Spring 1998

The Influence of an Early Childhood Program on the Academic Achievement, Attendance, and Attitudes of Urban At-Risk Students

Daisy McCray Murphy
Old Dominion University

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THE INFLUENCE OF AN EARLY CHILDHOOD PROGRAM
ON THE ACADEMIC ACHIEVEMENT, ATTENDANCE, AND ATTITUDES
OF URBAN AT-RISK STUDENTS

Daisy McCray Murphy
B. S. December 1968, Norfolk State University
M.Ed. August 1978, University of North Carolina
C.A.S. May 1987, Old Dominion University

A Dissertation Submitted to the Faculty of
Old Dominion University
in Partial Fulfillment of the
Requirements for the Degree of

DOCTOR OF PHILOSOPHY

URBAN SERVICES

OLD DOMINION UNIVERSITY
April 1998

Approved by:

Jane M. Hager, Ph.D.  Stephen W. Tonelson, Ed.D.
Dissertation Chair  Member

Rebecca S. Bowers, Ed.D.  Mary E. Mackowski, Ph.D.
Concentration Area Director  Member

Donna B. Evans, Ph.D.
Dean of Darden College of Education

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ABSTRACT

THE INFLUENCE OF AN EARLY CHILDHOOD PROGRAM ON THE ACADEMIC ACHIEVEMENT, ATTENDANCE, AND ATTITUDES OF URBAN AT-RISK STUDENTS

Daisy McCray Murphy
Old Dominion University, 1998
Director: Dr. Jane Meeks Hager

The purpose of this study was to examine the influence of an early childhood preschool program on the achievement, attendance, and attitudes of at-risk students in an urban Southeastern school division in Virginia. The study compared two groups of Title I eligible four-year-olds, those who participated (n=88) and those who did not non-participate (n=54), in a preschool program. A review of the literature revealed that early intervention efforts have addressed the school success dilemma for at-risk students with varying degrees of effectiveness. Increased attention toward the implementation of developmentally appropriate learning environments have afforded at-risk students academic gains which appear to close the achievement gap between them and their peers during the early childhood years (preschool through third grade).

Independent t-tests were used to analyze third grade attendance (days present in school), academic achievement (end-of-year grades), and Stanford Achievement results in reading, mathematics, and language for students in each of the two groups. A multivariate analysis of variance (MANOVA) also was used to analyze attitudes toward learning (School Attitude Measure).

The findings failed to reject the two null hypotheses in this study with respect to attendance and attitudes toward learning. However, in two areas, mathematics grades earned
and reading scores on the Stanford Achievement Test, the non-participating group evidenced significantly higher performance. The hypothesis with respect to achievement is consistent with findings in the literature which indicate that academic gains made begin to diminish three to four years after the intervention. Implications along with future avenues of research are presented.
This dissertation is dedicated to the many people who encouraged me to dream big, work hard, and watch good things happen. My mother, Gertrude Pippen, made tremendous sacrifices that afforded me opportunities to pursue personal and professional growth. William Murphy, my husband, freed me of the traditional housewife duties and cheered my progress every step of the way. He always assured me of a victorious end.

Though deceased, the unselfish devotion of my great grandmother, Essie Gardner, my grandparents, Maggie McCoy and Richard McCoy, and my aunt, Iola Riddick provided a spiritual and educational foundation that anchored my life. Two of my beloved, deceased co-workers, Marie Chappell and Betty Ramsey, my deceased senior high school Chemistry and English teachers. Dr. Susie Vick Perry and Susan Blakely, believed in me and insisted that I persevere in my studies.

“Trust in the Lord with all thine heart; and lean not unto thine own understanding. In all thy ways acknowledge Him and He shall direct thy paths.”

Proverbs 3:5-6
ACKNOWLEDGMENTS

Throughout the course of this study, a number of marvelous individuals significantly impacted my life. This endeavor was successfully completed because they prayed, donated time and expertise to assist me. I give my respect and appreciation to the following:

- Dr. Bessie Stanbeck, a soror who secured the application for doctoral studies, insisted that I complete and submit it to begin this process.
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- Mrs. Terry Caviness, who so willingly responded to my call for her technical skills as a typist.
- Miss Marion Ransom, who so unselfishly proofread this research work.
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- Mrs. Alma Brown, Mr. Irvin Richardson, Mrs. Shirlene Shoffner, and the Title I personnel, school administrators, faculty, parents, and students who assisted with this research.
- My "Ph.D" co-workers: Dr. Patricia H. Fisher, Dr. Viola G. Morgan, and Dr. Sandra H. Smith who provided encouragement and kept me focused.

Finally, when all is said and done. I recall that this dissertation was an exciting but awesome project well worth the months of work and exhaustion. My deepest thanks go to all of my committee members who believed in me and donated their special talents to the culminating chapter of the doctoral process.
Dr. Jane Hager, my chairperson, showed patience and perseverance throughout the process, shared her expertise and gently pushed me to persist. She always made time to see me and provided the necessary feedback for progress to be made in an expedient and instructive manner.

Special thanks to Dr. Stephen Tonelson, who having never met me, responded to my request for his membership on the dissertation committee. Throughout the process, he was very specific and clear about what was expected to appropriately complete the task. His detailed feedback caused me to expand my level of written communication.

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CHAPTER I

INTRODUCTION

In a 1966 report to Her Majesty's Court in London, Plowden stated the following belief:

At the heart of the educational process lies the child. No advances in policy, no acquisition of new equipment have their desired effect unless they are in harmony with the nature of the child, unless they are fundamentally acceptable to him. Knowledge of the manner in which children develop, therefore, is of prime importance, both in avoiding educationally harmful practices and in introducing effective ones (The Plowden Report, Children and Their Primary Schools, Vol. I, p. 9).

Thirty-two years later, in the United States of America, concern related to which instructional strategies and assessment practices are most appropriate for young children continues to provoke debates among early childhood educators and concerned citizens. It is generally agreed that the first formal learning encounter should provide positive experiences which promote a love for learning.

In 1990, six ambitious National Education Goals for the year 2000 were released in a publication from the United States Department of Education (U.S. Government Printing Office, 1994). The first goal states, "By the year 2000, all children in America will start school ready to learn (p. 27)." The relative importance of this goal placed emphasis on the role that early childhood experiences can play in assuring that all children are prepared to succeed in school.
Purpose of the Study

The purpose of this study is to examine the influence of a Hampton Roads area school district’s early childhood program on primary grade students’ academic achievement, attendance, and attitudes towards learning. The program is funded with federal dollars through the Title I program formerly known as Chapter 1.

Significance of the Study

Weinberg (1979) suggested that a unique tapestry of early education practices was created by professionals in the preschool community during the 1940s and 1950s. The fabric was woven from permissive interpretations of Freudian psychology, the thinking of European educators such as Pestalozzi, Froebel, Montessori and Isaacs, as well as by the influences of American pioneers Dewey, Gesell, and Erikson. The preschool program in the 1950s provided child care and opportunities for middle-class children to socialize with their peers in a warm, supportive environment. Early programs nurtured social growth and fostered mental health. Preschool attendance was an option available to children from families who could afford the financial luxury.

Children of lower socioeconomic status (SES), when compared to children of middle SES, generally performed less well in school and had lower scores on intelligence tests (Zigler & Berman, 1983). Many believed that a program of early environmental enrichment would give lower SES children the boost they needed to perform on par with their middle SES peers. Intervention was intended to impart immediate benefits so that class differences would be eliminated by the time of regular school entry. It was expected that the brief preschool experience would provide a potent counter-action to the deficits in poor children’s lives. In
fact, the preschool experience was expected to provide a long term impact which would close the gap in achievement between the social classes in later grades.

Kozol (1991) warned that there was a large discrepancy between the achievement levels of high and low socioeconomic groups in our society. This gap will continue to widen unless children of the disadvantaged groups are given the help needed to succeed in school. Literature on student absenteeism and student attitudes towards learning suggest that high rates of absenteeism are associated with the risk of dropping out of school (Ekstrom, Goertz, Pollack & Rock, 1987; Rumberger, 1995). The more absences accumulated, the less a student is expected to adequately participate in and to understand classroom activities.

Failures of our educational system breed failures in our social and economic system. (Elkind, 1987. p. 37). School attendance, academic achievement, and attitudes towards learning impact delinquency and unemployment causing a loss of productive power for society. The urgency of the development of early childhood programs for preschool aged children increased more as space exploration expanded. Program options formerly available to few children needed to become a reality for all children. The national self-consciousness that America might fall behind in the race to conquer the frontiers of space fostered blame on the educational system (p. 45). Almost overnight changes penetrated all levels of American education. Additionally, larger numbers of mothers entered the work force. This caused more attention to be focused on what would happen to young children. Social, political, and economic factors precipitated change in America's early childhood education programs. Early childhood education is a possible remedy for educational deficiencies. It is a tool to better
prepare children for science and math, and a way to provide an intellectually stimulating environment for children in out-of-home care.

The importance of the early-experience paradigm has been noted by policy makers and the business community. An effort to eradicate poverty and to preserve the structure of the American economic system appeared to warrant support. The business leaders of the Committee for Economic Development (CED) has been convinced that if America is to be a "world class" economy in the next century, preparing a "world class" work force is critical. Investments made now to improve schools and to address the broader needs of at-risk children and their families, in their earliest years, are believed to be the best investments (Butler, 1989).

Through follow-up reports such as the one on the High/Scope Perry Preschool Program now with findings through age 27 support exists for the promotion of early childhood education programs in public schools. The findings reveal that high-quality, active learning programs for young children living in poverty do make a significant difference over a long period of time. It is also critical to note that children who participated in this early childhood program were able as adults to evidence fewer crime related contacts, earn greater salaries, own more property, and commit to marriage (Schweinhart & Weikart, 1993). The return on investment for this program is estimated to be seven dollars and sixteen cents for every one dollar spent.

If early childhood education programs can be used to equalize the chances of school success for at-risk children, the need for an investment cannot be denied based on data available through the National Center for Children in Poverty. In 1991, children under age six
who lived with single mothers were nearly five times as likely to be poor as were those who lived with two parents. The poverty rate for young children with single mothers was 59%, compared with 13% for those with two parents (Einbinder, 1995).

Poverty rates for children under age six are highest in urban areas. In 1991, the poverty rate among children under age six living in urban areas was 33%, compared with 17% in suburban areas and 26% in rural areas. Of the 5.6 million poor children under age six in 1991, 44% (2.4 million) lived in central cities, 35% (1.9 million) lived in suburban areas, and 22% (1.2 million) lived in rural areas. More than four out of every ten children under age six lived in low-income families (poor and near-poor) in 1991. This number makes up a total of approximately 10.2 million children under age six who lived in low income families in 1991 (Einbinder, 1995). According to Einbinder, the number of poor children under age six grew from 3.4 million in 1972 to 6.0 million in 1992. This 20 year trend is a harsh reality that has had a devastating consequence for children today and will have an increasingly critical impact on America's social, economic, and political standing in the world.

The challenges for schools, communities, cities, states, and this nation are clear. The focus must stay on children and learning. Children are the most valuable resources with potential that America cannot afford to waste. What they need in order to survive, develop, learn, and to become healthy self-sufficient members of society demands the attention of every concerned citizen. Current public funding at the local, state, national, and international levels fails to provide equal opportunity for all young children to benefit from an organized early childhood program.
Preschool education that has four-year olds as a core group has expanded considerably in many countries. Several countries, Denmark, Norway, Poland, Sweden, and the United Kingdom have doubled their rates of preschool enrollment during the past two to three decades. In some countries such as Belgium, France, East Germany, and the Netherlands, programs are available for almost the total population of preschool aged children. In many of the nations with whom the United States must increasingly compete for its share of the global marketplace, preschool education is a part of the social welfare system. Parents are charged mostly on a sliding scale according to household income and the number of siblings. There continues to be a need in most countries to develop satisfactory policies regarding the quality of programs, training and certification of staff, the cost of facilities as well as a sufficient number of facilities. The different challenges depend often on political beliefs and national traditions (Council of Europe. 1987).

Urban Education Perspective

According to the National Center for Children in Poverty, the challenge for schools, communities, cities, states, and this nation is clear. The focus must stay on children and learning. Children must have their needs met if they are to be expected to assume leadership roles and to contribute responsibly as adults.

This research study takes place in a highly urbanized, aging community whose population density is approximately 100,000. Service delivery to the residents is a concern of city leaders because poverty prevails due to low tax base from retail sales and property. Mobility is a way of life for many of the residents. There are six public housing projects and three large low rent developments within this urban area. If this urban community is to
flourish, the programs provided by the local public school division must meet the needs of the students.

Justification for the Study

Numerous studies since the report, A Nation at Risk (1983), reinforced the idea that America's education system is close to mortal peril. Another report entitled, America's Shame, America's Hope: Twelve Million Youth at Risk (1988), was funded by the Charles Stewart Mott Foundation to study how at-risk youth have fared in the education reform movement of the 1980s. This report stated that the children of poverty, who make up a disproportionate percentage of the at-risk population, can be truly described as educationally neglected. Projections for the year 2000 are that new jobs will require a workforce whose median level of education is 13.5 years (Smith & Lincoln, 1988). Workers generally need some college training to fill these jobs. Jobs in which a large proportion of workers have less than four years of high school are among the slowest growing and poorest paying in the economy. Jobs requiring higher levels of mathematics, language, and reasoning skills are on the increase and at a faster pace. The inescapable conclusion is that the youth who are at risk in school today and tomorrow will have to help fill those jobs (p. 2). Minority youth make up the preponderance of the group of at-risk youth; by the year 2000 one out of every three Americans will be a minority (Black or Hispanic). Smith and Lincoln (1988) found that the present level of federal funding neither served all of the low income children who needed preschool education nor all of the children who needed remediation. This study suggested that many young Americans no longer can afford to get married. Many of them are undereducated
minorities who have begun to experience the break-up of homes due to a decline in earnings. Others forestall marriage but turn to the easy money of the drug world.

In September 1989, when President Bush and the nation's Governors met in Charlottesville, Virginia, they focused on how to chart a course for educational excellence in America. It was agreed that America had an education problem. In February, 1990, five months after the summit in Charlottesville, six ambitious National Education Goals for the year 2000 were released. The first goal which states that by the year 2000, all children in America will start school ready to learn, certainly adds credibility to a need to conduct research on preschool programs as a viable support for the attainment of the national goal. A national survey of kindergarten teachers which reported that 36% of children nationwide come to school unprepared was referenced in a United States Department of Education publication entitled America 2000 Communities: Getting Started (1992, p. 5). If slightly more than one third of the kindergarten students report to school unprepared to learn, then preschool programs represent an additional time of potential preparation for later, more formal learning (see Figure 1).

A second report, America’s Challenge: Accelerating Academic Achievement (1990) provides a summary of findings from 20 years of the National Assessment of Educational Progress (NAEP). This report provided data which are a unique resource needed to monitor student achievement in the United States. NAEP is the nation's only ongoing, comparable, and representative assessment of what American students know and can do. Most of the data in this report show that America’s present education performance is low and not improving to a level to demonstrate those skills usually associated with the ability to function in more
demanding jobs in the workplace or the capability to do college work. For the at-risk populations, the mismatch between workplace needs and workforce skills is even greater. Over the years the achievement of minority students has improved, with the greatest gains in reading. Despite the performance gains made, disparities between White students and their Black and Hispanic counterparts remain unacceptably large (Mullis, Owen, Phillips, 1990, p. 39).

The data from the two reports previously mentioned suggest that there exists an urgent need to further study any avenue of hope for improving the quality of life for individuals and families while ensuring America's continued growth as a strong economic player in the global marketplace. Insights gained from preschool programs then can be replicated when they add value and are improved upon when they fall short.

A third report published by the U. S. Department of Labor entitled Learning a Living: Blueprint For High Performance (1992) supports the concern for the growing numbers of men, especially minorities, to appropriately support a family. The market value of a high school diploma is falling. The proportion of men between the ages of 25 and 54 with high school diplomas who earn less than enough to support a family of four above the poverty line is growing alarmingly. Among Black men with twelve years of schooling, the proportion with low earnings rose from 20% in 1969 to 42.7% in 1989; among Hispanic men, from 16.4% to 35.9%; and among White men from 8.3% to 22.6%. On the average, workers with high levels of skills command a weekly wage 58% higher than people with lower levels of the skills. Workers in the high-wage jobs received an average weekly salary of $513; those in low-wage jobs, $298 (p. 10). "The ability of a workforce to make the best of new
technologies may be a country’s best competitive advantage to change it, governments need to start at the school gates” (p. 19).

The results from this study of the 4-A-Good Start program may serve to strengthen the early childhood preschool education program component and contribute to the literature on the use of Title I funds to increase the academic success of students in the elementary grades. Data on the influence of this program may further prove valuable as budgetary decisions regarding the use of resource allocations are made. Data gained from this study may provide insight on the contribution this program made to local school improvement efforts. The additional time in school should serve to better prepare at-risk students for formal reading instruction. Reading is the vehicle which allows students to gain increased competence in all other content areas. The local school division, using this program, has a record of very poor student performance on standardized tests in the area of reading.

Statement of the Problem

This study examined the influence of an early preschool childhood program (4-A-Good Start) on the academic achievement, school attendance, and attitudes towards learning of urban, at-risk four year olds. The study further examined how participating 4-A-Good Start students compared to non-participating students, who were eligible for the 4-A-Good Start services but did not receive services in the areas of academic achievement, school attendance, and attitudes towards learning at the conclusion of the early childhood years.

Research Questions

To investigate the problem, the following research questions were addressed:

1. Do differences exist between students who participated in the 4-A-Good Start program
intervention and students who were eligible, but never received the 4-A-Good Start program intervention with respect to third grade academic achievement in reading, mathematics, and language?

2. Is there a difference between students who participated in the 4-A-Good Start program intervention as compared to students who were eligible, but never received the intervention with respect to third grade school attendance?

3. Do differences exist between students who participated in the 4-A-Good Start program intervention and students who were eligible, but never received the 4-A-Good Start program intervention with respect to attitudes towards learning at the end of third grade?

Hypotheses

1. There is no statistically significant difference between third grade students who participated in the 4-A-Good Start program and third grade students who did not participate with respect to academic achievement in reading, mathematics, and language, as measured by Stanford Achievement Test results and end-of-year grades.

2. There is no statistically significant difference between third grade students who participated in the 4-A-Good Start program and third grade students who did not participate with respect to school attendance as measured by days present in school in 1996-97.

3. There is no statistically significant difference between third grade students who participated in the 4-A-Good Start program and third grade students who did not participate with respect to attitudes towards learning as assessed by the School Attitude Measure (SAM).
Delimitations and Limitations

One of the most obvious limitations of this research study is the inability to assure that the most eligible at-risk four year olds were selected for the 4-A-Good Start program intervention. Four-year-olds are dependent upon the parents to provide access to appropriate program opportunities. It is unknown how many other children, who were just as eligible or more eligible at-risk, four year olds were not considered for the 4-A-Good Start program.

Prior to the administration of the School Attitude Measure to the students, the researcher reviewed the survey content and directions as written with the elementary guidance counselors. The assumption was that the guidance counselors would follow the directions as written.

The students were asked to self-report feelings and beliefs with respect to predetermined statements designed to measure five areas of attitude towards learning. Students were informed that the responses would be kept confidential and would in no way affect report card grades. The assumption was that the students would honestly report their feelings and beliefs with respect to each statement.

Another limitation is the extent to which the research data can be generalized to other early childhood preschool programs for at-risk students. Many preschool programs are characterized by a medical or health care component that responds to the physical needs of students. The 4-A-Good Start program intervention places emphases on academic and social skills development, therefore, comparisons with programs that have broader components in scope would be limited. An additional limitation is the means of consistently determining parental support with learning activities. Once the students were selected for program
participation, many parent workshop opportunities were afforded. It should be noted that parental participation was voluntary, not mandatory.

Although the teachers in the 4-A-Good Start program received the same staff development training, the continuity and consistency of program implementation cannot be validated. The assumption was that each teacher would implement the approved program content and use a variety of the developmentally appropriate instructional strategies.

The threats to internal validity in this study are numerous. The threats to internal validity for this research study are history, maturation, and the interaction of selection and maturation. History is one of the internal threats because over the four years (kindergarten through third grade) the subjects are likely to have been exposed to different events since the intervention. Such events could include after school programs, summer school attendance and individual tutorial sessions. It is possible that some of those events actually were a source of the observed effects. Additionally, maturation is a threat to internal validity because naturally occurring growth and events over time have an impact on subject characteristics thus causing a difference between the two groups of students. The difference may be mistaken for a program intervention independent variable effect on the dependent variables when it is really a direct effect of the naturally occurring event.

The threats to external validity in this study are multiple treatment interference with regard to carry over effects and perhaps the interaction between treatment effects and time of measurement. Multiple treatment interference is a threat to external validity when the effects of treatments cannot be separated from one another. Specifically, research subjects who received speech, reading resource, and other Title I support services may in some way be impacted by
these services. When some subjects are administered other treatments and other subjects only receive the 4-A-Good Start program intervention treatment, one treatment can augment the results of another treatment administered after it.

**Definition of Terms**

There are a number of terms used in this study that are critical for a clear understanding of the information included. The definitions of these terms are provided in the following paragraphs.

1. **Academic Achievement** - Academic achievement is reflected in students' class grade in reading, language, and mathematics as recorded in the educational record at the end of grade 3. Also included in academic achievement are the results of students' performance on the Stanford 9 Achievement Test in reading, language, and mathematics at the end of grade 3.

2. **At-Risk Students** - For the purpose of this study, at-risk students are defined as being economically disadvantaged because they qualified for free or reduced lunch and are educationally deprived because of poor performance on the Brigance Preschool Screen for Three- and Four-Year-Old Children.

3. **Attendance** - Attendance is the summation of the number of days students were present in school during the third grade year (1996-97) as indicated in educational records.

4. **Attitude** - Attitude is used to convey the extent to which students demonstrate a willingness to participate in school with confidence or the ability to perform school tasks competently as measured by the School Attitude Measure (SAM) produced by America College Testing (Wick, Dolan, & Enos, 1991).
5. **Title I (formerly Chapter I)** - This is the largest federally-funded program designed
to provide additional support for services to the low economic and disadvantaged students in
greatest need.

6. **Developmental Appropriateness** has two dimensions; age and individual
appropriateness.

**Age appropriateness** - Human development research indicates that there are
universal, predictable sequences of growth and change that occur in children during the first
eight years of life. The predictable changes occur in all domains of development labeled
physical, emotional, social, and cognitive.

**Individual appropriateness** - Each child is a unique person with an individual pattern
and timing of growth, as well as individual personality, learning style, and family background
(National Association for the Education of Young Children, 1987, p. 2).

7. **Early Childhood Program** - For the purpose of this study, Early Childhood Program
refers to a local school division preschool initiative not routinely available in all schools to all
students. Assessment of program effectiveness is measured at the close of the early childhood
years, grade three.

8. **Readiness for Learning** - The term refers to the level of development at which an
individual has the capacity to undertake the learning of specific material-usually the age which
the average group of individuals have the specified capacity (Kagan, 1990, p. 273).

9. **Readiness for School** - This term refers to a fixed standard of physical, intellectual,
and social development sufficient to enable children to fulfill school requirements and to
10. **Urban** - The U.S. Census Bureau defines an urban area as one that has a population of at least 50,000 persons and a population density of at least 1,000 persons per square mile. Within the boundary of the urbanized area, there may be some spaces that are less densely settled than the 1000 persons per square mile (U.S. Census Bureau, 1990. p. 20).

11. **4-A-Good Start** - One school division's preschool program was developed to serve the eligible four year old children at greatest risk of failure in public school kindergarten based on available Title I funds.

12. **Low income** - For the purpose of this study, students were categorized as low income if they were eligible to receive free or reduced lunch when applying for the preschool program.

**Summary**

The first National Education Goal states, "By the year 2000, all children will start school ready to learn." (p. 27). In expressing this goal, emphasis was placed on the role that children's early experience plays in preparing them for successful schooling. The first objective associated with this goal states that all disadvantaged and disabled children will have access to high quality and developmentally appropriate preschool programs that help prepare them for school. This research study focused on a local school district's preschool program designed to prevent school failure for young at-risk children. There exist varied views of what education ought to be, and what is considered the best education for children changes as the perceived needs of society change. The civil rights movement produced basic education programs that were funded to improve the education of low income children. Most of the programs were federally funded in the 1960s and 1970s through Head Start as part of the War
The premise was that early intervention programs for children from low socioeconomic groups would prosper more from the schooling they received than would children from similar circumstances who did not receive early training and opportunities to learn.

The population of low income minorities is growing faster than that of the middle and high income European population in America (U.S. Census Bureau, 1990). Unless there are changes in the level and quality of education for low income minorities, who will make up the majority of the available work force in the 21st century, this country stands to lose ground in economic competitiveness. The global economy is becoming more and more integrated: Europe, Japan, the United States, and the Third World are coming together. American companies are moving operations abroad, and other countries are setting up offices. Less skilled jobs disappear across international borders. The demand for people who have problem-solving skills, who can think abstractly and experiment intellectually, who have critical knowledge and skills and can identify and solve problems quickly is increasing. People without those abilities will be locked in a local service economy of fast food restaurants, hotels, retail stores, and hospitals.

The over-representation of ethnic minorities and children of poverty in the population of children showing early school failure has been well documented. This situation creates pressure, on both the educational system and the children served by the system. Preschool programs have a dual role of early intervention and prevention. DeBlois (1989), Baldwin (1990), and DeRidder (1990) all cite lack of attendance as a major factor often resulting in dropping out of school. Hegner (1987) shares the view that success of the educational process
depends on the presence of students in the classroom, continuity of instruction, class participation, and well planned instructional activities.

The nation's economic future depends on the skills of the people. Schools are primary institutions, devoted to preparing people for the future. There are some longitudinal studies that indicate positive effects of early childhood programs for participants into their adult years. Thus, this research examined the influence an early childhood preschool program, 4-A-Good Start, had on the academic achievement, school attendance, and attitudes towards learning of the at-risk four-year-olds.
CHAPTER II

LITERATURE REVIEW

Introduction

The literature reviewed in this chapter provides a conceptual framework for conducting the research presented and provides insight into various aspects of the study of academic achievement, attendance, and attitudes towards learning. In order to build a conceptual framework for this study, an understanding of the historical perspective of early childhood education is needed. Areas of early childhood education that impact school success for at-risk students in the primary grades are critical to the knowledge base for this study.

Historical Perspective of Early Childhood Education

The general purpose of education is to provide the individual with the means to improve one's quality of life. These means may vary from gaining an intellectual perspective of the status-quo to mastering a vocational skill, from learning to view change to learning how to change views, from learning how to do to learning what to do. The overall objective of education, as summarized by Whitehead (1967), is that it is "the acquisition of the art of the utilization of knowledge for the purpose of improving the quality of life" (p. 4).

Two essential points are inferred from these general comments. First, education is more than the acquisition of knowledge; it is learning how knowledge can be used—that is, learning the functions of knowledge. Second, education is relevant to the quality of life. Through education a happier, more aware, more interested, and most of all, more adaptable life can be obtained. Agreement on the relative importance of education does not necessarily yield agreement on how to best provide educational programs.
Throughout the history of early childhood education, differences in beliefs and approaches have continued to exist. The beginning history of early childhood education was dominated by the growth of kindergartens and influenced by the work of Froebel, who opened his early childhood program in Germany in 1837 and is credited with the creation of kindergarten education. Froebel's program was questioned by some early childhood educators at the turn of the century. A ten-year public debate (1903-1913) existed within the International Kindergarten Union between Blow and Peabody. They were prominent leaders of the kindergarten movement within the United States. They argued that Froebel's curriculum was too structured, rigid, and unscientific (Committee of Nineteen, 1913, p. 22). Ideas put forth by progressive, early-childhood educators, such as Hill, a colleague of philosopher Dewey, and learning theorist Thorndike, became more prevalent. The debate in a report The Kindergarten (Committee of Nineteen, 1913), culminated with the ideas of Dewey and Thorndike. Theories of child development have served as the dominant foundation for early childhood educators. Spodek (1973) suggested that theories of child development and learning have been organized into templates for use in the creation of educational programs.

The field of early childhood intervention has, from its inception, been characterized by experimentation and gradual development. To a great extent, the enthusiasm with cognitive improvement was spurred by animal research on early deprivation. For example, Riesen (1958) demonstrated that perceptual stimulation is required for perceptual growth. This finding was translated by others as a need to place emphasis on providing high degrees of
perceptual stimulation to infants and young children. There are additional examples of how animal research impacted the progress of early childhood education.

Another significant influence on early intervention efforts was Hebb's (1949) study of the ability of home-reared and laboratory-reared rats to shift routes to food. Hebb found that the animals raised as pets performed better initially and improved more over time than did the laboratory-reared animals, leading him to conclude "the richer experience of the pet groups during development made them better able to profit by new experiences at maturity—one of the characteristics of the intelligent human being" (p. 89).

Hunt (1961) argued against the notion of genetically-fixed intelligence. contrary to Jensen, by taking the opposite stance: he argued that intelligence is essentially the product of environmental factors. Hunt theorized (in part on the basis of the animal literature) that it is possible to promote a faster rate of intellectual development and a higher level of adult intelligence by "governing the encounters that children have with their environments, especially during the early years of the development" (p. 363). This argument related to Piaget's concepts of assimilation and accommodation. Piaget suggests that a child's rate of intellectual development depends in large part on the appropriateness of the match between the early experience and later intelligence.

The work of Erikson (1963) suggested that early childhood is not the time to impose adult learning priorities. Erikson maintained that early childhood is the period during which the child needs to establish a healthy sense of initiative, and that adults can help the child by appreciating and supporting the child's needs to explore, experiment, and construct. If adults in the child's environment are too harsh in reacting to explorations, the child's sense of guilt
might overwhelm his or her sense of initiative. A child might move through the school years overly dependent on adult direction and afraid to initiate activities on his or her own.

Bloom, Montessori, Piaget, Bruner, and others had an impact on the changed perception of young children and early childhood education. It was not so much the rise of new research, but rather, a new emphasis on early childhood education as a solution to a number of difficult social problems that prompted change. The work of Bloom (1964) provided facts that were used to support the new importance of early childhood education. Bloom claimed that young children attain half of their mental abilities by the age of four. This was interpreted to mean that educational intervention should begin early to capitalize on this window of rapid intellectual growth. Without examining the premise, many people accepted Bloom’s conclusion. What Bloom had reported was a well-known and established fact: that intelligence test scores of infants and young children are less reliable indices of later intelligence than scores attained at later ages.

Montessori (1964) recognized the same principle. Her educational program is based on the realization that adults can prioritize learning in ways that serve to extinguish the child’s spontaneous learning. She believed that materials that are appropriate to the "sensitive periods" of the child’s development should be provided (p. 64). The liberty of the child was critical to the child’s unfolding mental abilities and the need for materials that nourish that ability.

According to Piaget, a child goes through four developmental stages: the sensorimotor, the pre-operational, the concrete-operational and the formal-operational (Forman & Kuschner, 1983). He believed that knowledge was an active construction, not passive
copying. Knowledge is constructed by self-regulated play. Piaget's theory of knowledge instructs one indirectly to examine the child's task as one of dealing with the continuities and discontinuities in the immediate surroundings. Through self-regulation the child can put to use the biologically given competence to construct a meaningful interpretation of reality. Spontaneous activity and problem solving are valued and encouraged (Piaget & Inhelder, 1967).

The phrase "Piagetian mystique" was borrowed from Evans (1975) who credited most of the attention to children's cognitive development in the sixties and seventies to the ideas of Piaget. Prior to the 1960s, interest in the intellectual development of preschool children was limited because it was presumed to be predetermined and fixed by heredity. Piaget offered a conceptual structure around which a preschool curriculum model could be built, an explicit rational for preschool activities.

According to Kliebard (1986), Piagetian theory found not only a receptive psychological and social climate in the United States, but also a political one as well. It was not only that Piaget's theory focused on cognitive development at a time when the nation was interested in intellectual development but that his theory saw cognitive development as the result of the child's active interaction with a stimulating environment. Interest in his theoretical ideas was also assured by the fact that his theory specifically conceptualized the development of logical reasoning. Piaget's theory focused on the same logical operations that are considered the underpinnings of mathematics and science. Student mastery of these disciplines was going to assure the technological superiority of the United States over its competitors and victory in the Cold War competition between the then-Soviet Union and the
United States. Murray (1979) concluded that these factors made the adoption of Piagetian theory virtually inevitable.

Given that the content of Piaget's theory and research was largely based on children's reasoning in mathematics, science and logic, and the lack of similar content anywhere else in psychology, it was all but inevitable that Piaget would dominate these curricular reforms (p. 34).

Piaget's acceptance by the general educational community was broad. Murray also notes that Piaget's claim that intellectual development progressed in terms of a hierarchically organized sequence that was rooted in sensorimotor activity ensured, as well, the interest of those concerned with early childhood education. In contrast to the more technical and instructional emphasis simultaneously emanating from behavioral theory, Piaget's theory offered early childhood educators a framework for incorporating some cognitive development into early childhood education in a way compatible with their existing notions of teaching and learning as interactive and developmental.

Bruner, Oliver, and Greenfield (1966) were concerned with both a developmental theory and with a theory of instruction. Bruner proposed that with regard to development, preschool children are expected to view their world primarily in terms of inactive (action-based) and iconic (image-based) representations, along with a developing capacity for symbolic representation. Cognitive growth was considered the successive mastery of all three forms of representation. Learning activities are expected to correspond with the child's way of representing experience.
With respect to curriculum content, responsibility for identifying concepts from the culture that would benefit and interest children lies with the teacher. Bruner's (1966) studies on thinking and learning projected the view of the child as a participant in the learning process. The teacher was charged with the challenge to provide appropriate stimulation and to structure learning experiences to foster and enhance the cognitive growth of young children. While teaching basic concepts, teachers were advised to encourage children to consider the properties of a particular concept. An example would be to look at what distinguishes plants from animals or birds from fish. In addition to subject matter concepts, skills should be taught to children, since knowing is a process as well as a product. Bruner also suggested that curriculum should be organized in a spiraling sequence in which basic concepts are introduced and then reintroduced at a later time, usually at increasing levels of abstraction. Children should be invited to apply, in an exploratory fashion, prior-learned information to new information.

In discussing models of the learner, Bruner (1985) stated, "We would do well to equip learners with a menu of possibilities. and in the course of their education, to arm them with procedures and sensibilities that would make it possible for them to use the menu wisely" (p. 8). He made the point that there is not one kind of learning since any learner has a variety of strategies with which to generate hypothesis to go beyond the information given. Children do not follow any predetermined step-by-step learning procedure during related learning activities that has been dictated by a prior lesson. For young children, the support system Bruner mentions will be both teachers and parents, but in the case of classroom learning,
essentially teachers take the responsibility for describing, demonstrating, and explaining a task first. The child then proceeds with learning at his or her own rate in the presence of experts.

Ausbel's educational theory, also reflected the developmental views of Piaget and the educational and developmental theories of Bruner (Lawton, 1987). Ausubel provided a description of stages of intellectual development based idiosyncratically on that of Piaget (Ausubel, Novak, & Hanesian, 1978). He mentioned three stages of development, the proportional, concrete operational, and abstract logical which coincide with the preschool, elementary, and high school years. According to Ausubel, the principal characteristic of developmental change is a decreasing dependence over time on concrete materials when learning concepts or solving problems. From this perspective, development places obvious constraints on early learning. Preschool children are expected to be able to comprehend and utilize only primary concepts, that is, concepts which are clearly exemplified by the use of concrete illustrative materials.

In the theory of meaningful learning, Ausubel referred principally to the learning of subject matter concepts. It is expected that the child will find learning meaningful when superordinate concepts and related superordinate concepts and particular information are learned through a process of sub-sumption. This means that the child first learns the essential properties of a superordinate example. For example, the child might be introduced to the concept of living things (nonliving things). Using a suitable instructional method with related content and learning activities, the child comes to understand that living things move by themselves, make babies of their own kind, need food and water to live, and that they grow both bigger and older over time. The child is presented with various examples of animals and
plants that clearly exemplify these properties of living things. The exemplifying information is meaningful in this relationship to the basic concept of living things. The importance Ausubel attributes to the learning of general (sometimes referred to as basic) concepts is based on the assumption that human minds naturally organize information into hierarchies of related concepts.

Other psychologists have taken the same view. Gagné described hierarchies of learning for both subject matter concepts and skills (Gagné & Briggs, 1974). The important message is that the ability to generalize is, perhaps, the most important outcome of learning. In order to generalize, the child must understand that which is general. Vygotskian theorists, rekindling environmentalist arguments, advocated placing children in rich learning situations as a means of hastening development. Vygotsky advanced an approach years ago that contends learning precedes development (Vygotsky, 1978). Children are viewed as ever-ready learners who grow into the intellectual life around them and are stimulated by it. Learning nourishes development; therefore, children need to be in environments where adults and peers will foster learning. This is a marked contrast to the maturationist's notions that advocated keeping children out of school until they are deemed ready to learn. Rather than delaying entry until children are ready for school, Vygotskian supporters, who have grown in number, advocate that schools must be ready for all children.

Mandates for Early Childhood Programs

Continuing increases in women's participation in the labor force, coupled with growing interest in early education, have propelled ever larger percentages of youngsters into early care and education programs before they reach school age. About 85 percent of today's young
children have some type of out-of-home setting before entering school (West & Hausken, 1995). Increased social and political interest in young children has been accompanied by invigorated work among scholars, theoreticians, and practitioners. This interest was spurred on by task forces and commissions and by a new infusion of dollars for research and analysis in the 1980s. Many conventional ideas were reassessed. In some cases, ideas that had been debated for decades were brought into harmony and codified into useful documents. In other cases, ideas that had been accepted for years were revisited (e.g., the relationships between learning and development) or challenged (e.g., ideas about testing, retention, and accelerated learning).

It is rare for an education book to reach and remain on the New York Times best seller's list for as long as 93 weeks (Kagan, 1990). It is even rarer when such a volume relates to kindergarten. All I Really Need to Know I Learned in Kindergarten authored by Fulghum (1988) achieved this level of success. The book conveys a double message. First, it speaks quite retrospectively, of highly personal, and nostalgic memories. Second, it speaks prospectively, and creates visions of a heightened importance of the early years of schooling and of the collective responsibility to make the most of those years.

Whether measured by the number of commissions, panels, and task forces addressing early care and education or by the number of legislative initiatives in the states, Fulghum's message could not have been more timely. Between 1979 and 1991, the number of states that developed early childhood programs tripled (Adams & Sandfort, 1994). There are two years left to reach the national education goal, "all children will enter school ready to learn" and the objective that all disadvantaged and disabled children have access to high-quality and
developmentally appropriate preschool programs" (Kagan, 1992, p. 50). Recent statistics suggest that much work remains to be done to meet this goal. Not only were preschool children poorer than the rest of the population in 1990, they also became poorer between 1980 and 1990. From 1980 to 1990, the number of poor children increased by 28%, while the total preschool age population increased by only 16%. Poor preschoolers are more likely to live in cities and suburbs, but about one fourth live in rural areas. Members of all minority groups comprise approximately 30% of the total preschool population; 60% of preschoolers living in poverty are members of a minority group. The number of preschoolers living in single-parent families increased for all categories. However, 60% of poor and 30% of near-poor children of preschool age live in single parent families. About 35% of poor and near-poor three and four year old children participated in preschool, compared with 45% of the non-poor population (Rossi & Stringfield, 1992).

As bleak as these numbers appear, the trend continues. The State of America's Children Yearbook cited that one in four children younger than age six living in families with income below the poverty level (Children's Defense Fund, 1996). Quality early childhood education for all remains an investment in individuals for the personal and the national well being. Access and opportunity for all becomes a mandate if American is to have a healthy economic, political, and social existence. Those who disagree on the best curriculum model and instructional strategies often agree increasingly on the need to engage children early in meaningful growth experiences.

The dramatic increases in corporate commitments show that America is concerned about what it is doing and what it should be doing to ready its young children for school and
for the twenty-first century. These concerns led President Bush and the nation's governors to proclaim, as the first of the national goals for education, "by the year 2000, all children in America will start school ready to learn" (Boyer, 1991, p. 18). Many have come to believe that the nation's future and the quality of the children's education are inseparably connected. Underscoring the importance of the goal, respondents to the 22nd annual Gallup Poll cited it as one of their top priorities and accorded it the highest likelihood of attainment (Elam, 1990).

Increased federal funding has been tagged as a way to respond to the nation's concern for achieving the education goals. Title I, which has reverted from Chapter 1 to its original name, is the largest of the Elementary and Secondary Education Acts (ESEA). It is the centerpiece of the Improving America's Schools Act signed into law by President Clinton in October 1994. Title I is currently the largest single program of federal education aid to elementary and secondary school students, accounting for about 22% of the entire Department of Education (DOE) budget. The program is funded at 7 billion dollars and serves over 6.5 million children in two-thirds, about 54,000, of the nation's elementary schools (LeTendre, 1996).

LeTendre (1996) suggested that early intervention may be key to academic success and that children who succeed are more likely to remain in school. Title I, therefore, may play an important role in the pursuit of two of the national education goals: to make sure that by the year 2000 all children entering school will be ready to learn and to increase the high school graduation rate to 90% by the year 2000. LeTendre also recommended a serious look at the use of Title I funds and advocated for increased use of funds toward the development of more preschool and dropout prevention programs. The reauthorization of the act shifted the focus from one of remediation to prevention. It represented a front loading of Title I services to be
delivered before children fall so far behind that it is difficult for them to catch up. This is the spirit in which the 4-A-Good Start program, also a Title I program, was organized and implemented. Efforts on behalf of America's disadvantaged children has a new priority in the eyes of the nation because of the national education goals. With its new structure and new emphasis on helping disadvantage students meet the same high standards expected of all children, Title I is a powerful tool for school districts and individual schools. Preschool children can be served at whatever age the school districts choose.

A review of a longitudinal evaluation of Georgia's preschool program, completed by staff at Georgia State University (Quacy, Kaufman-McMurrin, Steele & Minore, 1996), revealed many curriculum similarities with the preschool program in the Commonwealth of Virginia. A primary goal was to provide developmentally appropriate educational programs for the four year old children of low income families. Five areas of development were measured by a simple teacher rating instrument which was constructed for the evaluation in 1995. These areas were academic (reasoning and quantitative skill development), communicative, physical, social, and self-help skills (zipping, buttoning, tying). These curriculum areas are the same ones emphasized in the preschool programs in the Hampton Roads and Peninsula school divisions.

The source of funding for the preschool programs reviewed in the Commonwealth of Virginia was federal. The preschool program for the State of Georgia was initiated for low income four-year-old children and their families during the 1992-93 school year. It was financed using proceeds from the state lottery. In addition to public school systems and
Impact of Attendance and Attitude on Achievement

Children's participation in school is an old concern. As early as 1885, states had laws requiring students to be enrolled in school and to attend. Today, all states have some participation requirements. They call for students to attend school while they are of compulsory school age, which varies from state to state (Kaeser, 1984). These laws also usually establish school district authority to enforce the laws. Compulsory attendance laws, and the commitment and ability to enforce them, have changed through the years (Tyack & Hansot, 1990). The push for their adoption came from many interests and beliefs about the value and the role of schooling as a source of personal growth, upward mobility, social and individual reform, and social stability (Tyack & Hansot, 1990). Regardless of their source, these laws confirm widely held views that schooling is important and desirable for all children.

There is a consistent relationship between school environments and children's feelings and behavior in them (Strother, 1983). Principals must work diligently to ensure a positive school climate by establishing norms that are specifically aimed at fostering success for all children and strategies that help reclaim at-risk children. These efforts should be guided by activities that promote a spirit of achievement that encourages teachers to set high expectations for themselves and their children; a spirit of belonging that actively seeks to integrate students into the mainstream of school life. A spirit of mastery that embraces the need for children to feel competent and in control of their learning outcomes as well as a spirit of caring that increases the children's sense of self-worth by becoming committed to the positive value of
helping others are important. Additionally, a spirit of cooperation that does not allow children to criticize themselves or allow others to criticize them; and a spirit of interdependence that accepts the need for child, parent, teacher, and principal collaboration in shaping a positive school climate are key to student achievement. According to Kaeser (1984), many at-risk elementary children respond to their feelings of alienation and failure by simply not attending school. Imaginary illnesses, purposefully oversleeping, and at times "cutting" school are not uncommon methods used by these children to avoid their negative feelings about school. (p. 26). These problems are further compounded when parents are either ill-equipped or negligent in their ability to get their children to school.

Often children's attendance problems are met with punitive, impersonal, exclusionary, or ambivalent school responses that create more feelings of hostility or rejection. Unfortunately, school attendance policies typically do little to address core problems such as conflicts with teachers or peers, family dysfunction, or repeated academic defeats that often underlie children's absences. The use of out-of-school suspension to address disruptive behavior often reinforces the at-risk child's of not belonging, and it clearly adds to the negative effects of poor school attendance. If at all possible, schools are advised to utilize structured, supervised, in-school suspension as a response to continued misbehavior of children. This type of setting can provide a vehicle for keeping a child in school, where he/she can learn and receive the necessary academic and emotional support to help avoid recurring disciplinary problems. According to Natriello (1987), elementary children should be taught the difference between punishment and discipline. They need to be taught methods of
avoiding the situations that lead to disciplinary problems and techniques to negotiate conflicts or talk about their feelings before they engage in disruptive behaviors.

There are several studies which point to the relative importance of attendance and attitudes towards learning to academic achievement in school. Brodbelt (1985) suggests that the basic ingredient for learning is the availability of the learner. Encouraging student presence is the first step in any model for learning and must be followed by an effective school program based on a well managed classroom learning environment where the time-on-task is high and serious discipline problems are low. Absenteeism is a primary problem of urban schools and some poor rural areas where a significant number of students are absent 20% or more of the school year. Absenteeism directly affects the amount of learning at the elementary level (Brodbelt, 1985).

Barber and McClellan rank 33 factors that are most often predictors of dropouts. This study concluded that school attendance ranks number one, and academic problems or poor grades rank number four (Barber & McClellan, 1987). In 1986, Fordham University's graduate School of Education and Social Services teamed up with five elementary New York City public schools with a heavy population of low income, minority students in East Harlem and South Bronx. It was a three year evaluation of dropout prevention strategies for urban at-risk students. The main objectives of this study were to (1) examine the data yielded from attendance records; (2) look at educational achievement in reading and math, self-esteem measures; and (3) look at levels of social service, adequacy of child care and propose a new model for conceptualizing and implementing a dropout prevention program for at-risk, minority students.
One hundred children spanning grades K-5, 24% Black and 66% Hispanic were in the study; they had more than 15 absences and failed to make adequate progress in school. They were at risk of being retained and/or referred to special education services. A pre-post test design using difference-score effect size data as the metric was used to ascertain the practical effect of the project in the following areas: absenteeism, educational achievement in reading and math, adequacy of child care, and self-esteem. The project staff collected data at four intervals (December 1986; May 1987; May 1988; and May 1989).

In the three years of the project, overall absenteeism steadily decreased from a mean of 41 days in 1985-86 to 25 days at the end of 1989, an impressive decrease of 60%. The Coopersmith Self Esteem Inventory (SEI) School Form was administered to determine the evaluation a person makes about him or herself, i.e., overall self esteem is an expression of approval or disapproval, indicating the extent to which a person believes him or herself competent, successful, significant, and worthy. Mean raw scores on the Coopersmith Self Esteem Inventory increased across all sites between 8.1 to 14.4 points. The majority of the scores moved from "low self esteem" to "medium self esteem."

The Kaufman Test of Educational Achievement was used as the standardized achievement measure. The effect size data across all sites indicated a positive trend in math performance. The effect size data for reading indicated a positive but smaller impact on reading performance. Only two of the five sites evidenced moderate or high effects. This study shared several of the variables common to the research investigated in this dissertation. The relative importance of the attendance and attitude variables on academic achievement is the focus. A pattern of poor attendance is one of the most obvious signs of poor school
performance and prior poor performance is associated with willingness to try, persistence, and motivation for learning (Hegner, 1987, p. 125).

Research findings at the elementary school level in various cities between 1989-1992 indicated the importance of attitude and attendance on the power of academic achievement. When students believe that they are respected, that teachers care about them, and that they are capable of achieving and expected to achieve attitudes towards learning tend to be more positive and school attendance is higher (Hill, 1992). In Detroit, an experimental group of 137 third graders and control group of 123 third graders from five elementary schools were involved in the study. The researcher looked at differences between grade point averages, GPA, attendance rates, and achievement levels for reading and math on the California Achievement Test (CAT). The research used the School Attitude Measure (SAM) to examine students' self-reports of attitude change. This measure was, however, only administered to the experimental group, so there was not comparison group to determine if the gains were attributed to the program offered. Syropoulos reported that the experimental group showed significant increases on the posttest of the SAM. An analysis of data (Syropoulos, 1990) did not find significant differences between the experimental and control groups for GPA, but the experimental group students had higher attendance and higher levels of achievement on the CAT in reading and math. In both cases the differences were statistically significant.

In Los Angeles, Isonio (1992) selected 1,210 third grade students from ten different elementary schools to participate in a program of self-empowerment. The design methodology was inconsistent because some students took the pretest and the posttest; some took the pretest only or the posttest only. No control groups were used in the design, and only 82% of the
sample was coded for race (44% Hispanic and 53% Black); the remaining 18% was not coded for this variable. Insonio (1992) examined students’ self-reports about improvements in their grades, attitudes towards school work, and feelings of academic self-efficacy.

The statistically significant findings indicate an important change in attitudes and represent a substantial change quantitatively. Teachers in Los Angeles reported that students appeared to be taking more risks and improved their attitudes toward their academic work. Insonio (1992) indicated that “thinking one can” and “working hard” are clear indicators of motivation for learning and willingness to persist in a learning task.

In the Peoria Public Schools, a similar design to the research conducted in Los Angeles was conducted; no control group was used. The Peoria study (1992) differs from the Los Angeles study as researchers examined achievement levels in reading and math based on test scores as was done in Detroit, but they did not examine students’ self-reports. The research conducted in Peoria was longitudinal, looking at achievement over a three-year period in the first through fourth grades. The researcher calculated an expected score of achievement beyond the fall and spring scores. The expected score was a projection based upon the Growth Scale Value (GSV) that the students achieved in the previous test. The difference between actual scores and expected scores was used as a measure of attainment. The findings indicated gains in reading and math with the greatest increases in reading achievement for first grade students.

Researchers have conceptualized poor educational performance as the outcome of a process of disengagement that may begin as early as a child’s entry into school (Finn & Kelly
Early Childhood Findings

They suggested that children who do not identify, participate, and succeed in school activities become increasingly at-risk of academic failure and drop-out.

A survey was administered to 39,000 Chicago public school students, in grades six, eight, and ten in May and June 1994. This study was conducted by the Consortium on Chicago School Research to investigate the influence of the Chicago School Reform Act implemented in 1988 through a school improvement framework of greater site-based control. The sixth graders surveyed in this research report were classified as elementary students.

The report, published in July 1996, looked at areas that are also being examined in this research study. School attendance and academic achievement were surveyed by Consortium members. Additionally, areas which overlapped with the attitude components of the School Attitude Measure (SAM) were also surveyed. In this report, Charting Reform in Chicago: The Students Speak, the areas that addressed a component of attitude are academic engagement, school participation and student-centered learning climate.

Researchers from local universities, independent organizations, and the school system assembled to identify the key ideas for the study and the procedure for data collection. Teacher and student advisory committees played a major role in creating and conducting the surveys. National experts from other school districts, who had experience with nationally funded research projects and school improvement efforts critically reviewed the technical aspects of the survey. The survey questions were pilot-tested by teachers and students who provided the Consortium feedback on the content of the surveys.

Such questions include (1) How many of your friends in this school try hard to get good grades? (2) How many of your friends in this school think doing homework is
important? and (3) Do students make fun of students who do well in language arts/English class?

The findings of the Consortium on Chicago School Research study indicate that in the elementary schools with higher ratings on learning climate, students report fewer absences, less class cutting and tardiness, more academic engagement, more time spent on homework, and greater participation in clubs. Students are more likely to be engaged and to commit greater effort in schools where teachers combine personal concern with academic demands, where peers work hard, and where classrooms are orderly.

A closer look at the elementary schools in the Consortium’s study revealed that survey data was collected from 61 elementary schools that were included on the list of 104 of Chicago’s very low achieving schools all across the state. The majority of the low achieving elementary schools serve predominately African American, low income students. The study findings in low achieving schools indicate that students are less likely to report that “students help each other in class: and are more likely to say that "classes are often disrupted by other students." Students in low achieving schools have fewer friends who "try hard to get good grades" and “think it is important to do their homework” (p. 44). The survey data presented by the Consortium indicated that if substantial gains for large numbers of at-risk students are to occur, a climate of safety, order, and personal interest must be displayed by the teacher for all students and a high academic demand must give a signal to students that they are expected to achieve. Regular attendance is as much a key to academic success as is willingness to work hard, belief in one’s own ability, and the belief that others believe in that ability to perform well. For fifth graders, tardiness and school absences have been used to classify students as
at-risk for dropping out of school. Students at-risk for being a dropout missed an average of 9.6 days of school compared to 5.1 days for children not at risk. About a fifth of the students in the study reported missing more than two weeks of school and a small percent were absent for more than a month. The results from the Consortium’s study are being used to further shape school improvement efforts.

Concerns with Existing Early Childhood Programs

For more than a quarter of a century, researchers have argued the academic benefits of early childhood education, while teachers have consistently argued for the importance of social and emotional skills. No one segment of society bears the responsibility for ensuring that the needs of all children are met. Parents, teachers, administrators, and the community at large must strive to develop the nation’s greatest resources, human beings.

Not immune to television effects, children of all classes, races, and geographic localities, see a world marked by violence. Preschool and kindergarten teachers report that yesterday’s blocks and clay are routinely converted to guns and bullets; children don’t play house or office; they play rape and drugs (Kagan, 1992. Although increased violence is a reality in many communities, commercial capitalization on violence must be curbed. Implicitly glorified images of violence must be replaced with educational programming and learning channels. Early childhood education programs give school staffs an opportunity to present children with alternatives to the violent choices of some of their dysfunctional family members and community citizens. The findings of the Perry Preschool project indicate that a quality early intervention program can assist with the decrease of juvenile delinquency and increase the chances of overall productivity in our society.
Schools in their capacities as direct providers of preschool services, as hubs for communities, and as the major providers of services for children age five and beyond, have a special responsibility for the readiness agenda. There is a need for schools to work more collaboratively with others in health, welfare, and social service agencies: libraries, parks, the business sector, and the United Way to advance a readiness agency. Models of effective service integration and effective change strategies need to be explored (Boyer, 1991).

Efforts to craft a national agenda for children should be seriously considered, as should implementation of the National Commission on Children’s report (1991). A comprehensive children’s bill that brings together disparate programs warrants consideration. There are no human resources that America can afford not to develop. Early childhood education, that is of quality, needs to be available to all children.

There exists a need for the creation of early childhood classrooms that have established a balance between an authoritative and an explorative approach. Both the development of skills and nurturing of creativity are essential for young children (Lodish, 1996). A balanced early childhood curriculum needs to take into account that the pendulum swings from the "radiation theory"—just expose children to learning and hope they absorb it—to the "carpenter theory"—just hammer the knowledge into their heads (p. 18).

Neither extreme is appropriate; there must be a balance between the so-called "sage on the stage" and "guide on the side." The "guide on the side" teacher must understand that simply observing children at play and providing a few comments is not enough. The often-quoted dictum of progressive educator Dewey, "You must learn by doing," does not apply to mindless play, but to reflective play that enlivens the imagination and stimulates the intellect.
Young children need teachers who can integrate skills into their play and make it more meaningful. On the other hand, the "sage on the stage" should realize that while children can learn certain facts from a teacher who stands in front of them, this type of teaching must be balanced by active learning where children talk one with another and try various approaches to a problem. It is far more difficult to create an environment in which children are motivated to concentrate, take initiative, and solve problems than simply to assign rote, passive exercises.

Variation, throughout the nation, in parental involvement components needs to be studied to identify successful strategies for increasing parental participation in the education of children. Formal and informal parenting sessions need to be held to offer parents support on how to cope with disciplinary challenges, to nurture self-esteem, and to engage in developmental activities with children. It is not enough that homes are the first schools, and parents are the first and most important teachers; school staffs and social agencies must seek to empower parents (Lopez & Schultz. 1996). Specifically, the U.S. Department of Education created the Commission on Reading, a group of ten experts who reviewed the research on what is known in reading. A report Becoming a Nation of Readers (Anderson, Hiebert. Scott & Wilkinson, 1985) concluded that a parent is a child's first tutor in unraveling the fascinating puzzle of written language. A parent is a child's one enduring source of faith that somehow, sooner or later, one will become a good reader. The Commission on Reading suggested that parents should read to preschool children and informally teach them about reading and writing. To help preschoolers learn letters and words that are consistently associated with the eventual success in reading, parents should use a light touch of discussing and experiencing stories.
During the preschool years, children develop at an extraordinary rate. Parents should connect everyday experiences to both written and spoken language. Reading requires motivation (Anderson, et al. 1985), and this motivation develops from the recognition that reading can be interesting and informative. Research has shown that preschoolers learn as much or more from informal activities at home than they do from commercial workbooks parents sometimes buy (Anderson, et al. 1985) and that children who enter school already knowing the names and sounds of letters do better in learning to read (Anderson, et al. 1985).

Teacher training varies greatly depending on the early childhood program, funding source, and program size. Budget and time constraints as well as program philosophies and a community’s responsiveness to childrens’ needs often increases the amount of variability from one program to another. Without the benefit of appropriate training, teachers cannot be expected to provide the experiences that maximize student development nor can they provide relevant parental guidance and support (Elkind, 1996).

Review of Early Childhood Studies

Reviewers of preschools before the current wave of compensatory education studies found that most of the information available was on middle-class children enrolled in laboratory schools or on projects of such limited scope that the data were meaningless. Sears and Dowley (1963) provided excellent reviews; they summarized the literature and reported that although there was no evidence that preschool helped a youngster, there is also no evidence that it harmed him. Programs available to the middle class were not generally organized from a remedial or repair of deficits perspective.
There was little concern, in those reviews, with the issues that are the focus of current preschool programs for the disadvantaged. For example, few projects listed the cognitive aspects of child development as a concern of their programs. Sears and Dowley (1963) recognized this when they commented, "It is curious that in the stated aims and purposes of the nursery school, intellectual development of the child has been very little considered" (p. 820). On the whole, those reviews summarized information about middle-class children attending middle-class, college campus nursery schools and reflected the deep concern of traditional nursery school education with "opportunity for the child to develop some emotional independence from adults without undue side effects such as anxiety or insecurity" (p. 821). Full philosophical commitment to the freedom of the nursery school teacher to deal independently and intuitively with the educational program in her class, without following any particular curriculum based on specific cognitive or language theories was reflected. The ideal was the master teacher responding to the "needs" of the children as seen from her vantage point of general knowledge about child development and personal wisdom and experience.

The element of trust between home and school was not of major concern.

In the 1950s, there was abundant evidence that children of low income families tended to perform poorly on many kinds of academic achievement tests (Anastasia, 1958). Pasamanick & Knoblock (1961) documented the impact of deprivation most vividly in their study of infant development. They employed samples of Black and White full-term infants selected for equal birth weights and absence of defects. Using the Gezell Development Scale, they found no significant difference between the two groups at 40 weeks of age. The White babies obtained a developmental quotient (DQ) of 105.4, and the Black babies, a DQ of 104.5.
At three years, the first 300 of the original children involved in the study were re-tested, and a significant difference was found. The DQ of the White children had risen to 110.9, while the DQ of the Black children had fallen to 97. Their conclusion was this:

In most cases, at birth, individuals are equipped with the same intellectual ability except for the few rare hereditary, neurologic defects. It appears that life experiences and sociocultural situations which impact biological and physiological function are the foundation for significant differences among human beings unless there exists some organic brain damage.

In the mid-1960s the U.S. Office of Education undertook a nationwide investigation of the educational achievement of various ethnic and racial groups (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld & York, 1966). This investigation reported the average sixth-grade metropolitan Black child was more than two grades behind the average metropolitan White child in mathematics, and by twelfth-grade the Black youth was five years or more behind the White youth.

In books such as The Learning Gap (Stevenson & Stigler, 1992) and Savage Inequalities (Kozol, 1991), strong convictions of concern for greater responsiveness to the provision of access and opportunity for quality education for all of America's children mirrors the call of the mid-1960s. Emphasis is placed not only on the need for increased academic improvement within American schools but with regard to the nation's academic status throughout the world.

The decision to turn to preschool as a compensatory educational method was made on the practical grounds that demographic and social forces required action. With the benefit of a
thin theoretical framework which suggested that preschool intervention might be an effective ameliorative technique, many educational experiments using low income children were implemented. Reviews available from the compensatory preschool projects tend to indicate one specific finding: experimental projects in which researchers have direct control of the curriculum, the operation of the project, and the research design seem to offer high potential for immediate positive impact in terms of their stated goals.

One such project was The Early Training Project designed and shaped during the beginning years of the 1960s. The original impetus was the concern of local school officials with progressive retardation observed in the elementary school that at the time served the Black children of this Tennessee town, almost all of whom came from low income families. The local officials thought the progressive retardation observed was more likely to be a social class phenomenon rather than a racial one. Urban school divisions today still grapple with the disproportionate numbers of Black students represented in the special education population. The level of monitoring done by the federal education agency during school self-study and program evaluation schedules has increased in many school divisions causing local educators to look more closely at who is being classified and why. They have been placed in the position of having to defend patterns that reflected high minority placement in special education programs and charged with developing more appropriate educational offerings to better ensure that neglect of services and racism were not at the root of these placements.

The strategy chosen by the Early Training Project from 1962 through 1980 was to design an intervention "package" of variables that appeared to be related to school retardation or progress and would be impossible to manipulate. The intervention package contained two
broad and overlapping components—aptitudes relating to achievement and attitudes relating to achievement. Aptitudes relating to achievement were broken into three areas:

1. The first area, language, is influenced by some of the early writings of Bernstein (1962). Particular emphasis was on greater dependence upon contextual cues in the adult-to-adult speech of the working class as compared to the middle class. A reliance on contextual cues may be effective within the home setting, but is ill-fitted for school life, where the emphasis is on more generalizable information that can be transferred from one context to another (Cole & Bruner, 1971).

2. The second area, perceptual discrimination, is a necessary condition for learning to read. Many of the children came from homes that were organized neither temporarily or spatially. Temporary disorganization meant little familiarity with orderly sequence of events.

3. The third area, concept development, is critical to school learning. Children were assisted with learning basic concepts of number, color, shape, and position. Also stressed were classification and the sequencing of events.

Attitudes relating to achievement were subdivided into five categories:

1. The first area is motivation to achieve in school-type activities. The work of McClelland (1961) and Atkinson (1958) influenced this subcategory.

2. The second area is delay of gratification. It was chosen because it is viewed as a necessary condition for school learning. The findings of Mischel (1961) relating such delay to social-class influenced this area of the study.

3. The third area is persistence, the willingness to work for a goal that is not immediately obtainable. It is also viewed as a necessary condition for school achievement.
4. The fourth area is identification with appropriate, achieving role models. It is considered especially important for male children.

5. The fifth area, an interest in school-type activities, was considered critical. Exposure to crayons, clay, picture books, phonograph records, jigsaw puzzles, and pegboards would prevent the school room from being an alien place to the students.

This intervention was planned for intensive implementation over a 10-week summer program with weekly home visits from fall to spring. Teachers were experienced, and primarily Black females. The teacher assistants were either graduate or undergraduate college students. The treatment phase extended from May 1962 through Summer 1965: the first follow-up phase was from 1966 through 1975; and the second follow-up phase was from 1975 through 1980.

During the second follow-up phase, uses of other indices of young people’s development were possible because of the increasing maturity of the participants. As a test of the self-concept, the Rosenberg Test of Self-Esteem (1965) was used. Rosenberg (1965) defined self-concept as the positive or negative attitude one has towards self. The way an individual views himself depends on what the individual considers successful and the importance he places on his ability to perform. More recent studies with findings on the relative importance of attitudinal characteristics will be reviewed later in this chapter.

The findings of the Early Training Project are summarized in five general areas: The first area was intellectual development; on individual intelligence tests some effect of the program was discerned through the fourth year. On achievement test batteries significant differences were observed through the second year of school but not through the fourth year.
The second area included indices of the affective domain; only in high school did guidance counselors’ ratings indicate a significant difference in the area of personal-social adjustment on a consistent basis for the experimental female group. The third area was meeting school requirements; the number of students placed in special education was significantly smaller for the experimental group. Among the females, the experimental group maintained a higher GPA. All except one of the local control group females who became pregnant in high school dropped out, whereas all but one of the pregnant experimental females graduated. The fourth area consisted of interviews with participants and parents; only one consistency of interest from the standpoint of intervention was evident. The experimental females were more decisive and more realistic in their aspirations and expectations than any of the other groups. The fifth area was early predictors of status in young adulthood; factors found to have some critical influence were the demographic data interpreted here as the presence of the father, the mother’s level of education, and the mother’s employment status. Results on the Stanford-Binet at age 3½ to 4½, IQ gain after treatment two years later, school performance as measured by the GPA, and the last grade completed the list as indicators of persistence. The Early Training Project was one of the earliest research-oriented efforts to enhance the educability of young children in low income families. As a study it achieved national salience among educators and students of child development. An aura of something new and special affected researchers, the community, parents, and later the children themselves.

Another much reviewed and much referenced preschool project is the Perry Preschool Project. It is a longitudinal experiment designed to reveal the effects of early intervention on disadvantaged children. The children were residents of Ypsilanti, Michigan. According to the
1970 census, the population of the city and township of Ypsilanti was 62,732, of whom 13% were Black. The longitudinal sample was drawn from children who lived in the attendance area for the Perry Elementary School on the south side of Ypsilanti. A 1952 report of Ypsilanti Housing Commission called it "one of the worst, most congested areas in the State of Michigan" (Schweinhart & Weikart. 1980). School failure and a high crime rate had been long standing in the area. The parents had an overall median of 9.4 years of school, slightly less than the national figure for Blacks, but over two and a half years below the overall national figure. Less than one in five of the parents had completed high school, compared to one in two nationally. About half of the families in the sample were single-head families, compared to one in seven nationally.

The impetus for the Ypsilanti Perry Preschool Project was the recognition that the local school system was unable or unwilling to promise even minor reforms to permit low achieving children some success in school. The failure of school administration and teachers to adjust the curriculum was seen by David Weikart and others on the special services staff, as a factor contributing to juvenile delinquency, to the high referral rate of minority and lower-class children to special services for treatment, to high retention, and to the dropout rate of these children. The plan devised by Weikart, was to equip at-risk children with improved abilities to cope with the demands of schooling.

The foundation of the Perry Preschool Project curriculum model was based on the educational theories of Piaget with emphasis on classification, seriation, number, space, and time, as well as on the active learning of the young child. A consulting visit from Smilansky helped to crystallize the notion that the child should plan some of his own activities everyday.
The teacher's role was to help the child to think through and articulate these plans and activities.

Originally, the Perry Preschool Project looked at the treatment impact on the sample youth through age 15. The positive effects of preschool education on school performance and antisocial behavior were meaningful and lasting. Children in the experimental group were rated more highly in school motivation by their elementary school teachers (kindergarten, first, second, and third grades). The findings on school motivation shared evidence of greater commitment to schooling during the elementary school years by children who had preschool education.

Program quality stood out as the key to significant benefits that produced long-term results for young at-risk children. The High/Scope Perry Preschool study, now with findings through age 27, has been credited with empowering children, parents and teachers. The long-term attitudinal and behavioral qualities evidenced in the 1993 Perry Preschool study lend credibility to issues of motivation for learning and willingness to try. The High/Scope Perry Preschool Study through age 27 (Schweinhart & Weikart. 1993) offered strong support which suggests that preschool programs may have long-term positive effects on literacy, employment, and social behavior. It is the social behavior component which embodies the motivation for learning, willingness to persist and commitment to the achievement of worthy goals.

Merchant (1987) implied that learning climates needed to foster "investment" behavior by providing academic and extracurricular activities that stimulate children's interests, increase their personal resources, and reward their efforts.
The Impact of Head Start

Project Head Start is the nation's largest and most popular comprehensive early intervention program for impoverished children and their families. It was initiated during an optimistic period of American history, a time of sincere hope that the nation could achieve social equality. The federal government took a proactive role in this effort to launch the War on Poverty during President Johnson's administration. In the Economic Act of 1964, Congress opened the War on Poverty on several fronts: the Job Corps, to provide education and training for employment; and the Community Action Program (CAP), to mobilize the poor themselves to fight poverty. Head Start owes its very existence to the disappointing record of the CAP. Congress had allocated $300 million for the first year; by mid-year, only $26 million of that appropriation had been spent.

Sargent Shriver, director of the Office of Economic Opportunity (OEO) and President Johnson's chief general in the War on Poverty, could not find many cities willing to take on the CAP battle. Shriver asked the OEO's research division to take a total look at the problem of poverty and to come back with some recommendations as to how to put the surplus to good use. The report stated that nearly half of the nation's 30 million poor people were children, and most were under the age of 12. Shriver had the vision to launch a program to improve intellectual capacity and school performance for poor children (Sundquist, 1969).

The project was designed by a planning committee of 14 experts from the fields of preschool education, health, child development, and mental health. This diversity was intended to ensure that Head Start would become more than an educational program. The committee embraced a "whole child" philosophy that called for comprehensive services. Head
Start's goals were to improve physical health, enhance cognitive processes, foster social and emotional development, foster self-confidence, foster healthy relationships with family members/others, foster a sense of social responsibility, and foster a sense of dignity and self-worth for the child and family.

The program recommended to OEO by the Planning Committee was to contain five components: an education program, with one teacher and two aides for every 15 children, to encourage the development of language skills, self-reliance, and self-esteem; a health program that was to provide complete medical and dental examinations and immunizations; a program of parental involvement as nonprofessional teacher aides and as participants in classes on a variety of subjects, such as child rearing and English language; a nutrition program which would provide at least one hot meal and one snack each day for the children and nutrition information for parents; and social and psychological services through referral and recommendation by the social services staff. The first program was not recommended as a small pilot but an eight week summer program for 100,000 children.

In February, 1965, President Johnson announced the establishment of Project Head Start, which would open its doors to children that very summer. Special efforts were made to involve the 300 poorest counties in the country. The responses were overwhelming, and the projected enrollment was raised several times. In the summer of 1965, more than half a million children were enrolled in more than 13,000 centers. The programs involved 41,000 teachers, 46,000 non-professional aides (drawn from the poor), and 256,000 volunteers (Richmond, Stipek, & Zigler, 1979).
The quality of early Head Start programs varied tremendously. Some programs were able to provide well-trained teachers with appropriate materials for small classes. Other programs were less successful, but enthusiasm was high among both staff and parents (Hymes, 1979). Head Start continued to grow, and by 1967, 200,000 children attended full-year programs. After more than 25 years, Head Start is no longer a temporary program. The Head Start Expansion and Quality Improvement Act was landmark legislation authorized by Congress in 1991. Head Start is considered a bipartisan success story (CQ Researcher, 1993).

The research findings of quantitative comparisons across Head Start studies indicate that Head Start does, indeed, enhance the cognitive development of children. The most significant findings are that children make immediate gains in basic cognitive competency, school readiness, and achievement; gains in basic cognitive competency, school readiness, and achievement are sustained at a lower level during the first three years after Head Start; the Head Start program has become more effective in promoting cognitive development. Gains made by children who attended Head Start since 1970 are considerably larger than those made by children in Head Start from 1965 to 1969; and the most disadvantaged children, those from single-parent families and/or families in which the mother had a tenth grade education or less, gained the most from their Head Start participation.

The Westinghouse Report

Many recommendations have been made through studies done as to how Head Start, a nationally accepted, early intervention program, needs to be revised to appropriately speak to the challenges of the 21st century. Head Start had been in existence for four years when the Westinghouse Report (Westinghouse Learning Corp., 1969) was conducted. It was designed
to provide the quickest possible statement of the average long-term effects of Head Start, by comparing Head Start children with non-Head Start children on standardized tests one, two, and three years after entering public school.

This study used a post test—only design. A sample of 225 Head Start centers across the country was selected. 104 of the centers agreed to be included. Of the centers included 70% had provided summer-only programs, and the remainder had full-year programs. A sample of children who attended the centers between September 1966 and August 1967, and who at the time of assessment, were in first, second, and third grades in the local schools, comprised the experimental groups. A comparison group which was matched for age and sex, was developed from children in the same grade and school. The children were administered a series of cognitive and affective tests; the parents were interviewed; elementary school teachers performed ratings of the children, and directors of the Head Start centers were interviewed.

The findings of the Westinghouse Report (1969) raised much controversy and created pockets of doubt as to the credibility of the Head Start Program. On only two of the cognitive measures did full-year Head Start children score higher than comparison children. Tests of affective development showed Head Start children did not score higher than comparison children at any of the three grade levels. The Westinghouse authors (1969) concluded, on the basis of the few main effects, that "although this study indicated that full-year Head Start appeared to be a more effective compensatory education program than summer Head Start, its benefits could not be described as satisfactory" (p. 11).

Some researchers used the findings to further promote previously expressed arguments about genetic potential being more significant to one's intellectual capabilities than one's
environment (Jensen, 1969). The findings were reviewed by Jensen and used to conclude that "compensatory education has been tried, and it apparently has failed." In addition, the Coleman Report on Equality of Educational Opportunity (1966) had concluded that individual differences in academic achievement were more related to family variables (SES and parent education) than to measures of school quality. This seemed to reinforce the notion that education was a relatively weak form of intervention.

Findings of this study triggered tremendous reform efforts in the Head Start program. A pivotal role was played by Zigler, the first director of the newly created Office of Child Development (OCD) in the Department of Health, Education, and Welfare (HEW). Zigler convinced the new Secretary of HEW, Richardson, to fight for the survival of Head Start. Because of the Westinghouse Report, Coleman Report, Jensen findings and a shifting national focus, the office of Management and Budget had slated Head Start to be cut in Fall, 1970. Despite tough times, years of limited funding and deflected funding, Head Start survived (Datta, 1976).

Zigler, often referred to as "the father of Head Start," took the findings of the Westinghouse Report to guide revisions, deletions, and additions to improve the quality and consistency of offerings through this national intervention program. Although the Westinghouse Report never recommended the abolition of Head Start, it was heralded for raising questions, provoking thought and dissuading Americans from the belief that a brief, one-shot preschool intervention effort could permanently offset the debilitating effects of poverty (Datta, 1976). Zigler and Valentine (1979) argued that it was premature to judge the effects of early intervention programs while the participants were still so young. More time
had to pass for such effects as fewer dropouts from school and improved social behavior could be assessed. In this atmosphere of openness to questioning the efficacy of preschool programs, the Administration for Children, Youth and Families (ACYF, the successor of OCD) agreed to support a novel evaluative study. An independent, analytical group headed by Lazar was contracted by the ACYF. A total of 15 early education studies by 12 research groups was identified. The principal investigators of these groups were approached, and all but one agreed to join together to assess the long-term effectiveness of early education.

**A Collaborative Research Effort**

In 1975 the Consortium of Longitudinal Studies, originally known as the Consortium for Developmental Continuity, was formed as a voluntary association of independent investigators. The aim of the Consortium was to provide a general assessment of long-term effectiveness of early education across different programs. The members agreed to:

1. send their original raw data to an independent group in Ithaca, New York, for recording, formatting, and independent analysis.

2. work together to develop a common protocol for the collection of follow-up data from their original experimental and control subjects.

3. seek out their subjects, collect the common data, and send it to Ithaca for analysis.

It was further agreed that the investigators would be free to collect additional data and to publish analysis of their own studies. In turn, the Ithaca group was to be responsible for the joint analyses and to be free to publish those results. A volume, *As The Twig Is Bent... Lasting Effects of Preschool Programs* was authored by The Consortium for Longitudinal Studies (1983).
Some of the significant findings resulted from the pooled studies are that well run, cognitively oriented early education programs tend to increase the IQ scores of low income children by the end of the program. The results indicated that the average effect of the programs lasted for at least two years at a significant and robust level. The results for the "three or four years after" category were somewhat weaker.

On achievement tests at grade three, program graduates performed significantly better than controls on both math and reading subtests when the results were pooled across four projects. At grades four and five, pooled results showed program graduates to be significantly higher than controls. In sum, there are some indications that program children did better than control children on math tests through grade five (Lazar, 1983). In the seventh grade all projects reported an equal or lower rate of special education placements among program than among control children. Averaging across projects the average rate of placement for program children was 14.5% and 34.9% for control children.

The second indicator of school competence and grade retention, also yielded significant results. Across the eight projects, the average rate of grade retention was 19.8% in the program group and 32% in the control group. In the area of the child's achievement orientation, when asked to "tell me something you've done that made you feel proud of yourself." program children were far more likely to give achievement-related answers than were the control group children (p. 429). Program children responded with school or work achievements, whereas control group children responded with positive behavior or would say they were not proud of anything. Pride in accomplishments is critical to the continued willingness to try.
According to Lazar (1983), the major studies of early interventions with low income children that were reported by the Consortium, demonstrated positive effects of these programs throughout childhood and the adolescent years. Represented in the studies were all the major preschool curricula or their immediate precursors: home-based, center-based, and combination programs, programs that differed in intensity and varied in the prior training of staffs, and programs that began at various ages and lasted over various period of time. Lazar summarized the findings of the collective studies as significant. Preschool programs increase individual scores on standard intelligence tests, and these increases remain statistically significant for a three-to-four year period after the preschool experience. Preschool graduates are less likely to be placed in special education or remedial classes than their controls; they are more likely to meet the ordinary requirements of the schools and to graduate from high school. Preschool graduates have higher self-esteem, and they value achievement more than their controls. Lazar concluded that children from both one- and two-parent families benefitted; only children, oldest, middle, and youngest children benefitted; children whose mothers worked outside the home did as well as those whose mothers stayed at home all day. Regardless of their backgrounds, low income children enrolled in these programs more often met school expectations than did children who were not in a program.

The findings of the Consortium for Longitudinal Studies have been used to sway policy, increase collaboration between schools and other agencies, and impact federal, state, and local budgets. Although the children in the studies did not reach the achievement levels of affluent children, which should not have been expected from a brief intellectual stimulation, the most important implication is that the provision of appropriate services did mitigate the
depressing effects of poverty on cognitive and social development. This collaborative study effort moved the long term effects of the preschool experience on the performance of children from poor families, from the realm of speculation, researchers provided consistent findings across credible independent studies. Tremendous organization and commitment made this valuable study available to other researchers.

Campbell and Ramey (1995) provided indication that early childhood education positively influenced success in the lives of the poor was the Carolina Abecedarian Project. It was conducted to test the degree to which continued, consistent enrichment of the early environment altered the negative trend toward developmental retardation and also reduced academic failure in such children. The project's outcomes were evaluated within a multidisciplinary framework that included measures of cognitive functioning, social development, and health. The target subjects were biologically healthy infants born to impoverished families living in a small, southern town. The children were considered at-risk for suboptimal, cognitive development based on family, demographic characteristics, and psychological risk factors. Long-term benefits of the Abecedarian study were seen when study participants had completed 10 years in school and were 15 years old. The first results were reported at the end of the preschool phase (Ramey & Campbell, 1987), and initial follow-up data reported at age 12 (Ramey & Campbell, 1995).

Long-term intellectual and academic benefits, related to early childhood educational intervention, were found. The subjects were randomly assigned to preschool and school-age treatment conditions in a study design that permits a comparison of outcomes in students with preschool treatment followed by early elementary treatment (infancy—eight years), preschool
treatment only (infancy—eight years), and untreated controls. At age 15, seven to ten years after any treatment was provided, those students who had preschool treatment scored significantly higher on individually administered tests of reading and mathematics, and had fewer instances of grade retention and assignments to special education. The results supported the relative efficacy of preschool treatment over that given in early elementary school.

Continued research on the effects of different program approaches on child motivation and learning is needed given the high levels of participation of American children in early childhood programs and the emphasis on early childhood education as a means to redress educational problems of poor, minority children. Not all children will learn at the same pace or in the same manner. Educators need a variety of instructional strategies, resources, and education settings in order to appropriately respond to students' needs. Relevant curriculum and meaningful strategies will not emerge by chance but from deliberate research study efforts.

Stipek, Daniels, Galluzzo, and Milburn's (1992) research identified conceptually meaningful dimensions on which a large and diverse group of early childhood education programs varied and to assess the degree to which existing observation measures of program quality and policies were associated with social class was completed in the state of California. Detailed observations of instructional practices and the social climate of 62 early childhood programs serving poor and middle-class children were included. The children involved in this research study were primarily (over 70%) poor children (i.e., eligible for federal or state assistance) served in 23 of the programs; 35 programs served primarily middle class children; and, the remaining four programs served a heterogeneous population with respect to social class. Students were predominantly (over 70%) White in 18 of the programs, Black in eight.
Latino in 15, and Asian in two. The remaining 19 programs served an ethnically mixed population. One program was a Head Start Center; 31 were private, and 30 were in three different public school districts.

Observers were doctoral students in educational psychology; they spent one full day in each program. Because almost no research had assessed the social-motivational effects of instructional practices in early childhood education programs, research conducted on older children and adults was used to determine which aspects of instruction and classroom organization to code. Variables that were related conceptually were grouped if they were also strongly and significantly correlated to each other. The analytic process yielded six sub-scales that differentiated classrooms. Three of the subscore areas child initiative, teacher warmth, and positive control, loaded positively as to "Positive Social Context." Three of the subscore areas-academic emphasis, performance pressure, and evaluation stress loaded negatively on the factor as to "Teacher-Directed Instruction." Programs that had relatively high scores on the positive social context subscales had relatively low scores on the teacher-directed instruction subscales and vice versa.

Of the 62 early childhood programs researched, three clusters emerged with regard to dimensions. The first, "Child-Centered." cluster contained 22 programs that were very high on the three positive social context subscales and very low on the three teacher-directed subscales. The second cluster, "Didactic." contained 19 programs that were high on teacher-directed instruction subscales and low on the positive social context subscales. The third cluster, "Intermediate." contained 21 programs that fell somewhere between the two positive social context and teacher-directed instruction subscales.
Most of the early childhood programs that serve primarily poor children are public. Those programs that serve primarily middle-class preschoolers are private with the kindergarten programs that serve middle-class children evenly divided between private and public. It is possible that a different picture would emerge for children whose parents work at low-paying jobs—too well off to be eligible for subsidized programs, but not well off enough to purchase quality programs. Research in this area bears directly on the value of policy proposals to make public, regulated programs available to all children on a sliding fee basis (Zigler & Muenchow, 1992).

Controversy over the value of early childhood educational intervention continues. There are unanswered questions about the timing, duration, and service delivery models of various programs (Marcon, 1994). One of the issues which prompted an initial research study on the early childhood program in the public schools of the Washington, D.C. was the concern for the highly unacceptable first-grade retention rate. The system had invested heavily in early childhood programs for its children by providing two years of public early educational experiences before first grade entry. The promised benefits were not being reaped, and the D.C. policymakers wanted detailed answers.

Marcon (1994) utilized the Pre-K Survey of Beliefs and Practices; it was sent to all D.C. prekindergarten and Head Start teachers of four year olds. Marcon used teachers' responses and statistics to identify three preschool models operating in the D.C. school system. The plan was to begin the study with four-year olds from each of the three different models and to follow their progress from pre-K/Head Start into kindergarten and first grade.
One model included child development-oriented teachers who facilitated active learning by allowing children to select the focus of their learning. These classrooms were called Child-Initiated. Another model consisted of more academically oriented teachers who preferred more direct instruction and teacher-directed learning experiences for preschoolers. These classes were called Academically-Directed. The third model represented teachers whose beliefs and practices fell in between the other two opposing models. These classrooms were called Middle-of-the-Road.

During the first year of the three year study, 43 teachers in 39 schools provided data on more than 250 children. The children were randomly selected from all three models, proportional to enrollment of four year olds in diverse geographical and socioeconomic areas of the city. Children in this study were predominantly Black (91%) who were from low income families, and (71%) qualified for subsidized lunches. More than two-thirds of the study’s children lived in single-parent families.

The research findings on children’s performance in the early learning years indicated that the Academically-Directed Preschool model did not show performance in greater mastery of the basic skills deemed important by local educators. Rather, children enrolled in the Child-Initiated Preschool model actually mastered more basic skills by initiating their own learning experiences. The Middle-of-the-Road Preschool model did not work for any of the four-year-olds. By the end of preschool, Middle-of-the-Road Preschool model children were significantly lower in language, social, and motor development, as well as in overall adaptive functioning and mastery of basic skills. These same findings were replicated with each subsequent group of four-year-olds added to the study (Marcon, 1992). Middle-of-the-Road
model children remained behind their peers; Child-Initiated model children continued to excel, and Academically-Directed model showed children's social development declined along with mastery of first-grade reading and math objectives.

The D.C. study was extended to monitor children's progress at another crucial transition point, advancing from the early to the later childhood grades. Children whose first school experience is an academically focused kindergarten have more difficulty making the transition and also made less progress by fourth grade than do children whose first school experience is more socioemotional in nature. Children whose first school experience is an academically directed pre-K show the greatest decline in school grades between first and fourth grade (Marcon 1992).

The findings of this study were consistent with the findings on the long-term effects of different models, children's academic and developmental progress through school is enhanced by more active, child-initiated learning experiences. Constructivists have expressed concerns about possible negative consequences of highly didactic programs, primarily in the area of social-motivation development. They have argued that teacher-controlled instruction may undermine young childrens' intrinsic interest in learning (Katz 1987), their perceptions of competence (Kamii 1985), their willingness to take academic risks (Elkind 1987), and the possibility that it could foster dependency on adult authority for defining tasks and evaluating outcomes (Elkind 1986). This research data can be used to impact early childhood programs in school systems with similar issues and student populations. The D.C. educators shifted the focus of the pre-kindergarten and kindergarten learning models away from teacher-directed to
child-initiated socioemotional development and a developmentally appropriate curriculum which are legitimate goals for early learning experiences.

Case Studies of Early Childhood Programs

Studies that support early childhood education and development have received sustained attention from government leaders and researchers. Commissioned by the Office of Educational Research and Improvement (OERI) in 1991, this study provides information on programs in seven communities throughout the United States. The study was designed to provide useful information to early childhood practitioners who worked directly with children and families, managers who directed early childhood agencies and programs, and policymakers who made decisions about program and funding strategies. The central purposes for this examination of early childhood strategies were to describe innovative, effective local strategies that serve young children and their parents, and to contribute the assurance that participants are prepared for success when they enter elementary school. Additional purposes were to analyze key factors in the design and implementation of these programs; describe how state and federal policies supported or inhibited successful management and front-line service strategies; and provide recommendations to early childhood practitioners, managers and policymakers on how to create more high quality early childhood programs.

The principal research strategy was to prepare seven detailed case studies of local programs (see Table 1). Based on analysis of research literature and policy trends, program initiatives were selected that served young children from low income and working families who were dealing with challenges such as domestic violence, illiteracy, social isolation, and substance abuse. These programs provided comprehensive services, included early care and
education, health services, parenting education, and linkages to other social and family services. Additional services included supports to both young children and their parents; such support was stable, sustained, and continuous, rather than only a single year of program services. The program also reflected a diversity of service strategies (such as both home-based and classroom-centered delivery) and a range of organizational settings, including Head Start, public school, and child care agencies. Based on these criteria, two studies most like this 4-A-Good Start research study were the Jersey City Early Childhood Initiative and the James E. Biggs Early Childhood Center. Both studies were coordinated by the local school district, and were funded primarily with public education funds. Services were focused on three and four year old children from low income families and who viewed preschool programming as a core service.

The Jersey City early childhood initiative was begun with state department of education resources, but expanded primarily through increased allocations of local school funds for staffing and facilities. For the first year (1989-90) the enrollment of 150 children was funded by New Jersey’s Urban Preschool Pilot Program, but by 1992 local district funds supported 310 slots while the state dollars covered only 99 children. Program Coordinator, Pat Noonan helped build the case for local funding by holding a highly publicized annual lottery for parents who were seeking to enroll their children in the program. Another important strategic decision was to allow all children in the community to be eligible to participate in locally-funded classrooms. The lottery began in 1990, when 350 families applied to enroll in four classrooms funded by the local school district. In recent years more than 700 families have applied to participate in the district’s program which offers approximately 300 slots. This
### Table 1

#### Characteristics of Case Studies

<table>
<thead>
<tr>
<th>Program</th>
<th>Auspices</th>
<th>Location</th>
<th>Population Served</th>
<th># of Children</th>
<th>Ages of Children</th>
<th>Annual Budget</th>
<th>Funding Sources</th>
<th>Core Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child Development, Inc.</td>
<td>Head Start</td>
<td>Rural</td>
<td>Low income, working families</td>
<td>2,000</td>
<td>0-5 yrs</td>
<td>$6.1 million</td>
<td>Head Start &amp; 14 other public &amp; private sources</td>
<td>Home-based; part-day &amp; full-day classes; teen parent &amp; family literacy programs</td>
</tr>
<tr>
<td>Inn Circle, Inc.</td>
<td>Head Start</td>
<td>Small City</td>
<td>Homeless, single parents</td>
<td>50</td>
<td>0-4 yrs</td>
<td>$745,000</td>
<td>HUD, Head Start &amp; other public &amp; private sources</td>
<td>Child care &amp; family support in a residential facility</td>
</tr>
<tr>
<td>Sheltering Arms</td>
<td>Child Care Agency</td>
<td>Urban</td>
<td>Working families</td>
<td>833</td>
<td>0-5 yrs</td>
<td>$4.4 million</td>
<td>United Way; multiple public &amp; private sources</td>
<td>Child care &amp; family support</td>
</tr>
<tr>
<td>Parent Services Project</td>
<td>Child Care Agency</td>
<td>Urban, suburbs rural</td>
<td>Working families</td>
<td>15,000 in five states</td>
<td>0-8 yrs</td>
<td>$300-$400 per family</td>
<td>Foundations, multiple public &amp; private sources</td>
<td>Child care &amp; family support</td>
</tr>
<tr>
<td>James E. Biggs, Early Childhood</td>
<td>School District</td>
<td>Small City</td>
<td>Low income families</td>
<td>262</td>
<td>3-4 yrs</td>
<td>$775,000</td>
<td>State Deps. of Education &amp; Human Resources</td>
<td>Preschool, home visit &amp; family support</td>
</tr>
<tr>
<td>Early Childhood Program</td>
<td>School District</td>
<td>Urban</td>
<td>Low income</td>
<td>409</td>
<td>3-4 yrs</td>
<td>$2 million</td>
<td>Local school district; State Dept of Education</td>
<td>Preschool and primary grade reform</td>
</tr>
<tr>
<td>Family and Child Education</td>
<td>Bureau of Indian Affairs</td>
<td>Rural</td>
<td>Low income Native American</td>
<td>471 in 22 sites</td>
<td>0-4 yrs</td>
<td>$285,000 per site</td>
<td>Bureau of Indian Affairs</td>
<td>Home-based parent education, preschool &amp; adult literacy</td>
</tr>
</tbody>
</table>

**Note:** Source: Early Childhood Reform In Seven Communities
method assured parents that decisions were made on an equitable basis, but it also dramatized the demand for early care and education to community and school leadership. The Jersey City school district has also made major investments in facilities; $300,000 was used to renovate two apartments in a public housing project to use as classrooms. Similarly, Covington Public Schools expended $1.8 million to purchase and renovate a facility for its early childhood program, and the school system provides in-kind fiscal management, transportation, and maintenance services to the program.

Efforts to explain classroom practices offer the added benefit of exposing parents to ideas and strategies which they can use at home with their children. For example in order to demonstrate to parents that children learn through active engagement with materials, preschool teachers in Jersey City divided parents who attended a workshop into two groups and used different methods to accomplish an art activity.

The James E. Biggs Early Childhood Center provides a prekindergarten program, family support services, and a home visitation strategy. It came into being through a creative school district/community agency partnership via funding provided in Kentucky's Educational Reform Act of 1990 (KERA) for preschool and family support services. The Biggs Center is a partnership between Children, Inc., a nonprofit child care agency and the Covington School District. Children, Inc. which recruited, hired, trained, and supervised a staff of 15, monitored the curriculum, implemented parenting activities; and conducted program evaluations. The school district made a major investment in the facility and contributed maintenance, transportation and administrative services to the project.
Funds came from the state department of education's preschool program ($436,435), Special Education ($204,033), Title I ($83,563), and Family Resource and Youth Service Centers ($47,200). The school district contributed $1.8 million to purchase, renovate, and equip the facility and playground space. Mini-grants from the business sector and state agencies covered special enrichment activities. The preschool program operated two half-day sessions, Monday through Thursday, and accommodated its 262 children in classrooms of 20. Fifteen children with special needs participated in the program with support from a specialist and seven assistant teachers. On Fridays teachers and assistant teachers conducted home visits. Through Title I funds three-year-old children are visited twice a month at home by a teacher and teaching aide who combined elements of the High/Scope and Parents as Teachers information. This approach not only reinforced and helped to sustain for children the importance of school learning but also recognized the stresses of parents. Poverty, single-parenthood, social isolation and other at-risk issues impact parents abilities to adequately nurture their children (Schultz, Lopez & Hackberg, 1996).

A large number of suggestions for education reform have resulted from a wide-ranging array of reform efforts currently underway in thousands of schools across the nation. Despite the attention to reform, no substantial knowledge base has existed for identifying and implementing particular effective reforms. In 1991, Congress requested the Department of Education's Office of Educational Research and Improvement (OERI) to investigate education reform. The American Institutes for Research (AIR) and the Johns Hopkins Center for the Education of Students Placed at Risk (CRESPAR) collaborated to conduct case studies of 12
models and six replicate school sites nationwide. The primary aim of this study was to reveal
the essential mechanics of effective reforms for children at-risk.

Seven of the study schools were elementary schools, some ending at grade five and
some at grade eight. Four others were high schools serving grades nine through twelve. One
school enrolled children from prekindergarten through grade twelve. The participant
population of the programs studied tended to be high poverty (up to 95 percent free or
reduced-price lunch recipients) and high minority (up to 100 percent African-American or 96
percent Hispanic). Most of the programs were medium-sized, involved 100 to 800 children
and drew heavily upon the findings of past evaluative studies of dropout prevention and Title I
programs.

Four of the elementary studies provided findings which highlighted the importance of
attitudinal characteristics. All schools in the study were assigned an alphabet. The four
reviewed for relevance to this research study are Schools G, H, J, and L (see Table 2).

At School G, the program seeks to develop all aspects of children's cognitions:
"acquisition of knowledge, development of intellectual skills, and enlarged understanding of
ideas and values" (Adler, 1984). The school is located in a drug and-gun-infested, dangerous
part of the city, but due to high academic demands and the institutionalization of the program,
it is an island of safety and comfort. The program at School G is now 11 years old and
recognized for inhibiting the potential by rapid decline in scores seen in inner-city schools
without programs. Students believe they can learn, and they are expected to learn as a result
of the support they are given. A wide variety of reading and the willingness of children to
work diligently make it a success.
At School H, the Child Development Project (CDP) was designed to enhance children's sociomoral development as well as their intellectual development. "Sociomoral," a term that CDP project staff uses interchangeably with "prosocial," includes elements in four domains: cognitive characteristics; affective, motivational, and attitudinal characteristics; behavioral competencies; and action tendencies. Currently, twelve elementary schools in six districts across the country have adopted the CDP.

School J has a Title I schoolwide project and a year-round program located in the third largest district in California. This program was nominated by California's Title I office and by the Northwest Regional Educational Laboratory (NREL) for providing superior services to children. School J's Superkids program went on to be recognized as one of 20 exemplary national programs serving Title I children (Stringfield, Billing & Davis, 1991). For a decade, School J's children have scored above state and national averages on the California Assessment Program and on other normed reference tests. School J is virtually free of the types of violence and disorder that has harmed neighboring schools; student attendance is excellent. Students approve of an academic press and support each other's efforts to achieve academically.

At School L, the research suggests that the Comer School Development Program (CSDP) has a positive effect on children's academic and affective growth. This school is one of the original Comer Schools started during the 1985-86 school year. School L was selected as an exemplary school by the staff at the Yale Child Study Center. This program is now operating in over 150 schools in fourteen districts across the nation. Based on staff
### Urban Studies With Similar Program Objectives

<table>
<thead>
<tr>
<th>School</th>
<th>Context</th>
<th>Program</th>
<th>Grade</th>
<th>Students&lt;sup&gt;a&lt;/sup&gt;</th>
<th>Staff&lt;sup&gt;b&lt;/sup&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Urban, drug-infested neighborhood</td>
<td>Paideia</td>
<td>School: K-8 Program: K-8</td>
<td>769 in program 94% free lunch 100% Black</td>
<td>30 teachers 1 coordinator</td>
</tr>
<tr>
<td>H</td>
<td>Urban, neither best nor worst neighborhood</td>
<td>School Community Focus: Child Development Project affiliation</td>
<td>School: K-5 Program: K-5</td>
<td>385 in program 49% free lunch Large ESL population</td>
<td>16 teachers 1 district coordinator</td>
</tr>
<tr>
<td>J</td>
<td>Urban, high poverty, multicultural</td>
<td>Superkids</td>
<td>School: K-6 Program: K-6</td>
<td>33% LEP 56% Hispanic 23% Asian 15% Black 6.3% White</td>
<td>39 teachers</td>
</tr>
<tr>
<td>L</td>
<td>Urban, decaying School Development Program</td>
<td>Comer School</td>
<td>School: PreK-6 Program: PreK-6</td>
<td>95% Black 80% free lunch</td>
<td>25 teachers Master teacher Parent liaison</td>
</tr>
</tbody>
</table>

**Note:** Source: Education Reform and Students At-Risk

- The poverty marker, "free lunch," includes students receiving free or reduced-price lunch.
- This column identifies dedicated staff. All schools also have administrators and support staff.

Programs at Schools G, J, and L are funded through Title I; School H's program was funded through the Child Development Project.
perceptions, children enjoy the programs and children's poor attendance has never been an issue (Comer, 1987).

Summary of Research Literature

There exists an extensive body of longitudinal data which supports the value of preschool education for children at-risk of school failure. For children who reside in low income families, the provision of preschool education has been documented as having critical influence on school performance. Schweinhart & Weikart (1993), Ramey & Campbell (1991), as well as Zigler & Berman (1983) note the impact of preschool on the reduced likelihood of low income children entering special education programs. The incidences of delinquency and crime, incidences of teenage pregnancy, high drop out rate, and unemployment have been demonstratively affected in a positive way by the added value of a preschool education program.

Schools should develop and communicate procedures that focus on the message that the school values attendance and will provide support to assist parents in fostering regular school attendance for their children (Wheelock & Dorman, 1988). Many elementary children who are at-risk of school failure come to school with significant family dysfunction, or they misbehave in response to their frustration with their school or life experiences. Attitudes towards learning are not positive if students do not possess a positive sense of self worth and motivation for learning. The disruptive behavior is a symptom of a child's underlying alienation from school and a cause for on-going rejection from the institution (Wehlage & Rutter, 1986). At-risk children appear to be particularly receptive to personal as opposed to
institutional authority. Young children in particular need to be counseled as to the nature of school rules; they must clearly understand the cause-and-effect relationship of their actions.

The researcher has attempted to lay a theoretical framework for the study by exploring the literature related to the variables that were important to the results of this investigation. Each section of the literature review had a distinct purpose for being included in this study. A historical review of the theories and basic organization of early childhood education provided background insight. The factors which mandated the push of policy and funding toward the development of increased preschool options helped to explain the growth of early childhood education programs. The research on the quality of existing early childhood education speaks to the need to continually assess where the services are effective and how they can be improved for the good of all. The researcher reviewed studies of early childhood programs that have provided major findings to educators, politicians, and the community at-large. Research that supports the planning, implementing, monitoring, and evaluation of early childhood programs for urban at-risk children helps to substantiate the validity of this study.

Although, there is evidence of the value of preschool education for all children, it is clear that particularly low income children benefit more. As the academic achievement gap between low SES students and middle to high SES students increases, preschool education may be one of America's best defenses against a fall in the fast shrinking global market place. If as reported by Hodgkinson (1989), the population in the year 2010 will be made up primarily of Hispanics and Blacks, America will need to develop the minds of minority, at-risk students better than ever before. In order to be a viable player in the global economy, America's people must be competitive in areas of problem-finding, problem-solving, technology, and
team work. The well-being of low income families now, their engagement or lack of engagement with the public school system today will definitely impact their individual futures and this nation's collective tomorrow's.

The forces that drive child care and early childhood education have telling implications for the at-risk family. As the number of at-risk families increases, so do the nation's risks. More of the nation's children are at risk of school failure than at any other time. Edelman (1989) has described the first high school graduating class of the twenty-first century, (a) one in four of these children is poor; (b) one in three is not white, of whom two in five are poor; (c) one in five is at risk of becoming a teen parent; (d) one in six is in a family in which neither parent has a job; (e) one in seven is at risk of dropping out of school.

A new rhetoric—the rhetoric of a nation failing its children—gathered support across political parties among liberal and conservative educators, and in the boardrooms of corporate America and stimulated concern for education at many levels. The fear that the children might fail the nation surfaced as well.

The risk lies with poor children who may have meager home support structures, who are lagging behind in school achievement, may be homeless, are often hungry, ill, and can see little chance for a decent job or a life in the sunlight of this society. Their risk is finally our risk since education is the only route available to them or to us if we hope to escape the establishment of a permanent underclass (Clark and Astuto, 1990, p. 19).

Regular school attendance and achievement are intertwined; improved attendance promotes increased achievement and success in school. Once students experience success, the attitude to press on and achieve new goals is empowered. A school learning climate that expects and
supports an "I can" spirit yields more students who have chosen to be engaged participants in the learning process (p. 27). Attendance is critical because students who fail to report to school regularly fall behind in classes and cannot develop the essential skills required for success (Vaughan, 1991). Patterns of high rates of absenteeism tend to compound the problem of school failure which understandably leads to students avoiding school until they are old enough to drop out.

According to Becker (1991) it is misleading to assess the risks posed by home or school characteristics in isolation from one another. Parent and teacher expectations that, in and of themselves, pose no risk to children may cause problems if they are in conflict. Many at-risk behaviors co-exist due to cause-and-effect. Young people who are frequently absent from class miss out on instruction; thus, they have a harder time passing tests and making good grades. The academic failure may further discourage regular school attendance and begin a downward spiral of absenteeism and poor achievement. In addition, at-risk behaviors may co-occur because of direct or indirect peer influences to fit in with the group. Students' sense of self worth, perceptions of others about their ability to succeed in school impact students' attitudes towards school and approach to learning tasks. Children's performance can be improved if expectations are not lowered and peer pressure works in a positive way.
CHAPTER III

METHODOLOGY

Introduction

This causal-comparative study assesses the influence of an early childhood education program on the academic achievement, attendance, and attitudes towards learning of urban, at-risk students who had completed four grades in the public schools. Preschool is not available to all of the children in this local school district. This program afforded an additional year of schooling for identified at-risk students. Unless accepted to attend a Head Start Center or enrolled in a day care program that charges for services rendered, most of the children in this study would not have received any formal preschool services. Included in this chapter are an explanation of the setting, a description of the program, selection of subjects, design of study, instrumentation and data collection procedures, and the method of data analyses.

Research Location

The setting of this study is a city located in southern Virginia with a population of approximately 100,000. This urban city has experienced a four percent population drop since 1990. The poverty rate is the second highest in the region at 17.7% compared to the state’s rate of 11.1%. The poverty rate for families with children is 22.7%, more than double the state’s rate. This city has 20% of the region’s Aid to Dependent Children Cases (Temporary Assistance to Needy Families). More than one-quarter of all births in this city have no benefit of early prenatal care. This city has the highest rate of low weight births and the highest rate of teen pregnancy in the region (The Planning Council, 1997). Median family income is
$34,127, which is the second lowest in the region and more than $13,000 below that of the state.

There are approximately 18,000 students enrolled in this PreK-12 urban public school division. The student population is housed in nineteen elementary schools, four middle schools, three high schools, one special center, and one alternative school. This research study originally included eight targeted assistance elementary schools. School eligibility had been established in 1992 based on Title I guidelines. Each of the schools enrolls large numbers of students who reside in public housing projects or in low income housing. The majority of the school division’s student population, 62%, as recorded by the food services division, qualify for free and reduced-price breakfast and lunch programs. All of the students involved in this study qualified for free or reduced-price breakfast and lunch.

Description of Program

The Title I staff designed and implemented a four-year-old program that focused on increasing the chances of at-risk students succeeding in the primary grade program (grades kindergarten through three). The federally funded project, known as 4-A-Good Start was implemented during the 1988-89 school year. 4-A-Good Start is a multifaceted, full day program modeled after the Head Start program. and aimed at providing the preschool experiences that would yield improved school success during the early childhood years. A program staff of Virginia-certified, early childhood teachers, paraprofessionals, an early childhood specialist, and a parent liaison were selected by the Title I administrative staff based on their experience, expertise, enthusiasm, and ability to make overall contributions toward the achievement of program goals. Particular consideration was given to such qualities as
flexibility, creativity, patience and openness to parental participation in the students' educational program (Title I Handbook, 1997).

Participants in the 4-A-Good Start program were selected from the four-year-old applicants who resided in the attendance areas of public schools that had Title I programs. Parents were invited during the spring of the 1992 school year by the school division to begin the application process for 4-A-Good Start. Leaflets about the program were circulated in the communities. Notices giving the location, date, and time of the open application period were placed in the local newspaper, Virginian Pilot/Ledger Star, and on the local cable television station, Channel 47. Applications were accepted, and the screening tests were administered. Parents were notified by letter during the summer of their children's status for the coming fall. Parents were notified, in the same letter, of the need to present a birth certificate, a record of immunizations, evidence of a current physical examination, and a social security number to complete the enrollment process. Inclusion of the eligible, non-participating children represented in group two, allowed an assessment of the academic gains, attendance, and attitudes towards school of both groups at the end of the local district's primary school program. The non-participating students entered school with a perceived disadvantage because of their lack of preschool experience. Students who were not eligible for the intervention were not a part of this research study.

The students in the 4-A-Good Start program received 180 school days of instruction as four-year-olds. Their day was six and a half hours in length. Each day started with the provision of breakfast. The instructional program afforded children the opportunity to listen to stories, poems, music, the voices of adults and their peers. As they interacted with these
materials and people, they became more aware of the pattern of language, increased their
listening comprehension, and expanded their speaking vocabulary. A major component of this
program is the development of good receptive and expressive communication skills. Students
learn that when they speak, they must send messages that are clear if they want them to be
understood. Children become more aware of print; they learn that print is made from the
same words which are spoken. Fascinating activities such as tracing in sand, making letter
shapes out of jello or M and M's then eating them help students to recognize the letters of the
alphabet and that those may be used to spell their names. Children learn to dictate sentences
about a class field trip experience to form a story written by the teacher. Students receive,
interpret, and produce language all day; therefore, they become more competent in the
communicative arts. Throughout the day, children play with blocks, legos, puzzles, and
shapes made of paper and foam. The freedom to manipulate different shapes affords them the
opportunity to think logically, to process ideas, and to project creative possibilities for the uses
of these materials. A time is included when children's sense of how many and how much, as
well as how long and how often become more keen because they learn to sort, quantify,
categorize, and assess likes and differences which lead to an increased ability to understand
mathematics.

During this component of the program, teachers begin to help students to compare
distance. They look at height, weight, and time; compare differences in dimension such as
taller, shorter, thinner as well as to identify coins, a dollar, and to associate cause-effect
relationships.
Tending to tasks by listening to and following simple instructions, sustaining attention span, sharing stories with others are among the activities organized on a regular basis for the development of the children. Activities to develop gross and fine motor skills are emphasized; teachers help children to balance on one foot, skip, hop, throw, catch, bounce a large ball and stack blocks vertically as well as horizontally. Additionally, children learn to work with clay, put together puzzles, participate in finger plays, cut, paste, glue paper as well as button buttons, zip zippers and tie shoes. They learn to take turns, share, respect the property of others, and care for their personal belongings.

Language knowledge is critical for children's success in school (Anderson, Hiebert, Scott & Wilkinson). Children learn to use simple position words such as over, under, down, and up. They learn to use action words such as run, walk, sit, and stand. Personal pronouns are introduced and children are encouraged to speak in complete sentences. Children learn to use language for specific purposes such as making requests, sharing information, and giving directions.

The 4-A-Good Start daily schedule (Table 3) reflects the core concept of Piaget's work with regards to educators' need to allow the constructivist approach to prevail in order for students to make meaning of their learning. The center-time activity station is based on the children's choices. These choices are given to children several times each day. Children also decide what they want to share with their peers and the staff each afternoon at Total Group assembly.

The 4-A-Good Start day is well-balanced and allows children the opportunity for movement, exposure to the arts through painting, coloring, cutting, and pasting. Drama is
Table 3

**Typical 4-A-Good Start Daily Schedule**

<table>
<thead>
<tr>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 9:30</td>
<td>Students arrive, report to classes, put away personals, and report to breakfast or secure a quiet activity if they do not desire breakfast</td>
</tr>
<tr>
<td>9:35 - 9:45</td>
<td>Assembly of total class on floor for school announcements</td>
</tr>
<tr>
<td>9:45 - 10:00</td>
<td>Opening morning song and student/teacher sharing</td>
</tr>
<tr>
<td>10:00 - 10:10</td>
<td>Restroom and Water Break</td>
</tr>
<tr>
<td>10:10 - 10:30</td>
<td>Calendar time (Days/Months); Theme Time Total Group (Skill area focus for the day)</td>
</tr>
<tr>
<td>10:30 - 10:50</td>
<td>Small Groups and Center Time</td>
</tr>
<tr>
<td>10:50 - 11:00</td>
<td>Prepare for Lunch</td>
</tr>
<tr>
<td>11:00 - 11:30</td>
<td>Lunch</td>
</tr>
<tr>
<td>11:30 - 11:40</td>
<td>Restroom and Water Break</td>
</tr>
<tr>
<td>11:40 - 12:00</td>
<td>Story Time and Follow-Up Discussion (Total Group); Revisit the Theme</td>
</tr>
<tr>
<td>12:00 - 12:15</td>
<td>Music and Movement</td>
</tr>
<tr>
<td>12:15 - 1:15</td>
<td>Small Groups and Center Time</td>
</tr>
<tr>
<td>1:15 - 1:30</td>
<td>Students share what they did in center/small group (Total group assembly)</td>
</tr>
<tr>
<td>1:30 - 1:45</td>
<td>Physical Development</td>
</tr>
<tr>
<td>1:45 - 2:00</td>
<td>Restroom and Water Break</td>
</tr>
<tr>
<td>2:00 - 2:45</td>
<td>Rest/Nap Time</td>
</tr>
<tr>
<td>2:45 - 3:00</td>
<td>Snack</td>
</tr>
<tr>
<td>3:00 - 3:15</td>
<td>Review of the entire day’s activities</td>
</tr>
<tr>
<td>3:15 - 3:25</td>
<td>Talk about the homework for reinforcement and what will be done tomorrow</td>
</tr>
<tr>
<td>3:25 - 3:30</td>
<td>School announcements; Dismissal</td>
</tr>
</tbody>
</table>

**Note*** Between 9:00 - 9:35, the paraprofessional takes attendance, student lunch choices and center time choices.*
Early Childhood Findings

used to develop understanding of real life as children place different hats on their heads and take on the role of community helpers such as the fireman, mailman, nurse, doctor, policeman or policewoman. While doing this, they differentiate between real and make-believe. Children are allowed rest time because the 4-A-Good Start program affords children a full day of school. Students also receive an afternoon snack each day. The local school division provided transportation for all of the participants.

Students are expected to maintain good attendance, adhere to classroom and school rules, and to strive for academic growth at the readiness level. 4-A-Good Start staff members communicated regularly with parents through notes sent home, telephone calls, and school conferences about students' adjustment to school and progress in school. The progress of students is encouraged and assisted through the use of a variety of instructional strategies with a wealth of developmentally appropriate learning materials made available to all program participants and their parents (Title I Handbook. 1997)

Selection of Subjects

All subjects in this study were selected from one of the eight Title I targeted assistance schools during the spring of 1992. The term "targeted assistance" signifies that the services are provided to a select group of children: those children who are identified as failing, or most at risk of failing, to meet the State's challenging content and student performance standards (LeTendre, 1996). The 4-A-Good Start program intervention represents an effort by the Title I staff to serve children who are not yet at a grade level where the Local Education Agency (LEA) provides free public education, yet are of an age at which they can benefit from an organized instructional program provided in a school or other educational setting. Children
are selected for preschool on a basis of multiple criteria such as teacher judgment, interviews with parents, and performance on developmentally appropriate measures that determine which children scored low and were most at risk of failing.

Along with eligibility for free or reduced lunch, school division staff used the Brigance Preschool Screen for Three- and Four-Year-Old children (Brigance, 1985) to assess students' eligibility for the 4-A-Good Start program intervention. Of the original fall 1992 participating group, 88 of the 220 (40%) were available as study subjects in the spring of 1996 (Table 6). The decrease in the number of research subjects, in both the participating and non-participating groups are attributed to several factors. The researcher did not select any subjects who had been retained. Only students who were classified as third graders would have been administered the state required norm-referenced test which is a measure of the achievement variable. The researcher did not select any subjects who were classified as special education children. These students typically have individualized education plan (IEP) which define their instructional levels and instructional setting (self-contained, inclusion, resource). Children classified as special education do not generally take the norm-referenced test as regularly administered in scope and time but with specific modifications. This researcher also avoided the selection of subjects who changed residence to another city or state prior to the end of grade three because data for both levels of the achievement variable as measured by the state mandated achievement test and end-of-year grades earned would not be available. Additionally, subjects who were designated by the school division printout as "no shows" at the beginning of the 1997-98 school year were not selected for participating in this research.
study because there exists no opportunity to acquire parental permission to administer the School Attitude measure (SAM).

Subjects were included if complete data on two of the three dependent variables, specifically achievement, was available. Both groups were relatively small in size due to budget constraints and physical space available for program implementation. Only sixteen students were served in each class in order to keep an eight-to-one adult ratio. The Title I budget had allocations for 15 certified preschool teachers and 15 para-professionals to provide the 4-A-Good Start program intervention. Additionally, the researcher chose to use the entire population of students from each group because of the high mobility rate generally found in urban, low income, residential areas.

Based on the scores obtained by school division's staff during the screening in the spring of 1992, students in greatest need or most at risk of failing in kindergarten were placed in the participating group to receive the 4-A-Good Start program intervention (see Appendix A). Students placed in the non-participating group had scores on the Brigance Preschool Screen for Three- and Four-Year-Old Children that were significantly higher, indicating they were less at-risk of failing in kindergarten (see Table 4). A total score of 100 can be obtained; the author recommends that children who score 60 or below be considered for further evaluation.
Table 4

**t-test Results for Brigance Scores**

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating</td>
<td>88</td>
<td>36.80</td>
<td>14.97</td>
<td>140</td>
<td>-13.8</td>
<td>.001*</td>
</tr>
<tr>
<td>Non-participating</td>
<td>54</td>
<td>67.65</td>
<td>8.58</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note.* p < .05

**Design of Study**

This research study had the 4-A-Good Start Program intervention as the independent variable with two levels. The researcher focused on the comparison of two groups of early childhood subjects who were eligible for the 4-A-Good Start program intervention. Although both groups were eligible for the program intervention services, one group of children participated and the second group of children did not participate. There are three dependent variables in this study. The first dependent variable was academic achievement which had two levels, grades earned in reading, language arts, and math. The second level of the achievement variable was performance, in the areas of reading, language, and math, on the norm-referenced Stanford Achievement Test (Abbreviated Version). The second dependent variable was attendance as indicated by the percentage of days present. The third dependent variable was attitude towards learning which had five levels. The levels of the attitude toward learning variable are motivation for schooling, academic self-concept (performance based), academic self-concept (reference based), student's sense of control over performance and student's instructional mastery. The performance of the two groups was compared to assess achievement, attendance, and attitude towards learning of the subjects (see Figure 2).
The researcher examined and compared year-end grades earned and the Stanford Achievement Test (Abbreviated Version) composite for reading, language, and mathematics scores, number of days present, and attitude of the groups of students at the end of third grade (1996-97). The study was conducted to determine if students who participated in the early childhood intervention, 4-A-Good Start, were more successful in school than students who were eligible to receive the 4-A-Good Start intervention program but were placed on the non-
participating list at the end of the primary school years. Additionally, this study may contribute to the assessment of the local school district's early childhood program.

Instrumentation/Data Collection

The researcher determined how many of the students screened and found eligible for the 4-A-Good Start program in the spring of 1992 still attended school in the local school division. All students in this study group were rising fourth graders for the 1997-98 school year. Current school assignments were determined after the researcher provided the appropriate seven digit student numbers (see Appendix B). Data collection for each variable proceeded from that point as the researcher employed the selected instrumentation.

Academic Achievement

End of third grade year (1996-97) grades earned in reading, mathematics, and language were obtained from each elementary school guidance counselor. Letter grades were assigned a numerical equivalent value: A=5.0, B=4.0, C=3.0, D=2.0, and F=1.0. These grades, assigned by classroom teachers according to the grading criteria adopted by the school board of the local school division, were averaged for subjects in both groups (see Appendix C).

Scores from the Stanford Achievement Test, the norm-reference test required by the Virginia State Department of Education in the spring of the third grade year, were obtained from the school division’s Department of Research and Student Services. The Abbreviated Version is a shorter, more efficient way to sample a child’s knowledge. The Abbreviated Version of the Stanford was administered by this local school district in April 1997. The subjects in this research study were given the primary level as third graders. The achievement data in the areas of total reading, total language, and total mathematics was collected and

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averaged for each group in this study. The Stanford is designed to provide data descriptive of overall group achievement trends (Conoley & Impara, 1995).

**Reliability.** Kuder-Richardson-20 (KR-20) measures of internal consistency are given as evidence of reliability. KR-20 coefficients for each subtest and composite test are provided separately for fall and spring administrations and test forms. For the spring administration, KR-20s are available for two adjacent grade levels. The manuals also provide the reliability estimate of the full-length battery.

In general, the KR-20s are excellent. For all ages and tests, most subscale coefficients are in excess of .85 or .90, and the total scores and composite scores are almost all in excess of .95. Reliabilities for the Listening, Environment, and Language Mechanics subtests tended to be in the upper .70s. The conservative test user should be cautious about over analyzing the scores on these subtests. All subtest KR-20s are highly comparable to those for the full-length battery, indicating that the abbreviated form is measuring the material with virtually no loss in accuracy.

**Validity.** In his review of the Stanford, Eighth Edition, Brown (1992) argued that "A major shortcoming of the series is the lack of convincing arguments and data in support of the validity of the battery" (p. 991). In the manual's brief discussion of validity, it is mentioned that the content validity may be evaluated by comparison of the test content against any given curriculum. It is further argued that because the Stanford-Abbreviated is simply a shorter version of the Stanford, designed to measure the same material; it is a valid instrument.

A major omission is the failure to present the correlation between the full-scale SAT with the Stanford. The similarity between the reliability coefficients on the full-length
batteries and the Stanford indicate that this correlation should be quite high. An accurate and efficient test to assess students' academic performance is sorely needed.

**Attendance**

The attendance data for all subjects in this study will be retrieved for the 1996-97 school year. Classroom teachers are required to record the total days present and the total days absent for each child at the end of the academic year. This raw data for each group will be collected and compiled by the researcher. Only the total number of days present in school for each group will be averaged and then compared to assess the number of days in attendance for each group.

**Attitudes**

The School Attitude Measure (SAM), a component of the Comprehensive Assessment Program by American Testronics, was the formal instrument used to measure children's attitudes toward learning. This instrument has been used by this local school district to measure students' self-concept and motivation toward school during psychological screening processes. For the purpose of this study, the survey questions identified for level E/F - Form 3 were employed to accommodate the ranges of academic abilities that are associated with urban elementary school students. Level E/F contains sixty items on a four point Likert Scale format. For each statement, students will mark one of four responses choices: never agree, sometimes agree, usually agree, or always agree. The approximate testing time is thirty minutes.

The study of the affective domain remains critical to any study of the cognitive domain particularly when individual initiative is required. The School Attitude Measure surveys and
evaluates several dimensions of student attitudes. It also examines students' thoughts and ideas of themselves and their academic environment by providing information on five attitudinal scales:

Scale 1: Motivation for Schooling

Statements in this scale assess the student’s motivation to work hard in school. The statements assess the willingness of students to participate in school, their perception of school as a meaningful experience, and the perception of the worth of school in pursuing goals and meeting future needs.

Scale 2: Academic Self-Concept: Performance Based

Statements in this scale are concerned with feelings about school performance and confidence in academic ability. Included are statements that assess students' perception of their ability to competently perform school tasks, to be involved in school tasks, to establish expectations of success and feelings of importance as members of the class.

Scale 3: Academic Self-Concept: Reference Based

Statements in this scale assess how students think other people (teachers, family, friends) feel about their school performance and ability to succeed academically. Included in this scale are statements that assess the students' perceptions of the discrepancy between performance in school and the expectations of others, and the consistency between others' views and the students' own expectations about school performance.

Scale 4: Student’s Sense of Control Over Performance

Statements in this scale are concerned with the students' feelings about how much
control they have over school outcomes. Included in this scale are statements that assess students' willingness to take responsibility for their actions and outcomes in school.

Scale 5: Student's Instructional Mastery

Statements in this scale differ from those in the other scales which pertain to student feelings; instead, statements in this scale ask the student to report on his or her actual school skills. Included in this scale are statements that assess student's abilities to use school time effectively and efficiently, to persist in and concentrate on instructional tasks, to seek and use feedback, and to evaluate one's own work (Wick, Dolan, & Enos, 1991).

Reliability. Based on the Kuder-Richardson Formula 20, the reliability for internal consistency is .95 for the total test. The test-retest reliability is estimated to be in the .80s. Subscale reliabilities range from .78 to .88. Reliabilities were computed on raw scores reported in a range from one to four. In this study, each subject's responses were measured on five subscales.

Validity. Objectives for statements in the survey were identified after literature reviews and interviews with educational specialists. The number of test items and levels have been expended, although the number of attitude scales was reduced to five. There are currently five levels of the SAM for a total of 370 test items. Research by educators, psychologists, and ethnic groups validates that the instrument items were developed to avoid subjectivity. Additionally, over five thousand elementary students across the nation participated in the standardized sample. The researcher secured the involvement of the elementary school principals and guidance counselors, in the appropriate elementary schools, to obtain data for the attitude variable. An E-mail message was forwarded to the principals who had students
that were potential subjects for this study. Upon being granted approval to work with human subjects, preparations were made to secure parental approval (see Appendix D). A meeting was scheduled with the appropriate elementary guidance counselors and explained procedures for administration of the School Attitude Measure survey.

A typed letter of explanation and a request form for parental permission to include potential study subjects in the attitude survey was sent to each principal for review and a signature. The researcher believed that parents would be more likely to respond to the request if they recognized the signature of their child’s principal (see Appendix E). It was predetermined that all surveys would be returned to the researcher to be scored, compiled, and analyzed based on group membership. Once permission slips returned to the Department of Research and Student Services were forwarded to the researcher, the process for data collection was completed.

Data Analysis

The focus of this study was to determine if significant differences existed in end-of-year grades and on the Stanford Achievement Test in reading, mathematics, and language, days present in school, and attitudes towards learning between a treatment group and a non-treatment group at the end of third grade. An independent t-test was used to analyze the end of year grade and to analyze the Stanford data for each group. An independent t-test was also used to analyze the attendance data for each group. A multivariate analysis of variance (MANOVA) was used to analyze subscales data on the SAM to assess attitudes towards learning for each group. All tests for significance was set at the .05 level of probability.
Summary of Methodology

This study was designed to determine the influence of the 4-A-Good Start program intervention on the achievement, attendance, and attitudes towards learning of urban, at-risk early childhood students in a local Hampton Roads school district. The 4-A-Good Start Program serves low income children who are at-risk of school failure. This program is provided through the federally funded Title I program. Eligible four-year-old children receive a full day of meaningful school readiness activities for 180 school days. Students are served breakfast, lunch, and a snack each day. The local school division provides all participants with bus transportation.

There are two groups in this study; the researcher used a causal comparative design. Both groups of children were screened in the spring of 1992 and found to be eligible for the 4-A-Good Start program intervention in the fall of 1992. One group received the program intervention and the other group was on a non-participating list. The subjects were originally in eight Title I targeted assistance elementary schools in the local school division. When the study was conducted, these subjects were found to be assigned to seventeen elementary schools. The researcher is seeking to determine the influence of the 4-A-Good Start Program intervention at the end of the subject's third grade year. End-of-the-year grades earned in reading, language, and math, along with performance on the Stanford in reading, language, and math will be used to assess the dependent variable of achievement. Total number of days present in school during the third grade year (1996-97) were collected and analyzed by group membership to assess the dependent variable of attendance. The SAM was administered and scored to assess the dependent variable of attitude.
Table 5

Methods of Data Analyses

<table>
<thead>
<tr>
<th>Variables</th>
<th>Treatment Groups</th>
<th>Analysis</th>
<th>Measurement</th>
</tr>
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<tbody>
<tr>
<td>End of Year Grades Earned</td>
<td>Participating vs</td>
<td>Independent t-tests</td>
<td>5.0 grade scale (A=5, B=4, C=3,</td>
</tr>
<tr>
<td></td>
<td>Non-participating</td>
<td></td>
<td>D=2, F=1)</td>
</tr>
<tr>
<td>Stanford 9 Test</td>
<td>Participating vs</td>
<td>Independent t-tests</td>
<td>Composite scaled scores</td>
</tr>
<tr>
<td></td>
<td>Non-participating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attendance</td>
<td>Participating vs</td>
<td>Independent t-tests</td>
<td>Number of days present in school</td>
</tr>
<tr>
<td></td>
<td>Non-participating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitude Subscales</td>
<td>Participating vs</td>
<td>Multivariate Analysis of</td>
<td>Students’ self-reported attitude</td>
</tr>
<tr>
<td></td>
<td>Non-participating</td>
<td>Variance (MANOVA)</td>
<td>measures (SAM)</td>
</tr>
</tbody>
</table>
CHAPTER IV
PRESENTATION AND ANALYSES OF DATA

Introduction

The purpose of this causal-comparative study was to determine the influence of an early childhood program on primary grade students' academic achievement, attendance, and attitudes towards learning in a Hampton Roads school district. To investigate the hypotheses of this study, information on grade point averages, Stanford Achievement Composite Scores, days present in school, and attitudes toward learning were gathered on students who were screened by the Title I staff in the spring of 1992, and found eligible for the 4-A-Good Start program intervention in the fall of 1992. Eligible students were assigned to either a participating or a non-participating group based on their status on a rank order list which required that students with the greatest need of academic support be served first. All statistical analyses were completed using Statistical Packages for Social Sciences (SPSS), version 6.1.1 (NORUSIS, 1994). The results are presented in this chapter.

Descriptive Characteristics of Original Study Cohort

In the Spring of 1992, the Title I staff identified 301 students who were eligible to receive the 4-A-Good Start program intervention during the next school year. This study was conducted at the conclusion of the primary grade years, typically recognized as grade three (Bredekamp, 1987). As presented in Table 6, the overall comparison of the original study cohort revealed that the decrease in the available subjects for study could be classified in several categories. In the category of "No Longer Enrolled" there were 49 students from the participating list group which represented 22% of the original cohort and 10 students from the non-participating list group which represented 12% of the original cohort. In the category of
"Retained" there were 48 students from the participating list group which represented 21% of the original cohort and 11 students from the non-participating list group which represented 13% of the original cohort. In the category of "Special Education" there were 33 students from the participating list group which represented 15% of the original cohort and 5 students from the non-participating list group which represented 6% of the original cohort. There were two students which represented less than 1% from the participating list and one student which represented less than 1% from the non-participating list who had been advanced to a higher grade than the regular grade placement designation. Of the original 220 participating list students, 88 (40%) were available for this study. Of the original 81 non-participating list students, 54 (66%) were available for this study. Thus, the current study was comprised of a sample of 142 students.

Table 6
Characteristics of Original Study Cohort

<table>
<thead>
<tr>
<th>Condition</th>
<th>Participating n=220</th>
<th>Non-participating N=81</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Available for Study</td>
<td>88</td>
<td>40</td>
</tr>
<tr>
<td>No Longer Enrolled</td>
<td>49</td>
<td>22</td>
</tr>
<tr>
<td>Retained</td>
<td>48</td>
<td>22</td>
</tr>
<tr>
<td>Special Education</td>
<td>33</td>
<td>15</td>
</tr>
<tr>
<td>Advanced</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>

Note. Original N = 301 Available Study Cohort n = 142

Data reflects distribution of original study cohort at the end of third grade.
Early Childhood Findings

Characteristics of Cohort Used in Study

Analysis was conducted on 142 third grade students. Of the total 142 students, 88 (62%) were participants in the 4-A-Good Start program intervention. Of the total 142 students, 54 (38%) were non-participating students who were eligible for services from the 4-A-Good Start program intervention. As shown in Table 7, 46 (52%) males and 42 (48%) females composed the 4-A-Good Start participating sample group. Twenty-four males (44%) and thirty (56%) females composed the 4-A-Good Start non-participating list sample group. Of the total students in the participating list 69 (78%) were Black and 19 (22%) were White. In the participating list group 40 (74%) were Black and 14 (26%) were White.

Table 7

<table>
<thead>
<tr>
<th>Condition</th>
<th>Participating n=88</th>
<th>Non-participating n=54</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>36</td>
<td>78</td>
</tr>
<tr>
<td>White</td>
<td>10</td>
<td>22</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>100</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>33</td>
<td>79</td>
</tr>
<tr>
<td>White</td>
<td>9</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>100</td>
</tr>
</tbody>
</table>

Note: N = 142
Data Analyses for Hypotheses

Three null hypotheses were tested with respect to differences in academic achievement, attendance, and attitudes towards learning. There were two sample groups of students, both were found to be eligible for 4-A-Good Start program intervention services. One group, identified as participating list students, was the most in need of academic support based on the Title I guidelines. Although eligible for support, the second group, identified as non-participating list students demonstrated a lesser need for academic support as evidenced by the Brigance Preschool Screen for Three- and Four-Year-Old Children.

**Hypothesis 1.**

There is no statistically significant difference between third grade students who participated in the 4-A-Good Start program and third grade students on the non-participating list with respect to academic achievement in the areas of reading, mathematics, and language as measured by end of year grades and Stanford 9 Achievement Test results.

**Reading Grades Earned.**

Table 8 provides the means and the standard deviations for the reading grades earned for participating and non-participating list students at the end of third grade. The scores ranged from 1 - 5 with a 5 indicating an A grade, 4 indicating a B grade, 3 indicating a C grade, 2 indicating a D grade, and 1 indicating a grade of F. The mean for the participating students in the area of reading grade earned was a 3.6 and 3.7 for non-participating list students. The standard deviation for the participating group was .83 and for the non-participating list group, .89. The calculated probability statistic of \( p = 0.552 \) was higher than
the predetermined alpha level of .05; therefore, the data failed to reject the null hypothesis
with respect to end-of-year reading grades.

Table 8

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td>87</td>
<td>3.6</td>
<td>.83</td>
<td>138</td>
<td>-.548</td>
<td>.552</td>
</tr>
<tr>
<td>Non-participating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td>53</td>
<td>3.7</td>
<td>.89</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Scores range from 1 - 5. A score of 5 indicating end of year grade of A and 1 or F, respectively.

Math Grades Earned.

The research data revealed that there was statistically significant difference in the mean mathematics grade earned by students participating in the 4-A-Good Start program intervention versus those non-participating students. Table 9 provides the means and standard deviations for the mathematics grades earned for participating and non-participating students. The scores ranged from 1- 5 in both groups. The mean for the participating group was 3.6 and 3.8 for the non-participating group. The standard deviation for the participating group was .78 and 1.07 for the non-participating group. The researcher obtained a significance level of .002 and, therefore, rejected the null hypothesis with respect to grades earned in the area of mathematics achievement. The non-participating students achieved higher end of year grades in
mathematics achievement at the end of third grade, than third grade students who participated in the 4-A-Good Start program intervention.

Table 9

t-test Results for Mathematics Grades

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>87</td>
<td>3.6</td>
<td>.78</td>
<td>138</td>
<td>-.398</td>
<td>.002*</td>
</tr>
<tr>
<td>Non-participating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mathematics</td>
<td>53</td>
<td>3.8</td>
<td>1.07</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Scores range from 1 - 5. A score of 5 indicating end of year grade of A and 1 of F. respectfully. *p < .05

Language Grades Earned.

The greatest mean score difference between participating group students and non-participating group students was revealed in the area of language grades earned. Table 10 provides the summary of data obtained for the participating and the non-participating students in the area of language. The mean for participating list students was 3.7 and the non-participating students group mean was 3.9. The standard deviation for the participating group was .80 and .85 for the non-participating group. The research data revealed that the significance of language grades earned was at the .809 level which was higher than the predetermined alpha level of .05 significance. The researcher failed to reject the null hypothesis with respect to academic achievement in the area of language.
Table 10

**t-test Results for Language Grades**

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>87</td>
<td>3.7</td>
<td>.80</td>
<td>138</td>
<td>-1.14</td>
<td>.809</td>
</tr>
<tr>
<td>Non-participating</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>53</td>
<td>3.9</td>
<td>.85</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.** Scores range from 1 - 5. A score of 5 indicating end of year grade of A and 1 of F, respectively.

Of the three academic areas evaluated, reading, mathematics, and language, the t-test results indicated that students in the non-participating group evidenced a higher mean score for end-of-year grades earned in each area. Despite a higher average mean score, the only statistically significant difference obtained was in the area of mathematics for non-participating students.

**Stanford 9 Achievement Scores.**

As stated by the researcher in hypothesis one, scores on achievement tests in the areas of reading, mathematics, and language constituted one level of the dependent variable, academic achievement. The number of subjects in the participating group and the non-participating group was unequal (n=88; n=54). Of the three areas assessed on the Stanford 9, the researcher found statistical evidence which rejected the null hypothesis in the area of
reading. Tables 11, 12, and 13 summarize the analytical findings for each of the three academic areas measured in the achievement variable.

Table 11 provides the means and the standard deviations for participating and non-participating students in the reading portions of the Stanford Achievement Test. The mean for the participating group was 48.12 and the mean for the non-participating group was 54.06. The standard deviation for the participating group was 20.65. The standard deviation for the non-participating group was 23.49. The obtained probability of .046 indicated a statistically significant difference in the reading achievement of participating and non-participating students with non-participating students performing at a higher level.

Table 11

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating</td>
<td>86</td>
<td>48.12</td>
<td>20.65</td>
<td>-1.55</td>
<td>135</td>
<td>.046*</td>
</tr>
<tr>
<td>Non-participating</td>
<td>51</td>
<td>54.06</td>
<td>23.49</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. * p < .05

Table 12 shows a summary of the scores obtained by the participating and non-participating groups on the mathematics portion of the Stanford Achievement Test. The mean for the participating group was 36.93 and for the non-participating group, it was 40.70. The standard deviation for the participating group was 25.77 and for the non-participating group, the standard deviation was 25.87. The level of probability obtained was .917 which was too high for the predetermined alpha level of .05. The data indicated no statistically significant
difference between the performance of the participating and non-participating group students in the area of mathematics.

Table 12

_**t-test Results for Stanford 9 - Total Mathematics**_

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating</td>
<td>88</td>
<td>36.93</td>
<td>25.77</td>
<td>-.846</td>
<td>140</td>
<td>.917</td>
</tr>
<tr>
<td>Non-participating</td>
<td>54</td>
<td>40.70</td>
<td>25.87</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.** N = 142

Table 13 shows a summary of scores obtained for the participating and the non-participating students in the area of language. It also provides the means and standard deviations for both groups. The mean for the participating group was 55.08 and 60.70 for the non-participating group. The level of probability obtained was .268 which exceeded the predetermined level of probability at .05. In the area of language, the data failed to reject the null hypothesis: no statistically significant difference was found between the two groups.

Table 13

_**t-test Results for Stanford 9 - Total Language**_

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating</td>
<td>87</td>
<td>55.08</td>
<td>24.76</td>
<td>-1.25</td>
<td>139</td>
<td>.268</td>
</tr>
<tr>
<td>Non-participating</td>
<td>54</td>
<td>60.70</td>
<td>27.98</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note.** N = 141
Achievement data findings, as measured by the Stanford 9 Achievement test reading, mathematics and language scores earned by participating and non-participating group students were presented in Tables 11, 12, and 13. Only the findings presented in Table 11, Total Reading Scores, yielded results indicating that there exists statistically significant difference in the performance of the two groups with non-participating students scoring higher. In the areas of Total Mathematics and Total Language, as presented in Tables 12 and 13, the null hypothesis was supported by the findings which revealed that there was no significant difference between the participating and the non-participating group after implementation of the 4-A-Good Start program intervention.

Hypothesis 2.

There is no statistically significant difference between third grade students who participated in the 4-A-Good Start program and third grade students on the non-participating list with respect to school performance as measured by the days present in school in 1996-97.

Attendance Comparisons for Study Cohort.

Table 14 provides a summary of the total days present in school during the 1996-1997 school year for students in the participating and non-participating groups. The mean for students in the participating group was 173.64 days present and for non-participating group students the mean was 174.70 days present. The standard deviation for the participating group was 7.50 and for the non-waiting group students, the standard deviation was 4.61. There was a t value of -.941. The level of probability found by the researcher was .186. This finding was higher than the predetermined alpha level of .05. The data failed to yield statistically significant findings, and therefore, failed to reject the null hypothesis.
Table 14

<table>
<thead>
<tr>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
<th>t</th>
<th>df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating</td>
<td>88</td>
<td>173.64</td>
<td>7.50</td>
<td>-0.941</td>
<td>140</td>
<td>.186</td>
</tr>
<tr>
<td>Non-participating</td>
<td>54</td>
<td>174.70</td>
<td>4.61</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 142

Hypothesis 3

There is no statistically significant difference between third grade students who participated in the 4-A-Good Start program and non-participating with respect to attitudes towards learning as assessed by the School Attitude Measure.

Accessibility of Study Cohort for Attitude Survey.

Table 15 presents a summary of the descriptive statistics reflecting the responses of the parents of students from the original study cohort on which the researcher had available achievement and attendance data. The data to be collected for analysis of this variable required that the researcher first acquire parental permission. Of the 88 participating list students, 56 (64%) of the parents returned a signed letter of approval granting permission for their children to be administered the attitude survey. Of the 88 participating list students, 14 (16%) returned a signed letter denying parental permission to administer the attitude survey. From the 88 participating list students, 18 (20%) of the parents of students, there was no response to the letter of request for permission to include their children in the attitude inventory, despite guidance counselor follow-up.
Of the 54 non-participating students, 34 (63%) of the parents returned a signed letter granting permission for their children to be administered the attitude survey. Of the 54 non-participating students, 8 (15%) returned letters denying parental approval to administer the attitude survey to their children. For 12 (22%) of the non-participating students there were no parent responses to the letter of request for permission to be administered the attitude survey despite guidance counselor follow-up.

Table 15

Accessibility of Study Cohort for Attitude Survey

<table>
<thead>
<tr>
<th>Condition</th>
<th>Participating n=88</th>
<th>Non-participating n=54</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number</td>
<td>Percent</td>
</tr>
<tr>
<td>Parental Response of &quot;Yes&quot;</td>
<td>56</td>
<td>64</td>
</tr>
<tr>
<td>Parental Response of &quot;No&quot;</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>No Response from Parent</td>
<td>18</td>
<td>20</td>
</tr>
</tbody>
</table>

Note: Original N = 142 Accessible Study Cohort n = 90

Group Membership of Study Cohort in Attitude Survey.

A descriptive picture of students participating in the attitude survey based on group membership is provided in Table 16. This table provides a picture of how much the cohort group size changed as a result of parental permission having been granted or denied the researcher in order to measure the attitudinal variable.

Of the 142 students for whom the research data was able to measure the achievement and attendance variables, there were 90 students available to the researcher for the assessment
of the attitude variable. The 90 parent letters signed and returned granting permission to
survey students constituted 64% of the total study cohort. Of the 88 participating list students,
56 (62%) of the total sample available were administered the School Attitude Measure. Of the
54 waiting list students, 34 (38%) of the total sample available were administered the School
Attitude Measure. When determining sample size for research activities, Krejcie & Morgan
(1970) suggest a sample size of 103 for 140 participants and 108 for 150 participants. This
researcher had a study cohort of 142 subjects which is between the previously referenced
numbers. Using the suggested sample size, it could be concluded that the researcher received
lower than the desired level of permission for participation in the attitude survey. Of the 142
subjects, permission was secured for 90 subjects to take the survey.

Table 16

<table>
<thead>
<tr>
<th>Condition</th>
<th>n</th>
<th>Parental Approval</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participating</td>
<td>88</td>
<td>56</td>
<td>62</td>
</tr>
<tr>
<td>Non-participating</td>
<td>54</td>
<td>34</td>
<td>38</td>
</tr>
<tr>
<td>Total of Sample</td>
<td>142</td>
<td>90</td>
<td>64</td>
</tr>
</tbody>
</table>

Note. Attitude data was available for 90 of the 142 subjects on whom the researcher had
achievement and attendance data.

Descriptive Statistics for Attitude Survey.

Table 17 provides the data on students' performance on the five attitude subscales
according to group membership. The first subscale examines students' motivation for
schooling, which is concerned with how the students' reactions to past school experiences are affecting the present motivation in school. The second subscale investigates students' academic self-concept and is concerned with feelings about school performance and confidence in academic ability. The third subscale examines the academic self-concept reference base which is concerned with how students think other people (teachers, family, and friends) feel about their school performance and ability to succeed academically. The fourth subscale, students' sense of control over performance inquires about locus of control. At issue in this subscale is whether students feel responsible for school outcomes or whether they believe such outcomes are a matter of luck, fate, or other vicissitudes. The fifth subscale, students' instructional mastery, asks students to report on actual school skills such as the ability to use time effectively and efficiently, to seek and use feedback, and to evaluate one's own work. Although not significant, the participating, significant students maintained a slightly higher mean score on all of the subscales than the non-participating students. Mean scores for participating and non-participating students on motivation for schooling was 38.48 and 35.61, for academic self-concept (performance based) 38.78 and 38.35, for academic self-concept (reference based) 37.03 and 35.08, for students' sense of control 39.16 and 37.38, and the students' instructional mastery 39.37 and 38.61.

The greatest difference in mean scores between the participating and waiting list students was in the area of motivation for schooling. Essentially, this subscale assesses students' desire to perform competently in future school experiences. Concern with students' perception of the importance of school compared to other activities and students' willingness to pursue future schooling are included in this subscale.
Table 17

Descriptive Statistics for Attitude Survey

<table>
<thead>
<tr>
<th>Subscale</th>
<th>Group</th>
<th>n</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation for Schooling</td>
<td>Participating</td>
<td>56</td>
<td>38.48</td>
<td>6.33</td>
</tr>
<tr>
<td></td>
<td>Non-participating</td>
<td>34</td>
<td>35.61</td>
<td>6.42</td>
</tr>
<tr>
<td>Academic Self-Concept</td>
<td>Participating</td>
<td>56</td>
<td>38.78</td>
<td>5.61</td>
</tr>
<tr>
<td>(Perform-Based)</td>
<td>Non-participating</td>
<td>34</td>
<td>38.35</td>
<td>4.96</td>
</tr>
<tr>
<td>Academic Self-Control</td>
<td>Participating</td>
<td>56</td>
<td>37.03</td>
<td>5.85</td>
</tr>
<tr>
<td>(Reference-Based)</td>
<td>Non-participating</td>
<td>34</td>
<td>35.08</td>
<td>5.10</td>
</tr>
<tr>
<td>Students' Sense of Control</td>
<td>Participating</td>
<td>56</td>
<td>39.16</td>
<td>5.20</td>
</tr>
<tr>
<td>Non-participating</td>
<td>34</td>
<td>37.38</td>
<td>5.77</td>
<td></td>
</tr>
<tr>
<td>Students' Instructional Mastery</td>
<td>Participating</td>
<td>56</td>
<td>39.37</td>
<td>4.71</td>
</tr>
<tr>
<td>Non-participating</td>
<td>34</td>
<td>38.61</td>
<td>5.18</td>
<td></td>
</tr>
</tbody>
</table>

Note. n = 90

Multivariate Analysis of Variance for Attitudes.

A Wilks' Lambda, derived through a one-way MANOVA, between groups design is presented in Table 18. This analysis was conducted to test the null hypothesis which suggested that there existed no statistically significant difference between participating and non-participating students with respect to attitudes towards learning at the end of third grade. The School Attitude Measure (SAM) was the instrument used to examine several dimensions of students' attitudes. The nature of the attitude variable, which had five subscales, led the researcher to view each subscale as one set of five dependent variables. The results of the
multivariate test of variance indicate that when motivation for schooling, academic self-concept, academic self-concept, students' sense of control and students' instructional mastery are compared simultaneously, for students who participated in the 4-A-Good Start program and non-participating students, there was no statistically significant difference.

The computed Wilks' Lambda statistic for this analysis was .911. The values of Wilks' Lambda may range from 0 to 1 (Hatcher & Stepanski, 1990). Small values of Lambda approaching zero indicate a relatively strong relationship between the independent and the multiple dependent variables while larger values, closer to 1 indicate a relatively weak relationship. To determine the statistical significance of the Wilks' Lambda value, the multivariate F and the probability of this F was computed. In this analysis, the corresponding F was 1.631, and the obtained probability was .161. In view of the predetermined alpha level of .05, the null hypothesis was not rejected.

Table 18

Multivariate Analysis of Variance for Attitude

<table>
<thead>
<tr>
<th>Wilks' Lambda</th>
<th>F-Ratio</th>
<th>Significance</th>
</tr>
</thead>
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Note. n= 90

Summary of Analysis of Data

The analysis presented in this chapter provided an interpretation of the data relative to three hypotheses. All of the hypotheses were tested for statistical significance at the
p < .05 level of confidence. The analyses were conducted to determine the influence of an early childhood program intervention on the academic achievement, attendance, and attitude towards learning of urban at-risk students. The statistical analyses were performed utilizing independent t-tests and a multivariate analysis of variance (MANOVA). The analysis of information, on each group's membership, provided descriptive data for 88 students who were participants in the 4-A-Good Start program intervention and for 54 students who were non-participants in the for 4-A-Good Start program intervention.

The relative influence that each variable contributed to participating and non-participating group membership was obtained. Results of the t-tests indicated that in the area of academic achievement statistical significance was found in mathematics with respect to end of year grades and in reading with respect to Stanford 9 Achievement Test results in favor of non-participating students. In two of the three academic achievement areas, reading and language with respect to end of year grades and in mathematics and language with respect to Stanford 9 Achievement Test results, the data gained indicated no statistically significant difference in performance between participating and non-participating students at the end of third grade.

The data on attendance indicated that there existed no statistically significant difference between students who participated in the 4-A-Good Start program and the non-participating students with respect to total days present in school at the end of third grade. The MANOVA was completed to assess differences between participating and non-participating students with respect to attitudes toward learning at the end of third grade. The School Attitude Measure was the instrument selected because of validity and reliability and large scale use by school
systems throughout the nation. Although participating students evidenced higher mean scores on each of the five subscales, with the greatest difference between mean scores in the area of motivation for schooling, there was no statistically significant difference. The computed Wilks' Lambda statistic for this analysis was closer to 1 than 0 indicating a relatively weak relationship between the independent and the multiple dependent variables.
CHAPTER V

FINDINGS AND DISCUSSION

Introduction

Chapter V presents (a) a summary of the significant findings of this study, (b) a discussion of implications from an urban perspective, (c) theoretical, instructional, and policy implications of the study, and (d) recommendations for further research. The contents of this chapter should serve to provoke thought and stimulate further discussion of program possibilities among early childhood education advocates.

Conclusion of the Study

This study concentrated on collecting, analyzing, and presenting data relative to the influence of an early childhood program on the academic achievement, attendance, and attitudes towards learning of urban, at-risk students. The study was conducted in an urban southeastern school district in the Commonwealth of Virginia. The study examined if there were differences on these variables of achievement, attendance, and attitudes towards learning for at-risk four-year-old students at the end of third grade. At-risk student eligibility was based on students' status for economic and educational deprivation within Title I approved guidelines. Students who qualified for free or reduced lunch and who scored low on the Brigance Preschool Screen for Three- and Four-Year-Old Children were considered at-risk.

The 4-A-Good Start program intervention is funded with federal, Title I dollars. The Title I guidelines require that school divisions, using the funds allocated, establish a rank order list bearing names of students most in need. All students selected as subjects for this study were found to be eligible for receipt of Title I services. The two groups compared in this
study were identified as participating and non-participating students. Those students placed in the participating group evidenced a greater need for academic support in order to succeed in school than did students placed in the non-participating group.

The original group of 220 participating 4-A-Good Start students and 81 non-participating students, a total of 301 students were considered as the target study cohort (see Table 6). The study cohort decreased due to inability to gain access to all subjects in the original group. This study was conducted at the conclusion of the early childhood years, generally defined as end of third grade or age eight, therefore spanning a five year period of time. To secure a strong sample upon which to compare results, the researcher decided to exclude students who were not in the school division when the norm-reference test from the Virginia Department of Education, was administered in the spring of the third grade year.

The subjects in this study were elementary school students, who at age four were assigned to eight Title I schools. By the end of third grade, these same students were assigned to 17 different elementary schools. Complete achievement and attendance data were available on 142 students. Students assigned to group one (n=88), identified as participating, received the 4-A-Good Start program intervention. Students assigned to group two (n=54), identified as non-participating, did not receive the program intervention.

In order to assess the influence of the 4-A-Good Start program intervention on the academic achievement of students in each group, grades earned and Stanford 9 achievement scores for reading, language, and mathematics were collected and recorded at the end of the students' third grade school year. Third grade attendance was collected and recorded for all students. Independent t-tests were used to analyze the attendance and achievement variables.
The School Attitude Measure (SAM), a self-report survey, was used to evaluate several dimensions of students' attitudes towards learning. This survey has scales on motivation for schooling, academic self-concept (performance based), academic self-concept (reference-based), students' sense of control over performance, and students' instructional mastery. A multivariate analysis of variance (MANOVA) was used to analyze the attitude variable. All levels for significance were set at the .05 level of probability.

The first hypothesis examined the differences between the reading achievement of students who participated in 4-A-Good Start program intervention and students on the waiting list for 4-A-Good Start program intervention services. Statistical significance at a .046 level was found in the area of reading on the Stanford 9 Achievement Test in favor of non-participating students. In the areas of mathematics and language, no statistically significant difference was found between groups on the Stanford 9 Achievement Test. Findings indicated that the average of the participating list students in group one was 3.6 for reading, 3.6 for mathematics, and 3.7 for language for end of year grades earned. Findings indicated that the average of the waiting list students in group two was 3.7 for reading, 3.7 for mathematics and 3.9 for language for end of year grades earned (see Tables 8, 9, and 10). Thus, there is no statistically significant difference between the achievement of students in the participating and waiting list groups in mathematics and language on either achievement measure at the end of third grade.

The second hypothesis examined differences between the total number of days present at the end of the third grade year for students in the participating list, group one and the non-participating students, group two. The findings indicated that students in group one averaged
173.64 days and group two students averaged 174.70 days in school during the third grade year. Thus, there is no statistically significant difference in school attendance between the students in the participating and non-participating groups.

The third hypothesis explored the attitude scores, on five subscales of the School Attitude Measure. The findings revealed that no overall statistically significant differences existed between the groups on motivation for schooling, academic self-concept, sense of control over performance, and instructional mastery (see Tables 17 and 18).

Discussions of Study Findings

The majority of the literature on early childhood programs is positive. The High/Scope Perry Preschool Study Through Age 27 (Schweinhart & Weikart, 1993), offered strong support which suggests that preschool programs may have long-term positive effects on literacy, employment, and social behavior. Children who received preschool services were rated more highly in school motivation by their elementary school teachers in kindergarten, first, second, and third grades. The findings on school motivation indicated evidence of greater commitment to schooling during the elementary school years by children who had preschool education.

A MANOVA, performed to determine attitudes towards learning differences between participating and non-participating 4-A-Good Start program students, did not reveal a statistically significant difference. It is a fact, however, that participating students obtained a higher mean score on each of the five subscales of the School Attitude Measure. The greatest difference between the two groups in this study was motivation for schooling. The difference, which may have been significant if a larger sample had been studied seems to support the
notion that early childhood programs can improve the chances of school success for at-risk children.

The research findings of quantitative comparisons across Head Start studies indicate that Head Start does, indeed, enhance the cognitive development of children. The most significant findings are that children make immediate gains in basic cognitive competency, school readiness, and achievement which generally decrease or disappear at the end of the early childhood years.

The 4-A-Good Start program is a full year of intervention that appears to have a positive impact on closing the gap between the most at-risk preschoolers and their peers, thus providing a better chance for success in school. The results yielded on the Brigance Preschool Screen for Three- and Four-Year-Old Children in the spring of 1992 strongly indicated that students in the participating group were much more likely to experience failure in school. The level of school readiness was very low in comparison to the students in the non-participating group (see Table 4). It is reasonable to surmise that without benefit of the 4-A-Good Start intervention a wider gap between student groups would have existed in the area of academic achievement.

Additionally, the lack of statistically significant differences between participating and non-participating students on the end-of-year grades earned, mirrors studies conducted at the end of third grade in Detroit (Hill, 1992) and Peoria (Syropoulos, 1990). An analysis of the data in these studies did not find significant differences between third grade students in the experimental and control groups in the areas of grade point averages or school attendance.

Findings from the report on school attendance and academic achievement collected through a
survey by the Consortium on Chicago School Research (1994), indicated regular attendance is as much a key to academic success as is willingness to work hard, to believe in one’s own ability, and to believe that others have confidence in that ability to perform well.

Dissemination of Study Findings

Results of this study should be disseminated to staff, parents, and the community at large for the purposes of more effectively engendering their willingness to respond more readily to the needs of students individually and the community collectively. In addition, findings of this study should be used to impact budgetary decisions and influence policies made by administrators and legislators on behalf of early childhood education within the city. Thoughtful attention to services rendered to at-risk young children can provide a safeguard for urban cities. According to Clark and Astuto (1990), “the risk lies with poor children who may have meager home support structures, who are lagging behind in school achievement, may be homeless, are often hungry, ill, and can see little chance for a decent job or a life in the sunlight in this society. Their risk is finally our risk since education is the only route available to them or to us if we hope to escape the establishment of a permanent underclass” (p. 19).

Agreement on the relative importance of education does not necessarily yield agreement on how to provide educational programs. The data yielded in Tables 8 through Table 13 indicate that the academic performance of students was closer at the end of third grade in the area of achievement than when they entered school.

In seeking ways to meet the challenge of educating all children, today’s educators need substantial information on publicized programs that offer the potential to reform student performance. The resources, time, and commitment required to implement successful
Early Childhood Findings 122

educational programs warrant focused attention of all stakeholders. Research on what is working will continue on the national, state, and local levels. The interdependency at each level is apparent with respect to funding sources, impact of philosophical approaches and the need to develop strong minds and character for the future well-being of this nation.

Implications from an Urban Policy Perspective

According to the National Center for Children in Poverty, poverty rates for children under age six are highest in urban areas. In 1991, the poverty rate among children under age six living in urban areas was 33%, compared with 17% in suburban areas and 26% in rural areas. Of the 5.6 million poor children under age six in 1991, 44% (2.4 million) lived in cities, 35% (1.9 million) lived in suburban areas, and 22% (1.2 million) lived in rural areas (Einbinder, 1995). Urban school divisions generally report lower achievement than their suburban counterparts.

This study was conducted in an urban city with a heavy population of low income, minority students. The poverty rate is the second highest in the region at 17.7% compared to the state's rate of 11.1%. Families with children have a poverty rate of 22.7%, more than double the state's rate. More than one quarter of all women who give birth in this city have no early prenatal care. This city has the highest rate of low weight births and the highest rate of teen pregnancy in the region. Median family income is $34,127, which is the second lowest in the region and more than $13,000 below that of the state (The Planning Council, 1997).

It follows then, that this city is confronted with the challenge of developing programs that respond to the needs of citizens. Issues of providing appropriate housing, health care.
nutrition and funding educational opportunities place tremendous demands on policy makers when accompanied by a dwindling city economy. Despite the complex combination of issues within the city, the school division is expected to provide quality instruction and produce student learners who meet the standards established by the Virginia State Department of Education. Additionally, this urban school division, in conjunction with community citizens, is expected to respond to the National Education Goals for the year 2000. It was agreed by President Bush and the nation's governors that America had an education problem. The significance of the contribution quality education can make to the overall well being of the nation was confirmed through the adoption of the six education goals.

This study is related to the first goal all children in America will be ready to start school ready to learn by the year 2000. Policy makers have devoted a large percent of the federal, Title I budget allocation to an early childhood intervention program. Results of this study indicate that the school division has positively impacted the early learning experiences of at-risk children. The experiences afforded the most at-risk four-year olds in the fall of 1992 appear to have attributed to a close in the academic achievement gap at the end of third grade. It is reasonable to suggest that many other students could benefit from such an early learning experience and that the school division could utilize this initiative as one means of responding to the call for students to obtain higher academic standards.

The program researched, in this study, represents a significant response, by the school division, to students who evidenced a need for additional support in order to realize success in school. According to Boyer (1991), schools as direct providers of preschool services, as hubs for communities, and as the major providers of services for age five and beyond, have a
special responsibility for the readiness agenda. This school division has embraced the need to render services to at-risk children early which is likely to assist with counter-acting their high teen pregnancy problem. Einbinder (1995) stated in a National Center for Children in Poverty Report, that the poverty rate for young children with single mothers was 59%, compared with 13% for those with two parents.

Recommendations for Further Study

1. Additionally, program modifications which should begin with a thorough review and an upgrade of curriculum content is recommended. As the Virginia Department of Education continues to upgrade the Standards of Learning, program interventions designed to give at-risk students a greater chance of meeting the higher standards must include both content and application requirements. Efforts to water down curriculum and keep at-risk students on a basic learning diet will not equip them for performance on higher standards course tests.

   Progress toward the achievement of this recommendation could begin with the establishment of a committee that is charged with a survey of how many of the adopted kindergarten standards of learning are new to the curriculum. A logical follow-up would be to determine the readiness or prerequisite skills which need to be in place to assure students' success in kindergarten. The information found should be used as a guide to review and upgrade the existing 4-A-Good Start curriculum.

2. The adequacy of staff development for certified teachers and paraprofessionals should be revised to ensure that the latest and most effective practices are being employed in each early childhood setting. Appropriate, on-going staff training will provide the staff greater options or alternative approaches and expand their repertoire of responses to students based on
proven research strategies and students' needs. Early intervention efforts have addressed the school success dilemma with varying degrees of effectiveness. Increased awareness of what works well in early childhood education is critical.

The staff training component proposed in this recommendation should include current research in early childhood education, a review of the stages of child development, and exposure to relevant learning theories. A comprehensive plan that affords the staff opportunities for continuous improvement is the goal of this recommendation. Staff development providers should make available relevant publications with a listing of the dates and times they are to be read and discussed. Professional reading circles, within or between school staffs would be an excellent way to promote learning.

Additionally, sessions on how to plan for and implement on project-based learning would allow early childhood educators the opportunity to better respond to students' needs. Project based learning affords teachers the option of determining the specific content while extending students the freedom to actively engage in the learning process.

Increased accountability for phonemic awareness in the new kindergarten standards of learning suggests a need for additional staff training in reading readiness instruction. The appropriate activities in the four year old program can provide the prerequisites for success in phonemic awareness once students enter kindergarten.

3. Furthermore, the division needs to become increasingly familiar with the recommendations of LeTendre (1996). Director of Compensatory Education Programs. LeTendre suggested the need to establish strong family literacy components. A stronger parent component which encourages and supports parents to read more, and to revisit math/science
skills leading to the acquisition of a General Education Diploma, could benefit the students in urban divisions. The incorporation of a program focused on strengthening family literacy could serve to benefit schools because of the increased support given to the students at home. Additionally, future siblings in homes of at-risk students could arrive at the school with a higher level of readiness for school. This could help to break family cycles of low achievement and early teen pregnancies which lead to greater dependency on city agencies.

This recommendation could be addressed by school division leaders initiating more collaborative efforts with community groups. Often civic groups, churches, fraternities, and sororities seek to engage in service projects. Through creative approaches, such as asking a church to adopt a group of families within the geographical area, these partnerships could strengthen and support the academic growth of students and parents.

4. It would be valuable for school division leaders and Title I program administrators to investigate whether programs that are more than one year in scope provide greater long-term gains for at-risk students. Deliberate review and reinforcement of academic skills during the summer or in an extended day program would serve to enhance the initial investment in the 4-A-Good Start program.

The local division Title I coordinator could contact the state Title I Coordinator to request a copy of details on any programs approved to serve four year olds beyond the regular school day. The local Title I coordinator could then review the documents received, make telephone contacts, and plan to visit those sites which appear to provide insight on program improvement. There may be limited options of extended day and summer programs that serve four year olds within the Commonwealth of Virginia. The local Title I coordinator could
make contact with the United States Department of Education to investigate options available in other states.

5. Long before children arrive at school, their perceptions of the world are contoured by real life and fictional realities (Kagan, 1992). A world of violence through drugs, guns, and gangs are implicitly glorified before students. Crime rate, in this city, are high in the region. Natiello (1987) suggested that at-risk students should be taught methods of avoiding situations that lead to disciplinary problems and techniques that negotiate conflicts or talk about their feelings before they engage in disruptive behaviors. Through the social skills taught in the 4-A-Good Start program, teachers are able to present at-risk students alternatives to the violent choices that may be modeled by dysfunctional family members and community citizens. Respect for school, a love for learning, and a belief in one’s personal success in the school could be fostered if division administrators would investigate studies of programs used by urban divisions with similar demographics to respond to the social ills. The review of findings of programs that have been effective in conflict resolution and violence prevention could be used by division administrators to design their own or to purchase and implement locally.

6. Further consideration should be given to conducting the research as a follow-up study at the end of grade six to see what differences emerge between the 4-A-Good Start participating and non-participating students. To do so, could enable a researcher to assess whether long term differences in achievement, attendance, or attitudes towards learning are evidenced in later grades. Insight could be gained about similar students’ performance as they move from elementary into middle school. Concurrently, similar research studies could be conducted at the conclusion of each grade to allow for better tracking of differences between
groups. This research could better help determine the extent to which early identification and intervention helped to close the gap in achievement while examining extraneous variables which may impact students' performance and attendance in school.

Because all regular education students are expected to demonstrate the same power of learning on the standards of learning, despite the socioeconomic status, further research could be conducted on students in the middle socioeconomic group. A comparison between the Title I eligible (participating and non-participating) students and the middle socioeconomic (non-eligible Title I) students could serve to provide increased insight for the school division. The data that is gained could provide direction for improving instruction by indicating the content areas and the degree of strengths and weaknesses of the students. This information could be used for division and individual school improvement planning.

7. Although Head Start serves many three and four year old children, many eligible students are unable to secure a place in the available sites. The low income children who are not in a Head Start or public school program but who are at home do not generally receive the same level of support for school readiness. Most parents want the best for their children but many young mothers who are school drop-outs and heads of households are consumed with issues of survival.

Since the school division in this study does not currently serve all eligible four-year-olds, consideration should be given to the possibility of charging a fee to parents on a sliding scale basis. Program administrators could investigate the existence and effectiveness of programs in urban districts with similar demographics. This would give all parents the
opportunity to provide their children a preschool education and give the school division early access to more at-risk students.

Summary

There exists a plethora of national and state reports that extol the plight of children in poverty. The data that suggest the achievement gap between low SES and middle to high SES students has not closed significantly over the last ten years is cause for critical concern. As the Virginia Department of Education and the United States Department of Education continue to raise standards for student levels of learning, it is incumbent that educators continue to design and conduct research to address how early childhood education interventions may impact this dilemma. The increased accountability with regard to the utilization of tax dollars in public education demands that research be conducted to better document the effectiveness of early childhood programs. In addition, society at large will make few concessions for persons entering the world of work, despite their point of origin if the appropriate skills are not in place. A 1992 report by the U.S. Department of Labor entitled Learning a Living: A Blueprint for High Performances reinforces the idea that the level of learning has a definite impact on the long term earnings of each individual. As the demands of the workforce increase, high school graduates must be more skilled to be competitive. Twenty-first century demands made on our nation to successfully compete in a global marketplace require that educators, business persons, politicians, and everyday citizens continue to aid the development of our most valuable natural resource, the nation's children.

A study that provides data on the performance of at-risk children who attend public preschool programs can provide insight to educators, policy makers, and the community at
large. School division administrators gain data to better assess where students stand with respect to the first national education goal "readiness to learn." The findings of such a study can also help stakeholders better chart the course for funding priorities and program guidelines that will yield the best return on their investment of dollars. Early childhood researchers throughout this nation continue to press forward on options to expand more qualitative support to parents, caregivers, and educators as they strive to better develop young children. The initiatives being undertaken reflect a concern for the development of the well-being of the whole child; social, mental, emotional, and physical as well as for the common good of society. This study focused on gathering, analyzing, and presenting data related to the influence of an early childhood program (4-A-Good Start) on the academic achievement, school attendance, and attitudes towards learning of urban, at-risk four year olds.
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**APPENDIX A**

Early Childhood Findings

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APPENDIX B

**Dissertation Study**
The Influence of An Early Childhood Program On The Academic Achievement Attendance, and Attitudes of Urban At-Risk Students

**Doctoral Candidate**
Daisy M. Murphy

**Date Requested**
August 18, 1997

Achievements and Attendance Data Requested for Students ID#s Listed

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### APPENDIX C

#### Dissertation Study
The Influence of An Early Childhood Program On The Academic Achievement Attendance, and Attitudes of Urban At-Risk Students

#### Doctoral Candidate
Daisy M. Murphy

Date Requested
September 20, 1997

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APPENDIX D

FROM: DAISY M. MURPHY, FELLOW PRINCIPAL
RE: COOPERATION AND SUPPORT - DISSERTATION STUDY

MOST OF YOU ARE AWARE THAT I AM A DOCTORAL CANDIDATE IN THE OLD DOMINION UNIVERSITY PH. D. URBAN STUDIES PROGRAM. I HAVE RECENTLY BEEN CLEARED BY DR. TRUMBLE AND DR. YAKIMOWSKI TO BEGIN THE COLLECTION OF DATA.

PLEASE GIVE SHIRLENE SHOFFNER, MY GUIDANCE COUNSELOR, 5 MINUTES OF YOUR TIME TODAY TO SECURE YOUR SIGNATURE AND A PIECE OF YOUR SCHOOL LETTERHEAD.

FROM THAT POINT ON, I WILL NEED APPROXIMATELY 1 1/2 HOURS OF YOUR GUIDANCE COUNSELOR'S TIME, ONLY ONCE WITHIN THE NEXT MONTH.

FURTHER DETAILS WILL BE MADE AVAILABLE, IF YOU DESIRE, AT A LATER TIME!

THANK YOU,
DAISY M. MURPHY

Press RETURN to continue, GOLD MENU for options or EXIT to cancel.
APPENDIX E

Old Dominion University
Darden College of Education

Portsmouth Public Schools
Department of Research and Student Services
Registration of Research Involving Human Subjects

1. The principal investigator will be Daisy McCray Murphy who hold B. S. M. Ed. and CAS Degrees and resides at 4024 Schooner Trail, Chesapeake, VA 23321.
2. There are no co-investigator's.
3. The Influence of An Early Childhood Program On The Academic Achievement, Attendance and Attitudes of Urban At-Risk Students
4. This request was submitted on August 27, 1997.
5. Fall 1997 (September - November).
6. This is a causal comparative study being conducted as part of the requirements for the completion of the Doctoral Dissertation.
7. Several studies have been conducted testing the effectiveness of early childhood program interventions. The purpose of this study is to examine the influence of the Four-A-Good Start program intervention on academic achievement, attendance and attitudes towards learning. An instrument to survey the attitudes of elementary students towards school. The School Attitude Measure (SAM) will be administered upon receipt of parental approval (see attached forms). The School Attitude Measure is a component of the Comprehensive Assessment Program by American Testronics.
8. The independent variable in this study is the Four-A-Good Start program intervention. Students either received the program intervention or did not receive the program intervention.
9. The dependent variables in this study are academic achievement, attendance, and attitudes (see attached graphic for greater clarity).
10. The subjects are rising fourth grade elementary aged students who in 1992-93 were screened by the Title I staff of the local school district named above. These subjects were found to be eligible for participation in the Four-A-Good Start program intervention because they demonstrated qualities which placed them at-risk of school failure.

11. These are the only subjects screened by the local school district and found to be eligible for program participation during the 1992-93 school year.

12. The approximate sample size for eligible students is 247. However, until your approval is granted to contact the schools, and parents. I am uncertain as to how many of these students still reside in this city and still attend the public schools in this local district.

13. The research will be conducted in the school the subjects are currently assigned to attend. There are eight elementary schools that have eligible subjects.

14. The elementary guidance counselor in each school will meet with me once approval to work with human subjects. I will provide them with the training to administer the School Attitude Measure. It is a thirty minute (30) survey which uses a four point Likert Scale. Students respond to each statement by marking never agree, always agree.

As soon as surveys are administered, I will personally collect, score and analyze the data.

15. Subjects, now in grade four, will be required to mark their personal responses to the statements on the School Attitude Measure. They will be told that they may answer honestly, it does not impact their report card grades nor will anyone be told about how they answer.
16. The subjects will be put in a position early in the school year to think about how their attitudes can, have and do continue to impact on the quality and quantity of learning. This experience can serve to cause self-reflection, a decision to change those attitudes that interfere with school success and keep those that promote school success. Because there is not a grade or any threat associated with this process it can be a great experience to help students have a better school year because it is self-assessment. The data gained can assist the local school district as they target the use of allocated budget on activities to influence student achievement. This program intervention is financed with federal dollars should those funds not remain available the district would have better insight of whether state and local funds should be diverted to continue this initiative.

Additionally, the data gained would provide other local school districts, within the Commonwealth and throughout the nation, with comparative information regarding a program component impact which could lead to the revision or refinement of existing early childhood programs.

17. I cannot think of any potential risks if handled as described above. With prior parental approval; students would be surveyed by someone they already know and trust, their school guidance. They are also being surveyed in a familiar setting, their own school with no pressure or threat.

18. The benefits far out way any conceivable risk.

19. A short letter will be mailed to parents, a permission slip will be included. Parents will be asked to return the form in the addressed stamped envelope also enclosed in the original mailing. I will make follow-up calls if I do not hear from parents after 7 days. (see attached form)
Dear Parent or Guardian:

We would like to ask your permission for your son or daughter to help us learn more about the attitudes towards learning among primary school students. This research project will help us to see how students feel about their ability to learn, how they think others feel about their ability to learn and their sense of control over their learning. We will also look at the level of student learning in reading, language and math as well as student attendance.

What is involved? Your child will be asked to spend a total of about 30 minutes completing a School Attitudes Measures survey. These are questions to which your child will respond never agree, sometimes agree, usually agree or always agree. Someone your child knows, the guidance counselor at his or her school, will give the survey in September or October. The surveys will be collected and scored by one person.

Potential benefits and concerns. The guidance counselor will schedule a time with the teacher, to be approved by the principal, so that no important lesson is missed. Your child will have the chance to make up any work missed. One possible benefit is that the questions on this survey may cause your child, early in the school year, to think about how attitude affects school learning.

Participation is voluntary. Your son's or daughter's participation in this project is completely voluntary. There will be no penalty if you do not wish for your son or daughter to take this survey. This project has been approved by Portsmouth Public Schools.

Information is confidential. All information will be kept in confidence. A number will be assigned to each survey so that responses will be confidential. Your child's name will not appear in any write up.

Question? We would be happy if you would return the enclosed form whether or not you would like your child to participate, so that we know if this letter reached you. You may keep the letter for your records. If you have any questions, please feel free to call the school (757) 393-8527 and ask for Mrs. Daisy M. Murphy. Someone can arrange for you to see the survey in advance if you wish.

Thank you for your consideration.

Sincerely,

Principal

Doctoral Candidate
September 15, 1997

Parent Consent for Son or Daughter to Participate

Please check the appropriate line and send this form back in the enclosed envelope as soon as possible. You do not need to put on a stamp.

_ _ I have read and I understand the permission letter. I agree to let my child take the survey.

_ _ I would like more information before I agree to let my child take the survey. Call me at (__) ________.

_ _ I do not wish my child to take the survey.

Parent’s Signature: ________________________________

Child’s Name: ____________________________________

Date: ________________

Please mail this form back today. Thanks!!

Department of Research and Student Services
3651 Hartford Street
Portsmouth, VA 23707
To: All Elementary Guidance Counselors  
From: Daisy M. Murphy  
Re: Administration of School Attitude Measure (SAM)

Please find enclosed the appropriate number of survey booklets and answers sheets for you to administer the previously approved attitudinal scale.

Specific Directions

1. Please allow students to write their own name on the answer sheet.

2. Explain to the children that they are helping a student in college to complete a study on how elementary children feel about school and learning.

3. Remind children that the scores do not go on their report cards.

4. Tell the children to listen carefully and answer honestly as you read each statement aloud. They should choose to bubble in only one of the following choices:

   Never Agree
   Sometimes Agree
   Usually Agree
   Always Agree
5. The administration should only take 30 minutes. It is important for the counselor to read the statements to make sure that any existing reading problems among students do not prevent them from giving a response.

6. If any child is absent on the day you administer the survey, please make an effort to administer it by Tuesday, November 25, 1997. I would like to pick up all survey booklets and answer sheets by 2:00 on Wednesday, November 26, 1997. I will score them and analyze the results.

Thank you for your cooperation. Have a deliciously, splendid indulgent Thanksgiving weekend!
## Dependent Variable Attitude - SAM

<table>
<thead>
<tr>
<th>Student Number</th>
<th>Name</th>
<th>Motivation for Schooling</th>
<th>Acad. Self-Concept Performance Based</th>
<th>Acad. Self-Control Performance Based</th>
<th>Students Sense of Control over Performance</th>
<th>Student's Instruction Mastery</th>
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<tr>
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<td>4,7,11,20,26,33,</td>
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<td>2,13,17,25,28,30,</td>
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<td>32,35,42,47,52,</td>
<td></td>
<td>36,39,43,48,53,57</td>
<td>27,40,44,49,54,58</td>
<td>34,37,45,50,55,59</td>
<td>38,41,46,51,56,60</td>
<td></td>
</tr>
</tbody>
</table>

**Code for Ratings**
- Never Agree = 1
- Sometimes Agree = 2
- Usually Agree = 3
- Always Agree = 4

Except Scale 4 - Reverse Coding Because of the Negative Wording of Items
VITA

DAISY McCRAY MURPHY

4024 Schooner Trail, Chesapeake, Virginia 23321
(757) 465-0635 (Residence)  (757) 393-8527 (Office)

POSITIONS HELD

Elementary Principal, S. H. Clarke Academy, Portsmouth, VA 1995 to present
Director of Instruction, Portsmouth Public Schools, 1993-95
Director of Programs, Portsmouth Public Schools, 1990-93
Director of Elementary Education, Portsmouth Public Schools, 1988-90
Elementary Principal, Highland Biltmore, Portsmouth, VA 1986-88
Intermediate Language Arts Specialist, Portsmouth, VA 1984-86
Reading Resource Teacher, Highland Biltmore, Portsmouth, VA 1980-84
Chapter 1 Reading Teacher, Cavalier Manor, Portsmouth, VA 1978-80
Reading Coordinator, Lowrance Intermediate, Winston-Salem, NC 1975-78
Chapter 1 Backup Teacher, Chapter 1 Office, Portsmouth, VA 1971-73
Ungraded Classroom Teacher, Riddick Weaver, Portsmouth, VA 1969-71

EDUCATIONAL BACKGROUND

Ph.D., Urban Studies Candidate, Old Dominion University, Norfolk, VA 1998
CAS. Educational Leadership, Old Dominion University, Norfolk, VA 1987
M.Ed., Reading, University of North Carolina, Greensboro, NC 1978
B.S., Elementary Education (1-7), Norfolk State University, Norfolk, VA 1969

EDUCATIONAL ACHIEVEMENTS AND AWARDS

Portsmouth PTA Council, Principal of the Year, May 1997
NAESP Workshop Presenter, Washington, DC, March 1996
AASA Workshop Panel Moderator, New Orleans, LA, February 1995
NABSE Workshop Presenter, Los Angeles, CA, November 1994
AASA Workshop Presenter, San Francisco, CA, February 1994
President, Tidewater Association for Supervision and Curriculum, 1993-94
Administrator of the Year, Portsmouth Public Schools, May 1993
Virginia Urban School Fellow, College of William and Mary, 1992-93
Women of the Year, Black Women’s Health Network, Maryview Medical Center, 1992
NAFEO Distinguished Alumni Award, Washington, DC, March 1990
Education Policy Fellow, VA Center for Educational Leadership, 1989-90
Reading Teacher of the Year, Portsmouth Public Schools, May 1983
Advanced Scholarship Winner, R. J. Reynolds Industries, September 1978
Outstanding Young Educator, Lowrance Intermediate School, May 1976