between child participation and child achievement was accepted.

Attitude of the Home Visitor Toward Change in Parent Behavior

The attitude of home visitors toward change in the parents' behavior, as influenced by the number of home visits each parent received, was measured by the Home Visitor Attitude Questionnaire. Each home visitor responded to these attitude questions with degrees of agreement or disagreement (intensity) along a five-point scale. Questions 1, 3, 4, 5, 7, 9, 10, 11, and 13 of the questionnaire were designed to gather this information. Of these questions, numbers 1, 3, 5, 10, 11, and 13 indicated the degree to which the home visitors believed the frequency of the home visits affected the behavior of the parents who were visited once per week. Questions 4 and 7 indicated the degree to which the home visitors believed the frequency of the visits had no effect upon change in parents' behavior.

Table 21 indicated the home visitors' item response distributions in terms of percent of responses to each of the questions related to home visitors' attitudes toward change in parents' behavior as influenced by the number of home visits each parent received.

Data gathered in terms of the percent of responses to questions 1, 3, 5, 10, 11, and 13 indicated that, in general (an average of 75 percent agreed), home visitors believed that parents who were visited once

Table 21

Home Visitor Response Distributions to Questions Determining Home Visitor Attitude Toward Change in Parent Behavior as Related to the Number of Home Visits Each Parent Received

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1. Parents visited every week were easier to work with than parents visited every two weeks.	83%	17%	0%	0%	0%
3. Parents visited every week participated more in the program than parents visited every two weeks.	33%	33%	0%	33%	0%
5. Parents visited every week had a better attitude toward the home visitor than parents visited every two weeks.	33%	33%	0%	33%	0%
10. The more the parent participated in the program, the greater the achievement of the child.	50%	50%	0%	0%	0%
11. Parents' behavior toward their child would be better if every family in the program were visited every week.	50%	0%	50%	0%	0%
13. Parents visited every week taught their children more than parents visited every two weeks.	33%	33%	17%	17%	0%

Table 21 (continued)

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
4. Parents visited every two weeks did as many activities with their child as parents visited every week.	0%	33%	17%	50%	0%
7. Parents visited every two weeks supported the program as much as parents visited every week.	17%	50%	0%	17%	17%
9. There was not much difference in the attitude of parents visited every week and those visited every two weeks.	0%	67%	0%	33%	0%

per week were easier to work with, participated more in the program, and had children who had a higher achievement level. They further felt that the parents had a better attitude toward the home visitors, exhibited a stronger behavioral attitude toward their children, and taught their children more often. Surprisingly, the home visitors' responses to questions 4 and 7 (an average of 50 percent agreed) suggested that parents who were visited once every two weeks supported the program as much and did as many activities with their children as parents who were visited once per week. Even more unexpected was the home visitors' response to question 9 (67 percent agreed) which indicated the belief that there was little difference in the attitudes of parents visited every week and those visited every two weeks. These responses were seemingly in disagreement with the responses to questions 5 and 11, which indicated the home visitor thought a visit once per week would result in a greater degree of positive change in parents' behavior.

Attitude of the Home Visitor Toward the Degree of Child Achievement

The home visitors' attitudes toward the degree of change in the children's achievement, as influenced by the number of home visits each child received, were also measured by the Home Visitor Attitude Questionnaire. Questions 2, 6, 8, 12, 14, and 15 of the questionnaire were designed to gather this information. Of these questions, numbers 2 and 12 reflected the degree to which the home visitors believed the frequency of home visits affected the children's participation in the program. Question 8 indicated the degree to which the home visitors felt the number of activities the parents and children did together influenced the number of things the children learned. Data relative to the home

visitors' attitude about the effect of frequency of home visits on children's achievement are reflected in responses to questions 6, 14, and 15.

Table 22 indicates the home visitor item response distribution. These responses are in terms of percent of responses to each of the questions relating to home visitors' attitudes toward the degree of change in children's achievement as influenced by the number of visits each child received.

Information gathered in terms of percent of responses to questions 2, 8, and 12 indicated the home visitors had mixed feelings about the effect of frequency of home visits upon the participation of the children in the program. Every home visitor (100 percent) strongly agreed with question 8 that the more activities parents and children did together the more the children learned. However, they were not so sure that the frequency of home visits was related to the children's participation in the program. While 50 percent of the responses to question 12 supported the attitude that children who were visited once per week participated more in the program than children who were visited once every two weeks, 50 percent of the responses supported the opposite view. Responses to question 2, suggesting children who were visited once every two weeks participated in the program as much as children who were visited every week, produced the following distributions: 50 percent of the responses supported the attitude; 33 percent did not support the attitude, and 17 percent of the responses were in the no opinion category.

Responses to questions 6, 14, and 15 indicated that the home visitors also exhibited mixed attitudes toward the effect of frequency of visits upon the children's achievement. While 66 percent of the

Table 22

Home Visitor Response Distributions to Questions Determining Home Visitor Attitude Toward Change in Child Achievement as Related to the Number of Home Visits Each Child Received

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
2. Children in families visited every two weeks participated in the program as much as children in families visited every week.	17%	33%	17%	33%	6%
6. Children in families visited every two weeks learned as much as children in families visited every week.	0%	17%	0%	64%	19%
12. The children of parents visited every week participated more in the program than children of parents visited every two weeks.	17%	33%	0%	50%	0%
14. Children in families visited every week had a higher achievement level than children in families visited every two weeks.	33%	33%	17%	17%	0%
8. The more activities the parent and child did together, the more the child learned.	100%	0%	0%	0%	0%
15. There was not much difference in the achievement level of children in families visited every week and those in families visited every two weeks.	0%	50%	0%	50%	0%

responses supported the attitude (question 14) that children who received a visit once per week had a higher achievement level than children who received a visit once every two weeks, 17 percent of the responses were in the Disagree category. Another 17 percent of the responses were in the No Opinion category. Response to question 6, which stated that children who were visited once every two weeks learned as much as children who were visited once every week, yielded the following distribution: 83 percent disagreement and 17 percent agreement with the statement. Home visitors' responses to questions 6 and 14 clearly supported the feeling that children who were visited once per week achieved at a higher level than children who were visited once every two weeks. However, question 15 indicated that there was still some uncertainty about this attitude since 50 percent of the responses agreed and 50 percent disagreed with the question that, "There was not much difference in the achievement level of children visited once per week and those visited once every two weeks."

It appeared, based on responses to the questionnaire, that the home visitors were not sure whether a visit once per week caused a greater change in parent behavior and child achievement than a visit once every two weeks. Evidence of this uncertainty was exhibited in the somewhat erratic responses the home visitors made when answering the questionnaire.

Chapter 4

SUMMARY, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS OF THE STUDY

Chapter four is composed of four sections. The first section contains a summary of the entire study. The conclusions drawn from the study are contained in section two. The implications of the study are presented in section three, and section four includes recommendations for further research.

SUMMARY

The problem of the study was to determine if frequency of home visits to families enrolled in a home-based early childhood education program was related to changes in parental behavior and student achievement. Consideration was given to several factors in the determination of this problem. These factors were: (1) the development of a positive attitude in parents toward their children; (2) cognitive growth in children; (3) parental behavior and its relationship to parent and child participation in the program; (4) parental behavior and its relationship to child achievement; (5) parental and child participation and their relationship to child achievement; and (6) home visitor perceptions of change in parental behavior and child achievement.

A review of pertinent literature was conducted in the areas pertaining specifically to the problem of the study. Information deemed relevant was separated into major categories and appropriate

related literature was included as Chapter 2 of this study.

Four measurement instruments were used to secure data on parent behavior and child development. Each instrument was administered at the beginning and end of the project year. The High/Scope Home Environment Scale and the Schaefer Behavior Inventory were administered to parents in an attempt to determine the degree of parental behavior change. Children who participated in the program were administered the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory in an effort to determine their degree of cognitive growth. In addition to those instruments administered to the parents and children, the Home Visitor Attitude Questionnaire was administered to each home visitor at the end of the project year. This questionnaire was designed to determine the home visitor's attitude toward the degree of change in parent behavior and child achievement as influenced by the number of home visits each family received. Records of parent participation in group meetings and child attendance at the classroom sessions were also recorded in order to determine the amount of parent and child participation in the program.

Data secured from the measurement instruments were compiled and computed by the East Tennessee State University Computing Center. Depending upon the hypothesis being tested, an analysis of covariance or coefficients of correlation was used for determining differences or relationships between program variables.

Findings in the study supported the thesis that the frequency of the home visit affected parent behavior and child achievement. The hypotheses were substantiated by the findings:

Hypothesis two stated that, "Parents receiving a visit once per week will show a significant increase in positive behavior toward their children when compared to parents receiving no visit." As measured by comparing pretest-posttest scale score differences, the null hypothesis that there were no significant differences between the two groups was not accepted for the Playthings scale of the High/Scope Home Environment Scale since a significant relationship on this scale was found to exist. The null hypothesis was accepted for the Task Orientation, Extroversion-Introversion, and Hostility-Tolerance scales of the Schaefer Behavior Inventory and the Warm Mother Involvement, Mother Teaching, Child Does Household Tasks, Books and Reading, and Television scales of the High/Scope Home Environment scale because no significant pretest-posttest differences appeared between the two groups on these scales.

Hypothesis three stated that, "Parents receiving a visit once every two weeks will show a significant increase in positive behavior toward their children when compared to parents receiving no visit." Since parents who received a visit once every two weeks did show a significant increase in positive behavior toward their children as measured by pretest-posttest differences on the Playthings, Child Does Household Tasks, and Books and Reading scales on the High/Scope Home Environment Scale, the null hypothesis that there were no differences between the two groups was not accepted for these three scales. Because no significant pretest-posttest differences existed between the two groups on any of the scales of the Schaefer Behavior Inventory and the Warm Mother Involvement, Mother Teaching, and Television scales of the High/Scope Home Environment Scale, the null hypothesis was accepted.

Hypothesis five stated that "Children receiving a visit once per week will show a significantly greater gain in achievement when compared to children receiving no visit." Children who received a visit once per week scored significantly higher on the Cooperative Preschool Inventory than children who received no visits; therefore, the null hypothesis that there were no significant differences between these two groups as measured by pretest-posttest differences on the Cooperative Preschool Inventory was not accepted. The null hypothesis was accepted for the Peabody Picture Vocabulary Test since no significant pretest-posttest differences existed between the two groups on this instrument.

Hypothesis six stated that, "Children receiving a visit once every two weeks will show a significant gain in achievement when compared to children receiving no visit." The null hypothesis that there were no significant differences between these two groups as measured by comparing pretest-posttest differences on the Cooperative Preschool Inventory was not accepted because a significant difference did exist on this measurement device. The null hypothesis was accepted for the Peabody Picture Vocabulary Test because no significant pretest-posttest differences between the two groups' scores on this instrument were evident.

Hypothesis nine stated that, "There will be a significant positive relationship between parent behavior and child achievement." When posttest scores on the Schaefer Behavior Inventory and High/Scope Home Environment Scale for parents who received a visit once per week were compared with their children's posttest scores on the Peabody Picture Vocabulary Test, the null hypothesis that there were no significant relationships between parent behavior and child achievement was not accepted for the Playthings, Mother Teaching, Child Does Household Tasks, and Books and

Reading scales of the High/Scope Home Environment Scale because significant relationships were found to exist as measured by these scales. The null hypothesis was accepted for all of the scales of the Schaefer Behavior Inventory and the Warm Mother Involvement and Television scales of the High/Scope Home Environment Scale since no significant relationships were found to exist on these scales as measured by these instruments. When posttest scale scores for these two instruments measuring parent behavior were compared with children's posttest scores on the Cooperative Preschool Inventory, the null hypothesis that there were no significant relationships between parent behavior and child achievement was not accepted for the Extroversion-Introversion scale of the Schaefer Behavior Inventory, the Playthings, and Mother Teaching scales of the High/Scope Home Environment Scale because significant relationships existed as measured by these scales. Since no significant relationships were found to exist on the Task Orientation and Hostility-Tolerance scales of the Schaefer Behavior Inventory and the Warm Mother Involvement, Child Does Household Tasks, Books and Reading, and Television scales of the High/Scope Home Environment Scale, the null hypothesis was accepted for these scales.

The null hypothesis that there were no significant relationships between parent behavior and child achievement was not accepted for any of the Schaefer Behavior Inventory scales, or for the Playthings, Mother Teaching, and Television scales of the High/Scope Home Environment Scale, since significant relationships were found to exist as measured by these scales when posttest scores on the Schaefer Behavior Inventory and High/Scope Home Environment Scale for parents who received a visit once every two weeks were compared with children's scores on the Peabody Picture

Vocabulary Test. Since no significant relationships existed on the Warm Mother Involvement, Child Does Household Tasks, and Books and Reading scales of the High/Scope Home Environment Scale, the null hypothesis was accepted for these scales. When parents' posttest scale scores for the Schaefer Behavior Inventory and the High/Scope Home Environment Scale were compared with children's posttest scores on the Cooperative Preschool Inventory, the null hypothesis was not accepted for the Task Orientation scale of the Schaefer Behavior Inventory and the Mother Teaching and Television scales of the High/Scope Home Environment Scale because significant relationships were found to exist as measured by these scales. Because no significant relationships were found to exist as measured by the Extroversion-Introversion and Hostility-Tolerance scales of the Schaefer Behavior Inventory and the Warm Mother Involvement, Playthings, Child Does Household Tasks, and Books and Reading scales of the High/Scope Home Environment Scale, the null hypothesis was accepted for these scales.

A comparison of posttest scale scores for the Schaefer Behavior Inventory and High/Scope Home Environment Scale for parents who received no visits with their children's posttest scores on the Peabody Picture Vocabulary Test resulted in the null hypothesis not being accepted because significant relationships were found to exist on the Playthings and Warm Mother Involvement scales of the High/Scope Home Environment Scale. The null hypothesis was accepted for all of the scales of the Schaefer Behavior Inventory and the Warm Mother Involvement, Child Does Household Tasks, Books and Reading, and Television scales of the High/Scope Home Environment Scale since no significant relationships on these scales were found to exist.

The following hypotheses were not substantiated by the findings:

Hypothesis one stated that, "Parents receiving a visit once per week will show a significant increase in positive behavior toward their children when compared to parents receiving a visit once every two weeks." Parents who received a visit once per week did not show a significant increase in positive behavior toward their children when compared to parents who received a visit once every two weeks as measured by pretest-posttest scale score differences on the Schaefer Behavior Inventory and High/Scope Home Environment Scale. Therefore, the null hypothesis that there were no significant differences between the two groups was accepted.

Hypothesis four stated that, "Children receiving a visit once per week will show a significantly greater gain in achievement when compared to children receiving a visit once every two weeks." As measured by comparing pretest-posttest differences on the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory, the null hypothesis that there were no significant differences between the two groups' scores on these instruments was accepted because no significant differences were found to exist when these comparisons were made.

Hypothesis seven stated that, "There will be a significant positive relationship between parent behavior and child participation in the program." Since no significant relationships were found to exist on any of the posttest scale scores of the Schaefer Behavior Inventory and High/Scope Home Environment Scale when they were compared with child participation in the program as measured by the number of group sessions attended by children during the program year, the null hypothesis that there were no significant differences between the two groups was accepted.

Hypothesis eight stated that, "There will be a significant positive relationship between parent behavior and parent participation in the program." The null hypothesis, that there were no significant relationships between posttest scale scores on the Schaefer Behavior Inventory and High/Scope Home Environment scale and parent participation in the program, as measured by the number of parent meetings attended by parents during the program year, was accepted, because no significant relationships between the two were found to exist when these comparisons were made.

Hypothesis ten stated that, "There will be a significant positive relationship between parent participation and child achievement." Parent participation in the program, as determined by the number of parent meetings attended by parents during the program year, was compared with children's posttest scores on the Peabody Picture Vocabulary Test and Cooperative Preschool Inventory in an effort to determine these relationships. Since no significant relationships were found to exist when these comparisons were made, the null hypothesis that there was no significant relationship between parent participation and child achievement was accepted.

Hypothesis eleven stated that, "There will be a significant positive relationship between child participation and child achievement." Because no significant relationships were found to exist when child participation as determined by the number of group sessions attended by children during the program year was compared with posttest scores on the Peabody Picture Vocabulary Test and the Cooperative Preschool Inventory, the null hypothesis that there were no significant relationships between child participation and child achievement was accepted.

Based on the findings of this study, it appeared that the frequency of home visits to families participating in home-based early childhood education programs does affect parent behavior and child achievement. The findings yielded evidence that no significant differences in parent behavior and child achievement existed between parents and children who received a visit once per week and those who received a visit once every two weeks. However, significant differences were found to exist when parents and children who received a visit once per week or once every two weeks were compared to parents and children who received no visits.

CONCLUSIONS

Based upon the review of the literature relevant to the problem, it was concluded that there had been practically no research dealing with the effect of home visits' frequency in home-based early childhood education programs. Some studies gave casual consideration to the topic, but only one program (National Home Start) placed real emphasis on this important area.

It was concluded that a visit once per week was no more beneficial than a visit once every two weeks on the basis of data gathered concerning the effect of frequency of home visits on parent behavior. However, a parent who received a visit once per week or once every two weeks was more likely to develop a positive change in parent behavior toward his/her children than a parent who received no visits.

It was concluded, based on the data collected relative to the effect of frequency of home visits on child achievement, that a visit once per week was no more effective on influencing child achievement

than a visit once every two weeks. The child who received a visit once per week or once every two weeks, however, was more likely to have a higher level of achievement than the child who received no visits.

The relationships which existed between parent behavior and parent and child participation in the program were important to the study. Based on the data concerning these relationships, it was concluded that parent behavior was not related to parent and child participation in the program as measured by the number of group sessions attended by children and the number of parent meetings attended by parents during the program year.

Based on data gathered relative to the relationship between parent behavior and child achievement, it was concluded that the behavior of the parent was closely related to the level of achievement the child attained. It was further concluded that the greater the degree of positive change in parent behavior, the greater the degree of change in child achievement.

It was further concluded, based on data concerning the relationships between parent and child participation in the program and child achievement, that parent and child participation was not significantly related to the degree of change in child achievement. The number of parent meetings attended by parents and the number of group sessions attended by the children did not show a significant relationship to the level of achievement attained by the children.

Finally, based on responses to a questionnaire which sought to obtain the home visitors' attitude on the effect of frequency of home visits on parent behavior and child achievement, it was concluded that the home visitors were not sure whether a visit once per week caused

a greater change in parent behavior and child achievement than a visit once every two weeks. In some instances, responses to questions designed to gather information about these attitudes indicated the home visitor felt a visit once per week produced a greater change in parent behavior and child achievement than a visit once every two weeks. Responses to similar questions, however, produced the opposite view.

IMPLICATIONS

The findings of this study suggested several implications for federal, state, and local school administrators who plan to begin operating home-based early childhood education programs, or who wish to improve programs currently in operation. Since this study was done in rural Appalachia, it may have particular relevance to educational leaders residing in similar geographic and cultural areas.

School leaders desiring to implement home-based early childhood education programs should plan carefully before they make decisions about the number of families a home visitor can serve and the number of visits these families should receive. Adequate planning can insure that quality services will be provided to a maximum number of families with a minimum level of financial expenditures.

Educational administrators must become more aware of the influence of the parent upon his/her own children. Perhaps educators at every level of government should begin placing more emphasis on developing positive parental attitudes toward education, and should encourage more parent involvement in the educational process.

School leaders implementing educational programs involving pre-school children and their parents should be able to fully explain to

parents and other community members the reasoning behind decisions which may appear to favor one parent or child over other parents or children. In this study, several parents, some members of the community, and some of the home visitors had difficulty understanding why every family with eligible children could not participate in the program, or why some families received a visit once per week while other families were visited once every two weeks.

Educational administrators implementing home-based early childhood education programs should insure that personnel assigned to direct such programs are knowledgeable in the area of early childhood education, believe that parents are important teachers of their children, and are committed to working with parents as much as with children.

RECOMMENDATIONS

This study was not intended to be exhaustive. It should not be taken as all-encompassing concerning the effect of frequency of home visits on parent behavior and child achievement; rather, it should be considered as an effort to determine how educational administrators can get the maximum benefit from public funds through providing quality educational programs at reduced costs to more parents and children.

Several recommendations can be made from the findings in this study. Some are:

1. More research should be conducted on the effect of frequency of home visits on parent behavior and child achievement.

2. Additional research to further determine the effect of parent behavior on child achievement should be initiated.

3. Further research should be conducted to determine the effect

of the home visitor's attitude on parent behavior and child achievement.

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APPENDIXES

APPENDIX A

TITLE XX INCOME STANDARDS COMPUTATIONS
FINAL REGULATIONS

TITLE XX

INCOME STANDARDS COMPUTATIONS

FINAL REGULATIONS

FAMILY SIZE	70% OF STATE MEDIAN INCOME	80% OF STATE MEDIAN INCOME
1	$ 4,219	$ 4,821
2	5,517	6,304
3	6,815	7,788
4	8,113	9,272
5	9,411	10,756
6	10,709	12,239

The eligibility level for free services to the mentally and physically handicapped, the aged, and for Child Health and Development Services is 80% of the state's median income. The eligibility level for all other persons and services is 70% of the state's median income.

All residents of Tennessee who are recipients of Aid to Families with Dependent Children, Supplemental Security Income or State Supplementary Payments are eligible.

APPENDIX B

HIGH/SCOPE HOME ENVIRONMENT SCALE

405

Child's Name _____ Time Started _____
First Last

Focal Parent's Name _____ Time Finished _____

Community/City _____ State _____ Date _____

Tester _____

Comments (Child became ill, refused, etc.) _____

_____

HIGH/SCOPE HOME ENVIRONMENT SCALE

HIGH/SCOPE HOME ENVIRONMENT SCALE

I WOULD LIKE TO ASK YOU SOME QUESTIONS ABOUT THE ACTIVITIES THAT _____ (Child's Name) DOES FROM DAY TO DAY. SOME OF THE QUESTIONS ARE ABOUT THINGS HE (SHE) PLAYS WITH, AND SOME ARE ABOUT THINGS THAT YOU DO TOGETHER. THE QUESTIONS WILL HELP US TO UNDERSTAND MORE ABOUT WHAT CONDITIONS ARE BEST FOR A YOUNG CHILD AS HE (SHE) GROWS.

1. HOW MANY CHILDREN'S BOOKS ARE IN YOUR HOME THAT _____ (Child's Name) CAN LOOK AT?

   Would you say: _____ fifteen or more
   or: _____ several, but not fifteen
   or: _____ three or fewer

2. HOW OFTEN WOULD YOU SAY SOMEONE READS STORIES TO _____ (Child's Name)?

   Would you say: _____ almost every day
   or: _____ several times a week
   or: _____ not that often?

3. HOW OFTEN DO YOU AND _____ (Child's Name) TALK ABOUT THE PICTURES HE (SHE) MAKES, WHAT HE (SHE) DOES DURING THE DAY, HIS (HER) FRIENDS, AND SO ON?

   Would you say: _____ for about a half-hour or more every day
   or: _____ for a few minutes every day
   or: _____ several times a week or less?

4. HOW OFTEN DO YOU LET _____ (Child's Name) HELP YOU WHILE YOU ARE COOKING, CLEANING THE HOUSE, WASHING DISHES, OR DOING OTHER HOUSEHOLD TASKS?

   Would you say: _____ almost every day
   or: _____ several times a week
   or: _____ not that often?

5. I'M GOING TO READ A LIST OF HOUSEHOLD TASKS THAT CHILDREN SOMETIMES HELP WITH. PLEASE TELL ME WHICH OF THEM _____ (Child's Name) HAS HELPED YOU WITH IN THE LAST MONTH.

Yes	No	
_____	_____	clean or peel food for a meal
_____	_____	mix or bake things, like cookies
_____	_____	stir things while they cook, like soup, pudding, or jello
_____	_____	find food on shelves at the grocery store for you
_____	_____	take off the dishes after meals
_____	_____	put clean clothes into the right drawers or shelves

6. HOW OFTEN DO YOU JOIN IN THE PLAY ACTIVITIES THAT _____ (Child's Name) IS INVOLVED IN, SUCH AS PLAYING GAMES, DRAWING PICTURES, OR SINGING?

Would you say: _____ almost every day
or: _____ once a week or so
or: _____ not that often?

7. HOW MUCH TIME DOES _____ (Child's Name) WATCH TELEVISION?

Would you say: _____ about 2 hours a day or more
or: _____ every day but not for two hours
or: _____ several times a week or less?

8. HOW OFTEN DO YOU TALK WITH _____ (Child's Name) ABOUT HIS (HER) FEELINGS TOWARDS THINGS, SUCH AS HIS (HER) FEARS, PEOPLE OR THINGS HE (SHE) ESPECIALLY LIKES, OR PEOPLE OR THINGS HE (SHE) ESPECIALLY DOESN'T LIKE?

Would you say: _____ almost every day
or: _____ several times a week
or: _____ not that often?

9. I AM GOING TO READ TO YOU A LIST OF THINGS CHILDREN CAN PLAY WITH. PLEASE TELL ME WHICH ONES _____ (Child's Name) HAS A CHANCE TO PLAY WITH AT HOME.

Yes	No	
____	____	crayons and paper
____	____	scissors
____	____	scotch tape, paste, or stapler
____	____	jigsaw puzzles
____	____	old picture catalogs to read,and cut up, like Sears, Wards, or others
____	____	paint or magic markers
____	____	clay or playdough
____	____	"put-together" toys like tinkertoys, Legos, pegboards, or beads for stringing
____	____	hammer and nails with some wood scraps
____	____	yarn, thread, and cloth scraps for knitting or sewing
____	____	make believe toys out of milk cartons, tin cans, or egg cartons
____	____	plants of his (her) own in a pot or garden

10. HOW OFTEN DO YOU PLAY "HOUSE", "STORE", "DOCTOR", OR OTHER MAKE-BELIEVE GAMES WITH _____ (Child's Name) ?

Would you say: _____ almost every day
or: _____ several times a week
or: _____ not that often?

11. NOW I'M GOING TO READ A LIST OF THINGS CHILDREN START TO LEARN AS THEY GROW TO BE SCHOOL AGE. PLEASE TELL ME WHICH OF THEM YOU HAVE TRIED TO TEACH _____ (Child's Name) IN THE PAST MONTH.

Yes	No	Already knows	
____	____	____	nursery rhymes, prayers, or songs
____	____	____	colors
____	____	____	shapes, such as circles, squares, or triangles
____	____	____	to write his (her) name
____	____	____	to remember his (her) address and telephone number
____	____	____	to count things
____	____	____	to recognize numbers in books
____	____	____	to say the "abc's"
____	____	____	to recognize letters in books
____	____	____	to read words on signs or in books
____	____	____	ideas like "big-little", "up-down", "before-after", and so on

Be sure to record time finished

APPENDIX C

SCHAEFER BEHAVIOR INVENTORY

Child's Name _____ Time Started _____
First Last

Focal Parent's Name _____ Time Finished _____

Community/City _____ State _____ Date _____

Tester _____

Comments (Child became ill, refused, etc.) _____

SCHAEFER BEHAVIOR INVENTORY

MOTHERS SCORE FORM

	Never	Almost Never	Occasionally	Half The Time	Frequently	Almost Always	Always
1. Pays attention to what he's/she's doing when other things are going on around him/her.							
2. Tries to be with another person or group of people.							
3. Gets impatient or unpleasant if he/she can't get what he/she wants when he/she wants it.							
4. Stays with a job until he/she finishes it.							
5. Likes to take part in activities with others.							
6. Slow to forgive when offended.							
7. Becomes very involved in what he/she is doing.							
8. Enjoys being with others.							
9. Stays angry for a long time after an argument.							
10. Goes from one thing to another; quickly loses interest in things.							
11. Watches others, but doesn't join in with them.							
12. Complains or whines if he/she can't get his/her own way.							
13. Watches carefully when an adult is showing how to do something.							
14. Does not wait for others to approach him/her, but makes the first friendly move.							
15. Gets angry when he/she has to wait his/her turn or share with others.							

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APPENDIX D

HOME VISITOR ATTITUDE QUESTIONNAIRE

HOME VISITOR ATTITUDE QUESTIONNAIRE

Read each question carefully and circle the number which you feel best expresses your feelings.

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
1. Parents visited every week were easier to work with than parents visited every two weeks.	1	2	3	4	5
2. Children in families visited every two weeks participated in the program as much as children in families visited every week.	1	2	3	4	5
3. Parents visited every week participated more in the program than parents visited every two weeks.	1	2	3	4	5
4. Parents visited every two weeks did as many activities with their child as parents visited every week.	1	2	3	4	5
5. Parents visited every week had a better attitude toward the home visitor than parents visited every two weeks.	1	2	3	4	5
6. Children in families visited every two weeks learned as much as children in families visited every week.	1	2	3	4	5
7. Parents visited every two weeks supported the program as much as parents visited every week.	1	2	3	4	5
8. The more activities the parent and child did together the more the child learned.	1	2	3	4	5

HOME VISITOR ATTITUDE QUESTIONNAIRE (continued)

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree
9. There was not much difference in the attitude of parents visited every week and those visited every two weeks.	1	2	3	4	5
10. The more the parent participated in the program, the greater the achievement level of the child.	1	2	3	4	5
11. Parents' behavior toward their child would be better if every family in the program were visited every week.	1	2	3	4	5
12. The children of parents visited every week participated more in the program than children of parents visited every two weeks.	1	2	3	4	5
13. Parents visited every week taught their children more than parents visited every two weeks.	1	2	3	4	5
14. Children in families visited every week had a higher achievement level than children in families visited every two weeks.	1	2	3	4	5
15. There was not much difference in the achievement level of children in families visited every week and those visited every two weeks.	1	2	3	4	5