8-2000

Parental Involvement: Quantifying Parent Behavior and its Influence on a Child's Readiness to Learn

V. Yvonne Conner
Western Michigan University

Follow this and additional works at: https://scholarworks.wmich.edu/dissertations
Part of the Educational Assessment, Evaluation, and Research Commons

Recommended Citation
Dissertations, 1444.
https://scholarworks.wmich.edu/dissertations/1444

This Dissertation-Open Access is brought to you for free and open access by the Graduate College at ScholarWorks at WMU. It has been accepted for inclusion in Dissertations by an authorized administrator of ScholarWorks at WMU. For more information, please contact maira.bundza@wmich.edu.
PARENTAL INVOLVEMENT: QUANTIFYING PARENT BEHAVIOR AND ITS INFLUENCE ON A CHILD'S READINESS TO LEARN

by

V. Yvonne Conner

A Dissertation
Submitted to the
Faculty of The Graduate College
in partial fulfillment of the requirements for the
Degree of Doctor of Education
Department of Teaching, Learning, and Leadership

Western Michigan University
Kalamazoo, Michigan
August 2000
The purpose of this study is to assist with developing resources that encourage parental involvement. The overall research question for this study is: "What types of parent behaviors have significant influence on literacy development among children enrolled in a local Head Start Program?" Parent behaviors are presented as a resource by quantifying their impact on a child's language development and personal-social development. This is a nonexperimental study, designed to analyze childhood readiness to learn among children enrolled in a local Head Start Program. Multiple regression was used to assess parent behaviors as predictors of language development and personal-social development of their children.

Forty-two cases were analyzed using a child's rating on the Denver II Development screener for language development and personal-social development. These areas of development were statistically analyzed using SPSS on survey results from a Parent-Child
Relationship Inventory (PCRI) as numerical scores for parent behavior. Parent and child data were also summarized by bivariate correlation.

Based on these analyses, a statistical model was identified that uses limit setting as a parent behavior that influences a child's personal-social development at \( p = .02 \). Significant correlation was found between language development and personal-social development \( (p = .01) \). The findings of the study do allow the use of parent behavior as predictors of a child’s readiness to learn in the areas of development defined in the study. Furthermore, the study gives educators an opportunity to promote a paradigm shift from traditional uses of resources for family literacy programs. This can be accomplished by using the identified parent influences/behaviors as tools for programs designed around several parent behaviors. When we have an identified purpose, we can work toward specific outcomes. This study supports and encourages data gathering from within the at-risk populations and then using their data as a resourceful component of a model designed to meet their needs.
INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

Bell & Howell Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48108-1346 USA
800-521-0600

UMI®

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
ACKNOWLEDGMENTS

I wish to acknowledge and thank my advisor, Dr. Charles Warfield, for leadership and encouragement. Special thanks and appreciation are extended to my committee members, Dr. Jianping Shen, for your untiring quest for meaningful research, and Dr. Joseph Morris, for your ability to keep the study focused on measurable parameters.

Expressions of gratitude are further extended to Drs. Kay and Eugene Royster, Dr. Stanley Nyirenda, Dr. Patricia Dolly, and Dr. Brooks Applegate. Your ability to provide critical feedback was very valuable.

I appreciate Mike VanVaerenbergh, Apollos Goyol, Themba Nyirenda, Joy Smith, and Shirley Lee for your contributions as links to data collection points and technical skills to support the successful completion of this project.

And most of all, I thank God for my family. Especially my husband, Bonnie, and sons, Sean and Jason. You have always been supportive of the call of God upon my life to serve others as an expression of God’s love.
Acknowledgments—Continued

“Much food is in the fallow ground of the poor, and for lack of justice, there is waste.” --Proverbs 13:23.

V. Yvonne Conner
TABLE OF CONTENTS

ACKNOWLEDGMENTS ..................................... ii
LIST OF TABLES ..................................... vii

CHAPTER

I. A HISTORICAL PERSPECTIVE .......................... 1
   The Problem ..................................... 2
      An Overview .................................. 2
      Context ..................................... 5
      Significance ................................ 8

II. REVIEW OF THE LITERATURE .......................... 11
   Families Are Important Links ..................... 11
   The Role of a Parent’s Age, Gender, and Education .......................... 13
   Parents Can Be Pigeon-Holed ..................... 14
   Parents’ Economic Participation and Their Academic Achievement ............... 16
   Seeking New Outcomes .......................... 17
   Environmental Impact on Children .............. 19
   Influences From Other Adults .................. 20
   Other Studies With Side-By-Side Training of Parent and Children ............... 21
   Denver Developmental Materials ................ 24
   Summary ..................................... 27

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Table of Contents—Continued

CHAPTER

III. METHODOLOGY ........................................... 28
   The Study Rationale .................................. 28
   Synopsis ............................................. 31
   Human Subjects Institutional Review Board ........... 35
   Instrument ............................................ 37
   Scoring ............................................... 44
   Software .............................................. 45
   Data Analysis Method .................................. 46
   Sample ................................................ 49

IV. OUTCOMES .................................................. 52
   Data Analysis Outcomes ................................ 52
   Characteristics of the Sample ......................... 54
   Dependent Variable Descriptives ....................... 55
   Correlation Analysis .................................... 57
   Multiple Regression .................................... 59
   Personal-Social Development ............................ 61
   Backward Method for Language and Personal-Social Development ........... 62
   Summary ............................................... 65

V. FINDINGS ...................................................... 67
   The Research Questions ................................. 68
   Overall Pearson $r$ Coefficient ......................... 68
Table of Contents—Continued

CHAPTER

Language Development ................... 69
Personal-Social Development ............ 72
Summary ................................. 73
Limitations ............................. 75
Sample Size ............................. 77
Other Opportunities ..................... 79
Recommendation ........................ 81

APPENDICES

A. Human Subjects Institutional Review Board
   Letters of Approval ................... 85
B. On-site Associate/Facilitator Directions 88
C. Consent of a Responsible Adult ....... 90
D. Family Literacy Project Release Form ... 92
E. Letter of Invitation to Participate ...... 94

BIBLIOGRAPHY .......................... 96
<table>
<thead>
<tr>
<th>Table</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Summary Table of Analysis Models</td>
<td>51</td>
</tr>
<tr>
<td>2</td>
<td>Mean and Standard Deviation of Variables</td>
<td>53</td>
</tr>
<tr>
<td>3</td>
<td>Descriptive Analysis for Dependent Variables by Age Group</td>
<td>56</td>
</tr>
<tr>
<td>4</td>
<td>Descriptive Analysis for Dependent Variable by Ethnicity</td>
<td>57</td>
</tr>
<tr>
<td>5</td>
<td>Correlation Matrix</td>
<td>58</td>
</tr>
<tr>
<td>6</td>
<td>Multiple Regression Results Using Language Development as the Dependent Variable</td>
<td>60</td>
</tr>
<tr>
<td>7</td>
<td>Multiple Regression Results Using Personal-Social Development as the Dependent Variable</td>
<td>61</td>
</tr>
<tr>
<td>8</td>
<td>Language Development Variable Run Using the Backward Method to Determine Significance of Parent Behavior Variables</td>
<td>63</td>
</tr>
<tr>
<td>9</td>
<td>Personal-Social Development Variable Run Using the Backward Method to Determine Significance of Parent Behavior Variable</td>
<td>64</td>
</tr>
<tr>
<td>10</td>
<td>Language Development and Personal-Social Development Sample Size Analysis for Predictor Variable</td>
<td>78</td>
</tr>
</tbody>
</table>
CHAPTER I

A HISTORICAL PERSPECTIVE

In outcome-based research, a child's low-income status is usually considered a variable that is related to a presumed set of subject characteristics, such as language deficiencies or lack of stimulation in the child's home environment (Pierre, 1994). Yet, programs that focus on children's environment as a potential remedy to their social plight are quite recent.

From the 1930s, with the New Deal, through the 1950s, federal educational programs did not focus on the parent-child relationship. It was after World War II when schools actually begin receiving federal support. A lot of this support came in the form of farm relief. The 1960s and 1970s brought opportunities for parents to become involved in the education of their children. The Equality of Educational Opportunity report (Coleman, 1968) states that a child's background and social context accounts for most of the child's achievement.

In the 1980s, during President Reagan's tenure, programs like Title I were decreased. With this move came the interest in school choice and charter schools.
This movement also highlighted the need to have parents play a primary role in schools.

However, this movement did not stress a parent's participation in a school's decision-making processes concerning their children (Davies, 1981). The movement actually further alienated the participation of at-risk families. Thus, this nonexperimental research provides a step toward closing the gap between the perception and reality of achievement among the low-income population.

The Problem

An Overview

Research studies are limited regarding parents' involvement with their children in a context that includes parenting activities and parent behaviors (Belknap, 1997). Parents' behavioral involvement with their children is meaningful. It provides a method by which measurable values are transmitted to children (Mitsomwang & Hawley, 1992). The focus on parent involvement is behavior relevant to a child's preparation for formal education. It also means teaching children the alphabet, talking with children, and reading to children to encourage language development. All of these behaviors strengthen a child's readiness to
participate in formal educational systems. Parent behavior includes attending parent-teacher conferences once a child is enrolled in a formal educational system and helping the child with homework (Lareau, 1989). Parents' involvement in their child's literacy development embraces provisions for a safe and secure place to study and complete homework (Epstein, 1987b; Epstein, 1988; Van Galen, 1986). Therefore, the conceptualization of this study defines parental involvement as relational behaviors that occur between a parent, other family members, a caregiver, the child, and the child's environment.

Therefore, the overarching research question for this study asks, "What types of parent behaviors have a significant influence on literacy development among children enrolled in a local Head Start Program?" This investigation will contribute to foundational descriptions of parent involvement. The study has identified parent-child relational behavior to encourage professional educators and parents to work closer together to promote learning. Results from this study further empower parents to become equal partners in the literacy development of their children (Greenberg, 1998). On a local level, this study addresses the gap between a parent's behavior and a child's readiness to learn. The
investigation moves a step further by making resource suggestions to close the gap between the desires of parents and their current realities for their children. This is accomplished initially by identifying dominant parent-child relational behaviors among a group of Head Start parents. These parent-child relational behaviors are discussed as criteria, which, when quantitatively analyzed, reflect the literacy development of children from the same at-risk population. The combined pieces of data collected for this study can become components of new neighborhood parent support programs that train parents to (a) become active decision-makers in their children's literacy development process, and (b) become active participants in the well-being of their community.

Studies have indicated that parents have not assumed equal partnership in the literacy development of their children (Draper & Draper, 1983; Greenberg, 1998).

Therein lies a problem: Truly sharing power with parents is too terribly scary for almost everybody who at present has any power over children. It feels safer to
  • Teach parents to do what the health professional says to do;
  • Brief parents so they give teachers less trouble;
  • Permit parents to become involved in peripheral activities. (Greenberg, 1998, pp. 12-15)
**Context**

Effective parent-child relational outcomes should lead to an acceptable level of literacy development, which is demonstrated by academic achievement (Darling, 1992). Yet, studies on the academic achievement of children, which are theoretical benchmarks of long term economic success, continue to raise questions about the kinds of parent-child relational involvement that would encourage the most effective childhood literacy outcomes. What is not clear from current studies is whether certain kinds of parent-child relational involvement might predict childhood literacy and readiness to learn more than other kinds of parent-child relational involvement. Then, what parent-child relational involvement predicts personal-social development in a child? This study has clearly quantified an expression that describes certain parent influential behaviors. Furthermore, has it measured the impact of these parent behaviors on a child’s readiness to learn?

Current thinking about family literacy is based on program models sponsored by the William R. Kenan, Jr., Charitable Trust. The Kenan Trust Family Literacy Project was designed for at-risk children, 3 to 4 years old, and their parents. The study required parents and
children to learn together. Occasionally, there were separate sessions for parents and their children. Parents who completed the program received their GED (Darling & Hayes, 1989).

The Kenan model encourages parental involvement for acceptable literacy development in young children. Kenan Family Literacy Project models indicated that when parent involvement occurs, it not only benefited the children, but parents also. Parents realized improved attitudes toward education and activities that build stronger families and communities. These parent attitudes are directly related to childhood literacy development because they influence the child's environment (National Center for Family Literacy, 1989, 1991).

Parental behaviors influence the way children respond to their environment. Parents' behavior toward their child can be termed as "parental influences." This is believable because a child's response to his or her parent's behavior represents parental influence. The child's development is a demonstration of parental influence as captured by a child's readiness to learn in formal educational settings.

Childhood development practitioners do agree that parents play the primary role in their children's literacy development. Parents' role is key to
influencing the long-term economic development and social development of their children (Coleman & Hoffer, 1987). It is true that society can find methods to minimize the influential risks associated with a lack of appropriate parental behavior, but the basic theoretical impact and influence of a parent on a child’s readiness to learn remains intact. The parent’s involvement is needed. Current family literacy programs cannot provide a complete substitute for a parent’s relational role in the literacy development of children. The influence of parents on childhood literacy development is critical to a child’s success in school and the long-term economic potential of that child (Lareau, 1989).

The day-to-day environmental exposure of children to informal learning is a point of contact for families. Another aspect of parental influence is a child’s exposure to and participation in informal or natural learning (Teale & Sulzby, 1986). Natural learning is learning that is not necessarily adult directed. However, most natural learning experienced during a child’s development is adult assisted (Dickinson, 1994). Previous studies have found a strong correlation between a parent’s behavior and a child’s developmental response to that parent’s behavior.
This study contributes to the current body of knowledge by providing bases for empowering parents of at-risk children to become more aware of their impact on the literacy development of their children. Awareness is obtained by identifying significant parent-child relational behaviors associated with childhood language and personal-social development. Parent empowerment happens when parents are given an opportunity to assist with the design of projects that close the gap between a parent's desire for high-achieving children and a parent's ability to influence the achievement of a son or daughter. This research seeks to define ways to move low achievers in at-risk populations toward a standard set by high achievers in the same population, rather than using norms established by mainstream societal families.

Significance

Local city governments generally support nonhousing human service programs as part of their antipoverty strategy. Reducing poverty is a vital aspect of their vision. Another critical piece of the economic puzzle must be to identify provisions for low-income families to mobilize them from inactive to active participants in their community and neighborhood. This study provides
useful information for literacy projects that promote family learning. This investigation will increase family awareness of community concerns and neighborhood issues that impact the family.

Education professionals can use results from this study as an inroad to develop collaborative methods that attract more parents who are willing to practice effective parent relational behavior with their children. Moreover, the study is designed to identify parent relational behaviors that promote continuous encouragement for children. Emergent literacy work verifies that preschool children construct knowledge that has direct impact on their level of literacy later in life (Mason, 1986; Sulzby, 1991). Thus, parents are in a position to demonstrate relational behaviors will have long-term influences on the lives of their children. Emergent literacy theory states that learning begins earlier than birth (Knotek, 1996). Parents have the first opportunity to influence the development of their children.

In summary, this study addresses the following research question: "What types of parent behaviors are related to language development and personal-social development among children attending a local Head Start Program?"
To address this question, data were gathered from parents and children participating in the local Head Start Program with focus on the following areas:

1. Language development data have been obtained by determining a child’s ability to combine words and understandable speech. These data are used to measure a child’s language development.

2. Personal-social development data have been obtained by examining a child’s ability to name a friend, wash and dry their hands, put on a tee shirt, play board and card games, and feed a doll. These data are used to measure a child’s personal-social development.

3. Parent-Child Relationship Inventory (PCRI) data are used to present parent responses to 78 questions using a Likert scale with a range of 1-4. A score of 1 indicates that the parent strongly agrees and 4 indicates that the parent strongly disagrees with a PCRI statement.
CHAPTER II

REVIEW OF THE LITERATURE

Families Are Important Links

Research studies have successfully established a clear connection between a child’s literacy development and the involvement of the child’s family in the child’s literacy process (France, Sheehan, & Hager, 1993; Handel, 1992). Previous work allows this investigation to view literacy as a multi-faceted process. Childhood literacy actually begins with social relationships between children and their parents, children and immediate caregivers, children and their friends and teachers. Eventually these relationships extend into a broader community theme that includes neighborhoods, daycare, and kindergarten settings. A preschooler who is able to construct literacy-related concepts during “pretend” time and “scribble writing” comes from a family environment perceived as rich in literate opportunities (e.g., Harste, Woodward & Burke, 1988). Thus, there is an opportunity to develop program models for family members that build on concepts identified as links between a
child's achievement and parent involvement. How might we describe these "linking concepts"? What kinds of environmental interactions do children have in those preschool years that would link to academic achievement and long-term success? What can parents do to move their children seamlessly from home to school to encourage attitudes of continuous achievement? Might there be barriers that de-couple these links and allow disconnects along the "linking concepts" path?

Children in the age range of birth to third grade are within the early development period identified by emergent literacy research. Emergent literacy work verifies that preschool children construct knowledge that is directly related to their literacy later in life (Mason & Allen, 1986; Sulzby, 1991). Therefore, parents are expected to model uses of literacy in the home. In literate cultures, the uses of literacy could translate into activities such as the availability of reading and writing materials, topics of family conversation, and reading books. Social interactions are major contributors to literacy in literate cultures and it is within this context that literacy is used to serve social ends and to meet economic needs. If one wants to uncover optimal methods to encourage parents to support the academic achievement of their children, one immediate
difficulty is, how can current perceived barriers be identified? Can parents actually tell us why their children fail to grasp basic literacy skills? Might there be influences that parents experience that cripple their ability to become equal partners and effective links in the literacy development process for their children?

The Role of a Parent’s Age, Gender, and Education

Research not only supports parental behavioral influences as links in the child developmental process, but there is also evidence of links between a child’s growth, cognitive development, and maternal education. Findings of a study by Khandke, Pollitt, and Gorman (1999) indicated that maternal literacy played a significant role in the recovery rate of 4-year-olds suffering from a respiratory illness. It is common in most cultures for mothers to be the parent who is most likely to interact with children during their earlier years of development and during childhood illnesses. In addition to measurable parent behaviors, the age and ethnicity of parents are areas under review in this investigation among Head Start families.

Head Start is an outgrowth of the War on Poverty. It was initiated by the federal government during the
1960s (Fingeret, 1984). And, Head Start continues to service those who are at socially and economically challenged. Young single parents generally lack patience, which is a necessary virtue, when working with their children. A mother whose child is prepared for first grade is more patient, supportive, and flexible in dealing with her child. However, this is not true of a mother whose child is not ready for first grade (Scott-Jones, 1984). Based on other research, a child who is not prepared to participate in formal educational systems is expected to fail.

This study does not evaluate whether a parent's gender, ethnicity, or education influences the child's readiness to learn.

Parents Can Be Pigeon-Holed

The United States is not viewed as a homogenous culture, but it is viewed as a literate culture. Individuals are cultural beings (Ferdman, Weber, & Ramirez, 1994) who reflect diverse social and cultural behaviors. Educators and civic leaders are obligated to recognize cultural behaviors and consider legitimizing these behaviors based on cultural norms. Then, the United States can embrace literacy as a whole nation rather than in cultural isolation. Are at-risk families

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
valued as resources within the diverse culture of the U.S.? An at-risk child’s accepted academic achievement has been evaluated against societal norms that do not necessarily reflect his or her cultural values. But these norms have become part of systems that establish “gate-keepers” who are empowered to maintain the status quo. Is this a control mechanism? Is it established to literally deny entrance of certain cultures or ethnic groups into an effective educational process? Are there parents who really want to honor the linking concept? Are there parents who want to remain connected to their children after they enter the formal educational system? Parents basically have been denied parental access through accepted levels of insensitivity to the needs of parents. Maybe parents could benefit from personal enrichment programs and opportunities to be listened to by educational service providers.

Parents who have not completed high school and are unemployed are more likely to have children drop out of school than parents who work (Delaney & Finger, 1991). But is it socially acceptable in all cultures for both parents to work outside of the home? According to the Michigan Department on Education, Goal #8 speaks to parental involvement with their children. It states: "By the year 2000, every school will promote partnerships..."
that will increase parental involvement and participa-
tion in promoting the social, emotional, and academic
growth of children” (p. 1).

Parents’ Economic Participation and
Their Academic Achievement

A County has a population of approximately 223,411. There are 168,938 people over 18 years old. Studies on adult literacy within this County show that 6.9% of the adult population have less than a ninth grade education. About 13.3% of the population lack a high school diploma. Ogbu’s (1983) work has supported the assumption that there is a “clear connection between an adult’s educational achievement and that adult’s economic participation” (p. 25). Furthermore, Ogbu echoes other researchers in support that the root cause of school failure among children can be tracked back to their parents. And this contributes to low academic achievement. Parents with lower levels of education are least likely to have the necessary resources and skills required to successfully participate in their child’s literacy process. In a local County, only about 50% of the households that are eligible for the Head Start program actually participate in the program. What hinders parents’ interaction with the very educational
systems that have substantial impact on the literacy
development of their children?

Can a community accept a stalled educational system
when it has families with socially and economically at-risk children? These children are greatly impacted by
low to zero family involvement. The "linking concept"
demands that the system recognize and include the
parents in the process, because this population of
children will be categorized as "academically at risk"
before they reach fifth grade. Their societal label is
established for them without a parent's consent or
opportunity to object. Then the children wear the label
throughout their academic life and, in doing so, give
shape to their social identity. Invisible societal
labels cause children to aimlessly grow into their pre-
determined label and roles until they become a "perfect
fit." Without clarity of options for hope, these
children wear their pre-determined roles and labels and
are destined to re-institute the same cycle of academic
and social illiteracy from generation to generation.

Seeking New Outcomes

Past measures used for the Head Start program might
not have been outcome based. Outcomes are defined as
benefits for program participants (Millar & Millar,
In some ways, the program has operated in a vacuum since its promised academic and social change. It was designed so that children could move families out of poverty and into roles as productive contributors in their community and nation. But most changes realized in children did not prove to be long-term societal benefits. Investigators continue to be confused about which combination of variables will bring about the desired outcomes for Head Start (Ellsworth & Ames, 1998). Herein lies the concern with the project focus. The program does not contain a strong component that equips parents to support literacy development within their own families. In 1998, Ellsworth and Ames surmised that the failure of Head Start program participants to succeed economically must be attributable to individuals and families themselves.

Elizabeth Quintero (1986) says it best when she surmises that paying attention to the parents' needs and children's needs brings us to a new place of sensitivity for understanding families. We must seek commonalities across our diverse populations to move forward. Quintero continues by emphasizing that our commonalities are our place of agreement. This juncture is a place at which we can bring significant change to the economic status of those who are denied a voice because of their
low literacy skills. This is a traditional issue in need of a nontraditional research design—a design that requires a paradigm shift from traditional approaches to family literacy programs. Families within the targeted population should be included in a process that is designed to bring relief to their plight.

Environmental Impact on Children

According to the ecological systems theory of Garbarino (1982) and Bronfenbrenner (1989), children are affected by everything in their environment—everything from as close as their custodial parent to as far away as the local government and political climates of the time. Therefore, when a researcher studies any particular behavior that individuals might exhibit, it is important to consider the context in which those individuals might function. Focusing on the home environment, Pierre (1994) explored factors that influence students' performance and foster adolescents' interest in learning. Pierre tested the effects of contextual factors like family structure and family poverty level. Pierre's study also considered identity processes like a student's perceptions of school, self-esteem, and academic locus of control. Overall, factors seem to be more predictive for boys than for girls, when wider
macro-level variables were considered. A parent’s educational expectations were most influential for both groups. Students’ perception of their parent’s pressure played a role in their achievement. The poverty level of the family seemed to have influenced the role of boys in the study more than for girls. Certain elements in a child’s environment are not controllable, but each element can be influenced to determine its impact on the child.

Influences From Other Adults

Sadler (1993) did a study that looked at aspects of caretaking, which may protect against or moderate the early development of problem behavior in at-risk children. The research hypotheses addressed the interrelationships among the parental efficacy, parental control, and authoritarian controlling and democratic attitudes. The relationship of these caretaker variables to a child’s behavior and to the incidence of referral for clinical/education support services was explored. The findings supported the assumption that a caretaker can influence parents’ perception of their child’s behavior. Significant correlation relationships between caretaker variables demonstrated that a mother’s sense of efficacy in her role as a parent could be influenced. It is
influenced by whether or not she has appropriate expectations for her child’s behavior. There is a correlation between a mother’s appropriate expectations of her child’s behavior and her authoritarian-controlling attitude toward childbearing. These findings are important. Any results showing significant relations between a parent’s authoritarian-controlling attitude and a parent’s perception of his or her child’s behavior problems should not be ignored. The implication is an external parental locus of control. An authoritarian-controlling attitude of a parent shows whether the parent responds appropriately to the child’s behavior problems. Desimone (1996) also confirmed that a parent’s level of parental efficacy significantly influences a parent’s perception of his or her child’s behavior problems. The implication is an authoritarian-controlling approach to parenting may be viewed, by professionals working with at-risk populations, as an indicator of the development of child behavior problems.

Other Studies With Side-By-Side Training of Parent and Children

Walker (1991) conducted an investigation to examine the effect of parent-involved social skill training on the social competence of at-risk and normally achieving
students. The independent variable was a leadership and social skill enhancement program. The program trained students on 12 presocial skills. Parents of the students were trained together so that they could facilitate the acquisition of social skills. Two groups contained fifteen fourth- through sixth-grade students. Six students were at-risk and nine students were normally achieving. The groups were compared on social statements, presocial skill recitals and role-plays, behavior ratings, social status, and locus of control. Multivariate analysis of variance revealed that there were no significant differences between the at-risk and normally achieving students on the frequency of social statements. Students' ability to recite and role-play their learned social skills was analyzed with a series of analyses of variance. There was a significant difference between the groups on the recital social skill. The student's ability on the remaining skills did not differ significantly between the at-risk and normally achieving students. There were indications that the at-risk students did not differ significantly from the normally achieving students on role-play ability.

Navojosky (1992) found that the effectiveness of parents in their child-rearing role has historically been measured by the developmental performance of their
child. Little attention has been paid to changes in parenting behavioral attitudes as outcomes of the intervention process. Navojosky’s study utilized a long-standing parent-child intervention project, the Early Intervention Centers, to examine changes in parent attitudes and perceptions. Parents of children with a severe behavior disability were the subjects of this study. The study had three purposes. First, it was an attempt made to identify selected factors, which differentiated parents who chose to participate in the treatment program from parents who chose not to participate in the treatment program. The second purpose was to investigate changes in parenting perceptions that are attributable to completion of the parent training treatment program. And the third purpose of the study explored the interrelationships among variables chosen for the study.

The following factors affecting parental perceptions were selected for Navajosky’s (1992) study: parents’ attitudes toward child-rearing, stress, parent satisfaction with the parenting role, parental locus of control, parents’ awareness of child development, and parents’ perceptions of their child’s presenting problems. Thirty-eight parents of severe behavior disabled preschoolers were administered the following measures:
Parent Attitude Research Instrument, Questionnaire on Resources and Stress, Social Readjustment Rating Scale, Cleminshaw-Guidubaldi Parenting Satisfaction Scale, Child Improvement Locus of Control, Parental Awareness Interview, and the Presenting Problems Checklist. Twenty-four treatment and 14 nontreatment families were administered the measures at the time of referral and following completion of treatment or an equivalent time period.

The results of this study demonstrated that families who participated in the treatment program submitted the following report: less stress and greater satisfaction in their parenting role. Some perceived their children as less problematic, and others had a greater level of awareness of their child’s development. No significant differences were noted between groups at report times.

Denver Developmental Materials

Denver Developmental Materials are primarily used to evaluate the development of children compared to others who are within the same age range. The development rate can be tracked overtime as individual items are interpreted as components of the entire test. The test is arranged in four sectors to screen the following
areas: personal-social, fine motor-adaptive, language, gross motor, and five test behavior items. The test is not specifically designed to measure childhood literacy development, but it does have several components that researchers link to literacy development in children.

Personal-social development has been determined to be part of a child's natural learning environment (Teale & Sulzby, 1986). A parent's involvement and a parent's preparedness to support at-risk children is important for social development among children (Walker, 1991).

The Denver II (Frankenburg & Dobbs, 1990) does provide several speech and language activities that assist in identifying a child's academic development. These are:

1. Descriptive naming: Objects familiar to the child are put into a shopping bag. Then the child is asked to take each object from the bag and tell something about the object.

2. Talking with the child: Try to get the child to ask you questions. Keep the answer simple but use more than one word to answer the question.

3. Stories: Try to get the child to tell a story about him or herself, a favorite thing, or about you. Or, begin a story and ask the child to finish it.
4. Fill in the blanks: When telling a story, leave out a word once in a while and ask the child to fill in the blank.

The Denver II Development Test is not an IQ test and it is not a definitive predictor of future academic achievement of students. However, a policy analysis study (Fruchter, Galletta, & White, 1992) about the role of parent involvement in improving a child's academic achievement states that parent involvement must be intentional on the part of institutionalized learning opportunities for children. The process for parent involvement must be supported by the community and demand mutual respect, caring, and group participation for parents who lack an equal share of valued resources (Allen, Barr, Cochran, Dean, & Greene, 1982, p. 2).

The Denver II has five test behaviors that are rated by test administrators:

1. Typical behavior is given a yes or no rating.
2. Compliance is rated always, usually, or rarely.
3. Interest in surroundings is rated alert, somewhat disinterested, or seriously disinterested.
4. Fearfulness is rated as none, mild, or extreme.
5. Attention span is rated as appropriate, somewhat distractible, or very distractible.
Summary

A study on parental involvement contributes to existing knowledge by using a child’s level of development in the area of language and personal-social skills as prerequisites for a child’s readiness to learn, language development, personal-social development, and academic development and long-term economic success. The children’s development scores were evaluated against the PCRI scores of their parents as parent behaviors.

The parent’s age, ethnicity, and level of education were also reviewed as independent variable data points for this investigation. These are fixed variables that researchers deem influential in the development of children.

Parents are encouraged to be consistent in working at home with their children. Parents must have high expectations for their children in social learning and academic skills, while at the same time accepting their children for who they are (Fad, 1993).
CHAPTER III

METHODOLOGY

The Study Rationale

The primary question that this research study on parent involvement addresses is, "What types of parent behaviors influence language and personal-social development and readiness to learn among local Head Start students?" This ex post facto study quantitatively evaluates the impact of specific parental behaviors on specific childhood areas of development among this population of academic and socially at-risk children. A survey was administered to parents with children who participate in the Head Start Program.

Head Start students are scheduled to receive baseline evaluations within 90 days of enrollment into the Head Start program. Enrollment is generally activated during the fall of each school year. Enrollment happens after family orientations are completed during the summer.

Some families who participate in the Head Start program are from neighborhoods with a high minority
population and low-income households. Given the current household penetration of the Head Start Program, this study could be repeated in similar neighborhoods throughout the county or state. Furthermore, the underserved population is important because it represents 26% of the families within the county. These families represent those who live below the $12,674 poverty level.

Parent survey samples were matched with their child’s readiness to learn as evaluated by Head Start using the Denver II Development Test. In an earlier study, a "Parent Attitudes Toward School Effectiveness Survey" (PATSE) was used by Melnick and Fiene (1990). Their survey was mailed to parents of children in Grades 1-5. Their findings did indicate that when parents are allowed to influence the literacy development of their children, both the parent and child had positive perceptions of school. The researchers made recommendations for revisions to their survey instrument. However, this study did not revise the previously used survey instrument but used a Parent-Child Relationship Inventory (PCRI) published by Western Psychological Services (Gerard, 1994). Adult (parent/caregivers) participants were asked to complete the PCRI during a Head Start Family Fun Night in a group setting. PCRI is suitable
for mailing, but it is also a suitable research tool for a group setting. The facilitator of the study led the group of Head Start parents through the completion of the survey. Parents were asked to respond to the survey and they were given time to complete the survey. Past users of the PCRI include practitioners assessing the parenting behavior of parents with a child who had been referred to them because of the poor academic performance or behavior problems of their child.

Parent behaviors were identified as outcomes reflected in the literacy development and learning readiness of their children. Results from the inventory are useful as building blocks that encourage parents to become more active in learning along with their children. As an outcome of this study, parent participants will be given opportunity to learn about the survey findings along with other parents. This will be done over time through Head Start Family Fun Night activity programs. The research design for this study identifies effective relational behaviors as learning tools for parents to share with parents. Parents helping parents will help children improve their long-term achievement and potential for economic engagement.
Synopsis

Quantitative methods were used to analyze specific parent behaviors that influence a child’s language and personal-social development. Data were gathered from two sources, a parent survey and entry level evaluations of Head Start students. The study is designed to draw upon the Head Start data to represent the viewpoint of children. The data present actual performance of children on a series of entry-level Denver Development screening inventories administered by Head Start personnel. Then the study provided an opportunity for parents to share their viewpoints and attitudes about parent-child relations when they completed a survey questionnaire entitled Parent-Child Relationship Inventory (Gerard, 1994), published and distributed by Western Psychological Services.

In Chapter I, we defined and discussed parent involvement in reference to parent behaviors that are relevant for preparing young children for formal education. Previous work states that exposing children to a variety of informal learning opportunities clearly prepares them to become contributors to a healthy society. Parents can encourage literacy development and readiness for formal education by teaching young chil-
dren the alphabet, talking with children, and reading to children. Parents’ involvement in the literacy development of their children includes providing a secure place for children to study and complete assigned schoolwork.

This study identifies several types of parent behaviors that can be associated with the quality of the parent-child relational interaction. Professional child educators and parents will learn to work more closely together for the good of children. Lastly, it is demonstrated in Chapter I that an effective parent-child relational outcome would be expected to reflect positively in the long-term academic achievement and social awareness of the child.

Chapter II provides insights on work done by other researchers on the subject of parent-child relationships and the role of gender, age, ethnicity, education, and socioeconomic status of the family in the fight against illiteracy and poverty. These researchers have developed a body of knowledge on families and the importance of parents providing links between the child and the child’s introduction and participation in formal educational systems. Therefore, in Chapter II we find support for models that could lead to family literacy program development. New models should attempt to build on concepts previously identified as links between a
child’s achievement and the parent being involved with the child’s learning process. If we want to discover optimal methods that encourage parents to support the academic achievement of their children, one immediate difficulty to eliminate is the barriers between children and their families.

Parents who lack adequate education are least likely to obtain the necessary resources and demonstrate skills required to successfully participate in their child’s literacy development process. This creates a barrier between parents and children because parents feel inadequate in their role as an informal educator. These parents are generally from low-income households and they are stakeholders in their local Head Start Program. The local Head Start Director is interested in exploring nontraditional approaches to eradicating family illiteracy. Head Start, like other social programs that are heavily subsidized by the government, is seeking alternatives that lead to new opportunities with measurable outcomes. Human Service providers like Head Start are challenged to quantify the successes for their programs.

Therefore, the overarching research question that this investigation addresses is, "What types of parent behaviors are related to language development and
personal-social development among children attending a local Head Start program?" A survey was administered to parents to determine parental behavioral scores for this investigation. Students who were included as subjects in the study are enrollees in the local Head Start Program, whose parents volunteered to participate in the study.

Head Start personnel evaluate students during the first semester of a school term to determine a student's readiness to learn and to make suggestions to parents for additional areas of development for their child. The assessments of students allow administrators to determine a recommended level of a parent's participation in the Head Start Program and the success of the child. Students who need additional assistance to raise their performance level are expected to receive this assistance from their parents. The parent-child inventory completed by parents provided a method to assign numerical values to a parent's behavior across seven parent-child relational categories. Parental involvement is deemed useful and necessary for children to grow from without and within. Their self-image must be cultivated to provide optimal long-term decision-making skills. This study focuses on two dependent variables, Language Development and personal-social skills, which provide a
view of both the cognitive and physical development of the child.

Human Subjects Institutional Review Board

The subject interaction phase of this study was preceded by acquiring approval through the Human Subjects Institutional Review Board (HSIRB) (Appendix A). The approved HSIRB documents included an on-site associate/facilitator directions sheet (Appendix B), a consent of a responsible adult form (Appendix C), a family literacy project release form (Appendix D), and a parent letter inviting parents to participate in the survey (Appendix E). The consent form allowed the research team to administer surveys in a group setting to Head Start parents with additional permission granted for the researcher to administer the survey by phone or mail, or a combination of these with agreement from parents on which option they preferred. Parents who were willing to participate in the study were also asked to sign a release form so that their children's Head Start Denver II screening data could be acquired anonymously from Head Start. Anonymity of the children was maintained by assigning ID numbers to parent surveys and using that same survey number on a student's signed
release form. This same number was used to code the Denver II.

Raw data from the Parent-Child Relationship survey were scored in seven categories. A score was generated for each item on the survey and then that score was transferred to a grid provided by the PCRI manufacturer to determine raw scores for each of the seven categories. Then parent scores were used as (independent) predictor variables to investigate the relationship between parents and children. This study focuses on the areas of language development and personal-social development. The investigation attempts to develop multiple regression models using the Involvement, Communication, Support, Limit Setting, and Autonomy behavioral categories from the Parent-Child Relationship Inventory (PCRI). Age, ethnicity, and education level of parents are reviewed but not fully developed to determine their overall impact on a child's readiness to learn. The scores for a child's development are taken from the Denver II assessment grid sheet for the areas of language and personal-social readiness. These two sources of data allowed the research team to develop a multiple regression model using the parents' data as the predictor variable and the students' data, which were supplied by Head Start, as the dependent variable.
Additional observations were made using bivariate correlation procedures.

Instrument

This study used two sources of data to address the question, "What types of parent behaviors are related to language development and personal-social development among children attending a local Head Start Program?" One source of data came from the Denver II Activities Inventory used by the local Head Start program administrators for all children.

The Denver II (Frankenburg & Dobbs, 1990) is a subset of Denver Developmental Activities Inventory. The inventory is used by Head Start to determine the entry level development and readiness to learn of children as they enter the Head Start Program. For this study, the Denver II assessment scores that were used are those that evaluate childhood development across two of the four areas assessed. These areas are Language Development and Personal-Social Development:

1. Language development for this study was described as the ability of the child to combine words, use understandable speech patterns, name four colors, define five words, and know two opposites.
2. Personal-social development readiness for this study was described as the child’s ability to name a friend, wash and dry his or her hands, put on a tee shirt, play board and card games, and feed a doll.

The children’s scores for these assessment areas were plotted on a grid with development screener areas aligned with the appropriate age and activity for a child to successfully complete these assigned task. A child’s chronological age was plotted on the grid from a range of 2 months to age 6. A chronological age for each child was supplied by the parents and it was recorded on each Denver II released by Head Start. The students that attend Head Start generally range between the ages of 3 and 5 years old. There was an occasional 6-year-old student in the study.

Standard practice is that new enrollees for the Head Start program complete a Denver II Inventory assessment, which is administered within their first term of beginning the program. Both areas under study for the child’s data were interpreted from grids furnished by Head Start as part of the Denver II Development screener package.

The other source of data was the Parent-Child Relationship Inventory. This inventory was developed by Dr. Anthony B. Gerard (1994) and published by Western
Psychological Services in Los Angeles, California. Western Psychological Services provides data analysis, which converts raw scores to T-scores and normalized standard scores with a mean of 50 and a standard deviation of 10. Western Psychological Services also submits explanations for each parent score based on their database of norms for each category. However, this study uses raw scores across each behavior for statistical analysis. According to Dr. Gerard, the two response validity indicators for the PCRI were developed at different times. A Social Desirability (SOC) scale was developed at the same time as the content scales. The Inconsistency (INC) indicator was developed using the results of the standardization study. The cut points for both scales were established using standardization results. A score of 9 on the SOC scale is reason to further investigate the possibility of the scorer operating with a defensive or "fake good" response set. A score of 2 or greater on the INC indicator also suggests that the scorer may have been responding randomly or inattentively. When either of these validity indicators suggest that the scorer has made his or her test invalid, the test should be discarded. Twenty-six items are keyed positively and 47
content items are negatively keyed (Camilli & Shepard, 1994) to address potential concerns with test scorers.

The Parent-Child Relationship Inventory (PCRI) (Gerard, 1994) was used to assess a parent’s attitude toward his or her child. According to information provided by the publisher, the PCRI has satisfactory estimates of internal consistency and retest stability. The overall internal consistency of the PCRI is good. No value is below .70, and the median value is .82. There are seven content scales available for assessing parents. These categories and number of questions on each subscale are as follows: (a) Parent Support (9 questions), (b) A Parent’s Satisfaction With Parenting (10 questions), (c) Involvement (14 questions), (d) Communication (9 questions), (e) Limit Setting (12 questions), (f) Autonomy (10 questions), and (g) Role Orientation (9 questions). Raw scores for Communication, Involvement, Limit Setting, Autonomy, and Support were used as relational variables from the PCRI for this study. Of all the available scales, Dr. Gerard offers the following explanation of these categories:

1. The Communication scale represents parents’ awareness of how well they communicate with their children in a variety of situations, including simple conversation. In measuring parents’ ability to talk
with their children, this scale reflects parents' empathy.

2. The Involvement scale reflects parents' propensity to seek out their children, manifest an interest in their development, and spend time with their children.

3. The Limit Setting scale measures the effectiveness and character of the parent's discipline techniques. Discipline typically fails when it does not establish limits. Relatively high scores on this scale suggest a situation in the home that is fairly harmonious and controlled.

4. The Parental Support scale deals with those who perceive themselves as getting enough emotional and practical support and are in a better position to provide adequate care to a child than those who do not.

5. The Autonomy scale measures how willing the parent is to promote a child's independence. The development of greater autonomy is associated with greater maturity and better school performance. A parent who must control or monitor a child's behavior excessively may not be contributing to that child's psychosocial growth.

6. The parent's age, education level, ethnicity, and gender were also available for use in the study.
The following are a list of questions covered in each of the targeted adult categories:

1. Communication: (a) My child generally tells me when something is bothering him/her; (b) If I have to say no to my child, I try to explain why; (c) I can tell by my child’s face how he/she is feeling; (d) My child tells me all about his/her friends; (e) I feel that I can talk to my child on his/her level; (f) I generally feel good about myself as a parent; (g) My child would say that I am a good listener; (h) When my child has a problem, he/she usually comes to me to talk things over; (i) It’s better to reason with children than just to tell them what to do.

2. Involvement: (a) I spend a great deal of time with my child; (b) Being a parent comes naturally to me; (c) I love my child just the way he/she is; (d) I feel very close to my child; (e) I am very involved with my child’s sports or other activities; (f) I feel I don’t really know my child; (g) It’s a parent’s responsibility to protect his/her child from harm; (h) My child rarely talks to me unless he or she wants something; (i) I spend very little time talking with my child; (j) I feel there is a great distance between me and my child; (k) I carry a photograph of my child in my wallet or purse;
1. I feel I don't know how to talk with my child in a way that he/she really understands.

3. Limit Setting: (a) I have trouble disciplining my child; (b) I have a hard time getting through to my child; (c) My child is more difficult to care for than most children are; (d) I sometimes give in to my child to avoid a tantrum; (e) I wish I could set firmer limits with my child; (f) My child is out of control much of the time; (g) I wish my child would not interrupt when I'm talking to someone else; (h) I often lose my temper with my child; (i) My child really knows how to make me angry; (j) I sometimes find it hard to say no to my child; (k) I often threaten to punish my child but never do; (l) Some people would say that my child is a bit spoiled.

4. Support: (a) When it comes to raising my child, I feel alone most of the time; (b) I worry a lot about money; (c) I sometimes wonder if I am making the right decisions about how I raise my child; (d) I get a great deal of enjoyment from all aspects of my life; (e) I sometimes feel if I don't have more time away from my child I'll go crazy; (f) My life is very stressful right now; (g) I'm generally satisfied with the way my life is going right now; (h) My spouse and I work as a team in doing chores around the house.
5. Autonomy: (a) Parents should protect their children from things that might make them unhappy; (b) Children should be given most of the things they want; (c) Parents should give their children all those things the parents never had; (d) I can't stand the thought of my child growing up; (e) Parents should be careful about whom they allow their children to have as friends; (f) Teenagers are not old enough to decide most things for themselves; (g) My child keeps many secrets from me; (h) I miss the close relationship I had with my child when he or she was younger; (I) I worry a lot about my child getting hurt; (j) I have a hard time letting go of my child.

Scoring

Scores used to represent a child’s personal-social development and language development were interpreted from the Denver II grid sheet. A line is drawn on a grid to represent the child’s chronological age. The assessment administrator then indicates whether a child is successful or unsuccessful in the completion of task assigned representing each development area. "P" indicates the age of successful completion of a task and "F" is used to indicate when a child was unsuccessful. The highest development age for a task indicating language
and personal-social development was used as the scores for the children participating in the study. These scores are reported in "months" and they represent the dependent variables for the study.

Parents were given a score sheet that is designed to place their scores for each Likert Scale (1-4) answer into seven categories. This study uses scores that represent five of these categories, which are Involvement, Communication, Autonomy, Limit Setting, and Support. Answers supporting the final scores for these categories were distributed throughout the 78-question inventory. These single answers were tallied based on their predetermined weighed values. The sum of these values became the raw scores for the independent predictors.

Software

SPSS software was used to analyze data from parents and children who participate in the local Head Start Program. Parents responded to each item by using a 4-point Likert scale: (1) strongly agree, (2) agree, (3) disagree, and (4) strongly disagree. The children’s data for Personal-Social Development were scored by a Head Start Administer. This category was evaluated by a child’s ability to name a friend, wash and dry hands,
put on a tee shirt, play board and card games, and feed a doll. The Language Development data were evaluated by the child's ability to repeat spoken words, clarity of speech, naming of colors, combining words, and naming pictures, which are examples of parameters for this category. A child's biological age is set as a desired level of performance for each child to quantify the child's acceptable responses in these categories.

Data Analysis Method

As discussed in Chapter II, other studies have been done to measure a child's progress or readiness to learn when he or she enters preschool. Findings by Schweinhart and Weickart (1992) supported an opportunity for academic interventions that included programs to teach parents to use learning material. But we still find a lack of guidance given to parents of these children during the child's formative years. This study seeks to contribute data to show that behaviors of the parent, whether attitudinal or physical, are most likely to provide an opportunity to predict the child's personal-social and language development. This study also supports work that shows the influence of parents on the literacy development and readiness to learn of their children.
Correlation studies, descriptive summaries, and multiple regression analyses were performed on both sets of data. The \( x \) variables for the analysis were taken from the PCRI and represent the parent’s data as the independent variables. The \( y \) variable was taken from the child’s Denver II screener and represents the dependent variable. Descriptive analysis is presented in the contents of means and correlation in tabular formats. The multiple regression computation model is as follows:

\[
y = b_0 + b_1x_1 + b_2x_2 + b_3x_3 + b_4x_4 + b_5x_5
\]

Regression Model #1 for the Language Development is:

\[
Y = \text{Child’s Language Development Score.}
\]

Independent Variables: \( X_1 = \text{Communication}, X_2 = \text{Limit Setting}, X_3 = \text{Involvement}, X_4 = \text{Support}, X_5 = \text{Autonomy.} \)

Regression Model #2 for Personal-Social Development is:

\[
Y = \text{Child’s Personal-Social Development Score.}
\]

Independent Variables: \( X_1 = \text{Communication}, X_2 = \text{Limit Setting}, X_3 = \text{Involvement}, X_4 = \text{Support}, X_5 = \text{Autonomy.} \)

The research questions are as follows:
1. What is the relationship between parents’ involvement, communication, autonomy, limit setting, and support and their impact on a child’s personal-social development?

2. What is the relationship between parents’ involvement, communication skill, autonomy, limit setting, and support and their impact on a child’s language development?

The null hypothesis is as follows: There are no relationships between parents’ behaviors and their children’s language development or personal-social development among children attending the local Head Start program.

Alpha level: Statistical analysis for this study is set at an alpha level of .05.

Student data: Data reflect results compiled on Denver II test administered to children enrolled in Head Start during the first term of the enrollment into the new program. A total of 42 completed Denver II were submitted by Head Start to pair with 42 parent raw scores.

Parent data: Parents of children attending a local Head Start Program were asked to complete a Parent-Child Relationship Inventory (PCRI). The PCRI raw scores were matched with the Denver II’s for the study. Fifty-four
parents committed to support the research. The technique used to build the linear regression analysis was also used to summarize data. It was also used to study relationships among variables. This research evaluated relations between parent behaviors and their child's language development, personal-social development, and readiness to learn and literacy development.

Sample

The subjects for this study were parents who have children enrolled in Head Start and the children of these same parents. Parent data were matched with their own child's data for statistical analysis.

The Program Director of the local Head Start Program assisted and supported by mailing invitations to participate to over 350 households of new Head Start enrollees for the 1999-2000 academic school years. This mailing served as a personal invitation, giving every Head Start family a chance to participate in the family literacy project. Fifty-four parents of Head Start enrollees responded to the invitation, thus providing an opportunity for 54 eligible students. There were 42 student-parent matches available for the study. A student match was determined by: (a) the student having a completed Denver II assessment available, and (b) a
data release form signed by the student’s custodial parent.

Over 350 parents were invited to submit a release of coded (no names) Head Start Denver II developmental test results for their children. Parents who signed release forms were asked to complete a Parent Child Relationship Inventory at the local Head Start Family Day, and other willing participants received the inventory by mail or by phone inquiry.

In summary, the research questions that this study addresses are:

1. What is the relationship between parents’ involvement, communication, autonomy, limit setting, and support and their impact on a child’s personal-social development?

2. What is the relationship between parents’ involvement, communication skill, autonomy, limit setting, and support and their impact on a child’s language development?

Table 1 provides a summary of both models to be used in addressing the two research questions. Each independent (predictor) variable and each dependent variable are presented in Table 1.
<table>
<thead>
<tr>
<th>Model</th>
<th>Predictor Variables</th>
<th>Dependent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Communication, Limit Setting, Involvement, Support, Autonomy</td>
<td>A child’s personal-social development</td>
</tr>
<tr>
<td>2</td>
<td>Communication, Limit Setting, Involvement, Support, Autonomy</td>
<td>A child’s language development</td>
</tr>
</tbody>
</table>
This study examines statistical methods that quantify parental behaviors and their influence on a child's readiness to participate in formal educational settings. In Chapter III, we identified a child's language development and personal-social development as dependent variables. Data for these variables were obtained from the Denver II task assessment administered by Head Start personnel. The independent variables, Support, Communication, Limit Setting, Involvement, and Autonomy, are scores provided by parents on the Parent-Child Relationship Survey (PCRI). This chapter provides a look at the outcomes from analyzing data from these two sources.

Data Analysis Outcomes

Descriptive statistics, correlation, and a linear regression analysis were run for each dependent variable. However, a power analysis was done only for the independent variables that were retained in the two models analyzed by linear regression. The criterion
(dependent) variables, Language Development and Personal-Social Development, were evaluated against parents' behavioral attitudes, as measured by the PCRI, and were used as predictors of a child's score for Language Development and Personal-Social Development. In turn, these dependent variables are benchmarks of a child's readiness to participate in formal educational settings.

Descriptive statistics for all variables were as follows in Table 2:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support</td>
<td>22.83</td>
<td>4.94</td>
<td>42</td>
</tr>
<tr>
<td>Involvement</td>
<td>47.29</td>
<td>4.65</td>
<td>42</td>
</tr>
<tr>
<td>Communication</td>
<td>28.52</td>
<td>3.67</td>
<td>42</td>
</tr>
<tr>
<td>Limit Setting</td>
<td>32.41</td>
<td>4.83</td>
<td>42</td>
</tr>
<tr>
<td>Autonomy</td>
<td>25.57</td>
<td>3.70</td>
<td>42</td>
</tr>
<tr>
<td>Personal-Social Development</td>
<td>104.36</td>
<td>24.74</td>
<td>42</td>
</tr>
<tr>
<td>Language Development</td>
<td>103.78</td>
<td>27.36</td>
<td>42</td>
</tr>
</tbody>
</table>

**Note:** Definition of variables displayed in Table 2 are explained in Chapter III. Personal-Social and Language Development are dependent variables. The other variables represent parent behaviors as measured by the PCRI.
Characteristics of the Sample

The ethnic make-up of the test group was 19 Blacks, 19 Whites, and 4 families that did not fall into either of these classifications. This sample contained 39 females and 3 males who participated in the study. Overall performance by group for each of the dependent variable skills (language and social development) is as follows considering age in months:

1. Black families (19 subjects) had a range of 36 with a spread of 30-66 months; a mean value for this group was 41.6 months for Language Development and a range of 36; a spread of 24-60 months with a mean of 43 months for Personal-Social Development.

2. White families (19 subjects) had a range of 27.6 with a spread of 32.4-60 months and a mean of 43 months for Language Development; a range of 27.6, a spread 30-57.6 months, and a mean of 44.7 months for Personal-Social Development.

3. Other ethnic groups (4 subjects) had a range of 28 with a spread of 24-52 months and a mean of 37.6 months for Language Development; and a mean of 46.6, spread of 36-60 months, with a range of 24 months for personal social development.
Dependent Variable Descriptives

The 42 children who participated in the study range from 3-5 years old. Twenty-three students are age 3, 9 students are age 4, and 10 students are age 5. The first dependent (criterion) variable that is discussed is Language Development. Three-year-old students had Language Development and Personal-Social scores that ranged from 24 months to 55 months with a mean of 40 months. However, the values presented in the following three tables are displayed with the achievement age divided by the chronological age for each student, which gave a ratio that was multiplied by 100. The investigators believe this is a better method for reviewing the development of students in the Head Start program. Researchers and educators are seeking family data for building new relationship models for family literacy—models to use for training families to encourage families to become mentors for other families in this at-risk population, families working with families in populations where children are known to struggle as they enter formal educational systems.

In Table 3, there are 9 children who were 4 years old with a Language Development mean of 108.4 and Personal-Social Development of 111.5. These 9 students
seem to be slightly above their age with their command of language and social skills. The group of 10 children who are 5 years old have a mean Language Development score of 107.4 and personal-social skills at 105.8. These are slightly below the 4-year-old student scores.

Table 3
Descriptive Analysis for Dependent Variables by Age Group

<table>
<thead>
<tr>
<th>Variable</th>
<th>3-Year Olds</th>
<th></th>
<th>4-Year Olds</th>
<th></th>
<th>5-Year Olds</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Language Development</td>
<td>100.4</td>
<td>25.3</td>
<td>108.4</td>
<td>27.8</td>
<td>107.4</td>
<td>33.1</td>
</tr>
<tr>
<td>Personal-Social</td>
<td>100.9</td>
<td>22.1</td>
<td>111.5</td>
<td>17.1</td>
<td>105.8</td>
<td>35.4</td>
</tr>
</tbody>
</table>

Note. N = 42 subjects overall.

The same dependent variables were reviewed for the ethnicity of children who participated in the study. Results in Table 4 reflect data that showed Black participants are below the expected Language Development score. The other groups are at or above average. The personal-social variable is noticeably higher for the category labeled "Other" than for those in the Black or White categories.
Correlation Analysis

The research questions for this study are as follows:

1. What is the relationship between a parent’s involvement, communication, autonomy, limit setting, and support and the impact of these behaviors on a child’s personal-social development?

2. What is the relationship between a parent’s involvement, communication skill, autonomy, limit setting, and support and the impact of these behaviors on a child’s language development?

Relationships between variables are presented in the matrix in Table 5 with an asterisk (*) used to indicate significant relationships.
Table 5
Correlation Matrix

<table>
<thead>
<tr>
<th>Variables</th>
<th>LD</th>
<th>P-SD</th>
<th>X₁</th>
<th>X₂</th>
<th>X₃</th>
<th>X₄</th>
<th>X₅</th>
</tr>
</thead>
<tbody>
<tr>
<td>Language Development (LD)</td>
<td>.69*</td>
<td>-.07</td>
<td>.21</td>
<td>-.04</td>
<td>.16</td>
<td>.12</td>
<td></td>
</tr>
<tr>
<td>Personal-Social Development (P-SD)</td>
<td>-0.01</td>
<td>.36*</td>
<td>.00</td>
<td>.23</td>
<td>.08</td>
<td></td>
<td></td>
</tr>
<tr>
<td>X₁</td>
<td>.01</td>
<td>.22</td>
<td>.01</td>
<td>-.11</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X₂</td>
<td></td>
<td>.29</td>
<td>.31*</td>
<td>.18</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X₃</td>
<td></td>
<td></td>
<td>.06</td>
<td>.19</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X₄</td>
<td></td>
<td></td>
<td></td>
<td>-.04</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X₅</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Correlation is significant at or below the 0.05 level (2-tailed).

For correlation studies, the value of the coefficient is not affected by sample size, but the accuracy of the coefficient is impacted by sample size (Hinkle, 1994). Sample size for the Pearson correlation was 42 subjects. Table 5 shows significant correlations between independent variables Support and Limit Setting at $p = .043$. The independent variable Limit Setting also correlates with the Personal-Social Development dependent variable at $p = .019$. A slight relationship is shown, with a $p$ value of .059, between Limit Setting and Involvement. The strongest relationship is noted
between Personal-Social Development and Language Development. Both dependent variables, Personal-Social Development and Language Development, are discussed in separate regression models later in this study.

The Pearson $r$ allows investigators to observe associations between variables, which in turn assists with an overall evaluation and clear decisions about the interaction of groups of variables. Statistically significant correlation results do not allow us to assign cause and effect to variables, because in most cases, these relationships are more complex than what is captured with one set of evidence. However, associations do raise cautions about the interaction of independent variables among themselves.

Multiple Regression

Each dependent variable (Language Development and Personal-Social Development) was evaluated against scores from five parent behaviors. Language Development and Personal-Social Development scores were calculated by dividing the child's Denver II Development achievement age by the child's chronological age to obtain a ratio. Then, the ratio was multiplied by 100 to obtain final values for the dependent variable. Parent behavior scores were obtained from the Parent-Child Relationship
Inventory. Raw behavior category scores were added together and used as parent behavior scores. Multiple linear regression statistics were run separately by SPSS for Language Development and Personal-Social Development. Data were analyzed first by the SPSS Enter Method and then by the SPSS Backward Method.

Results for the Language Development model are reported in Table 6. The research question for this model is: What is the relationship between a parent's involvement, communication skill, autonomy, limit setting, and support and the impact of these behaviors on a child's language development?

Table 6

Multiple Regression Results Using Language Development as the Dependent Variable

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 Communication</td>
<td>-.26</td>
<td>1.24</td>
<td>-.04</td>
<td>.83</td>
</tr>
<tr>
<td>X2 Limit Setting</td>
<td>1.07</td>
<td>1.01</td>
<td>.19</td>
<td>.29</td>
</tr>
<tr>
<td>X3 Involvement</td>
<td>-.65</td>
<td>1.03</td>
<td>-.11</td>
<td>.53</td>
</tr>
<tr>
<td>X4 Support</td>
<td>.60</td>
<td>.94</td>
<td>.11</td>
<td>.53</td>
</tr>
<tr>
<td>X5 Autonomy</td>
<td>.82</td>
<td>1.24</td>
<td>-.11</td>
<td>.51</td>
</tr>
</tbody>
</table>

Table 6 shows that none of the five parent behaviors included in the Language Development model are significant at the .05 level. Based on this model using the Enter Method, parent Limit Setting has the lowest
significant level, suggesting some impact on a child's language development, but it does not meet the p-value of .05 set for the study. However, the statistics for the overall model is $R = .28, R^2 = .08, F(5,36)= .61$ with a significance of .7, which indicates no impact if this model were the only set of data available.

Personal-Social Development

Results for the Personal-Social Development model are reported in Table 7. The research question for this model is: What is the relationship between a parent’s involvement, communication skill, autonomy, limit setting, and support and the impact of these behaviors on a child’s personal-social development?

Table 7
Multiple Regression Results Using Personal-Social Development as the Dependent Variable

<table>
<thead>
<tr>
<th>Variables</th>
<th>B</th>
<th>SE B</th>
<th>Beta</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X_1$ Communication</td>
<td>8.82E-02</td>
<td>1.07</td>
<td>-.01</td>
<td>.94</td>
</tr>
<tr>
<td>$X_2$ Limit Setting</td>
<td>1.77</td>
<td>.87</td>
<td>.35</td>
<td>.05*</td>
</tr>
<tr>
<td>$X_3$ Involvement</td>
<td>-.60</td>
<td>.89</td>
<td>-.11</td>
<td>.51</td>
</tr>
<tr>
<td>$X_4$ Support</td>
<td>.65</td>
<td>.81</td>
<td>.13</td>
<td>.43</td>
</tr>
<tr>
<td>$X_5$ Autonomy</td>
<td>.31</td>
<td>1.07</td>
<td>.05</td>
<td>.77</td>
</tr>
</tbody>
</table>

*p-value = .05.
Table 7 data show significant relationships between Personal-Social Development and Limit Setting as a parent behavior with \( p \)-value = .05. It is also noted that \( F(5,36)= 1.35; p = .27; R = .40; R^2 = .16 \). Only 1 out of 5 of the variables demonstrate potential as a significant parent behavior having impact on a child's personal-social development.

Both the multiple regression procedures for Language Development and Personal-Social Development were run using the Enter Method. The Enter Method enters all independent variables in one single step. The next section takes a look at the same data using the Backward Method.

**Backward Method for Language and Personal-Social Development**

Additionally, the Backward Method was run for each dependent variable. This method provides several models for consideration of the impact of the predictor variable on the dependent variable. The Backward Method enters all named variables and then these variables are removed one at a time based on a criteria of \( F \geq .1 \). The results for each dependent variable and the associated models are reported in the following tables. The first table in this series is Table 8, which provides
the results for the Language Development dependent variable. The table shows the level of significance between the Language Development variable and the predictor variable.

Table 8
Language Development Variable Run Using the Backward Method to Determine Significance of Parent Behavior Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>X₁ Communication</td>
<td>.83</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>X₂ Limit Setting</td>
<td>.30</td>
<td>.29</td>
<td>.18</td>
<td>.15</td>
<td>.18</td>
</tr>
<tr>
<td>X₃ Involvement</td>
<td>.53</td>
<td>.48</td>
<td>.47</td>
<td>.52</td>
<td>.18</td>
</tr>
<tr>
<td>X₄ Support</td>
<td>.53</td>
<td>.52</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>X₅ Autonomy</td>
<td>.51</td>
<td>.48</td>
<td>.51</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Model 5 is significant at the .18 level. This model has $F(1, 40); R = .21; R^2 = .04; B = 1.19; SE B = .88$, and Beta = .21. Model 5 contains only Limit Setting as the parent behavior with the most impact on language development among Head Start students. It does not meet the .05 level of significance. However, Limit Setting does require consideration due to the fact that this predictor is at significance levels in other statistical methods in this study. Limit Setting is the parent behavior identified in this model with the most, though not significant, impact on language development for children who participated in this study.
Table 8 displays results from the Backward Method for the Language Development variable.

In Table 9, Model 5 is significant at the .02 level. This model contains one predictor variable, Limit Setting. Limit Setting is at .02. Multiple Regression Model 5, using the Backward Method, has $F(1,40); R = .36; R^2 = .13; B = 1.85$; and SE $B = .754$. The Limit Setting $p$-value for Model 5 is .02. In Models 1-5, the Limit Setting predictor variable is significant at the .05 or less. In using Model 5, Limit Setting is the parent behavior considered as the predictor of personal-social development skills for the children and parents who participated in the study.

Table 9

Personal-Social Development Variable Run Using the Backward Method to Determine Significance of Parent Behavior Variable

<table>
<thead>
<tr>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X_1$ Communication</td>
<td>.94</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$X_2$ Limit Setting</td>
<td>.05*</td>
<td>.05*</td>
<td>.04*</td>
<td>.05*</td>
<td>.02*</td>
</tr>
<tr>
<td>$X_3$ Involvement</td>
<td>.51</td>
<td>.50</td>
<td>.52</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>$X_4$ Support</td>
<td>.42</td>
<td>.42</td>
<td>.43</td>
<td>.41</td>
<td>-</td>
</tr>
<tr>
<td>$X_5$ Autonomy</td>
<td>.77</td>
<td>.77</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

*p-value ≥ .05.

Reproduced with permission of the copyright owner. Further reproduction prohibited without permission.
Summary

Language development and personal-social development are both influenced by the same parent behavior. This model is based on parent behaviors as they are defined by the PCRI. The Language Development dependent variable is impacted by Limit Setting, and the Personal-Social Development dependent variable is also impacted by Limit Setting. Limit Setting has been statistically demonstrated to have impact on a child’s language development and personal-social development, which also influences a child’s readiness to learn in formal educational systems.

The Personal-Social model meets the probability of F-to-remove >= .100. The p-value for Model 5 using the Backward Method is .02, which is technically stronger than the p-value of .05 set for this study. The Language Development dependent variable has Limit Setting at p = .18, which is not as strong as that observed for the Personal-Social Development dependent variable.

These results do not allow acceptance of the null hypothesis. The research analysis for this study has clearly demonstrated that Limit Setting can be used as a predictor of language and personal-social development.
among Head Start children who participated in this study.

Therefore, using results from the Backward Method, Model 5, the predictor equation for language development is:


Then by using the same procedure, Backward Method, Model 5, the predictor equation for personal-social development is:

Personal-Social Development = 1.85(.019) Limit Setting.

The null hypothesis is rejected for the Language Development and Personal-Social dependent variables.
CHAPTER V

FINDINGS

Deliberate, organized efforts by the public schools to involve low-income parents in their children's education are little more than 20 years old. The middle and upper classes have long had both implicit avenues of involvement (easy and comfortable access to teachers and administrators) and explicit means of participation (parent/teacher associations for example)—but less-advantaged parents have been unwilling or unable to use these modes of participation. In the mid-1960's educators and policymakers focused on parent involvement as a promising way to improve educational outcomes for poor or underachieving students, and they developed a variety of models and strategies to promote such involvement. (McLaughlin & Shields, 1987, pp. 156-157)

This study seeks to identify links for low-income socially disadvantaged families to become more intentionally involved with the early language and personal-social development of their children. The investigation places emphasis on nonschool learning that happens during interactions between children and their parents. It does quantify parent behaviors that influence a child's language development and personal-social development. Identifying and quantifying these behaviors can lead to innovative approaches to family literacy and childhood learning.
The Research Questions

This study was designed to answer the following two questions by statistical analysis:

1. What is the relationship between a parent’s involvement, communication, autonomy, limit setting, and support and the impact of these behaviors on a child’s personal-social development?

2. What is the relationship between a parent’s involvement, communication skill, autonomy, limit setting, and support and the impact of these behaviors on a child’s language development?

Overall Pearson r Coefficient

First, the relationship between variables by correlation was determined. Correlation was significant at the .05 level between Limit Setting and Support as parent behaviors (.31). There were no additional strong relationships between predictor variables. The next significant relationship is between Limit Setting and Personal-Social Development (.36). The Personal-Social Development dependent variable and the Language Development dependent variable had significant correlation (.69) for children and parents who participated in the research study. Support was not one of the behaviors in
the Regressions Model for either dependent variable. But Support is linked to Limit Setting and Limit Setting correlation's with the Personal-Social Development variable.

Language Development

Practitioners continue to agree that parents must be empowered to assume their role as primary educator of their children (Coleman & Hoffer, 1987). Students who receive extra help at home gain more consistently in their school work than students who do not have this option (Tizard, Schofield, & Hewison, 1982). Language development among Head Start children who participated in this study can be influenced by their parent's ability to demonstrate limit setting, \( p = .18 \), according to the parameters of this investigation. LeFevre (1999) conducted a longitudinal study that examined relations among home literacy factors such as subsequent language and early literacy skills, and reading comprehension among children. Their assessments included measures of vocabulary, listening comprehension, phonological awareness, alphabet knowledge, emergent spelling, single word reading, and standardized reading achievement, as well as the use of parent questionnaires. The Denver II was used in this study to evaluate a child's ability to
listen and repeat a pattern of up to six words, a child's familiarity with parts of the body, naming pictures of simple items and animals, naming colors, and a child's ability to speak understandably. The evaluation of these tasks became the Language Development dependent variable. Approximately 37% of the children who participated in this study demonstrated a language development age equal to or less than their chronological age as reported on the Denver II screening test administered by Head Start personnel. LeFevre further hypothesized that home literacy experiences directly affect language and early literacy skills. The study found that the parents' knowledge of children's literature is related to the children's oral language skills, and the amount of teaching about reading and writing reported by parents was related to a children's development of early literacy skills.

The PCRI's Limit Setting variable, which is a significant predictor variable, measures the effectiveness and character of the parent's discipline techniques. Discipline could be viewed as an aspect of parental involvement. Discipline typically fails when it does not establish limits. As a rule, children have relatively fewer behavior problems if they know what is required of them. Children feel secure when they
understand the extent to which they can make demands on their parents. Children should be able to tell if they exceed acceptable bounds in the intensity of their play or communication (Shevin, 1973). Discipline is necessary when parents and educators are working with children. It transcends the complexity of parent-child relations when researchers seek measurable outcomes for language development.

Items on the Involvement scale are designed to assess the relative amount of time the parent spends with a child and to indicate the parent’s level of knowledge of the child’s needs. The PCRI Support scale is structured to actually measure a parent’s need for encouragement to use effective parenting skills. Younger parents lack the patience and depth of decision making that is necessary for day-to-day parenting responsibilities. The average age of parents who participated in this study was 31 years old. Families must have an intergenerational process for interacting around educational needs and transferring parenting skills (Ezell, 1995).

The overall regression model for language development has a significance level of .18. In reviewing the coefficients, the Limit Setting predictor variable is at a level of .18. The first regression procedure used was
the Enter Method, and secondly the Backward Method to further discern specific influential parent behaviors. In one instance, the Limit Setting predictor variable was rated at $p = .02$.

**Personal-Social Development**

Social skills and personal development skills are very limited for many young children in this population. There are factors, such as a child's environment, which Query (1998) believed impacted young children and participated in their failure in school. Some of these factors were family, peers, and community; these factors are referred to as protective factors because they limit a child's personal-social skills and ability to deal with stressful situations needed to build resilience. The City/Woodland Wilkie Literacy Project showed that academic skills and relationships with others are expected outcomes. Also, the project encourages youth to bond with supportive adults. The personal-social skills evaluation conducted by Head Start using the Denver II provides a snapshot of a child's development in specific areas. The parent-child relational behavior that showed significance for this variable was Limit Setting ($p = .02$). The Limit Setting predictor also correlates with Support. The PCRI measures parents'
need for support or encouragement to become effective with their children. Children will change their performance on social and personal levels as they become more familiar with their surroundings and are able to comprehend what is expected of them (Gullestad, 1996).

In White working-class families, parents tend not to converse with their infants and toddlers; instead, they teach their children what they should think and know. These constraints on communication and learning teach children that there are limits on what they need to understand or to question. When the children enter school they tend to be passive learners, unprepared to be the source of information. They do well in school until they have to take an active role in learning, at which point they begin to lose ground. (Wong, 1982, pp. 55-59)

Early childhood programs like Head Start have a component that assists children with socializing, but the parent must participate by demonstrating a level of trust in the child and the formal education system. The Pearson $r = .69$ between Personal-Social and Language Development has a $p$-value of .01. Support and Limit Setting are demonstrations of behaviors, as defined by the PCRI, that parents can use to influence personal-social development in their children.

**Summary**

The study does answer the overall question: What types of parent behaviors are related to language
development and personal-social development among children attending a local Head Start Program? The researcher expected to find a relationship between a parent's PCRI Communication, Limit Setting, Autonomy, Support, and Involvement scores and a child's personal-social development. The relationship was evident through the Pearson $r$ correlation procedure for Support. But Support was not rated as a predictor variable for a child's personal-social development. The study furthers addresses whether PCRI parent behavior variables, Autonomy, Involvement, and Limit Setting, influenced the language development of their children. The Support variable and the age of parents were interwoven in the results of the study and should be investigated in a longitudinal study for adequate monitoring over time.

The parent's PCRI Autonomy value did not demonstrate a significant level of influence on a child's Personal-Social Development score. Furthermore, work done by Query (1997) and others suggests that allowing a level of autonomy for young children provides them with resilience to develop long-term benefits from their own ability to problem solve.

However, this study does clearly provide models to predict language development or personal-social development among children attending Head Start. Additionally,
it provides ideas for the use of parent behaviors that can be embraced as influences on learning readiness among children. This investigation serves as an entrée to develop relationships with at-risk parents, allowing them to share their best practices with other parents in this population.

Limitations

1. The assumptions for this study are linear normality assumptions. Concerns could be raised about the sample size of this study being under 50 subjects. Generally for samples of $N$ larger than 30, the Central Limit Theorem is applicable. With $N$ larger than 30, $\beta$ will be asymptotically normally distributed even if $\mu$ is not normally distributed. This study has slightly over 40 samples for the Language Development and Personal-Social Development variables. $\beta$ for this study is $4 \times \alpha (.05)$ which is .2.

2. This study merged two data sources collected independently of each other and generally designed to provide diagnosis separate from each other. The Parent-Child Relationship Inventory (PCRI) assessed the parents' attitudes toward parenting and toward their children. It yielded quantified descriptions of the parent-child relationship on 10 behavioral scales from
the parent's perspective. Then, the Denver II is an assessment completed, in this case, by staff administrators of Head Start to determine the learning readiness of children as they enter the Head Start program. The achievement and readiness to learn age of children is determined over four development areas. Reynolds' (1992) work found little correspondence among parents', teachers', and children's ratings for parent involvement in children's education. Teachers' ratings exhibited a higher correlation with children's reading and mathematics achievement in Grades 2 and 3 than did children's and parent's ratings. This study used the PCRI and Denver II to determine parental involvement predictors of literacy development among Head Start children, which are students participating in formal educational settings before Grade 1, 2, or 3.

3. The Denver II data were ex-post facto. Several different people gathered a child's data points as test administrators. The assessments were completed over a period of time. Thus, this procedure provides occasion for observer bias and other administrative inconsistencies.

4. The Denver II could actually be designed to measure an entirely different award system than that to which the child is accustomed. An example that stresses
this point is that of a family that awards a child for his or her athletic ability and an educational system that measures a child on verbal ability. In this scenario, the value system of the family and the value system of the educational institution award different childhood achievement outcomes.

Sample Size

Hinkle, Wiersma, and Jurs (1994) state that there are five factors that must be in place for a researcher to determine sample size for a study: (1) alpha level, (2) power \((1 - \beta)\), (3) variance, (4) effect size, and (5) reliability of the test.

An overall statistical sample size was calculated for the multiple regression methodology of the study. Using the overall outcomes reported for Regression Model 1 (Language Development) and Model 2 (Personal-Social Development), the literature recommends a 4:1 ratio between alpha and beta. Adhering to this principle, the beta for this study is .2. The following table provides an estimate of sample size using the partial correlation for each predictor variable and the overall \(R^2\) of each model.

Table 10 estimates the number of samples needed for each dependent variable. The null hypothesis was
rejected for both dependent variables. It is not actually known immediately whether a Type II error has been committed when the null hypothesis is rejected. Even with a sample size of fewer than 50 subjects, we are clearly able to avoid accepting the null when it appears to be false. However, we would recommend a re-examination of similar subjects using the following guidelines as considerations during test design:

Table 10
Language Development and Personal-Social Development
Sample Size Analysis for Predictor Variable

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>Support</th>
<th>Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model 1*</td>
<td>219</td>
<td>-</td>
<td>147</td>
</tr>
<tr>
<td>Model 2**</td>
<td>182</td>
<td>188</td>
<td>206</td>
</tr>
</tbody>
</table>

*Language Development.
**Personal-Social Development.

1. The Head Start population is most likely not very heterogeneous, thus differences are more difficult to detect.

2. More variance in the sample would make it easier to detect significance among variables.
3. The specific characteristic of the predictor variable might not always be measured by the same construct validity.

4. The selection of a particular group limits the boundary of the predictor.

5. There might be another moderating variable that should be considered when evaluating test data (Applegate, 2000).

Other Opportunities

Addressing the needs of early literacy development among children requires that parents and professional educators make a paradigm shift. Both sets of educators, parents and professionals, are challenged to move away from traditional methods for building success into family educational activities. Addressing the influential perspectives of the kinds of parental behavior that lead a child into literacy development is one approach to promote family literacy (Kuhn, 1970; Teale & Sulzby, 1986). Knotek (1996) also believes the onset of literacy development in children happens before the birth of the child. In the past researchers thought that reading, writing, and speaking were interrelated and for a child to become literate, there must be exposure to language and uses of language in distinctive ways.
(Bernstein, 1971). Recent studies show that children learn the use of literate forms, not as much from specific "training" (cf., Moffett & Meyers, 1992), but more so, these skills are picked up by children whose parents and older siblings model these skills and behaviors. New insights suggest that every moment is a learning moment for a child, especially moments shared with family. In literate cultures like the United States, parents (family) are expected to model abundant uses of literacy in the home (Mason & Allen, 1986). Based on previous research (Edwards, 1989; France et al., 1993; Handel, 1992), we can be confident of the influence of parental behavior on childhood language development and personal-social development. Parents do impact a child’s readiness to participate in formal education settings.

Many of the previously mentioned researchers have worked diligently to study at-risk populations against norms standardized for the majority population. Other studies have not quantified direct influences of parents on their at-risk children. Different types of parent behaviors and their impact on their at-risk children have been quantified. This assessment of an at-risk population is submitted for inclusion in next steps to
assist members of academically challenged and socially challenged populations.

Recommendation

This study recognizes family literacy development as a toolbox based on outcomes of positive parent behaviors among at risk groups. Many of the 3-year-old children have Language Development and Personal-Social Development scores at the high end of their chronological age curve. The families with above average 3-year-olds can provide support to their at-risk counterparts. This kind of reasoning does require a paradigm shift.

To make begin the shift, there must be some movement away from traditional reasoning--reasoning that has kept socially at-risk families disengaged from participation in potential solutions to insure higher achievement among their children. In response to Nathaniel's question in the book of John, "Can any good thing come out of Nazareth?" (John 1:46, The King James Bible, 1985), a paradigm shift gives an affirmative response to this question, because a shift in perspective respects the complexity of at-risk homes. High achievers have been identified among children who grow up in poverty. Athletes such as Isaiah Thomas and other professionals like Dr. Ben Carson, the renowned neurosurgeon, are
examples of high achievers from nontraditional home settings--settings that are defined as "risk" by today's definition of at-risk. These accepted leaders are examples to support the stance that there is "much food in the fallow ground of the poor, And for lack of justice there is waste (Proverbs 13:23, The Living Bible, 1971).

Though there are a number of literacy development programs for children to prepare themselves for "learning" (Snow, Barnes, Chandler, Goodman, & Hemphill, 1991), researchers continue to identify a large proportion of children who begin school without adequate levels of readiness and conventional literacy skills. Educators, parents, and community leaders must work to develop processes to decrease the number of "unprepared" children. This investigation explored the strengths of parent-child interactions among at-risk families (Quintero, 1986) and now it presents these identified strengths to reinforce the importance of effective parent-child relational behaviors. The outcomes of such a study gives researchers foundational information for procedures that lead to family empowerment through literacy development. This parent-child relational investigation compares families of academically at-risk children with other families of academically at-risk
children. Academically "at risk" is characterized in terms of a child's literacy development in respect to his or her age, which is a primary standard of measure used by Head Start.

This investigation encourages community-supported focus groups with parents of children ranging in age from birth to third grade. One question to have parents address is: "What do you see as barriers to your involvement in the education of your children?" This research study defines involvement as activity demonstrated by helping children with homework, encouraging children to stay in school, being on time for class, and getting a good night's rest. It can also mean parents' commitment to spending time at their child's school.

As next steps for this work, parents will have an opportunity to interact with each other and "experts" rather than only with experts. Long-term, parents can learn to network with others first, then teachers and educational administrative staff.

Further research opportunities would allow the findings of this study to be merged with existing early childhood program models to empower parents. This can be achieved by presenting effective family behaviors that encourage an environment for children to learn. The usefulness of this study will be realized when
parent panels are drawn from the same at-risk population to wrestle with their own issues. These parent panels would be formed to exchange ideas from the PCRI. Then parents can build relationships for other family learning opportunities to build up their literacy capacity and community awareness. The positive outcomes from this model will, in the long term, impact the language development and personal-social development of children associated with families who participated in the study.
Appendix A

Human Subjects Institutional Review Board
Letters of Approval
Date: 14 June 1999

To: Charles Warfield, Principal Investigator
   Yvonne Conner, Student Investigator for pre-dissertation project

From: Sylvia Culp, Chair

Re: HSIRB Project Number 99-04-12

This letter will serve as confirmation that your research project entitled “Reading Literacy Assessment Among Adults with At Risk School Age Children” has been approved under the expedited category of review by the Human Subjects Institutional Review Board. The conditions and duration of this approval are specified in the Policies of Western Michigan University. You may now begin to implement the research as described in the application.

Please note that you may only conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: 14 June 1999
Date: 11 January 2000

To: Charles Warfield, Principal Investigator
    Yvonne Conner, Student Investigator for pre-dissertation project

From: Sylvia Culp, Chair

Re: Changes to HSIRB Project Number 99-04-12

This letter will serve as confirmation that the changes to your research project “Reading Literacy Assessment Among Adults with At Risk School Age Children” requested in your memo dated 14 December 1999 have been approved by the Human Subjects Institutional Review Board.

The conditions and the duration of this approval are specified in the Policies of Western Michigan University.

Please note that you may only conduct this research exactly in the form it was approved. You must seek specific board approval for any changes in this project. You must also seek reapproval if the project extends beyond the termination date noted below. In addition if there are any unanticipated adverse reactions or unanticipated events associated with the conduct of this research, you should immediately suspend the project and contact the Chair of the HSIRB for consultation.

The Board wishes you success in the pursuit of your research goals.

Approval Termination: 14 June 2000
Appendix B

On-site Associate/Facilitator Directions
ON SITE ASSOCIATE/FACILITATOR DIRECTIONS

♦ THANK YOU FOR TAKING PART IN OUR COMMUNITY FAMILY LITERACY ASSESSMENT PROJECT.

♦ YOU WILL BE TOLD WHEN TO BEGIN MARKING YOUR ANSWER SHEET. PLEASE DO NOT BEGIN UNTIL YOU ARE TOLD TO START.

♦ WE NEED TO TAKE A FEW MINUTES TO HAVE EACH OF YOU REVIEW AND SIGN OUR CONSENT FORM. THERE ARE TWO COPIES, ONE IS FOR YOUR RECORDS AND ONE FOR OUR RECORDS. (Please read the form, ask for questions, have subjects sign the forms, collect ONE signed for from each participant.)

♦ EACH ITEM OF THE SURVEY WILL BE READ ALLOW BY THE FACILITATOR. ALL OF YOU ARE ENCOURAGED TO FOCUS ON ONE OF YOUR CHILDREN IF YOU HAVE MORE THAN ONE CHILD IN YOUR FAMILY. PLEASE DO NOT DISCUSS YOUR ANSWER BEFORE SELECTING AND MARKING AN ANSWER ON YOUR ANSWER SHEET.

♦ You are asked to listen to the entire statement before marking an answer on your sheet.

♦ THERE WILL BE REFRESHMENTS AVAILABLE FOR YOU AFTER THE COMPLETION OF THE SURVEY.

♦ PLEASE GIVE COMPLETED TEST TO THE ASSOCIATE SEATED AT THE TABLE.

♦ ARE THERE ANY QUESTIONS BEFORE WE BEGIN?

♦ LET US BEGIN YOUR PARENT-CHILD RELATIONSHIP INVENTORY.
Appendix C

Consent of a Responsible Adult
CONSENT OF A RESPONSIBLE ADULT

Principal investigator: Dr. Charles C. Warfield * Research Associate: V. Yvonne Conner

I have been asked to participate in a project that will provide an opportunity for me to complete a survey entitled a Parent-Child Relationship Inventory (PCRI). The PCRI is a survey with questions about parenting and parent-child relationships. Information from the PCRI will be used in combination with the Denver II entry level results obtained by Head Start on my child. A separate form is provided for my signature to give Mike Van Varenbergh of Head Start permission to release my child's data to Dr. Charles Warfield or Yvonne Conner.

The purpose of this project is to provide information for the researcher to help educators learn more about the literacy needs of families. In addition, it will increase awareness to possible benefits that could be gained from literacy programs that equip parents to help their children. The results from this Parent-Child Relationship Inventory will be used to generate interest and support for community based reading literacy programs for families with academically at-risk children.

I have agreed to participate by completing one survey administered in one session. This session will last for approximately one (1) hour to one and one half-hours. This session is held with a group consisting of other consenting adults and the project research team. During this session, I will be asked to complete the Parent-Child Relationship Inventory (PCRI) after hearing the facilitator read each statement. My responses to the statements will be marked on a sheet of paper supplied by the researcher and referred to as an "answer sheet".

As in all research, there may be unforeseen risks to the participant. If an accidental injury occurs, appropriate emergency measures will be taken; however, no compensation or treatment will be made available to me except as otherwise specified in this consent form.

All of the information collected from me is confidential. That means that my name will not appear on any papers on which this information is recorded. The forms will all be coded, and Western Michigan University will keep a separate master list with the names of participants and the corresponding code numbers. Once data are collected and analyzed, the master list will be destroyed. All other forms will be retained for three (3) years in a locked file in the principal investigator's office.

I may refuse to participate or quit at any time during the study without prejudice or penalty. If I have any questions or concerns about this study, I may contact either Dr. Charles Warfield at 387-3890 or V. Yvonne Conner at 381-4416 or 343-4824. I may also contact the chair of Human Subjects Institutional review Board at 387-8293 or the vice president for research at 387-8298 with any concerns that I have.

This consent document has been approved for use for one year by Human Subjects Institutional Review Board as indicated by the stamped dated and signature of the board chair in the upper right center. Subjects should not sign this document if the corner does not have a stamped date and signature.

My signature below indicates that I have read and/or had explained to me the purpose and requirements of the study and that I agree to participate.

Signature ____________________________ Date ____________
Consent obtained by: ____________________ Date ____________

Initials of researcher
Appendix D

Family Literacy Project Release Form
FAMILY LITERACY PROJECT

The Kalamazoo County Head Start Program is supporting a Family Literacy Project in conjunction with the Teaching, Learning and Leadership Department at Western Michigan University.

We need your permission to use your child’s entry Denver II assessment results obtained by Head Start to assist in learning more about the literacy needs of families. With your permission, Mr. Mike VanVarenbergh of Head Start will release your child’s data WITHOUT the name(s) of your child(ren), to Dr. Charles Warfield or V. Yvonne Conner on behalf of Western Michigan University, Department of Teaching, Learning and Leadership. Children’s assessment results from the Denver II will be identified by code numbers assigned by Head Start and contain only the age of children. The Denver II results will assist in interpreting results from a Parent-Child Relationship (PCRI) survey completed by parents. Both sets of data will allow the researcher to help educators learn more about family literacy needs.

Parents participating in this study will be asked to provide the age of their children. A child’s age level development as assessed by the Denver II will be compared to the parents’ data. A child’s respective age is compared with a parent’s data who have children in this specific age group. The results from this study will be used to generate interest and support for community based reading literacy programs for families with academically at-risk children. Participation in the PCRI is open to all parents who attend the Family Day sponsored by Head Start on Tuesday, January 25. If you would like more information about the parent survey, please call Yvonne Conner at 343-4824.

PLEASE SIGN THE FORM BELOW IF YOU GIVE Mr. Mike Van Varenbergh, Head Start Program Director, PERMISSION to include your child’s data in this Family Literacy study.

WOULD YOU LIKE TO LEARN MORE ABOUT THE PARENT SURVEY?

Please circle one: YES NO MAYBE

_________________________________________    __________________________    __________________________
Parent/Primary Caretaker Signature    Phone Number    Date

Please leave your signed form with your child’s teacher or return it by mail in the envelope provided by Head Start.

Thank you for supporting this project.
Appendix E

Letter of Invitation to Participate
January, 2000

Dear Parent(s):

The Kalamazoo County Head Start Program is supporting a Family Literacy Project in conjunction with the Teaching, Learning and Leadership (TLL) Department at Western Michigan University. The Project is lead by Dr. Charles Warfield and Ms. Yvonne Conner of WMU and is supported by Mr. Mike VanVaerenbergh of Head Start.

The primary purpose of the project is to learn more about how parents interact with their children and how this interaction encourages children to learn different things. There are two ways that you can help us gather the necessary information for the project. One is by signing the enclosed form allowing the Head Start Program administrator permission to release entry level screening data without your child’s name on it. This data, representing the initial screening evaluation done by Head Start, will be statistically analyzed by the TLL Department of Western Michigan University. Please return your signed form in the envelope provided by Head Start.

The second way that you can assist with the project is by attending the Family Day sponsored by Head Start on January 25, 2000. During the Family Day celebration, parents will have an opportunity to complete a Parent-Child Relationship Survey to provide additional data to help in evaluating the importance of the parent-child interaction and how the interaction encourages a child to learn different things. The survey is anonymous (does not require you to use your name) and will only take 15 minutes of your time.

Please give us a call if you have any questions about the project. See you at Family Day!

HEAD START PROGRAM
Human Services Department
3299 Gull Road
Nazareth Campus
Kalamazoo, MI 49001-1295
BIBLIOGRAPHY


 Bernstein, R. K. (1971). *A pilot study of the educational needs of non-urban women (Missouri) and a proposal for extension division program to meet these needs*. Ann Arbor: University Microfilms.


Humphries, R. A. (1997). Locus of control, stress, self-esteem and behavioral problems as predictors of
behavioral health outcome in diabetic youth
(Doctoral dissertation, University of Akron, 1997).
Dissertation Abstracts International, 58-10B.

care child health: An evaluation of a self-directed parent
training program for oppositional preschool
children. St. Lucia: University of Queensland.

Khandke, V., Pollitt, E., & Gorman, K. (1999). The role
of maternal literacy in child health and cognitive
development in rural Guatemala. (ERIC Document
Reproduction Service No. ED 430 682)

Nashville: Broadman & Holman.

Knotek, S. (1996). Emergent literacy and theory of mind:
Children's use of text as situation and
representation to mediate social interactions.
Unpublished doctoral thesis, University of
California, 1996.

Kuhn, T. S. (1970). The structure of scientific
revolutions (2nd ed.). Chicago: The University of
Chicago Press.

research to practice. Westport, CT: Praeger.

Laosa, L. M. (1992). Illusions, assumptions, and
generalizations. In T. G. Sticht, M. J. Beeler, &
B. A. McDonald (Eds.), The intergenerational
transfer of cognitive skills: Volume II, Programs,
Policy, and Research Issues (pp. 109-118). Norwood,
NJ: Ablex.

Lareau, A. (1989). Home advantage: Social class and
parental intervention in elementary education. New
York: Falmer Press.

Laubach way to reading. Syracuse, NY: New Readers
Press.

preventive health behaviors: The role of parent
beliefs and teaching strategies. (Doctoral


