RELATIONSHIPS BETWEEN PARENTAL INVOLVEMENT AND CHILD DEVELOPMENT OUTCOMES IN HEAD START

A Thesis in
Education Administration
by
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Abstract

The purpose of this quantitative study was to examine the relationship between the amount and type of parent involvement and measures of child development and behavioral factors. In order to accomplish this, norm-referenced developmental measures and documentation of parent volunteer activities and hours were collated for 123 children where changes between pre and post developmental and behavioral test scores were compared to direct and indirect parent involvement. Direct parent involvement is defined as interactive time when the parent and child are actively involved and indirect time is defined as non-interactive time such as attending parent meetings. Specifically the questions asked are ones of prediction: to what degree can changes in children’s scores on the Developmental Observation Checklist System (DOCS) and Preschool and Kindergarten Behavior Scales (PKBS) be predicted from type and amount of parent involvement? Differences in both standard scores and raw scores were examined. In addition, further study occurred for normal functioning children as well as children with documented disabilities.

Regression analysis is the statistical test of choice when the question is one of prediction. This type of statistical analysis was used to examine relationship and to determine if a given independent variable or combination of variables could be used to predict a given outcome. In addition, if multiple dependent variables were being examined the more powerful multivariate regression analysis was used.

Results indicate that the mean scores for all children improved over time. There is a positive correlation for some variables, but no predictive values were found. Because
correlations are weak caution should be used when interpreting the findings. Because there are no predictive relationships, this research suggests that developmental changes in behavior are not strongly influenced by the type and amount of parent involvement.
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Chapter 1

Statement of the Problem

In reviewing the body of literature related to Project Head Start, as well as other preschool programs, it becomes apparent that there is an underlying theoretical approach linking parental involvement to children’s developmental progress. According to Dr. Edward Zigler (1979) in his book *Project Head Start*, Head Start stands as one of the major social experiments of the latter half of the twentieth century. It was a creative, innovative effort to reduce the effect of poverty. In the United States, it had been assumed that poor parenting would result in children with social and intellectual difficulties which in turn would lead to poor school and work performance and poverty. It was hypothesized that as the cycle continued, these effects would bring about high risk births, more inappropriate parenting, and consequently the cycle would persist. Prior to the mid-twentieth century many thought the effects of poverty were the result of genetic transmission from one generation to the next, as were irresponsibility, criminality, joblessness, and mental disability. Zigler (1979) indicated that the theoretical basis for Head Start is the concept that intellect is more a product of experience than inheritance. Studies by Harold Skells in the late 1930’s and the work of Jay McVicker Hunt and Benjamin Bloom supported Dr. Zigler’s belief. Experimental psychology supported the belief that environmental deprivation was a substantial factor in inadequate cognitive development (Zigler & Valentine, 1979).
In this study the degree and type of parent involvement was used to predict specific outcomes related to child development.

**Purpose**

The purpose of this study was to examine the relationship between the amount and type of parent involvement and measures of child development and behavioral factors. More specifically, efforts were made to determine if there are particular types of parent involvement that significantly impact the developmental and behavioral skills of a preschool Head Start sample after 9 months of services. Positive findings have implications for policy-making decisions for programs in addition to being beneficial to children and families. The study also contributes to the greater body of research on the theory of parent involvement and the education component of Head Start in its efforts to stimulate child development.

In order to accomplish this, existing data consisting of results of norm-referenced developmental measures and documentation of parent volunteer activities tracked in hour units were examined. One hundred twenty-three children were selected who had a consistent Home Visitor/Teacher through a Head Start program for an entire year.

At Cen-Clear Child Services, Inc., data are on file which quantifies progress of individual Head Start children and their families over multiple years. During each program year, Head Start families record their parent involvement, represented by their volunteer hours. Preliminary review indicates volunteer hours can be divided into two categories: direct involvement which is face-to-face contact with their Head Start child
and non-direct contributions such as governance of the Head Start program. Comparisons were made, utilizing regression analysis, to determine if there was a relationship between the type of parent involvement and developmental progress as measured using norm referenced pre- and post-developmental assessments over a 9 month period. Assessments used to calculate outcome measures include: the Developmental Observation Checklist System (DOCS) which measures developmental levels of children in the areas of social skills, motor, language, and cognition; and the Preschool and Kindergarten Behavior Scales (PKBS) which measures social skills and problem behaviors. The DOCS was standardized using a sample of children at daycare centers and preschools (public and private). The PKBS was normed on 2,855 preschool children and kindergarten children from public and private schools and healthcare offices in 16 states during 1992-93. Validity and reliability of these instruments are discussed further in chapter 3.

The work of several authors and researchers are used to establish the foundation for this study. These include: Dr. Edward Zigler of Yale University; Dr. Urie Bronfenbrenner of Syracuse University; Dr. Donald Peters of the University of Delaware; Dr. Joyce Epstein of John Hopkins University; Dr. David Weikart, formerly of the Perry Preschool Project in Ypsilanti, Michigan; and Dr. Lawrence Schweinhart of University of Michigan.
Background of the Problem

In 1962, prior to the national onset of the Head Start program, a longitudinal two-year preschool program designed to compensate for functional mental retardation found in some children from disadvantaged families was begun in Ypsilanti, Michigan, as the Perry Preschool Program. The program consisted of a daily cognitively oriented preschool program and home visits each week to involve mothers in the education process. The sample consisted of mostly African-American, economically and educationally disadvantaged families. Children who participated in the preschool program obtained significantly higher scores on measures of cognitive ability than control group children. Children who participated also obtained significantly higher scores on achievement tests in elementary school than the control group children. And children who participated in the preschool program received better ratings by elementary school teachers in academic, emotional and social development than control group children (Weikart, 1993).

As a result of findings from experts in the field, Sargent Shriver and his staff in the Office of Economic Opportunity were directed by then President Lyndon B. Johnson to build a preschool program in which the primary objective was early academic enrichment. Hence, Head Start was begun as a summer program. This rather simplistic, short-term approach was not considered adequate by developmental psychologists (Zigler & Valentine, 1979). There continued to be failure in school. Studies and social experiments suggested that more than the need for cognitive development was responsible. Zigler’s work emphasized the need for successful experiences to improve
motivation. Repeated failures of impoverished children resembled the situations that he was able to produce in experimental subjects. Other developmentalists, pediatricians, psychiatrists, and early childhood specialists stressed the need for parental support and guidance in motivation.

Zigler (1979) also reported that public health doctors and pediatricians strongly emphasized the need for adding a health component to the program. Children had considerable difficulty learning when they didn’t feel well. Reports on the health status of poor children began to appear in the medical literature in the late 1950’s and early 1960’s. The incidence of tuberculosis, rheumatic fever, and physical and mental handicaps, as well as untreated chronic disabilities were far higher in children in the lower class than those from middle and upper socioeconomic groups (Zigler & Valentine, 1979). Often these children were not immunized against common childhood diseases, and generally inadequate health and particularly inadequate nutrition compromised physical, mental and social development. It was felt that one important way that parents could be involved with and support their children’s development was to participate in routine preventative health care.

Existing evidence suggested that comprehensive intervention for young children had to include, in addition to the cognitive approach, parent involvement, medical attention, and nutrition enrichment (Zigler & Valentine, 1979). From Zigler’s perspective, this intervention had to consist of concentrated successful experiences to ensure that children would be adequately motivated. In fact, Project Head Start staff considered the name Operation Success as a name for the program in the early planning stages. While the name was never adopted, it was certainly considered appropriate
Early authors suggested that when the above components, all of which are dependent upon parent involvement, were included in the program, success was truly likely.

Thus, in the summer 1965, under the direction of President Lyndon B. Johnson in his “war against poverty”, the full scale nationwide Head Start effort was launched. It was begun as a full scale endeavor, as opposed to a pilot program. At the time, the debate, and certainly a controversial one, was focused on determining whether a summer or year round program would be more appropriate. Zigler (1979) recalled that the decision was a political rather than a fiscal one and was certainly not focused on academic considerations. This nationwide approach gained support from communities and politicians alike. By public demand, the Head Start program expanded as a major effort of the war on poverty which led to substantial bi-partisan increases in funding and long term support after other Great Society programs disappeared.

Once into the implementation stage, Julius Richmond and Jule Sugarman combined to direct the Head Start program to unqualified success in its first years. Richmond brought impeccable academic credentials which were respected by physicians, educators and social workers, while Sugarman gained enthusiastic support from community organizers and parent groups. Richmond and Sugarman were able to move Head Start from the drawing boards to the community and from the theories of child psychologists and pediatricians to actions of individuals who work with children in almost every low income community in the United States (Zigler & Valentine, 1979).

The study of the Perry Preschool Project, which continues today, provides the fundamental conclusion that preschool programming is effective in improving the general
functioning level of disadvantaged African American children who were initially diagnosed as functionally mentally retarded. Documented results of the Perry Preschool Project have historically influenced policies and procedures implemented in Project Head Start and were perceived as the premiere preschool program.

The overall goal of the Head Start program is to bring about a greater degree of social competence in preschool children from low-income families. Social competence refers to the child’s everyday effectiveness in dealing with both present environment and later responsibilities in school and life. It takes into account the interrelatedness of cognitive, social development, physical and mental health, and nutritional needs (US Federal Register, November, 1996).

Head Start remains essentially the same today but has been tweaked by each administration who wished to emphasize its particulars. The fundamental issue is whether Head Start is an education program or a comprehensive preschool development program. Constitutionally, states have a mandate for education but typically the federal government has taken the lead in matters of treating the whole child.

The current national standard for Head Start programs is to operate at least 32 weeks annually. In the case of the Clearfield and Centre Counties in central Pennsylvania the program is 44 weeks and consists of center-based, home-based, combination-based, and full day and full year options. In many programs throughout the country there is a movement toward full day (6 hours each day, 5 days per week) and full year operations, with a strong emphasis in child development, parent involvement, health and social services.
While Head Start still consists of four service areas: child development; family and community partnerships; health (including nutrition, mental health, and safety); and parent involvement; the focus on the child development component tends to diminish the importance of the other aspects. The question then becomes one of better understanding how child development is linked to the other elements of Head Start.

Head Start has been found to improve children’s readiness for the early school years. In somewhat of an answer to the research question, “does Head Start work?” the program has been subject to accusations of a fade-out of the early effects, generally over the elementary school years. Attempts have been made to explain these fade-out results. Campbell and Frey (1970), Barnett (1992), and Powell and Roane (1996) have pointed out in discussing compensatory education, that unless subsequent schooling continues, some fade-out effects should be expected. In support of this view (Lee & Loeb, 1995) is the finding that Head Start graduates tend to subsequently enroll in the poorest of elementary and middle schools thus subjecting them to a most non-supporting environment. In spite of environment W. Steven Barnett (2002), Director of the National Institute for Education/Early Education Research (NIEER) in the paper The Battle over Head Start: What the Research Shows discusses the Head Start fade-out, asserts that fade-out is largely a myth. A careful review of the research yields a different conclusion, that Head Start produces substantial long term educational benefits. Barnett’s (2002) conclusions are based on the fact that Head Start students may actually lose IQ gains produced by initial preschool experience, and it is also equally true of all preschool education. Barnett (2002) goes on to look at the long-term successes which include: achievement test scores, grade retentions, special education, and high school graduation.
to access Head Start’s long term cognitive and academic benefits. Long-term studies indicate that school progress has lasting impacts on reductions in grade repetition, reduction in special education enrollment, and an increase in high school graduation (Schweinhart, 2001), further suggesting that the educational benefits endure without prolonged intervention. While it is true that improvements in elementary education for disadvantaged children could support better cognitive development and school success, educational benefits continue suggesting also that Head Start’s effects are reasonable given the limited time devoted to parents. It is felt that if it had sufficient funds to replicate model preschool programs its cognitive effects on children would be more powerful. Additionally, Head Start personnel are frequently asked to provide more comprehensive services than their funding allows.

Other studies have looked beyond the question of elementary school fade-out. Longitudinal studies such as the High/Scope, Perry Preschool Project (Weikart, 1993), the High/Scope curriculum comparison study (Schweinhart & Weikart, 1997) and the National Transition Demonstration Project (Ramey et al, 2000) have followed preschool participants from low-income families into their young adult years to find that high quality preschool can have resilient, lasting, and positive effects. These studies indicated that children who participated in a preschool program grew up to achieve higher levels of education and greater economic viability than did similar children who did not participate in a preschool program.

Neither Head Start nor any preschool program can inoculate children against the ravages of poverty. Early intervention simply cannot overpower the effects of poor living conditions, inadequate nutrition and
health care, negative role models and substandard schools. But good programs can prepare children for school and possibly help them develop better coping and adaptation skills that will enable better life outcomes (Zigler & Styfco, 1994 p. 129).

Dr. Urie Bronfenbrenner and Dr. Edward Zigler led the way in the mid-sixties by expounding the pragmatic idea that you can’t take children from their home for only a few hours a week and expect to work miracles. To have any lasting impact, the children’s day-to-day environment, particularly their families, but also their neighborhoods and communities must foster similar goals. Bronfenbrenner (1979) insisted that to be effective, any program for children whether they were rich or poor, would have to involve the children’s parents. Zigler (1979) also supported the notion that social competence was primary for every child. A child’s social competence may be described as his ability to master appropriate shapes, forms and concepts, to perform well in school, to stay out of trouble with the law, and to relate well to adults and other children.

In the late 50’s, psychologists rediscovered the idea that development of human behavior is heavily influenced by environmental factors. Since the beginning of the century, the importance of the environment had been distorted by those in the field of human intelligence who believed that human characteristics were determined by hereditary factors alone. Early researchers such as Galton, Goddard and Cattell held that the rate and ceiling of an individual’s intellectual growth was genetically determined and therefore fixed from conception. The environment, however, could influence a child’s
emotional and social development but the pattern of intellectual growth was predetermined. Bloom (1964) began to emphasize the power of a child’s environment particularly on intellectual growth. Bloom’s work indicated that intellectual growth occurred most rapidly in the first four or five years of life and concluded the best time to enrich the environment and affect intellectual growth was during this period of rapid development, the preschool years. Bloom felt proponents of environmental theory went so far as to claim that half of a child’s learning was over by the age of four. This was based on the conclusion that child’s IQ score at age 4 can predict 50 percent of the variance in a child’s mature IQ score.

Environmentalists, however, were ignoring biological factors just as their predecessors had ignored environment. By the late 1960’s, the pendulum was swinging back more towards an interaction of genetic factors with environment. During the same period of time, Oscar Lewis, an anthropologist, began publishing his studies on poverty. Lewis (1966) identified characteristics common to impoverished communities the world over and suggested these characteristics constituted a culture of poverty. The poverty culture included lack of cash flow and savings, fear of the larger society, social structures enhanced by a physically self-contained community, matriarchal and authoritarian families, early maturation of children, and feelings of helplessness and fatalism among individuals. As a result of adaptation to social and economic conditions imposed upon the impoverished by the larger society, as a social and economic oppression continued, Lewis (1966) felt the culture of poverty was continued from generation to generation.

As the pendulum swung back and forth, it was soon learned that neither environment nor heredity alone could account for intelligence. Not all children could
become geniuses in spite of the fact that parents and educators of the mid sixties were inundated with articles claiming that children could be taught to read by age two and that a child’s IQ could be raised by 20 points in a year. Likewise, the concept of a culture of poverty was also misunderstood to the extent that fathers were assumed to be absent and poor mothers were characterized as immature, harsh disciplinarians and unable to love because of their own dependency needs. The environment was generally perceived as under-stimulating, having insufficient toys, insufficient interaction and attention, or over stimulating through noise, fighting, or both. Verbal activity in a poor household was supposed to have consisted of body language, single syllables, shouts and grunts. (Zigler & Valentine, 1979) Research-based evidence soon destroyed this perception of culture of poverty as stereotyping. As a result, the Head Start program emerged out of this period of environmentalism, with the belief that quick intervention was to yield great expectations permanently from the appropriate school environment. Head Start today may still be recovering from those days of environmentalism where a quick dose will solve a world of ills.

Forty years later, the early components of Head Start still remain, one of which is the parent involvement component. The development of that component was based on the assumption that parents learn from participation in the program. Parents were to serve as paraprofessionals: as aides to teachers, nurses and social workers, or as cooks, clerks, storytellers, or supervisors of recreational activities. Fathers in particular were encouraged to participate in activities with the children. Classes were to be held for parents in home economics and in child rearing practices. In addition, language classes for non-English parents were to be arranged as necessary through the services of the
Head Start program (Zigler & Valentine, 1979). During reauthorization in 1972, regulations were changed for the Head Start program, which incorporated program governance into the Performance Standards (70.2). Each Head Start program was required to have a Policy Council that consisted of at least 51% enrolled parents. The founders of Head Start believed that parents who had a vested interest through input of governance were able to bring issues directly to the governing body, providing consumer input into its management (Head Start Performance Standards, 1304.40 (a) (1)). This parental role has taken on several distinct differences within the Head Start program. Parents were used as nonprofessional labor, frequently providing a career ladder opportunity to acquire skills and education often leading to better paying jobs. Parents participated in program governance to provide a direct relationship between administration and the program, where parents, through the Policy Council had managing authority congruent with the Local Corporation or legal entity. This concurrent authority has continued for nearly 40 years, moving towards continued resolution of administrative impasses, local problem-solving and direct consumer input.

Head Start is required to have a 20% match contribution. Many of these dollars come from volunteer in-kind hours at the minimum wage rate. As an example, the Head Start program in Clearfield and Centre County of central Pennsylvania realizes approximately 100,000 volunteer hours a year to compensate for some of its in-kind requirements. These volunteer hours represent indirect (ancillary) activities that include: maintenance and janitorial duties, assistance with preparing classroom materials, as well as attendance and involvement in governing board functions. Additionally, many parents spend direct time with their child supporting the skills necessary for young developing
children. This includes parents reading to their children, working with their children to learn colors, shapes, sizes, and textures, helping their children to learn best health practices, and assisting in the classroom or with group activities in the community. These direct and indirect contact hours result in direct developmental benefit to their child. The focus of this study is to examine the relationship between direct and indirect involvement by parents and measures of child development.

**Research Questions**

Specifically, this study proposes to answer the following research questions:

**Research question #1**: What is the strength and direction of the relationship between the number of hours of direct parent involvement carried out in a given location (home, center, and community) and the difference in the child’s pre and post test scores on the Developmental Observation Checklist System?

**Research question #2**: What is the strength and direction of the relationship between the number of hours of direct parent involvement carried out in a given location (home, center, and community) and the difference in the child’s pre and post test scores on the Preschool and Kindergarten Behavior Scales?

**Research question #3**: What is the strength and direction of the relationship between the number of hours of direct parent involvement and the difference in
the child’s pre and post test scores on the Developmental Observation Checklist System?

**Research question #4**: What is the strength and direction of the relationship between the number of hours of direct parent involvement and the difference in the child’s pre and post test scores on the Preschool and Kindergarten Behavior Scales?

**Research question #5**: What is the strength and direction of the relationship between the number of hours of indirect parent involvement and the difference in the child’s pre and post test scores on the Developmental Observation Checklist System?

**Research question #6**: What is the strength and direction of the relationship between the number of hours of indirect parent involvement carried out in a given location (home, center, and community) and the difference in the child’s pre and post test scores on the Developmental Observation Checklist System?

**Research question #7**: What is the strength and direction of the relationship between the number of hours of indirect parent involvement and the difference in the child’s pre and post test scores on the Preschool and Kindergarten Behavior Scales?
Research question #8: What is the strength and direction of the relationship between the number of hours of direct parent involvement carried out in a given location (home, center, and community) and the difference in the child’s pre and post test scores on the Preschool and Kindergarten Behavior Scales?

Research Question #9: What is the strength and direction of the relationship between the number of hours of parent involvement and the difference between the child’s pre and post test scores on the Developmental Observation Checklist System?

Research Question #10: What is the strength and direction of the relationship between the number of hours of parent involvement and the difference in the child’s pre and post test scores on the Preschool and Kindergarten Behavior Scales?

Significance of the Study

The main purpose of this research was to investigate the impact of different types of parent involvement in Head Start on the development of the child. The extent to which parents are involved with their children and in the community is a key variable that could affect various measures of child development. Results obtained have far reaching effects on future Head Start policy depending upon the degree of change in outcome measures and the type of parent involvement that is most predictive of that change.
Definition of Terms

Head Start – A federally funded pre-school program which is for low-income children ages 3-5. Head Start was established in 1965 to provide education opportunities, and subsequently social services, health, nutrition, and parent involvement, with the goal of providing the same school readiness opportunities as their more affluent peers.

Policy Council – A policy making body for each Head Start program that is comprised of at least 51% enrolled parents.

Direct Parent Involvement in the Center – Parent involvement that directly impacts a child while in the child’s classroom. Some examples include reading, playing, talking, and volunteering in classroom-based activities.

Direct Parent Involvement in the Community – Parent involvement that directly impacts a child while in the community. Some examples include chaperoning on a field trip or accompanying a child to a child activity in the community.

Direct Parent Involvement in the Home – Parent involvement that directly impacts a child while in the home. Some examples include reading to the child or playing games.

Indirect Parent Involvement in the Center – Non-direct parent involvement occurs in ancillary activities that do not directly impact a child while volunteering in the child’s classroom. Some examples include participating volunteering in the kitchen or preparing materials for activities.
Indirect Parent Involvement in the Community – Non-direct parent involvement occurs in ancillary activities that do not directly impact a child while in the community. Some examples include participating in Policy Council or other parent groups, fundraising, or participating in the hiring process.

Indirect Parent Involvement in the Home – Non-direct parent involvement occurs in ancillary activities that do not directly impact a child while in the home. Some examples include making classroom materials or placing phone calls to help organize an event.

Social Competence – Social competence refers to the child’s everyday effectiveness in dealing with both present environment and later responsibilities in school and life. It takes into account the interrelatedness of cognitive, intellectual, and social development, physical and mental health, and nutritional needs (US Federal Register, November 1996).

Home Visits in Head Start – A formalized meeting between the parent, child and Head Start staff person where individual child and family goals are established and staff support is provided to assist the family with meeting those goals.
Chapter 2

Introduction

The topics of parent involvement, child development, and Head Start are key elements to be examined when considering background information related to efforts directed at determining the impact of direct and indirect parent involvement on child development. This chapter is organized into sections covering: (1) Head Start, (2) parent involvement, (3) parent involvement in Head Start, (4) child development, and (5) child development in Head Start. A brief synopsis of inference from studies reviewed and a statement of the relation that these studies have on this research paper will be introduced.

Head Start

Head Start is a direct federal to local grant program for the provision of early childhood education, comprehensive services and family support. Head Start programs must adhere to a set of performance standards regarding services that are to be provided, including child development, health, parental involvement, nutrition, social, and transition to school services (42 USC 9836 AEECE.641AP). The Head Start Performance Standards require programs to build relationships with parents as early as possible from the time of child enrollment and to create ongoing opportunities for parent involvement throughout the time children are in Head Start. Head Start staff are required to build relationships with their assigned families while taking into account that families
will vary in their willingness to participate (Head Start Performance Standards, 1304.40 (a) (1)). The various models of delivery require different standards for parent involvement. For example, center-based programs require two home visits per year (Head Start Performance Standards 1304.40 (e) (5)), while the home-based model requires weekly home visits.

Dr. Joyce L. Epstein (2001) suggests that changing times require changing theories. Head Start led the way with change from the traditional inter-institutional separation, which occurred during the 1930’s through 1950’s, to a point where cooperation emerged between schools and families in the 1970’s and 1980’s, reflecting the social changes affecting these institutions (Epstein, 2001). Head Start appeared to have led the way in this school/family integration with a “common law” goal of parents being the prime educators of their children.

**Parent Involvement**

Cotton and Wikelund (1989) report that a more accurate predictor of student achievement in school is not income or social status, but the extent to which students’ families are able to create a home environment that encourages learning and communicate high, yet reasonable expectations for children. When parents become involved in the child’s education at the school and in the community, students achieve more regardless of socio-economic status, racial background, or the parents’ educational level, yielding higher grades and test scores, as well as better attendance and completed homework. These students tend to exhibit more positive attitude, as well as decreased
use of alcohol, violence and anti-social behavior. Parents who become involved early in the educational process yield more powerful effects and benefits are not confined only to the elementary years, but at all ages and grade levels (Cotton and Wiklund, 1989). Reedy (1994) found that parents who are more involved in the assessment process with their children volunteer a greater number of hours in their child’s school experience than those who were involved less in the assessment process. Additionally, the emphasis within the National Transition Demonstration Program (Administration for Children and Families, 2000) had four major component areas. One of these, building upon the Head Start focus on parent involvement in schools and children’s learning, was an emphasis on strengthening and expanding that critical parent involvement. Research conducted on the program concluded that parent involvement has a significant positive relationship to a wide range of child, family, and school outcomes, including higher achievement for children and more positive schools. These findings held for a wide range of populations, from disadvantaged to gifted children. The program further found that parental involvement improved that attitudes of parents toward the school, and promoted a more positive atmosphere within the school itself.

The role that a parent plays in child development is certainly a special one that yields a close emotional relationship between the child and the adult. Researchers have looked at three areas of development: security, confidence, and the trust between young children and their parents, often referred to as the “attachment security” (Shonkoff & Phillips, 2002). Loving care seems to be the key that allows children to thrive cognitively, emotionally, and physically. Nearly all infants develop close emotional bonds or attachments to those who regularly care for them in their early years of life.
This early relationship develops a deeply rooted motivational system that ensures close contact between babies and adult caregivers. They provide a fundamental basis for parent involvement. Such early attachment is important not only as an indicator of parent child relationships but also for significant affects on other aspects of the child’s functioning. Longitudinal studies suggest that early attachment sets the stage for other relationships as children grow older and move into broader relationships than the immediate family (Bretherton & Munholland, 1999). Securely attached young children have an easier time developing positive and supportive relationships with teachers, friends and others whom they encounter.

In a survey of approximately 3700 public elementary school teachers in Maryland, Becker and Epstein (1982) found that on two of six items there was agreement, with most teachers feeling that parent involvement is an important factor in solving the problems faced by schools and that parent involvement in the classroom is useful for increasing parent-learning assistance at home. Teachers were divided on the issue of whether teachers can actually influence parents to help their children at home. There was also a debate as to whether parents have sufficient skills to teach their children to read or solve math problems. Teachers were also divided regarding whether or not it is fair to ask parents to spend an hour each evening working with their children on school related activities and whether parents want to know more about the school curriculum than they are usually told. While three quarters of the teachers agreed that the general idea of parent involvement is a good one, approximately half of the teachers had serious doubts about the success of a practical effort to involve parents in learning activities at home. Epstein (1982) also looked at parent attitudes toward public elementary schools
and teachers and found that nearly 90 percent of parents agreed that their elementary schools were run well. The basic form of parent involvement is the provision of general school supplies by the parent. Epstein found that 97 percent of parents in a Maryland survey said that their children had the supplies needed for school and over 90 percent reported that children had a regular place to do homework. She also found that 16 percent of parents said they never receive notes or memos from their children’s teachers, more than 35 percent had no parent/teacher conferences, and nearly 60 percent never spoke to teachers on the phone. Likewise with regard to involvement at school, she found that 70 percent never helped teachers in the classroom, 70 percent never participated in fundraising activities, and nearly 88 percent never assisted in libraries or cafeterias. Findings indicated that only about 4 percent of the respondents were very active, spending over 25 days per year at school.

Epstein (1982) found varying degrees of parent involvement ranging from the provision of school supplies to active in-class participation, with supplies being the most utilized and direct classroom participation the least. Epstein found involvement in learning activities at home is a less frequently used form of parent involvement, but one that reflects the theory of cooperation between schools and families. Epstein studied parents’ attitudes and practices of involvement in intercity elementary and middle schools and found that parents of young children and more educated parents conduct more activities at home that support their children’s schooling. She also found that parents who became involved at both home and school say that the school has a positive climate, and parents that believe their schools are actively working to involve them describe their schools as good.
Another approach is the one utilized at the Chicago Child-Parent Center which was begun in 1967. Each of their twenty-four centers was located close to an elementary school which they served. Unique to the Child-Parent Center is the inclusion of mandatory parent involvement in a single educational system spanning preschool through third grade. In a study conducted by Reynolds (2000), there were nearly 1200 children and a control group of low-income children who were followed through age fifteen. Parent activities included classroom volunteering, parent meetings, participation in educational workshops, attending school functions, and attending parent-teacher meetings. Numerous studies found that the Chicago Child Parent Centers promoted both family and child developmental outcomes, compared to children in the control group. Reynolds wrote in his conclusion that large scale early childhood programs can be successful for economically disadvantaged children. Children in this study also demonstrated positive school adjustment and social behavior well into adolescence. Reynolds also found that the duration of program participation was significantly associated with all measures of social competence. He reported that at least two years of post kindergarten intervention were necessary to produce most lasting effects. He also concluded that early entry was crucial for long-term effects to occur. The most significant long-term effects were prevention of grade retention and placement in special education, and promotion of school achievement.

Tijus (1997) conducted a study of the interactions among children, parents and staff of four multicultural, parent-run day-care centers. Interactions were analyzed for methods of task analysis, communication symbols, and structures of pedagogical assistance. Tijus found that the presence of parents created strong cognitive interactions,
suggesting that the cognitive development of socially disadvantaged children may actually be improved by increasing parent participation. In fact, the effects of impoverished homes may be diminished or weakened by parent participation. Osborne (1997) found that organizations, particularly in rural schools, benefited from parent participation. In Osborne’s survey of Montana parents, teachers, and school administrators, Osborne found agreement that parent involvement is important for both school effectiveness and student success. Osborne recommended that educators overtly welcome families and support a range of parent involvement activities to break down existing barriers and to educate parents and the community about the importance of their involvement.

While there seems to be an abundance of work that supports parental involvement with disadvantaged children and in school children in general, Chapey (1987) found that in a study of 1,000 parents of gifted and talented children in the New York and Cleveland school system, contrary to expectations, these parents were not very involved in school activities. The researchers used a questionnaire to determine parental involvement in 27 selected service, financial, and parent education practices. It was hypothesized that academically gifted children require less support and are self-motivated learners on their own. Yet another study on parent involvement also suggests a relationship between parent involvement in their child’s schooling, motivation and academic achievements. Grolnick (1994), in a study of three-hundred 11 to 14 year old students found information from parents, students and teachers indicated that parental involvement manifested itself in many different ways. Results suggested children who are confident in school may actually push parents to become actively involved in school.
Numerous studies in parental involvement suggest parents have a large impact on students. Keith, et al. (1993), utilized latent variable structural equation analysis of data from 21,814 students and their parents, and found that parental involvement in students’ academic lives is a powerful influence on eighth-grade student achievement. Keith noted that the effect of parental involvement was reflected in all academic areas and appeared to result in increased homework completed by students with more involved parents.

Epstein (1987) found that there were four types of parent involvement which supports students: (1) basic obligations, (2) school-to-home communications, (3) parent involvement at school, and (4) parent involvement in learning activities at home. Epstein (1988) later found, after surveying 82 teachers and 1,021 parents and students, that at the elementary school level, low achievement in reading and mathematics, as compared to high achievement is more associated with time spent doing homework, more minutes of help from parents and more frequent requests from teachers for parental involvement. Epstein felt this raised questions about ways in which elementary school homework could be designed with parents help to prepare students for the skills needed in the upper grades. Epstein (1989) further demonstrated the positive effects of parent involvement in a child’s education at home and in school by showing a significant impact on student success. The TIPS (Teachers Involve Parents in Schoolwork) project, which operated in Baltimore City Middle School for 3 years, offered a process and a model designed to increase the involvement of parents in productive roles. It also provided a structure for middle grade teachers to conduct a program that integrated art and social studies. While this particular implementation was in the arts, it also demonstrated that parents had a meaningful and significant impact on student success (Epstein, 2001).
Epstein (1999) emphasized that effective practices of partnership must be different to correspond to the differing needs of families. Her theoretical perspectives of school and family partnerships are based on the influences of families and schools on children’s learning. She looked at the importance of family environment, the influence of school environment, and the effect of school-family partnerships on students, parents and teachers. She clearly opened the door that added the community as a sphere of influence in the child, home, and school triad. Epstein found that in a survey of educators in 161 U.S. schools, colleges, and departments of education were fully prepared to implement practices to involve families and communities. Epstein found that while survey respondents strongly believed in the importance of such, most schools only offered at least one course or some basic coverage of the issue. The respondents also felt they should be doing more to include parents as part of the learning process.

The former U.S. Secretary of Education, William Bennett stated, “Not every teacher is a parent, but every parent is a teacher” (Bennett, 1997), thus setting the tone for this parental role. (Hester, 1989; Liontos, 1992) found 94 percent of 33 migrant families in Tampa reported changes in their children’s school performance as a result of parents being taught to work with their children at home. Authors Marttila and Kiley, Inc., (1995) based in Boston, Massachusetts, reported key findings in a survey of 1032 parents of primary age school children, K-6. They found that parents acknowledged the critical importance of involving themselves with their children’s education and saw a significant difference between at-home involvement and activities at the school. Sixty-nine percent of parents said it is extremely important for parents to spend time at home encouraging their children in their schoolwork, while only 43 percent of parents think it is extremely
important for them to be involved in activities at their children’s school. Parents also expressed that the lack of available time caused them to feel frustrated. Twenty-four percent of parents of less affluent children (i.e., earning less than $34,000 per year), indicated that work conflicts posed the greatest barrier, while only 7 percent of parents earning more than $75,000 per year reported work conflict as a barrier. Twenty-six percent of African-American parents and 25 percent of Latino parents also reported difficulty with work conflicts. Thirty-two percent of all parents indicated that it was difficult to help their children because things are taught differently from when they were in school. Parents’ most important priority in this study was checking on and helping with homework. Seventy-nine percent of parents reported checking to see if their children had completed their homework nearly everyday and 63 percent helped their children with homework on a near daily basis.

In a review of 35,057 preschool records, Bhagwanji and McCollum (1998) indicated that poor parents, single parents, and parents who primarily spoke a non-English language at home, participated less significantly in most of the opportunities for parent involvement. The study indicated there is a direct association between demographic factors and family involvement in their child’s education.

Parent involvement has been included in the No Child Left Behind Act of 2001 (PL 107-110). In fact, the act is so specific that it requires schools receiving Title I funds to demonstrate parent involvement by having a written parent involvement policy which is developed jointly with parents. It also requires convening an annual meeting of parents and developing with individual parents a school-parent compact that outlines actions to be taken by the school and the parents to improve their child’s performance.
Bronfenbrenner (1992) insisted that, to be effective, any program for children, whether they were rich or poor would have to involve the child’s parents.

Large positive associations between parental schooling levels and child achievement are among the most substantial impacts on development. Parental education levels are strongly associated with home literacy, environment and parental teaching styles which result in a variety of resources that promote learning. For example, high quality child care, educational materials, and visits to libraries and museums all have an impact on child development. These factors are what economists refer to as human capital and are directly linked to early learning and educational attainment once children begin formal schooling (Bradley, 1989).

**Parent Involvement in Head Start**

Head Start Performance Standards require programs to be open at any time during operation to involve parents in the development of program curricula or to volunteer, although they are not required to participate (Head Start Performance Standards, 1304.40 (d) (2)). Additionally, parents are required to be active partners in accessing health care for their children, accessing community services, or transitioning children into school (Head Start Performance Standards, 1304.40 (f) (2) (i-iii)). Finally, Head Start Performance Standards require programs to involve parents in program decision-making and governance. Head Start Policy Councils are to be comprised of at least 51% of currently enrolled parents (Head Start Performance Standards 1340.50 (b) (2)). Program
governance, while a type of parent involvement, is an indirect form of involvement because it is not face-to-face involvement with the child.

Head Start parents have the opportunity to volunteer in numerous ways including volunteering in the classroom, participating in home visits, attending parent education classes, and enrolling in job programs, literacy programs or other adult education programs. There are also opportunities to serve on policy making bodies. In the Head Start 2004-2005 program year, over 890,000 parents volunteered in their local Head Start programs and 27% of the staff members were parents of current or former Head Start children (US Dept. of Health and Human Services, 2006).

There is growing evidence indicating that high quality pre-school child development programs contribute to both short- and long-term development of children living in poverty. Schweinhart (2001) cited experimental studies of Head Start and other similar programs (Head Start Comprehensive Child Development Program, the Early Head Start Program, the Even Start Family Literacy Program, the Carolina Abecedarian Project, an internal Head Start study called the FACES Project, the North Carolina’s Smart Start, and the Chicago Child-Parent Centers), concluding that these studies found programs for 4 year-olds contribute to the children’s readiness to enter school and remain on grade level. Schweinhart (2001) went on to cite that long-term studies have found evidence of good preschool programs improving high school graduation rates and reducing the criminal activity of certain categories of participants.

In a study of the effectiveness of parent involvement in the assessment process, Reedy (1994) found that parental empowerment as related to parent involvement in the assessment process indicated that at least some tests can be modified so that parents can
test their own children in a manner evidencing a high level of agreement with trained examiners. She also found that two levels of parent participation in the assessment process clearly resulted in different outcomes in terms of subsequent parent involvement and attitude. Parents who rated their own children volunteered more time in all areas of the program and better demonstrated completion of home activities. Home Visitors reported that parents who rated their own children more often led the child focused activity on home visits and took more responsibility for managing their children’s behavior. Parents who rated their own children reported and demonstrated a better understanding of their children’s goals and were judged to evaluate their children’s achievement of objectives more realistically.

In his study of Head Start delivery modes, Peters (Peters, Bollin, Murphy, and Berg, 1987), while at PSU, compared traditional, classroom, home-school combination, and home-based delivery modes. Concluding his research at the University of Delaware, Peters found that children made similar gains no matter what program they were in, and there was a relationship between the amount of in class time and the amount of home instruction time. He inferred that a more or less amount of class time was related directly to the amount of home instruction time yielding similar results. Peters et al. (1987) found parent volunteer hours contribute to the prediction of maternal instruction while reported parent home teaching time bears a positive relationship to both the provision of toys, games and materials as well as high expectations of parents for their children. Unrealistic demands that are either too high or too low can have harmful effects. Excessively high demands can lead to both parental disappointment and discouragement while excessively low expectations may lead to an excessively protective environment and a lack of
exploration opportunities for the child (Rutter, 1985). Parental variables encompass more than the physical environment and the generalized enrichment of the home. Two of their most powerful predictors of later school success were maternal language and child-rearing practices.

Leik and Chalkley (1989) conducted a one-year study of 81 single mothers and their children from the Hennepin County Head Start Program. The study was designed to determine if parent/child interaction in the context of Head Start would be the most beneficial form of parent involvement. Their initial assessment indicated that Head Start families are similar to other families but that mothers tend to underestimate their child’s self-worth and families tend to display patterns considered dysfunctional, as measured in their October assessment. In April, the results from the second assessment indicated that some of these problems could be alleviated with an increase in parental involvement. They found at the end of the study that parents had increased their estimate of their children’s competency and social acceptance as well as becoming less dysfunctional during the study.

A multi-authored study by Lamb-Parker, Piotrkowski, Baker, Kessler-Sklar, Clark, and Peay (2001) studied the impact of parent involvement in Head Start. Head Start’s legislative mandate called for a maximum feasible participation of parents in all programmatic efforts in policy decision. The five-year study consisted of three parts: a parent survey exploring life events and experiences that might function as barriers to parents’ participation in Head Start, a longitudinal study of parent involvement in Head Start assessing its impact of parents, Head Start children and their siblings, and an intervention focused on staff development training to enhance the staff’s work with Head
Start parents. The major findings of this study indicated that parent involvement improves family life through improved parent/child relationships, enhanced home learning environment, children’s greater social competence, greater parental involvement in elementary school, and increased parental self-sufficiency. Liontos (1992) reports that students gain in personal and academic development if their families emphasize school and let children know that they do so continually over the school years. Parents who promote a strong interest in their children’s schooling promote the development of attitudes and expectations that are a key to achievement. Children who are failing in school often improve dramatically when parents step in to help.

While Bryant (Bryant, Peisner-Feinber, and Miller-Johnson, 2000) noted that parent involvement in their children’s education is a crucial contributor to children’s achievement, the study investigated the relations among family factors, parental involvement and children’s learning activities within and outside of Head Start and children’s outcomes related to literacy, numeracy, social skills and behavior problems. The findings indicated that parents were more likely to be involved in the fall with children and involvement was more likely to include mothers with higher levels of education. Relevant to this study was a fact that parent involvement in the Head Start activities did not contribute to the cognitive development outcomes of parents who reported more Head Start involvement in activities that included their children, were rated higher on social skills by teachers.

Two studies in pre-K programs serving 4 year olds and Early Head Start programs serving infants and toddlers, on children’s cognitive and language development have shown gains in social-emotional development, especially for those children who are from
low-income families, and benefits for parents as well. Findings from both studies confirmed the positive effects of these programs for children from birth to age 5, including high performance in children’s cognitive and language functioning. The Early Head Start program benefited children’s social and emotional development and health as well as reduced aggressive behavior and improved parent/child relations. The pre-K program increased parents’ involvement in school and home activities (Gormley & Phillips, 2005) in a study involving more than 3,000 students in Tulsa, Oklahoma, half in the pre-K program and half who had recently completed the pre-K program. The second study conducted by Mathematica Policy Research, Inc. (Love, Kisker, Ross, and Schochet, 2002) involved more than 3,000 families who applied to 17 Early Head Start programs located in rural and urban areas across the United States. These children were assessed on measures of cognitive, language, social-emotional development and health at 14, 24 and 36 months. The parents of the children who participated in the program were compared to parents whose children did not participate in the Early Head Start program. They were assessed in how they related to their children, specifically how supportive or detached they were in interacting with their child. They were also reviewed in regard to the supportiveness of the home environment in relation to the child’s cognitive and language development and whether parents read to their children daily and how often they spanked their child. Children who participated in the treatment group did better on cognitive and language development measures than the children in the control group. The authors concluded from interviews with primary care givers and parents and through observation of parents that the parents who participated in Early Head Start were more emotionally supportive, provided more language and learning opportunities at home, read
to their children more and spanked their children less than did the control group parents.

In fact, the programs that offered a mix of home visits and center based services, had fully implemented Performance Standards, and achieved the best results with children and parents (Love, et al., 2005).

**Child Development**

A child’s development is based upon numerous factors in the early years of a child. These factors are complex and varied, ranging from nurturing and caring to parental psychological distress, including such issues as employment. Additional factors related to social and economic status play a significant role in the child’s environment. The larger context than the family unit is the environment where social economic resources, child care and community settings in which the child grows. These may occur in the form of parent education, family income, parental work occupational status, family structure and other indications of family social economic resources. In fact, they have been the focal point of policy making on behalf of children and families starting with the war on poverty in the 1960’s. The question seems to be changing from whether family resources affect child development to asking how it affects child development (Shonkoff & Phillips, 2002). One of the most consistent factors in child development is the relationship between family economic hardship and child development, specifically poverty. While the US poverty rate for children exceeds one in five children in poverty, the nature of the impact of poverty and an effective strategy for increasing incomes of poor parents in order to best promote children’s development still alludes us (Shonkoff &
Phillips, 2002). To the extent that poverty is considerably more prevalent among children now than 25 years ago, it has increased much more for minority children than non minority children. Additionally, impoverished children are falling further behind in cognitive development than their more affluent peers.

The Child Development Impact of Pittsburgh’s Early Childhood Initiative in High-risk Communities; First-phase Authentic Evaluation Research Study (Bagnato, 2005) provided results of Pittsburgh’s early childhood initiative that looked at the implementation of high-quality early childhood programming for children in high-risk neighborhoods. The Developmental Observation Checklist System was utilized to conduct longitudinal research on the impact on child developmental when providing consultation to high-quality programs. First-phase results on 155 high-risk children indicated that those who participated in these programs for the longest periods of time demonstrated patterns of progress that exceeded maturational expectations. This study also found that the longer high-risk children participated in high-quality early childhood programs, the more dramatic their patterns of developmental progress (Bagnato, Grom, & Haynes, 2003).

The Pennsylvania Early Intervention Outcomes Study (PEIOS): A Phase 1 Pilot Study – Exploratory Research to Document the Impact and Outcomes of Cen-Clear Child Services, Early Intervention Programs as a Model for Future State-wide Evaluation Initiatives (Bagnato, 2005) was funded by the Office of Special Education in the US Department of Education and sub-contracted to the Children’s Hospital of Pittsburgh University, Community, Leaders, and Individuals with Disabilities (UCLID) Center. The
purpose of this study was to examine the need for early intervention programs to implement systematic approaches in documenting outcomes for children with developmental delays and disabilities and to look at developmental gains of these children when individualized intervention is provided. This pilot reflected longitudinal data from 3239 repeated assessments of children’s everyday behavior and progress where the Developmental Observation Checklist System was used. All children involved with this pilot were required to have been enrolled for at least one year and to have an Individualized Family Service Plan or an Individualized Education Plan. Children with mild delays acquired basic early learning competencies at transition that were within the average range for their age, compared to national norms. Additionally, approximately 70% of the children demonstrated early learning skills mapped to the Pennsylvania Early Learning Standards at transition that would enable them to be successful in their early grades.

**Child Development in Head Start**

Children from Head Start, by definition, come from socio-economically disadvantaged homes and communities. Public school reformers and advocates have been very concerned with low SES (Socio-Economic Status) schools. Head Start children typically go into the poor schools in the poorest neighborhoods. In the study “Academic Press and Sense of Community in American High Schools” Shouse (2002) reports that low SES schools experience strongest achievement return when they have a strong academic press. Unfortunately, low SES schools maintain the lowest levels of
academic press. Shouse suggests that academic press and communality provide for an atmosphere affecting greater achievement in low SES schools. Academic press, often defined as a school’s pursuit of rigorous academic goals and communality, is defined in its broadest sense as the school and community’s cultural beliefs. Shouse also reports combining academic press and a school and community culture toward academic achievement yields results which rival that of schools serving more affluent students.

To better understand child development in the Head Start context, one must first recognize that Head Start uses a multi-disciplinary holistic approach to this concept. Head Start was designed to negate the ravishing effects of poverty, and the early planners believed that a multi-disciplinary approach was needed. Barbara Biber (Zigler & Valentine, 1979) in her introduction to the pre-school education component in Head Start discusses the Head Start Performance Standards which were first introduced as regulations in 1975. Within the Performance Standards each goal/objective is also followed by performance guidance that provides suggestions actions to achieve those goals/objectives. The guidance offers explanations of the intent of the goal using several examples. Using this format, the Performance Standards address all of the areas of the multi-discipline approach. The education component, or the cognitive domain, was brought about prior to the inception of the performance standards, through psychologists and educators such as Lawrence K. Frank, Lucy Sprague Mitchel, Susan Isach, Millie Almy, Robert W. White, Barbara Biber and others. They theorized that exploring and investigations of the preschooler and use of language, reasoning, and conceptualization during play were crucial modes of learning to be guided and supported by teachers in early childhood programs.
Founding persons within Head Start believed that to have an impact on the effects of poverty, Head Start must also look at development within the health realm. Frederick North (1968) concludes that ill health is one of the burdens that can keep a child from fully making the most of opportunities. Health and its related areas, such as nutrition, also play a large part. The Head Start Planning Committee, in which physicians were well represented, recognized that poor health might be a particular problem for low income children. The effects of poverty expected that low income children will have more health problems than their middle-class peers because they are less likely to have obtained the necessary services. The original Planning Committee conceived the Head Start Child Development Center as an agency through which educational, social, psychological, nutritional, medical and dental services, as well as mental health and disability services should be provided in a manner that each component could draw strength from and lend support to the others. For example, the health component not only should identify and treat medical issues with children but also link children to ongoing health care systems.

Health services in Head Start should accumulate records of past health and immunization history as well as up to date physical examinations and routine screens. Such medical intervention would eliminate the possibility that health connotations would impede general child development.

Health services also should include such things as speech, hearing and language services to detect and treat inhibiting factors. Health and nutrition education should teach both children and parents simple preventative measures. Irving Lazar, (Zigler & Valentine, 1979) in his chapter on social services in Head Start, writes that the Head Start
planners recognized that social and psychological services were critical to the comprehensive intentions of the program. The Head Start program was built on its ability to link to other community agencies with collaborative and integrated networks of services for families. The Head Start program links to community services as opposed to being the provider of social services with the general goal of improving the quality of life.

Planners of Head Start gave parents multiple and important roles to play. Jeannette Valentine (Zigler & Valentine, 1979) writes that parents were involved with the Head Start program from the very beginning and that parents are the key to much of child development and its multi-discipline approach.

Cohen, Solnit, and Wohlford, (1989) in their chapter in the Zigler book *Project Head Start*, discuss mental health services in Head Start. They recognized that poverty played a critical role in a child’s health and opportunities for learning and play as well as contributing to the general quality of life. They stated “a child’s family and the relations between the child, the family and the community all impact on the child’s emotional life.” (p. 259). Hence, the founders of the Head Start program identified the need for a mental health component. However, these writers found that there was a biological need to be addressed as well as a psychological need. They emphasized their belief that Head Start had a special obligation to reach out towards children and families most in need of its special resources. Poor families are not only most strained by social and economical misfortune, but poor children also have the most difficulty during their developmental process. Relatively few options exist for poor families and hence the special
responsibility to attempt and serve those in the greatest need is of a primary importance to the Head Start program.

Psychological and social services in the Head Start program both rely on outside resources for its supports. Linking to already existing services in the mental health or social services field is its primary method of operation. Innovative at the time of its inception, the inclusion of mental health services, as a requirement through observation, gave a first hand opportunity for psychologists or mental health workers to observe the children directly and offer an opportunity for preventative services. Therefore, psychological services provided by Head Start mental health consultants is often the least of the child development aspects seen. However, its preventative nature assures classrooms to be of sound design as well as detection of children symptomatic of emotional issues. Clinicians were able to determine emotional difficulties in Head Start classrooms ranging from 20-25 percent of the children, many of whom were suffering from serious developmental disturbances (Cohen, Solnit, & Wohlford, 1979). Early clinical reports from individual programs shared the experience of those clinicians and were consistent with the fact that Head Start children have a higher percentage of mental health disorders than is found in the general population.

Like health services, both mental health and social services are intended to be provided by the resources within the Head Start local community. The Head Start definition of child development is certainly broadened by its inclusion of mental health, health, social services and parent involvement and was considered unique and innovative for its time (Cohen, Solnit, & Wohlford, 1979).
Conclusion

It would appear that there is an overwhelming body of evidence that support the notion that parent involvement in their child’s education through direct contact has a significant impact on a variety of outcome factors comprising that individual child’s performance. While this impact may be mitigated by disabilities and other extraneous factors, Barnett (1992) suggests that the myth of the Head Start “fade-out”, in fact is not true. Parents, who begin setting this standard at the pre-school level, may in fact be supporting the academic press climate at an early age. Evidence in long-term research indicates less grade retention, less special education placement, and many realistic job goals as compared to non-Head Start children.

Much more research is needed to determine to what degree parent participation with their children and the type of participation actually predicts positive developmental outcomes. It is thought that such research would support the notion of preschool academic press and developing cultural patterns that enhance academic achievement through early participation with their child. The focus of this study is to examine one small part of the parental influence on child development gains.
Chapter 3

Methodology

Purpose and Research Questions

Details of the study design are addressed in this chapter, and include demographics related to the participants, methods of selecting participants, methods of protecting the anonymity of each participant, and the research hypotheses and methods. In determining the impact of parental involvement on child development, the following questions were addressed:

1. What is the strength and direction of the relationship between the number of hours of direct parent involvement carried out in a given location (home, center, and community) and the difference in the child’s pre and post test scores on the Developmental Observation Checklist System (DOCS)?

2. What is the strength and direction of the relationship between the number of hours of direct parent involvement carried out in a given location (home, center, and community) and the difference in the child’s pre and post test scores on the Preschool and Kindergarten Behavior Scales (PKBS)?

3. What is the strength and direction of the relationship between the number of hours of direct parent involvement and the difference in the child’s pre and post test scores on the DOCS?

4. What is the strength and direction of the relationship between the number of hours of direct parent involvement and the difference in the child’s pre and post test scores on the PKBS?

5. What is the strength and direction of the relationship between the number of hours of indirect parent involvement and the difference in the child’s pre and post test scores on the DOCS?
6. What is the strength and direction of the relationship between the number of hours of indirect parent involvement carried out in a given location (home, center, and community) and the difference in the child’s pre and post test scores on the DOCS?

7. What is the strength and direction of the relationship between the number of hours of indirect parent involvement and the difference in the child’s pre and post test scores on the PKBS?

8. What is the strength and direction of the relationship between the number of hours of indirect parent involvement carried out in a given location (home, center, and community) and the difference in the child’s pre and post test scores on the PKBS?

9. What is the strength and direction of the relationship between the number of hours of parent involvement and the difference between the child’s pre and post test scores on the DOCS?

10. What is the strength and direction of the relationship between the number of hours of parent involvement and the difference in the child’s pre and post test scores on the PKBS?

Research Design

This is a quantitative study that examines the nature of the relationship between type and amount of parent involvement and specific child outcomes using the DOCS and PKBS. For the purpose of this study, direct parent involvement is defined as interactive time when the parent and child are actively involved together including classroom assistance, participation on field trips or directly reading with his/her child and like activities. Indirect parent involvement is defined as non-interactive time such as making nametags, cutting tasks, attending meetings even if the child is present. Indirect time may include home and school tasks which are in direct support of the Head Start Program, but not specifically involving children. Specifically the questions asked are
ones of prediction: to what degree can changes in children’s scores on the DOCS and PKBS be predicted from type and amount of parent involvement?

Regression analysis is the statistical test of choice when the question is one of prediction. This type of statistical analysis was used to examine relationship and to determine if a given independent variable or combination of variables can be used to predict a given outcome. In addition, if multiple dependent variables are being examined the more powerful multivariate regression analysis was used.

Because the design consisted of two outcome measures (changes in total scores on the DOCS and changes in total scores on the PKBS) and two predictors (direct and indirect parent involvement), a multivariate regression analysis was used to analyze the data. When the independent variables add to the strength of the relationship and predictive value, a stepwise analysis was used. In addition, a hierarchical approach based on a priori assumptions was used to formulate a predictive regression formula. That is, the assumption is that direct parent involvement accounts for a significant amount of the variation in children’s scores, with indirect parent involvement accounting for a lesser amount of the variance or reducing the amount of variance accounted for overall when paired with direct parent involvement in predicting children’s scores. This situation occurs if direct parent involvement and indirect parent involvement are dependent factors and highly correlated. Additionally, there is the assumption that the greater the opportunity to give the child undivided attention, the more predictive the variable will be. For example, it would make sense that reading to a child at home would be more predictive of increases in scores than accompanying the child on a field trip where
unaccompanied children may be seeking attention. Therefore, the independent variables were entered in order as follows:

- Direct Parent Involvement: Home [Example: Reading to Child]
- Direct Parent Involvement – Center [Example: Volunteering as Classroom Aide]
- Direct Parent Involvement – Community [Example: Chaperoning a Field Trip]
- Indirect Parent Involvement – Home [Example: Making Classroom Materials]
- Indirect Parent Involvement- Center [Example: Volunteering in kitchen]
- Indirect Parent Involvement: Community [Example: Policy Council]

After the initial stepwise analysis was completed, post hoc tests were conducted to test for moderator variables. These are variables that may also have predictive value and could strongly influence the identified independent variables. These would include children without and with a primary disability.

Finally it is necessary to comment on the reason for utilizing regression analysis as opposed to analysis of variance. Theoretically, it would be possible to define parent involvement as two different groups (high involvement and low involvement) and compare the means of the outcome measures and determine if there are statistical differences. However, several factors point to the use of regression analysis as the better method. First of all, the research is field research which utilizes existing data, for which the independent variables were not manipulated. In other words, the conditions occurred naturally. Secondly, because there was no random assignment of groups, multicollinearity is more likely to be a problem, and a method is required which will alleviate the statistical problems when this occurs. Finally, because the purpose of the study is to determine how much of the outcome can be predicted by the degree and type
of parent involvement, it is important that the data not be collapsed as would be the case in a analysis of variance design which would examine differences between means.

Sample

Neither individual children nor parents actively participated in this study; rather the results of parent volunteering and child developmental changes gathered from a pre-imposed test period and collected from the Head Start program operated by Cen-Clear Child Services, Inc. were used. In order to accomplish this, existing data consisting of results of norm-referenced developmental measures and documentation of parent volunteer activities tracked in hour units was examined. One hundred twenty-three children were selected who had a consistent Home Visitor/Teacher for an entire program year, thus controlling for the variable of different influence by the Home Visitor/Teacher.

This particular Head Start program utilizes a strong parent involvement component where each family is visited twice per month by the Home Visitor/Teacher. This particular choice included the consideration that parents are already familiar with the philosophy of parents as prime educators, and therefore may have a predisposition to the idea of direct parent involvement and its potential yield. The primary focus of this project was to focus on direct parent involvement and its relationship to child development progress.

Based on the characteristics of the overall program population, a sample of 123 participants between the ages of 3 and school age were studied. Existing data indicates that demographic information was made available by one family member from each
household. Therefore, every caregiver may have not been accounted for. General demographics of the program suggest that 3% were above the income guidelines for enrollment in Head Start. Level of parent education covered a wide range from ninth grade to several years of education or vocational training beyond high school. Thirty-five percent did not graduate from high school and of those only 15% earned a GED. The average parental reading level was eighth grade and there was no full-time employment among the adult family members for 38% of the families. Of those 19% received TANF support, 3% were from single families, and the remainder was either two-parent families or had two caregivers. Thirty percent of those selected were involved with Head Start previously. That is, the child may be enrolled for the second year or other children in the household may have been enrolled previously.

**Data Collection**

As stated previously, existing data was used for this study. The following procedure was followed with regard to data collection. Contact was made with the Head Start records office. The records office was asked to identify Head Start Home Visitors who were consistent for the entire program year 2000-01. Participants were selected from children assigned to only those Home Visitors. In addition, only those children who were enrolled as of August 2000 and who were still enrolled as of July 2001 were included in the sample. The premise for this is that if a child did not complete at least one full year of Head Start, potential benefits would be minimal. Data was limited to this period of time.
In addition, to control for variability that might be the result from a change in Home Visitor, only those children who remained in the same class for the entire time period were included. In addition, the same teachers were used throughout the year. A coding system was developed that allowed grouping of Home Visitors and students to occur (i.e. A-1, A-2). With the exception of Home Visitors, the data was expunged of all identifiers, so that it was impossible to determine which set of protocols was completed for which child. Home Visitor identifiers were maintained on each piece of information only for purposes of ongoing research that examine such things as teacher bias in testing or effects of staff retention. Identifiers were as cited above (A-1, A-2) with the letter referring to the Home Visitor and the numbers to the student. Each student was replaced by the appropriate letter-number combination.

Parent involvement hours, taken from Volunteer Verification Forms, were listed per participant, per activity, per month. For purposes of this study, the hours were categorized as direct or indirect and are also broken down by location (home, center, and community). A list of definitions was provided to two data managers. It is believed that little ambiguity exists, given the typical activities; therefore 100% inter-rater agreement was reached. To further reduce the potential for ambiguity, the data managers were instructed that a category may only be assigned if both team members agree. If disagreement existed, the data managers conferred with the project consultant. If after discussion it was found that the activity did not meet the definition for one of the categories, that activity was not included in the portion of the analysis dealing with the nature of the parent involvement.
Instruments

Pre and post test scores exist for each participant in the study on the

*Developmental Observation Checklist System* (DOCS) and the *Preschool and Kindergarten Behavior Scales* (PKBS). A description of each instrument and technical standards follows:

**DOCS**

*Norms.* The DOCS was standardized using a sample of 1,094 children at day care centers, preschools, public and private schools, and health care offices in 30 states between 1989 and 1992. Demographic information from the sample, such as gender, race/ethnicity, residence (urban, rural), and geographical region, was found to be quite similar to characteristics of the United States population. Based on the scores of this sample, percentile ranks, standard scores, and age equivalents were determined.

*Reliability.* The reliability of the test was analyzed using three methods: internal consistency, test-retest and inter-rater reliability estimates. A criterion of .80 was established as being desirable for all reliability estimates. Based on the information described below, the DOCS is found to be adequately reliable for studies of groups.

*Internal Consistency.* This method of determining reliability pertains to the homogeneity of test items. Coefficient alphas calculated for each age group in the sample were found to be acceptable with all values over .90. Corresponding standard error of measurement (SEM) was found to be relatively small.

*Test-retest.* Using the correlation of scores between two administrations of the test to the same group, test-retest is a measure of the temporal stability of the test. The test
was administered in three separate studies for three age groups of approximately 33 subjects in each. All coefficients for the DOCS components and the overall score were found to be above .80. Most coefficients were found to be above .90, thus indicating high stability over time for the DOCS.

*Inter-rater Reliability.* This method compared data from different raters observing the same child. Using a single sample of 30 children, a parent and another caregiver were both asked to rate a single child. The coefficients for the various DOCS components are as follows: .93 for language, .91 for social, .92 for motor, .94 for cognition, and .94 for overall, thus indicating high inter-rater consistency.

*Validity Evidence.* The authors provide data supporting content-related evidence, criterion-related evidence, and construct-related evidence of validity. The results below are just the beginning of the validation of the DOCS, as validation is a cumulative process involving many studies over time. However, the information below supports that the DOCS is a valid instrument.

*Content-related evidence.* Validity related to the content of the test analyzes the relationship between an intended domain and the content of the test, including themes, wording of items, and the administration of the test. Most of this evidence is based on steps taken during the initial construction and writing of the DOCS. Content of the items in the DOCS was determined by analyzing other pertinent measures of development. Experts were asked to examine the readability of each item, to identify the area the item was measuring, and to rank the items developmentally. Items found to be very difficult or not discriminating were removed from the overall scale. Items were also examined for possible bias.
**Criterion-related evidence.** This type of evidence describes the relationship of the test to other measures of child development including the Bayley Scales of Infant Development, Stanford-Binet, Vineland Adaptive Behavior Scale and many others. All correlations were significant using an alpha level of 0.01, thus supporting validity of the DOCS as indicated by criterion-related evidence.

**Construct-related evidence.** In order to demonstrate this type of evidence, the authors tested various hypotheses of the test. The DOCS scores were shown to increase with age, thus supporting that the test is measuring developmental abilities. Scores among the various components of the DOCS were found to be positive and significant, supporting the hypotheses that the developmental abilities as measured by the scale should be related. The scores were also found to be significantly related to scores of intelligence, consistent with the authors’ hypothesis. Finally, the test scores were found to distinguish between children who were developing in a normal manner and those who were shown to have language, social, motor, or cognitive impairments.

**PKBS **

**Norms.** The norm sample consisted of 2,855 pre-school and kindergarten children from public and private pre-schools and health care offices in 16 states during 1992-1993. All four geographic regions of the United States (west, north central, northeast, and south) were represented in sample including urban, rural, and suburban areas. The authors’ report that the normative data slightly over-represents Caucasians, is representative of African-Americans, and is under-representative of other races or ethnicities as compared to 1990 census data. The number of children who were identified as having a disability was comparable to census data.
Reliability. The authors used three methods of determining reliability of the PKBS. (1) Internal consistency: Coefficient alpha and Spearman Brown’s split half reliability were both used to determine internal consistency. The coefficients range from .81 to .97 for the subscale scores, and .94 to .97 for the overall scores. Only overall scores will be used in this study.

(2) Test reliability: Teachers of 82 of 82 children were asked to complete the scale at three different times. Most subscales were reported to have moderate to high correlations, ranging from .58 to .87, after a three-week time period. After a three-month period, most scores were again moderate to high, ranging from .66 to .78, with the exception of the Anxiety/Somative Problems subscale, which had a correlation of .36.

(3) Inter-rater reliability: Teachers and classroom aides were asked to rate 82 children during the same one week period. The coefficients ranged from .36 to .63. All coefficients were significant using an alpha level of .001. The modest level of the coefficients may have resulted from differences in experience between the raters. In a second study, 102 children were rated by both a parent and a teacher. These scores ranged from .13 to .57 for the various subscales. These low to modest coefficients may stem from the differences in behavior of the children in the different settings.

Validity. The following information was presented as preliminary evidence for the validity of the PKBS:

Content-related evidence. In the initial construction of the test, using existing literature, a pool of items was created which was then modified and reworked by a panel of 16 experts. Using factor analysis, several items were dropped which did not appear to
fit within the theoretical structure of the scale. Item analysis further eliminated several items that did not correlate highly with the total score.

*Construct-related evidence.* The correlations among the various subscales were moderate to high suggesting that they are somewhat related yet measuring specific facets of the targeted construct of social skills or problem behaviors. Item loadings from factor analysis also support construct validity. In the social skills subscale, three factors emerged which were labeled as social cooperation, social interactions, and social independence. The problem behavior scores yielded a more complex factor structure with five major factors. These factors were labeled as self-centered/explosive, attention problems/overactive, antisocial/aggressive, social withdrawal, and anxiety/somatic problems. The authors argue that the data could also fit a two-factor structure of internalizing problems and externalizing problems.

Significant group differences were found between males and females, between children identified as having a disability and those not identified as having a disability, and between older and younger children, which supports the existing literature. The scores on some of the subscales of the PKBS were also found to correlate significantly with other tests of similar constructs such as the Social Skills Rating System, the Matson Evaluation of Social Skills with Youngsters, the Conners Teaching Rating Scales, and the School Social Behavior Scales. Moderately strong relationships were found between subscales on the PKBS and those on the other tests measuring similar constructs. Weaker relationships were found between subscales on the PKBS and those on the other tests that theoretically measure dissimilar constructs.
Criterion-related evidence. The PKBS was used in a study to determine its ability to predict the special education status of children. Using discriminate function analyses, some tentative support was shown that the scale could be used in early childhood special education classification.

Data Analysis

Before each research question were examined, descriptive statistics were computed for each variable. Mean, standard deviations and ranges were calculated for all variables to assess central tendency, variability, and to identify outliers. Those beyond two standard deviations from the mean were checked for transcription errors. In addition, descriptive statistics were calculated per group of children by Home Visitor in order to control for teacher variables. If it appeared that any group of children demonstrated a change in the mean score that is much larger or smaller than changes reflected in other groups, further analysis of the data was conducted before including that group in the final analysis.

Research question #1: What is the strength and direction of the relationship between the number of hours of direct parent involvement carried out in a given location (home, center, and community) and the difference in the child’s pre and post test scores on the DOCS?

This question was addressed through regression analysis. The independent variable for this research question was the number of hours of direct parent involvement
by setting. If the regression analysis resulted in a statistically significant ($p \leq 0.05$) beta weight for the direct parent involvement in any of the specified settings, this would suggest that the number of hours of parent involvement in that setting could predict the degree of difference between the child’s pre and post test scores on the DOCS.

Research question #2: What is the strength and direction of the relationship between the number of hours of direct parent involvement carried out in a given location (home, center, and community) and the difference in the child’s pre and post test scores on the PKBS?

This question was addressed through regression analysis. The independent variable for this research question was the number of hours of direct parent involvement by setting. If the regression analysis resulted in a statistically significant ($p \leq 0.05$) beta weight for the direct parent involvement in any of the specified settings, this would suggest that the number of hours of parent involvement in that setting could predict the degree of difference between the child’s pre and post test scores on the PKBS.

Research question #3: What is the strength and direction of the relationship between the number of hours of direct parent involvement and the difference in the child’s pre and post test scores on the DOCS?

This question was addressed through regression analysis. The independent variable for this research question was the number of hours of direct parent involvement. If the regression analysis resulted in a statistically significant ($p \leq 0.05$) beta weight for the independent variable this would suggest that the number of hours of parent involvement...
could predict the degree of difference between the child’s pre and post test scores on the
DOCS.

Research question #4: What is the strength and direction of the relationship between the
number of hours of direct parent involvement and the difference in the child’s pre and
post test scores on the PKBS?

This question was addressed through regression analysis. The dependent variable
for this research question was the “difference in the child’s pre and post test scores on the
PKBS.” The independent variable was the number of hours of direct parent involvement.
If the regression analysis resulted in a statistically significant ($<.05$) beta weight for the
independent variable this would suggest that the number of hours of parent involvement
could predict the degree of difference between the child’s pre and post test scores on the
PKBS.

Research question #5: What is the strength and direction of the relationship between the
number of hours of indirect parent involvement carried out in a given location (home,
center, and community) and the difference in the child’s pre and post test scores on the
DOCS?

This question was addressed through regression analysis. The independent
variable for this research question was the number of hours of indirect parent
involvement by setting. If the regression analysis resulted in a statistically significant
($p<.05$) beta weight for the indirect parent involvement in any of the specified settings,
this would suggest that the number of hours of indirect parent involvement in that setting
could predict the degree of difference between the child’s pre and post test scores on the DOCS.

Research question #6:  What is the strength and direction of the relationship between the number of hours of indirect parent involvement carried out in a given location (home, center, and community) and the difference in the child’s pre and post test scores on the PKBS?

This question was addressed through regression analysis. The independent variable for this research question was the number of hours of direct parent involvement by setting. If the regression analysis results in a statistically significant (p < .05) beta weight for the direct parent involvement in any of the specified settings, this would suggest that the number of hours of parent involvement in that setting could predict the degree of difference between the child’s pre and post test scores on the PKBS.

Research question #7:  What is the strength and direction of the relationship between the number of hours of indirect parent involvement and the difference in the child’s pre and post test scores on the DOCS?

This question was addressed through regression analysis. The dependent variable for this research question was the “difference in the child’s pre and post test scores on the DOCS.” The independent variable was the number of hours of indirect parent involvement. If the regression analysis resulted in a statistically significant (p < .05) beta weight for the independent variable this would suggest that the number of hours of
parent involvement could predict the degree of difference between the child’s pre and post scores on the DOCS.

Research question #8: What is the strength and direction of the relationship between the number of hours of indirect parent involvement and the difference in the child’s pre and post test scores on the PKBS?

This question was addressed through regression analysis. The dependent variable for this research question was the “difference in the child’s pre and post test scores on the PKBS.” The independent variable was the number of hours of direct parent involvement. If the regression analysis resulted in a statistically significant \( (p < .05) \) beta weight for the independent variable this would suggest that the number of hours of parent involvement could predict the degree of difference between the child’s pre and post test scores on the PKBS.

Research Question 9: What is the strength and direction of the relationship between the number of hours of parent involvement and the difference between the child’s pre and post test scores on the DOCS?

This question was addressed through regression analysis. The dependent variable for this research question was the “difference in the child’s pre and post test scores on the DOCS.” The independent variable was the number of hours of parent involvement. If the regression analysis resulted in a statistically significant \( (p \leq .05) \) beta weight for the independent variable this would suggest that the number of hours of parent involvement
could predict the degree of difference between the child’s pre and post test scores on the DOCS.

Research Question #10: What is the strength and direction of the relationship between the number of hours of parent involvement and the difference in the child’s pre and post test scores on the PKBS?

This question was addressed through regression analysis. The dependent variable for this research question was the “difference in the child’s pre and post test scores on the PKBS.” The independent variable was once again the number of hours of parent involvement. If the regression analysis resulted in a statistically significant (p < .05) beta weight for the independent variable this would suggest that the number of hours of parent involvement could predict the degree of difference between the child’s pre and post test scores on the PKBS.

Following the initial analyses additional post hoc tests were used to examine the presence and influence of any possible moderator variables. Discussion focused on degree and direction of any relationship that was found to exist, and suggestions for future research in this area of study.
Chapter 4

Findings

The sample used in this study was selected by determining which Head Start children remained with a consistent Home Visitor for an entire year and had both pre and post test data for the Developmental Observation Checklist System (DOCS) scores and Preschool and Kindergarten Behavior Scales (PKBS). One hundred twenty-three Head Start children met these criteria. Pre and post test scores were obtained for both the DOCS and PKBS, which were less than nine months apart. This preliminary comparison indicated that the mean standard scores were within normal limits compared to national averages. Table 1 indicates that there was an increase in the mean of two points for the DOCS, and seven points for the PKBS social scale. There was a mean decrease of one point in standard scores for the PKBS Problem Behaviors which would indicate overall improvement in behavior for the group. Table 1 also shows that 75 children (61%) improved on the DOCS, 93 children (76%) improved on the PKBS Social Skills and 75 children (61%) improved on the PKBS Problem Behaviors.
Table 1

**DOCS and PKBS Mean Standard Scores and Improvement for Sample (N = 123)**

<table>
<thead>
<tr>
<th>#</th>
<th>%</th>
<th>Pre</th>
<th>Post</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOCS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M Improvement</td>
<td>75</td>
<td>61</td>
<td>98</td>
<td>100</td>
</tr>
</tbody>
</table>

| PKBS Social Skills |    |     |      |        |
| M Improvement     | 93 | 76  | 98   | 105    | 7 points |

PKBS Problem Behaviors

| M Improvement | 75 | 61  | 95   | 94     | 1 point |

Direct and indirect parent involvement hours were counted as separate units. Total direct involvement hours for the sample (N = 123) totaled 8257 hours and total indirect involvement hours totaled 1394. Each type of involvement was then broken down into three categories (home, center, and community) and calculated according to location, as reported in table 2.

Table 2

**Parent Involvement Hours Divided by Location**

<table>
<thead>
<tr>
<th>Type</th>
<th>Home</th>
<th>Center</th>
<th>Community</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>4833</td>
<td>1745</td>
<td>1679</td>
<td>8257</td>
</tr>
<tr>
<td>Indirect</td>
<td>305</td>
<td>472</td>
<td>617</td>
<td>1394</td>
</tr>
</tbody>
</table>

Preliminary correlations were obtained for each dependent variable with each independent variable using the Pearson correlation with a one-tailed test of significance.
The primary research questions addressed in this study are directly related to total direct, total indirect and overall total of parent involvement. Strength and direction will be discussed by examining each research question. In addition, a multivariate regression analysis was performed to determine if there was a predictive relationship between the type and amount of parent involvement and improvements on the DOCS and PKBS.

Table 3 shows significance and correlation of standard scores for the sample ($N = 123$). Statistically significant outcomes were reached for the entire sample and standard scores in several areas:

- PKBS Social Skills and indirect parent involvement – positive correlation
- PKBS Social Skills and total parent involvement – positive correlation

Given the weak correlation, there was no predictive value found in the multivariate regression analysis.
Table 3

Significance and Correlation of Standard Scores (N = 123)

<table>
<thead>
<tr>
<th>Scores</th>
<th>Direct</th>
<th>Indirect</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Correlati<strong>n</strong></td>
<td>Significanc<strong>e</strong></td>
<td>Correlati<strong>n</strong></td>
</tr>
<tr>
<td>DOCS</td>
<td>.049</td>
<td>.293</td>
<td>.098</td>
</tr>
<tr>
<td>PKBS Social Skills</td>
<td>.130</td>
<td>.076</td>
<td>.176</td>
</tr>
<tr>
<td>PKBS Problem Behavior</td>
<td>.002</td>
<td>.491</td>
<td>-.046</td>
</tr>
</tbody>
</table>

* p < .05

Additional Variables Considered

Additional variables discussed in chapter 3 that included parent education, teacher education, number of years in Head Start or the number of adults in the home was not considered for this study because pre-existing data were used and there was limited availability. In addition, incomplete and insufficient data restricted this study in those areas and therefore, further study could not incorporate additional information that would be statistically significant. Had there been data to support further study of parent
education, the writer believes that higher educational level of Head Start parents would contribute to gains in children’s cognitive skills. In addition, further study of teacher education may have shown that teachers with higher levels of education make a stronger impact on children and families. Lastly, comparisons could have been made that included children enrolled one and two years in Head Start. This could have supported existing studies such as the Perry Preschool Project (Schweinhart & Weikart, 1997) and the National Demonstration Transition Project (Bagnato et al, 2002) that confirm the existence of long-term effects of Head Start.

**Further Differences: Raw Scores**

The initial analyses of this study used standard scores to answer the research questions where mean averages existed across the population for both time points. An additional set of analyses utilized the differences in pre and post test raw scores. It was felt necessary to do this because the norming of the DOCS and PKBS was completed with a population similar to the United States. This particular study included 33% of children with disabilities, which is considerably higher than the national average. In addition, all children involved in this study were economically disadvantaged. Raw scores for the two measures being used in this study allow analyses of the number of skills achieved by the child. Table 4 shows mean DOCS and PKBS raw scores and improvement for the entire sample. This table is broken down by the number of children that made improvement, followed by the percentage of children who made improvement. In addition, pre and post raw scores are given with a change score and percentage given.
The largest difference between standard scores (table 1) and raw scores (table 4) is with the DOCS assessment. Ninety-four percent showed improved raw scores, as opposed to 61% improving in DOCS standard scores. This supports the theory that analyzing raw scores of disadvantaged children can be advantageous.

Table 4

| DOCS and PKBS Mean Raw Scores and Improvement for Sample (N = 123) |
|---|---|---|---|---|---|
|   | #  | %   | Pre | Post | Change | Change% |
| DOCS |   |     |     |     |        |         |
| M  | 116 | 94% | 414 | 442  | 28     | 7%      |
| Improvement |   |     |     |     |        |         |
| PKBS Social Skills |   |     |     |     |        |         |
| M  | 90  | 73% | 78  | 84   | 6      | 8%      |
| Improvement |   |     |     |     |        |         |
| PKBS Problem Behaviors |   |     |     |     |        |         |
| M  | 75  | 61% | 33  | 30   | -3     | -12%    |
| Improvement |   |     |     |     |        |         |

Preliminary correlations were obtained for each dependent variable with each independent variable using the Pearson correlation with a one-tailed test of significance, using raw scores in table 5. Table 5 shows significance and correlation of raw scores for the sample (N = 123), with a breakdown shown of the significance and correlation in relation to direct, indirect, total parent involvement in relation to each assessment used.
Statistically significant outcomes were reached for the entire sample with raw scores in several areas:

- **DOCS** and indirect parent involvement – positive correlation
- **PKBS** Problem Behaviors and direct parent involvement – positive correlation
- **PKBS** Problem Behaviors and total parent involvement – positive correlation

Given the weak correlation, there was no predictive value found in the multivariate regression analysis.

### Table 5
Significance and Correlation of Raw Scores (N = 123)

<table>
<thead>
<tr>
<th>Scores</th>
<th>Direct Correlation</th>
<th>Direct Significance</th>
<th>Indirect Correlation</th>
<th>Indirect Significance</th>
<th>Total Correlation</th>
<th>Total Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DOCS</strong></td>
<td>.004</td>
<td>.481</td>
<td>.152</td>
<td>.046</td>
<td>.032</td>
<td>.362</td>
</tr>
<tr>
<td><strong>PKBS Social Skills</strong></td>
<td>-.053</td>
<td>.280</td>
<td>-.139</td>
<td>.063</td>
<td>-.083</td>
<td>.180</td>
</tr>
<tr>
<td><strong>PKBS Problem Behaviors</strong></td>
<td>.191</td>
<td>.017</td>
<td>.128</td>
<td>.080</td>
<td>.192</td>
<td>.017</td>
</tr>
</tbody>
</table>

* * p < .05
Raw Scores and Children without and with Documented Disabilities

In examining these results and considering factors that may have contributed to these findings, the population was re-examined. Of the 123 children identified for this study, 81 children were identified as not having disabilities and 42 children had disabilities. Children with disabilities had an Individualized Education Plan (IEP). According to eligibility criteria in the state of Pennsylvania under the Individuals with Disabilities Education Act (2004), a child is eligible for special education when there is a 25% delay in one developmental domain. In addition, a child that is deemed eligible for special education must also be considered in need of special education by the team. Because the domains of social skills, motor skills and adaptive skills are addressed through the comprehensive services provided through the Head Start programs, children with IEPs exhibited delays in either communication or cognitive functioning. Table 6 shows DOCS raw scores and improvement for children without and with documented disabilities. Table 7 shows PKBS Social Skills raw scores and improvement for children without and with documented disabilities, and table 8 shows PKBS Problem Behaviors raw scores and improvement for children without and with documented disabilities. Each of these three tables shows the number of children that improved, the percentage of children that improved, pre and post test raw scores, and the change in score and percentage of change from pre and post test scores. In summary, the percentage of change scores improved for all assessments, with the largest improvement occurring in the PKBS Problem Behaviors assessment.
### Table 6

**DOCS Raw Scores and Improvement for Children without and with Documented Disabilities**

<table>
<thead>
<tr>
<th>#</th>
<th>%</th>
<th>Pre</th>
<th>Post</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td></td>
<td>418</td>
<td>443</td>
<td>25</td>
<td>6%</td>
</tr>
<tr>
<td>Improvement</td>
<td>76</td>
<td>94</td>
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</tbody>
</table>

Children with no Documented Disabilities \((n = 81)\)

<table>
<thead>
<tr>
<th>#</th>
<th>%</th>
<th>Pre</th>
<th>Post</th>
<th>Change</th>
<th>% Change</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td></td>
<td>407</td>
<td>438</td>
<td>31</td>
<td>8%</td>
</tr>
<tr>
<td>Improvement</td>
<td>40</td>
<td>95</td>
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Children with Documented Disabilities \((n = 42)\)

### Table 7

**PKBS Social Skills Raw Scores and Improvement for Children without and with Documented Disabilities**

<table>
<thead>
<tr>
<th>#</th>
<th>%</th>
<th>Pre</th>
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<th>Change</th>
<th>% Change</th>
</tr>
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<tr>
<td>M</td>
<td></td>
<td>79</td>
<td>86</td>
<td>7</td>
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<tr>
<td>Improvement</td>
<td>60</td>
<td>74</td>
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Children with no Documented Disabilities \((n = 81)\)

<table>
<thead>
<tr>
<th>#</th>
<th>%</th>
<th>Pre</th>
<th>Post</th>
<th>Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>M</td>
<td></td>
<td>75</td>
<td>81</td>
<td>6</td>
<td>8%</td>
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<tr>
<td>Improvement</td>
<td>30</td>
<td>71</td>
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</tbody>
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Children with Documented Disabilities \((n = 42)\)
Table 8

*PKBS Problem Behaviors Raw Scores and Improvement for Children without and with Documented Disabilities*

<table>
<thead>
<tr>
<th>#</th>
<th>%</th>
<th>Pre</th>
<th>Post</th>
<th>Change</th>
<th>% Change</th>
</tr>
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</tr>
<tr>
<td></td>
<td></td>
<td>Children with no Documented Disabilities ($n = 81$)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>$M$</td>
<td>34</td>
<td>30</td>
<td>-4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Improvement</td>
<td>50</td>
<td>62</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Children with Documented Disabilities ($n = 42$)</td>
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<tr>
<td></td>
<td></td>
<td>$M$</td>
<td>33</td>
<td>29</td>
<td>-4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Improvement</td>
<td>25</td>
<td>60</td>
<td></td>
</tr>
</tbody>
</table>

Total direct involvement for the group with no documented disabilities ($n = 81$) totaled 5020 hours and indirect involvement totaled 711 hours. Total direct involvement for the group with disabilities ($n = 42$) totaled 3237 and indirect involvement totaled 683 hours. Direct parent involvement is substantially higher for the sample of children with no documented disabilities than with the sample of children with documented disabilities. Table 9 shows parent involvement hours by location and disability criteria.
Further Findings: Children with No Documented Disabilities

Table 10 shows significance and correlation of raw scores for children with no documented disabilities ($n = 81$). Statistically significant outcomes were reached for children with no documented disabilities in several areas:

- DOCS and direct parent involvement – negative correlation
- DOCS and total parent involvement – negative correlation
- PKBS Problem Behaviors and direct parent involvement – positive correlation
- PKBS Problem Behaviors and total parent involvement – positive correlation

Given the weak correlation, there was no predictive value found in the multivariate regression analysis.

<table>
<thead>
<tr>
<th>Type</th>
<th>Home</th>
<th>Center</th>
<th>Community</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td>2977</td>
<td>957</td>
<td>1086</td>
<td>5020</td>
</tr>
<tr>
<td>Indirect</td>
<td>102</td>
<td>288</td>
<td>321</td>
<td>711</td>
</tr>
</tbody>
</table>

Table 9

Parent Involvement Hours by Location and Disability Criteria

<table>
<thead>
<tr>
<th>Type</th>
<th>Home</th>
<th>Center</th>
<th>Community</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children with no Documented Disabilities ($n = 81$)</td>
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<td></td>
<td></td>
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</tr>
<tr>
<td>Direct</td>
<td>1856</td>
<td>788</td>
<td>593</td>
<td>3237</td>
</tr>
<tr>
<td>Indirect</td>
<td>203</td>
<td>184</td>
<td>296</td>
<td>683</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type</th>
<th>Home</th>
<th>Center</th>
<th>Community</th>
<th>Total</th>
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<tr>
<td>Direct</td>
<td>102</td>
<td>288</td>
<td>321</td>
<td>711</td>
</tr>
<tr>
<td>Indirect</td>
<td>203</td>
<td>184</td>
<td>296</td>
<td>683</td>
</tr>
</tbody>
</table>
Table 10

*Significance and Correlation of Raw Scores for Children with No Documented Disabilities (n = 81)*

<table>
<thead>
<tr>
<th>Scores</th>
<th>Direct Correlation</th>
<th>Direct Significance</th>
<th>Indirect Correlation</th>
<th>Indirect Significance</th>
<th>Total Correlation</th>
<th>Total Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOCS</td>
<td>-.264</td>
<td>.009</td>
<td>.099</td>
<td>.190</td>
<td>-.244</td>
<td>.014</td>
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<tr>
<td>PKBS</td>
<td>-.132</td>
<td>.119</td>
<td>-.174</td>
<td>.060</td>
<td>-.166</td>
<td>.069</td>
</tr>
<tr>
<td>Social Skills</td>
<td>.302</td>
<td>.003</td>
<td>.098</td>
<td>.191</td>
<td>.296</td>
<td>.004</td>
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<tr>
<td>PKBS</td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Problem Behaviors</td>
<td>.302</td>
<td>.003</td>
<td>.098</td>
<td>.191</td>
<td>.296</td>
<td>.004</td>
</tr>
</tbody>
</table>

* p <.05

**Findings for Children with Documented Disabilities**

There were no significant findings for children with documented disabilities.

Table 11 shows significance and correlation of raw scores for children with documented disabilities (n = 42).
Finally, it should be noted that research questions addressing additional subdivisions of the group into location according to home, school and community yielded no additional significant information. Discussion for potential reasons regarding findings for the entire sample with standard and raw scores as well as children without and with documented disabilities will be discussed in Chapter 5.

**Summary**

<table>
<thead>
<tr>
<th>Scores</th>
<th>Direct</th>
<th>Correlation</th>
<th>Significance</th>
<th>Indirect</th>
<th>Correlation</th>
<th>Significance</th>
<th>Total</th>
<th>Correlation</th>
<th>Significance</th>
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</thead>
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<tr>
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<td>.061</td>
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<td>.127</td>
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<tr>
<td>PKBS Social Skills</td>
<td>.039</td>
<td>.403</td>
<td>-.109</td>
<td>.246</td>
<td>-.004</td>
<td>.490</td>
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<td></td>
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</tr>
<tr>
<td>PKBS Problem Behaviors</td>
<td>.185</td>
<td>.297</td>
<td>.164</td>
<td>.150</td>
<td>.114</td>
<td>.235</td>
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</table>

* p < .05
Chapter 5

Implications

The primary purpose of this study was to investigate possible relationships between the amount and type of parent involvement and changes between pre and post measures of child development and behavioral factors. Direct and indirect parent involvement that included the home, school and community settings were examined to see if any of them significantly impacted the developmental and behavioral skills of a preschool Head Start sample after 9 months of service. The study involved a sample of 123 Head Start children who were studied for types and intensity of parent involvement and norm-referenced developmental and behavioral measures. By definition and regulation, Head Start children are economically and developmentally disadvantaged. To eliminate the variable of multiple Home Visitors working with a particular sample, only children who had a consistent Home Visitor for the entire year were used.

It should be noted that mean pre and post test scores improved for the DOCS, PKBS Social Skills and PKBS Problem Behaviors for the entire sample. Analysis was first completed for the sample utilizing standard scores and parent involvement hours. No significant relationship existed between direct, indirect, or total parent involvement and the DOCS change scores. Additionally, no significant relationship existed for direct, indirect, or total parent involvement and the PKBS Problem Behaviors or the PKBS Social Skills and direct parent involvement. Although a positive relationship did exist
between the PKBS Social Skills and indirect and total parent involvement, there was no predictive relationship found in the multivariate analysis. Further analysis of these data by home, school, and community yielded no additional significant information. These results suggest support for more positive outcomes in social skills for the children of parents who are involved with their children as a whole. This would seem to indicate that there was some activity in the PKBS social skills in indirect total parent involvement but the analysis yielded no indication other than something was happening. An example of what may be happening in cases like this is that parents involved in Head Start programs are highly encouraged to participate in activities outside the classroom including home visiting, in this particular combination model, as well as participation in parent meetings and parent study groups along with parent governance. Other studies such as Reedy (1994) and Epstein (1982) suggest that parent maturation may have an impact on child growth and development.

Because this study involved preschool children, it was felt that a more accurate method to examine preschoolers’ data was to use raw scores rather than standard scores because when looking at standard score data from preschool children, mean averages exist across the population. Raw scores provide data on the number of skills demonstrated by children. Raw scores can also help further define a very unique population. Because Head Start children are both economically and developmentally disadvantaged, their placement in standard scores would be skewed because of the effects of poverty and disabilities. Because nearly 100% of these children were disadvantaged and approximately 1/3 of those were disabled, the impact on standard scores would be lessened. Thereby looking at raw scores, these children would be analyzed against
themselves, perhaps giving a more intense review of the effects of parent involvement. As a result, analysis was also completed for the sample utilizing raw scores and parent involvement hours.

Results of raw scores show that there was no significant relationship between the DOCS and direct or total parent involvement. There was also no significant relationship between the PKBS Social Skills and direct, indirect and total parent involvement, or between the PKBS Problem Behaviors and indirect parent involvement. However, results do suggest a positive relationship between changes in the PKBS Problem Behaviors and total parent involvement. Further examination suggested this relationship was largely accounted for by direct parent involvement. These results indicated that the children whose parents were directly involved demonstrate less improvement in their behaviors. Within the preschool domain, most preschool teachers would tell you that often when a parent visits or participates in the classroom, the child become excited at the presence of his/her parent. As a field practitioner, children who are non-disadvantaged and non-disabled, can adjust quickly to a preschool classroom and in a matter of minutes can follow classroom rules and routines. For example, they could learn to sit on a designated spot on the carpet for circle time. Adjusting to classroom rules and routines for disadvantaged, disabled children may take weeks to accomplish, so as does the ability to control their behaviors. However, Reedy (1994) suggests that parental changes over time may have significant impacts on child development. Reedy adds that such changes in parental approach provides for longer lasting developmental gains in children. The Perry Preschool Project study (Schweinhart & Weikart, 1997) also suggests that lifelong gains have been sustained with significant social impact.
Further results of raw scores indicate that there was a positive relationship between increases in developmental scores and indirect parent involvement. Children whose parents are indirectly involved made better gains in developmental scores. Again, this study may begin to hint at the growth in parents as an offshoot of their involvement with their children. Head Start classrooms are designed as a modeling ground for parent observation. As a field practitioner, I’ve experienced over the many years examples of parents who have utilized the aspects of classroom in their day to day management of their children. As a matter of program practice, this writer has seen parents who have boldly displayed their accomplishments on their living room walls in the form of trophies and certificates for simple completion of volunteering, seminar completions and other reinforcements which many would consider insignificant or part of normal life. It may be suggested that these indirect participations have significant impact, as suggested by Zigler and Valentine (1979).

Further analysis of these raw score data with a smaller subset of children separated by children with no documented disabilities and children with documented disabilities was completed to further explore the relationship of child outcomes with parent involvement. An examination of significant findings for children with no documented disabilities found that there was a negative correlation between developmental scores and direct and total parent involvement. There was a positive correlation between the PKBS Problems Behaviors and direct and total parent involvement, which means that children’s gains were not as great. An examination of children with documented disabilities revealed no significant findings.
Discussion

Prior to discussing any possible meaning of these findings, it is important to note that the relationships that were found, although significant, were all very weak; therefore, caution must be taken when interpreting these findings. There were no predictive relationships found, therefore this research suggests that developmental changes and changes in behavior are not strongly influenced by the type and amount of parent involvement. In this section, the relationships that did occur will be discussed and some possible explanations will be explored. The possible reasons for the lack of significant finding are discussed under the section titled “Confounding Factors”.

In examining the changes in standard scores, there was a significant positive correlation between improvement on the PKBS social scales and total parent involvement and there was approaching significance for direct involvement. Further analysis suggests that this was primarily accounted for by indirect involvement. This suggests that positive outcomes in social skills are associated with parent involvement in general and more with indirect involvement. These findings are supported by other research that focuses on parent involvement (Reynolds, 2000). It could be concluded that children are more comfortable socially when their parents have developed the social skills to spend time in the classroom and participate in governing bodies. This finding would also suggest that it may be interesting to study parent qualities that may be contributing to social development of their children. Because of the factors that generally qualify a child for Head Start, particularly related to economic challenges that restrict opportunities for involvement with schools or communities, parents of Head Start children have often
never had the opportunity to contribute their talents, and may not even be aware that they have talent to contribute. In Head Start, while some of the parent involvement activities entail things like reading to the child in the home or making games, those parents who become very involved have opportunities to make program and policy decisions and lead groups of children in the classroom. Perhaps the relationships observed are not the involvement itself but the confidence or other underlying factor that allows the parent to be engaged with others in settings where they are given considerable responsibility. Because the existing data did not allow for a determination of the amount of responsibility required of the parent, this could not be determined as part of this study but may pose a question for further research. Zigler and Rescorla (1985) suggest that the lack of social competence is the primary deficiency of disadvantaged children and that IQ gains resulting from preschool experiences are due to change in motivational factors. This raises the question of whether or not changes seen in parents are also related to motivational factors and if as parents become motivated, they are more likely to motivate their children.

Statistically significant findings related to improvements utilizing raw data included the following. There was a positive relationship between increases in developmental scores and indirect parent involvement. Children whose parents are indirectly involved made greater gains in developmental scores. This is contrary to what one might expect. It seems logical that parents who are directly involved in activities such as reading to their children and helping the child in the classroom would have more of an impact than parents who make program policy. There are several potential explanations for this perplexing finding. Once again it is possible that parents who are
confident enough and secure enough to step beyond the more traditional involvement and agree to hold an office or participate in policy making, influence their children positively by virtue of these personality traits. It is also possible that the coding criteria for indirect involvement was so stringent that it had the effect of eliminating all but a very few parents with a certain specific set of strengths. Or it is possible that by virtue of being involved in the planning and governing activities the parents better understand the intent of the Head Start program and are able to translate that into better helping their children with their development. It may be relevant to begin looking at the types of indirect volunteering or direct participation in relationship to child outcomes.

There was a positive relationship between the PKBS Problem Behaviors and total parent involvement. Further examination suggested this relationship was largely accounted for by direct parent involvement. Children whose parents were directly involved made fewer behavioral improvements. It is important to point this out since the PKBS Problem Behaviors is scored in such a way that an increase in scores indicates an increased number of problem behaviors. This is another somewhat perplexing finding, because one might expect that children who are spending more time with their parents would demonstrate increased improvements in behavior. However, for purposes of this study, the time spent with the children was defined as time engaging in activities related to the child’s Head Start program. This raises questions about the link between behaviors and the presence of parents in the classroom. While there is little research available that addresses that question, common wisdom among teachers and others who work with children on a regular basis would suggest that children behave very differently when their parents are present. While this may be counter intuitive to common belief, to the
preschool teacher and particularly children of disadvantaged and disabled backgrounds, this is not an unlikely outcome. The question really becomes what does the parent gain in the process. If teachers were completing the rating scales based on behaviors seen primarily when the children were in the presence of their parents, this could be a skewed result. Reedy (1994) found significant differences between the groups of parents who assessed their own children and those who did not on three parent outcome measures, but this did not carry over to significant differences in the groups of children. Reedy’s study hypothesized that the length of time between measures was not enough to show significant differences. The same circumstance applies in the current research and represents a possible explanation for this somewhat contradictory finding.

Finally, significant findings related to children with disabilities and typically developing children will be discussed. It is interesting to note that although some of the findings with children with disabilities approached significance, the only significant findings were for those children whose development was typical. An examination of significant findings for children with no documented disabilities found that there was a negative correlation between changes in developmental scores and total parent involvement which was accounted for primarily by direct parent involvement. This is the opposite side of the previous finding for all the children that indicated a positive correlation between indirect parent involvement and developmental gains. In this case for the typically developing children, the number of hours that parents spent directly involved in their programming was related a smaller numbers of skills gained over the school year. This is a perplexing finding, but a likely explanation is related to the fact that there may have been little likelihood of improvement given the construction of the
test. This is discussed in the section addressing confounding factors that if the child starts out having achieved most of the skills on the measure there is not enough potential to develop new skills to obtain a significant relationship.

There was also a positive correlation between changes in the PKBS Problems Behaviors and total parent involvement, which was accounted for primarily by direct parent involvement. Again this is a finding that seems contrary. This is similar to the finding for all children that indicated that higher numbers of direct parent involvement hours were related to a smaller number of improvements in behavior. Some possibilities related to this finding were discussed earlier when a similar situation was found with all children. The only other item of note here would be that it is of interest that the relationships between hours of parent involvement and changes in scores all seem to be related to typically developing children. This suggests a potential for research that would compare the effects of parent involvement on child outcomes comparing two groups, one of typically developing children and one of children with disabilities.

**Confounding Factors**

There are several factors that may have confounded the study. One potential influence is that the DOCS has 475 developmental competencies and it is scored with the use of three rating categories and a ceiling is reached once the child completely misses 5 items in a row. Several children in this study were very close to reaching the ceiling or reached the ceiling at the first time point and then again in the second time point, which
allowed for no gains to be seen from the first to second time point. Another observation which may have influenced the outcome is that the pre and post test scores were less than 9 months apart. Although children on the average improved in raw scores in all areas, data over a 2 or 3 year period may have provided a larger impact in findings.

There may be parent factors that are more likely to affect outcomes rather than the amount and type of involvement. In this study, the same parents had the opportunity to be involved both directly and indirectly and many of them actually did engage in both types of activity. If the impact was better accounted for by a parent attribute, such as the style of parental interaction with the child that would not have been detectable given the current data. Because pre-existing data were used parents could not be assigned to separate groups to control for those factors.

**Discussion for the Future**

The absence of conclusive findings and the weak correlations could suggest that there is little to no relationship between parent involvement and progress in children. However, other studies (Cotton & Wikeland, 1989) have suggested otherwise, and it would not make sense to draw the conclusion that there is no relationship between parent involvement and child development. Therefore, it is more likely that the lack of findings in this study would indicate the need for much more research, perhaps using different designs. Several of the factors to be studied were mentioned in the previous discussion in chapter 5 and would include the following.
The current study could be replicated but refined by further clarifying of the definition of direct and indirect involvement and the examination of the type of involvement could be established by including a checklist for types of parent involvement to be used as a guide when documenting involvement. This would allow for better precision in the definition of the types of parent involvement and possibly correct for overgeneralization that might occur by, for example, considering involvement direct when the child was in the same room but the parent was actually performing a task that was indirect in nature.

Further research could examine program initiatives, such as reading to children. Much has happened in Head Start since the time period during which the data used in this study were collected. There have been several initiatives such as the literacy initiative and the fatherhood initiative that have been implemented with the intent of focusing parent energies in pre-defined directions. It could be very interesting to examine child outcomes as related to participation in those initiatives.

Additionally, determination of the amount of leadership ability of parents could prove valuable. This could provide helpful insight in studying parents’ level of leadership in relationship to parent involvement and the type of involvement to which they gravitate. A study of this nature may also help to sort out what parent factors may potentially be affecting children’s progress. Related to this would be examination of parents’ self confidence levels and personality traits of parents might contribute to children’s change scores. Another focus for further research would be to consider whether or not changes are seen in parents and whether they are related to motivational factors. If parents become motivated, are they more likely to motivate their children?
The link between behaviors and the presence of parents in the classroom is another factor to consider. Perhaps a study of the types of indirect parent involvement that could have an impact on children might be looking at parents who are involved in education or are involved in learning child development and those who are exposed to the goals of Head Start and other preschools. Having been in the field for approximately thirty years, this writer realizes that parents often do not have realistic goals for their children and often have great difficulty visualizing realistic goals, and through the expanded network of learning opportunity for Head Start parents these goals often become viable, realistic goals for their family. Some children behave very differently when their parents are present. It would be important to find out if this is a temporary phenomenon that disappears over time as the children become acclimated to having a parent present or whether the presence of the parent in the classroom actually does slow down the acquisition of appropriate behaviors.

Because of the findings related to children with disabilities and typically developing children it may be helpful to study the effects of parent involvement by comparing child outcomes for a group of children with disabilities and group of typically developing children.

One of the factors that could very easily have influenced the outcomes of this research was the short time between pre and post measures. Longitudinal research using repeated measures over time would be helpful in attempting to obtain more complete information. Another serious limitation of the current study was the fact that existing data were limiting the scope and nature of the study. It would be very beneficial to compare the effects of parent involvement on child outcomes by assigning parents to groups: one
of which would provide direct; and one of which would provide indirect involvement. In addition, it would be beneficial to compare typically developing children to children with disabilities.

Finally, it should be noted that the long-term lasting effects to Head Start children and families has proved positive as cited in the Perry Preschool Project (Schweinhart & Weikart, 1997) and the National Transition Demonstration Project (Administration for Children and Families, 2000) where parent involvement was found to have a significant positive relationship to child and family outcomes which includes higher achievement for children. In addition, parent attitudes toward school positively increased. The Child Development Impact of Pittsburgh’s Early Childhood Initiatives in High Risk Communities, First-phase Authentic Evaluation Research Study (Bagnato, 2005) additionally confirms that high risk children demonstrate progress exceeding natural maturation expectations in cognitive skills the longer they participate in high quality programs.

In summary, developmental and behavioral mean scores improved for the sample of children considered in this research. However, the hypothesis that parent involvement has a positive impact on these scores was not definitively supported by the results. Confounding factors such as short time span between pre- and post-test information may have impacted the outcome of the study. There was no significant relationship between DOCS and direct or total parent involvement, nor was there a significant relationship between PKBS problem behaviors and indirect parent involvement. However, a positive relationship was suggested between changes in PKBS problem behaviors and total parent involvement, largely accounted for by direct parent involvement. Given the
inconsistencies between these findings and earlier research, additional investigation is warranted. Future directions for research into the effects of parent involvement in the Head Start program should focus on (1) clarifying the definition of direct and indirect involvement and more closely examining the nature of this involvement; (2) examining specific program initiatives within Head Start, such as early literacy and fatherhood involvement; (3) determining the amount of leadership ability and motivational factors exhibited by parents; (4) the long term implications of the presence of parents in the classroom; (5) comparing in greater detail the outcomes for children with disabilities versus typically developing children; (6) evaluating the time lapse between pre- and post-measures; and (7) specifically comparing direct and indirect parent involvement.
References


Individuals with Disabilities Education Act, Part B under 34 CFR §§300.121—300.156 (2004)


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B.S. (1970) The Pennsylvania State University, University Park, PA
Degree: Social Sciences
Graduate Harrisburg Community College, Harrisburg, PA
(1968) Specialty: Math and Sciences

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1978 - Present: Executive Director, Cen-Clear Child Services, Inc., Philipsburg, PA.
Overall management of multi-purpose nonprofit organization with an excess of 550 employees. Operates Early Head Start, Head Start, Pennsylvania Pre-K Counts, Early Intervention, Family Based Mental Health, Family Centers for Clearfield County, Community Learning Centers, National Youth Program Utilizing Minibikes, Behavioral Health Rehabilitation Services, Outpatient Mental Health, Psychological Services, and Therapeutic Recreation Services.
1977-1978 Director, Pittsburgh County Youth Services and Shelter, McAlester, OK.
1974-1977 Supervisor, Betty Jane Rehabilitation Center Tiffin, OH.

BOARD EXPERIENCE:
Past President of the National Head Start Directors’ Association
Past Vice President of the National Head Start Directors’ Association
Past Chairman Policy and Regulation Committee National Head Start Association
School Board Director, Moshannon Valley School District
Intermediate Unit Director, Central Intermediate Unit # 10
Moshannon Valley Economic Development Partnership
Mid-State Regional Airport Authority
UCLA/ Johnson & Johnson Advisory Board
Lock Haven State University- Clearfield Campus
Mount Nittany Medical Center Board