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Parental Involvement Typologies as Related to Student Achievement

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A dissertation

presented to

the faculty of the Department of Educational Leadership and Policy Analysis

East Tennessee State University

In partial fulfillment

of the requirements for the degree

Doctor in Education

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by

Stacia M. Derrick-Lewis

May 2001

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Dr. Elizabeth Ralston

Keywords: Parent Involvement, Home-School Partnerships,  
Student Achievement, Epstein Typologies, Demographic  
Variables

## ABSTRACT

### Parental Involvement Typologies as Related to Student Achievement

by

Stacia M. Derrick-Lewis

The purpose of this study was to examine specific parenting practices in four East Tennessee counties to determine their relationships, if any, to student achievement among various demographic groups. The investigation included status variables, such as parents' educational level, annual income level, and family structure. Students' Normal Curve Equivalent scores on the Terra Nova Standardized Test were used to measure student achievement. The Epstein (1987) typologies were used to classify parent involvement modalities.

The analysis consisted of four research questions and were tested at the .05 level of significance. Pearson's product-moment, Spearman's rho, and Kendall's Tau B correlation coefficients were used to analyze the degree of relationship between Epstein's six typologies and student achievement. A t-test was used to describe the relationship between student achievement and the number of parents in the home. One-way Analyses of Variance were used to describe the relationships between student achievement and parents' educational and income levels. Kruskal Wallis tests were used to analyze differences in parental involvement by the number of parents in the home, parental income, and education levels. A Hierarchical Regression Analysis was also used to determine the extent to which parents' income, educational levels, and family structure assist in predicting student achievement. The sample consisted of 413 students in grade 4 in four counties in East Tennessee. Two schools were selected from each county as a representative sample of the population.

The results of this study indicate significant relationships between student achievement and the parental involvement typologies of volunteering, learning at home, decision-making, and collaborating with the community. The relationships between student achievement and parental involvement in conjunction with parents' educational and income levels were also significant. Both parental involvement typologies and family demographics emphasize goals that are achieved most effectively when families and schools work together.

IN MEMORY OF

My Grandmother,

Marie Barker Loveday

August 30, 1919 – February 23, 1990

“For he will command his angels concerning you to guard you in all your ways....”

Psalms 91:11

IN HONOR OF

My Parents,

Mr. and Mrs. Lonnie and Wanda Derrick

“God made our home a house a joy, where love and peace are given; It is the dearest place on earth, the nearest place to Heaven.”

-John Martin

Bless My Home

DEDICATION

My Husband,

Clay Edward Lewis

“Love bears all things, believes all things, hopes all things, endures all things....Love never fails”

I Corinthians 13: 7-8

My Son,

Harrison Cade Lewis

“Thanks be to God for His gift that is too wonderful to explain.”

II Corinthians 9:15

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## CHAPTER I

### INTRODUCTION

“A hundred years from now it will not matter what my bank account was, the sort of house I lived in, or the kind of car I drove; but the world may be different because I was important in the life of a child” (Anonymous). The symbolism in this statement was supported by The National Commission on Excellence in Education who published A Nation at Risk in 1983. This report proposed that, in order to succeed, children need two things from their parents: their time and their example. Children who are denied these gifts have a weak foundation for academic achievement. Parents of the distant past were often described as all the things good parents were known to be: caring, compassionate, and committed to the task of raising children with character. Today, such parents are the exception rather than the norm (Fagnano & Werber, 1994).

American youth tend to be immersed in the turbulence of 21<sup>st</sup> Century life. From the impact of the ever-changing nuclear family to a dramatic increase in the time spent at work during an average work week (Fagnano & Werber, 1994), parents are spending less time interacting with their children in activities that promote intellectual and emotional health (Coleman, 1991). Over half of the Americans polled said that helping a child get a good start in life is more important than protecting citizens from crime, creating jobs, or helping the poor or homeless (Fagnano & Werber). Yet, studies have shown that the average parent spends less than an hour a day alone with his or her children (Bennett, 1999). Given that children spend more than 90% of the time between birth and age 18 outside of school (Fagnano & Werber), the unrealized potential for parents contributing to their children’s success is undeniable.

### Statement of the Problem

The barriers associated with a lack of parental involvement go well beyond the school doors. After decades of research, educators have become increasingly aware of the importance of parental involvement in children's education. Yet the amount of parental involvement has sharply declined in recent decades (Coleman, 1991). Over the past century parental involvement in schools accompanied important changes in the patterns of family and school relations. The family and the school were distinguished as separate entities with defined goals. The school's goal was to teach a mandated curriculum to children; the family's goal was to teach their children good behavior and moral standards (Epstein, 1987). More recently, parental involvement in schools has changed again in response to the changing family structure. In fact, one of the national goals of the Goals 2000: Educate America Act (P.L. 103-227) specified that every school will promote the increase of parent participation to support students' academic achievement.

Changing demographics have placed a great demand on the task of fostering parent involvement. The stereotypical family of two natural parents with the mother as housewife and the father as the breadwinner is now an exception to the rule. Most children come from other types of families-- single-parent families, adoptive families, joint-custody families, extended families, and families in which both parents work. In his 1985 demographic study, Hodgkinson noted the rapid change in the American family structure from 1955 when 60% of all households consisted of a working father, a housewife, and two or more school-age children, to 1985 when only 7% fit that description. Additionally, traditional families with two married parents accounted for only 56% of all households in 1989-- a decline of 71% since 1970 (Fagnano & Werber, 1994). Effects of these family changes upon children include less parental involvement

and, perhaps, lower academic achievement. The evidence that parent involvement activities impact student achievement is overwhelming. Henderson concluded, “the evidence is now beyond dispute: parent involvement improves student achievement. When parents are involved, children do better in school, and they go to better schools” (1987, p. 1).

### Purpose of the Study

The purpose of this study was to examine specific parenting practices, as proposed by Epstein (1987), and to determine the relationship, if any, to student achievement. Epstein’s Typologies of parent involvement were defined as:

Type 1- Basic obligations of families,

Type 2- Basic obligations of schools,

Type 3- Involvement at school,

Type 4- Involvement in learning activities at home,

Type 5- Involvement in decision-making, governance, and advocacy,

Type 6- Collaborated exchange with community organizations.

Cluster sampling was employed to select a representative sample from the population. The population included students in grade 4 from school districts in East Tennessee. Data on student achievement were gathered through the Tennessee standardized testing program, the Terra Nova Achievement Test (CTB/ McGraw-Hill, 1997). Data on parental involvement were gathered using a researcher-developed survey adapted from Epstein and Salinas (1993b).

### Research Questions

To examine the relationship between parental involvement and student achievement the following research questions were posed:

1. Is there a relationship between student achievement and the six types of parent involvement?
2. Is there a difference in student achievement by family demographics, to include number of parents in the home, annual income level, and parents' educational background?
2. Is there a difference in the levels of parent involvement between groups based on the number of parents in the home, annual income level, and parents' educational background?
4. To what extent are the differences in student achievement explained by parent educational background, annual income level, and the number of parents in the home?

### Significance of the Study

This study has the potential to add support to the knowledge base of research on parental involvement in schools. The issues surrounding parent involvement and student achievement are significant within the theoretical context of identifying relationships that exist and prescribing the inclusion of particular typologies that enhance student achievement. The benefit for schools may be to direct initial efforts to involve parents in programs that support their children's education and schools.

### Definition of Terms

The following terms used in the study are defined as follows:

### 1. Type 1- Basic Obligations of Families

Those activities in which the parent portrays the importance of education including parenting skills and home conditions for learning at each age and grade level (Epstein & Salinas, 1993a).

### 2. Type 2- Basic Obligations of Schools

Those activities including school-to-home and home-to-school communications about school programs and children's progress (Epstein & Salinas, 1993a).

### 3. Type 3- Involvement at School

Those activities in which the parent volunteers and audiences at the school or in other locations to support the school and students (Epstein & Salinas, 1993a).

### 4. Type 4- Involvement in Learning Activities at Home

Involvement of families with students in learning activities at home including homework and other curriculum-linked activities (Epstein & Salinas, 1993a).

### 5. Type 5- Involvement in Decision-Making, Governance, and Advocacy

Participation of families in school decision-making, governance, and advocacy (Epstein & Salinas, 1993a).

### 6. Type 6- Collaboration and Exchange with Community Organizations

Collaboration by parents with community groups and agencies to strengthen school programs, family practices, and student learning and development (Epstein & Salinas, 1993a).

## Background of the Study

The social organizational perspective, as proposed by Epstein, offered a basis for research on schools and families (Epstein, 1987). Her model has been extended to include schools,

families, communities, and peer groups as the four major spheres of influence on student development. Epstein advanced the term “partnership” instead of “involvement” to express the interests and responsibilities the two institutions, school and family, share in the education of children. Recognizing the school and family as equals in the partnership, it also recognizes the importance of shared insights and potential influence of all family structures (Fagnano & Werber, 1994). Such partnerships or “overlapping spheres of influence” are described as one of the effective connections between families and schools that help students maximize their academic achievement, self-concept, and motivation toward learning.

The concept of overlapping spheres of influence extends the work of Bronfenbrenner (1979) and Leichter (1974) to account for levels of interactions between and among various members of school and family organizations to maximize educational outcomes for children. Both Epstein’s and Bronfenbrenner’s models asserted that communication and shared goals between parents and teachers lead to successful student outcomes. Bronfenbrenner’s ecological perspective of human development emphasized the connection between social contexts as described in four environmental systems: microsystem, mesosystem, exosystem, and macrosystem. The most immediate systems influencing the individual were the microsystem which represents face to face interactions, (e.g., parent and child) and the mesosystem, which represents interactions among elements in children’s microsystems where there is an awareness of the continuity of persons across settings, (e.g., family and school). Bronfenbrenner hypothesized that personal development would be enhanced when exchanges between settings sustain trust and goal consensus. The exosystem represents contexts that are related indirectly to children’s outcomes, (e.g., family and community). The macrosystem represents those cultural values that relate children’s development through their impact on other systems (Bronfenbrenner,



1979). “Development is defined as the person’s evolving conception of the ecological environment, and his relation to it, as well as the person’s growing capacity to discover, sustain, and alter its properties” (p. 9). In short, the most important feature of Bronfenbrenner’s ecological model is that it emphasized the interrelationships among subsystems, such as the communication between the family and school.

Leichter’s (1974) research on the “family as educators” suggested that families can be viewed as partners in their children’s education and development. Like Epstein and Bronfenbrenner, it recognized the interlocking histories of institutions that educate and socialize children, as well as the changing skills of individuals in multiple settings that affect children’s learning and development. The alternative perspectives of school and family connections suggest that there are different patterns, purposes, potentials and connections between families and schools. In order to understand how these alternative perspectives affect student learning, it is important to further the study of parental involvement on the effects of specific connections between and among institutions that share responsibilities for children’s education.

### Limitations and Delimitations

The results of this study were generalizable only to the four participating school districts in East Tennessee. The data were limited to respondents who volunteered and the extent to which volunteer responses accurately reflected parent participation in their child’s education. Cluster sampling was used to select participants to ensure a high rate of return.

The delimitations of this study were based on the population studied, which included students in grade 4. Only one survey was distributed to parents of the students.

### Overview of the Study

This chapter was devoted to establishing the basis and need for the completion of this study. Chapter 2 consists of a review of related literature and findings of parental involvement as related to student achievement. Chapter 3 contains the methodologies and procedures that were used to gather data, including a discussion of the population, a description of the instrument, the procedures used, and the analysis of data. Chapter 4 presents statistical analyses of the results gleaned from the data. A summary of results, conclusions, recommendations, and implications of the study are presented in Chapter 5.

## CHAPTER 2

### REVIEW OF THE LITERATURE

As George Bernard Shaw noted, “Perhaps the greatest social service that can be rendered by anybody to the country and to mankind is to bring up a family” (as cited in Canfield & Hansen, 1993, p. 57). Decades of research and major reform efforts recognize parent involvement as a critical ingredient to the success children obtain in school (Finn, 1998). Parents are increasingly viewed as the decisive element between their children and success in school. Studies have shown that partnerships between schools, families, and communities increase children’s chances for success in school and later in life (Davies, 1988; Fagnano & Werber, 1994; Olmsted, 1991).

The rationale for developing such partnerships includes: improved school programs and climate, increased parent skills and leadership, provision of family services, and support and connection of families with the community (Epstein, 1995). Ultimately, central to such partnerships is the student and that student’s success. Parent involvement, for the purpose of this study, was devoted entirely to presenting the outcomes of parental involvement as related to student achievement. The material reviewed in the following chapter is grouped as follows: evolution of parent involvement, theoretical perspectives, Epstein’s typologies of parent involvement, parent involvement: rhetoric or reality, family demographics, current research, and the effects parental involvement has on schools, parents, and student achievement.

## Evolution of Parent Involvement

The roots of the current emphasis on parent involvement can be traced as far back as prehistoric times (Berger, 1991). Parents have always been the nurturers and caregivers by modeling and supporting their children, and being responsible for their livelihood. They imparted skills, moral standards, and operated under the assumption that they were obligated to “bring up the family.”

As early as Greek and Roman society, care and education of the family was paramount (Berger, 1991). By the 17<sup>th</sup> Century, new ideas brought forth new values about the importance of children’s interaction with their parents. Comenius (as cited in Piaget, 1967) stressed the importance of early childhood education and its ability to shape children:

It is the nature of everything that comes into being that while tender it is easily bent and formed, but that, when it has grown hard, it is not easy to alter. Wax, when soft, can be easily fashioned and shaped; when hard it cracks readily (p. 58).

Both Plato and Aristotle described developmental characteristics and suggested that the quality of care given to children has a profound effect on the child (Berger, 1991).

Theories of child rearing had emerged in the United States by the 19<sup>th</sup> Century and were, in part, based on these European beliefs. The first theory was the Calvinist doctrine of infant depravity. Calvinistic doctrine demanded strict authoritative guidance by the parents and willful compliance by the child. An alternative theory stemmed from the influence of Rousseau and Pestalozzi, who viewed children as basically good. Unlike Rousseau, however, Pestalozzi put into practice his beliefs in the natural goodness of children by spending his life helping those in

need. A third view in the United States was derived from the work of John Locke. He viewed children as being influenced by the environment, asserting that educational intervention was critical (Berger, 1991).

Prior to the 20<sup>th</sup> Century, positive role models were central to child rearing practices. However, a larger role for parents emerged during the early 20<sup>th</sup> Century with the trend toward discipline and punishment (Zellman & Waterman, 1998). In addition, parent education heightened with the emergence of parent education groups, parent cooperatives, and parent-teacher organizations. The goal was to teach parents about proper ways to rear their children, to understand and support the function of the education system, and to understand the norms of society and their ability to adapt to them.

During the mid 20<sup>th</sup> Century, major changes in education took place. First, research opened the door for the establishment of Head Start programs, which recognized the benefits of early childhood education on children's development. Second, there was a change in how cultural diversity was viewed. It was recognized that rather than being "culturally deprived", all people have cultures and that diversity is a strength, rather than a weakness. A third emphasis was placed on various means of support for the entire family. Services for health and emotional well-being, as well as social concerns, were included in these programs. Other federally funded programs continued to flourish that included provisions for parent participation, Parent Child Development Centers, Title I parent councils, Follow Through Programs, and Individualized Education Programs (Olmsted, 1991). These programs established the need to involve parents of all social backgrounds in the education of their children. As evaluations of these programs emerged, researchers found enhanced student performance, increased school competency, and improved attitude toward school (Berruta-Clement, Epstein, & Weikart, 1984; Olmsted, 1991).

A response to the need for parents' involvement in the education of their children has since emerged. In fact, the past decade has established new perceptions, which recognize the mutual interests and overlapping influences of schools and families (Epstein, 1992). School and family partnerships emphasize that the two entities share the responsibility for educating and socializing children. There is, then, a history of shared goals, interests, and investments in children's success on which to build more effective programs of school and family partnerships (Epstein & Dauber, 1991).

### Theoretical Perspectives

Three theoretical perspectives currently exist about schools and families as institutions and the contributions they make to children's education and development. Each perspective underlies the practices schools and families assume and view as successive steps in the educational process. They have profoundly different approaches to family and school connections and reflect the need to bring together the roles and interactions between families and schools.

One perspective that exists describes the relationships between schools and families as "worlds apart" (Lightfoot, 1978). An emphasis is placed on the clear boundaries that exist between areas such as discipline, rewards, control, and practices. This view assumes that families and schools are most effective when the institutions sustain "independent goals, standards, and activities" (Epstein, 1992; Parsons, 1959). Separate spheres of influence have the intent to communicate only when serious problems occur. The commonality of shared goals and interests is nonexistent.

The second perspective emphasizes a sequence of critical stages in which parents and teachers contribute to children's development. This belief is based on studies that have shown how essential the early years of life are for future success (Dauber & Epstein, 1993; Fagnano & Werber, 1994). Parents are the child's first educators, thus teaching their children life skills in order to prepare them for the educational process. Educators assume the responsibility for teaching the school's curriculum.

The third perspective, based on shared responsibilities, emphasizes the coordination and cooperation of schools and families and encourages communication and collaboration between the two institutions (Epstein, 1986). This perspective assumes that schools and families can, by design, overlap their goals, resources, and practices. Instead of separate or sequential contexts, this model is based on the perspective of Epstein's overlapping spheres of influence. The overlapping spheres of influence model extends the work of Bronfenbrenner (1979) and Leichter (1974) to account for levels of interactions between and among various members of school and family organizations to influence student learning. It is assumed that families and schools share common goals for their children, goals that are achieved most effectively when families and schools work together. The most critical element of the model of overlapping spheres is the central role of the child in school and family partnerships. Children's learning, development, and success are the major reasons for school and family partnerships (Epstein & Connors, 1992). Teachers who focus on teaching the whole child and parents who become partners in their child's education reflect a combination of labor that pushes the spheres of influence together, thus increasing interactions between members of the school and family. This creates what Epstein (1986) referred to as "school-like families and family-like schools" (p. 280).

## Typologies of Parent Involvement

More recent research refers to parental involvement as “school, family, and community partnerships” for the purpose of emphasizing the shared interests, responsibilities, and overlapping influences of family, school, and community (Epstein, 1995). It recognizes all stakeholders as equal contributors to children’s education and development. One of the most important findings in studies done by the Center of Families, Communities, Schools, and Children’s Learning is that the involvement of parents in their children’s schooling depends more on how schools seek to involve parents than on the status of the parents ( Dauber & Epstein, 1993).

The theory of overlapping spheres of influences has been instrumental in developing types of parenting practices which engage all stakeholders in the partnership. The six types of involvement can guide the development of a balanced, comprehensive program of partnerships, including opportunities for family involvement, with potentially important effects for students, parents, and teachers. The following is a discussion of each of the six types of involvement (Epstein, 1987).

### Type 1- Basic Obligations of Families

This type of involvement includes the basic levels of support for health and safety, nutrition, housing, and the development of parenting skills, along with child rearing practices that prepare children for school. Particularly important is the task of assisting families of children at all grade levels in understanding how they can build a home environment conducive to optimal student learning across all grade levels. Examples of this type of involvement are parent education training, family support programs, and home visits. A challenge to this type of involvement is providing educational material to all families (Davies, 1988; Epstein 1987).



## Type 2- Basic Obligations of Schools

Parent involvement at school refers to the design of effective forms of communication with both home-to-school and school-to-home communications. Schools are obligated to communicate with families and to inform them of school programs, events, and student progress. Sample practices include conferences, weekly student work folders, progress reports, report cards, phone calls, and memos. Innovative channels for interaction may be necessary to effectively employ this type of involvement. The key is getting the information home and putting it in terms parents understand. Parents are expected to be aware and monitor their child's progress, respond effectively to problems, and maintain interactions with the school and their child's teacher. Effective school, family, and community partnerships can assure that information flows in both directions: school information to home and family information to school (Epstein, 1987).

## Type 3- Involvement at School

Involvement at any level and by anyone, including parents, is the purpose of this type of involvement. Individuals who support the school goals would be used as volunteers in the classroom and in the school building before, during, or after the school day. Additionally, important to this type of involvement is being supportive of school performances and sports events. Sample practices include: volunteer programs, room parent programs, and parent patrols. Steinberg (1996) found a significant correlation of achievement with parents' attendance at school programs, conferences, and extracurricular activities

Epstein (1986) reported that about 4% of elementary school parents are active at school 25 days or more each year, but over 70% never volunteer. Over 60% work full-time or part-time during the school day, making traditionally organized volunteer work impossible. The challenge

for this type of involvement is to include all stakeholders and organize schedules to enable parent participation (Epstein, 1987).

#### Type 4- Involvement in Learning Activities at Home

Involvement at this level assists parents in becoming cognizant of their child as a learner. Teachers guide parents by providing information and educational materials so that they can assist their children with academic and other skills. Being able to monitor and provide assistance is critical to this type of involvement.

Epstein (1995) referred to this type of involvement as the most difficult to implement because it requires that every teacher recognize the connection between the child in the classroom, the curriculum, and the family's connection to the child as a learner at home. Research with thousands of parents indicate that parents want to motivate, encourage, monitor, and discuss schoolwork with their child at home (Dauber & Epstein, 1993; Epstein, 1986; Epstein & Connors, 1992).

#### Type 5- Involvement in Decision-Making, Governance, and Advocacy

Parents and other community stakeholders participate in decision-making, school leadership, and community organizations. Parent involvement of this type puts effort into giving the parents a voice into school programs and improvements that potentially affect their children. It is critical that representation of all children and all families are included in making school decisions. Benefits for parents include: connections with other families, feelings of ownership within the school community, and input into policy implementation (Epstein & Connors, 1992).

#### Type 6- Collaboration and Exchange with Community Organizations

Parent involvement at this level refers to collaboration with agencies, businesses, and community organizations that enable the community to contribute to the school, children, and

families. School investments in this type of partnership with community organizations can benefit all children, strengthen school programs, and improve family access to community and support services (Epstein, 1987).

### Parent Involvement: Rhetoric or Reality

The perspective from which school and family partnerships evolved portrays families as an asset, making explicit the schools' responsibility in working closely with families to account for all student needs (McNeal, 1999). The primary goal of school and family partnerships was to increase the number of families who were actively engaged in their children's education (Epstein, 1992). Although parental involvement declined dramatically from elementary to middle and high school (Baker & Stevenson, 1986; Epstein, 1986; Eskey, 1994), parents wanted to know how to engage in behaviors that bolster student learning. As for involvement with their children's schools, Epstein estimated that more than 70% of all parents have never been involved in a volunteer activity (1986). Many of today's parents seem to be products of a system in which parent involvement was sparse and even unwelcome. Others view the American public schools as unfamiliar and somewhat intimidating institutions for reasons that include negative personal school experiences, limited education, language barriers, literacy skills, and the demands of employment (Comer, 1986). In many cases, this lack of a sense of belonging creates additional barriers to parent participation.

In Dauber and Epstein's (1993) study of parental involvement in inner city elementary and middle schools, the consensus of teachers established that parents were not involved for different reasons. Instead, teacher responses revealed that students' parents were not involved with the school and did not want to be. As surveys of these parents revealed, the parents

reported little involvement, but this did not mean they did not want to be involved in their children's education. Other reports from parents revealed that they had not been asked by the school to become volunteers but were willing to take advice from the schools and teachers on how to help their own children at home. Analyses by Dauber and Epstein (1993) indicated that schools need to improve certain practices, such as giving parents specific information on their children's academic subjects and on what their children are expected to learn each year. It also confirmed the parents' contention that they became more involved when the schools give them some direction.

Whether for social, cultural, linguistic, or economic reasons, the voices of parents who are uninvolved in their children's education are seldom heard. Many schools guarantee their own demise by decreasing the expectations they have for parents. If schools make it explicit that they value the language, culture, and knowledge of the parents in their communities, parents may more readily accept invitations to participate. The parents' level of involvement is directly linked to the specific practices of the schools that encourage involvement at school and guide the parents in knowing how to help their children at home (Gordon, 1977). The data are clear that efforts by the schools that actively seek to inform and to involve parents in school activities are more important than family size, marital status, parent education, annual income, and grade level in determining whether parents get involved with their children's education (Dauber & Epstein, 1993).

### Family Demographics

There is a continuing debate regarding the quality of children's family environment and how changes in families and schools may be affecting the level of student achievement. A

perceived deterioration in the family environment depicts an increase in the number of teen mothers and out-of-wedlock births, number of children living in poverty, an increase in the proportion of mothers working, and an increase in the number of children living in single-parent families (Grissmer, Kirby, Berends, & Williamson, 1994; Haynes & Olson, 1992). A recent report published by the Council on Families in America (1993) noted, “The evidence is strong and growing that the current generation of children and youth is the first in our nation’s history to be less well off-- psychologically, socially, economically, and morally--than their parents were at the same age” (p. 35). This shift is ominously reflected in the struggle of today’s family.

Because an individual at any moment is the sum total of many factors, events, and interacting experiences, the goal of understanding children adequately requires knowledge of environmental influences impinging upon them. This study focused not only on parental involvement issues, but also on the extent to which student achievement can be explained by family characteristics. Family characteristics included in these analyses were family structure, parents’ educational level, and annual income level.

The following statistics are demonstrative of changing family characteristics:

1. 59% of all children will live in single-parent homes at some time.
2. Two- thirds of mothers are in the workforce.
3. The professional work week has topped 50 hours.
4. 25% of all children are born to single mothers.
5. 50% of all youngsters whose parents are married will see those marriages end in divorce.
6. The number of children living in poverty has increased from 11.1 million in 1980 to 14 million in 1995, a 26% increase: 20% of all U.S. children, 38% of

Latino children, and 45% of black children ( Fagnano & Werber, 1994, p. 5).

The toll of these pressures is etched deeper on a generation of children who, quite literally, do not know what to expect of life.

### Family Structure

Evidence has been cited that indicates today's change in family structure has produced detrimental effects on the status of children (Fagnano & Werber, 1994). Mann (1983) summarized the effects of the diversified family in the following way:

Children's achievement is directly related to the absence of one parent.

Children from single-parent families make lower grades, are more disruptive in school and have poorer attendance records than children from intact families (p. 123).

In her study of relationships between parent characteristics and student achievement, Mayes documented that factors in the home environment are more closely correlated with school achievement than with intelligence (1965). The environmental factors that contributed most to this difference were partly emotional, economical, and motivational. Fraser (1961) drew an even broader conclusion:

The child is part of an environment much larger than that of the school, and his progress is vitally affected by the whole of that environment, by the attitudes which it encourages, by the motivation which it provides, and by the stability and security which he can derive from it (p. 70).

It is a rare family that is untouched by some familial condition that creates hardship for parents trying to raise a child to be responsible, self-disciplined, and motivated to learn.

## Parents' Educational Level

Analysis of extensive research suggests that the most important influences on students' achievement that have changed most favorably are parent education levels and family size. Compared to families in 1975, families in 1990 have more highly educated parents with fewer children (Grissimer et al., 1994). These factors are primary reasons that positive changes in family characteristics would predict higher student achievement. For example, 7% of mothers of 9 to 12 year-old children in 1970 were college graduates, compared to 16% in 1990. In addition, 38% did not have high school degrees in 1970, compared to only 17% in 1990. One of the most persistent findings in such research is that a child's subsequent attainment is highly correlated with the education of the child's parents (Baker & Stevenson, 1986; Griffin, 1996; Grissimer et al., 1994; McNeal, 1999).

Although, on average, more highly educated families are more involved (Epstein, 1986), parents who have not had educational opportunities are also very supportive of schools and desire a quality education for their children. Many parents feel uncomfortable with the schools because they had to quit school or had an unpleasant experience in their own schooling. Regardless of one's choice of theoretical perspective, a persistent relationship remains between an individual's educational attainment and status attainment, as well as between a parent's educational attainment and that of his or her child. Of utmost importance, studies show that educated parents translate information more successfully into family practices that help to manage and monitor the education of their early adolescents (Baker & Stevenson, 1986; Biblarz, 1997).

## Annual Income Level

A number of studies have been conducted in regard to parents' annual income as related to student achievement. Studies conducted by Coleman (1966) and Lareau (1989) were of the most importance concerning the effects of income on achievement. Their findings have supported the provision of equitable educational opportunities and have been directed toward determining the extent to which American public schools provide for equality of opportunity across levels of income. In summarizing his research on annual income levels and student achievement, Coleman (1966) concluded that:

Taking all these results together, one implication stands out above all: that schools bring little influence to bear on a child's achievement that is independent of his background and general social context; and that this very lack of independent effect means that the inequalities imposed on children by their home, neighborhood, and peer environment are carried along to become the inequalities with which they confront adult life at the end of school. For equality of educational opportunity through the schools must imply a strong effect of schools that is independent of the child's immediate social environment, and that strong independent effect is not present in American schools (p. 325).

In a similar vein, Lareau's research findings suggested that in spite of a shared positive value for education and a desire to see their children succeed, a disparity in parental involvement existed between middle- and upper-class parents and working class or lower-class parents (1989). Lareau added that clear evidence existed that parents' actions can have unintended negative consequences. Parents' social class influenced their skills and confidence in their ability to help their children. Upper-middle class parents generally saw an interconnectedness



between the home and school and believed they had the right, and the responsibility, to supervise their children's schooling. By contrast, working class parents were likely to invoke a separation between home and school. They did not consider themselves as integral to the educational process. Middle- and upper-class parents demonstrated the highest levels of talking and interaction with their children, as well as spending more time volunteering and attending parent-teacher conferences (Hart & Risley, 1995; Revicki 1981).

The debate about the effects of parental income levels upon educational outcomes remains. One concern that stands out in this debate has been the problem of increasing social mobility by reducing the effects of income level of origin upon income level of destination. In reviewing other studies, it was reported that the difference in achievement between children from high income compared to low-income families is attributable to a combination of factors, not income alone (Grissmer et al., 1994). For example, young people in high-income families were more likely to have parents with higher levels of education than children from low-income families. A recurring theme in many of these studies was that less-educated parents or parents with lower socioeconomic status cannot, or do not want to, become involved in their children's education. Yet, the results of many of these studies also indicated that parents' practices of involvement compensate for less education or less income to benefit children (Caldas & Bankston, 1999; Coleman, 1991; Lareau, 1987).

As further research mounts, more studies reveal a sizable gap between the most and least advantaged children. However, these studies continue to support family involvement as the key to success in school. Studies show that, regardless of socioeconomic status, parents who provide encouragement and support, convey high expectations, and talk to their children about homework and school have students who are more successful (Dauber & Epstein, 1993; Eagle,

1989; Leichter, 1974). Other studies suggest that parental involvement in education can help compensate for the lack of other family resources. Families from all situations, regardless of the formal education or income level of the parents, and regardless of the grade level or ability of the student, gain an overwhelming amount of benefits from school and family partnerships (Caldas & Bankston, 1999; Chavkin, 1989; Epstein, 1987; Kelleghan, Sloane, Alvarez, & Bloom, 1993; Lareau, 1989; Leichter, 1974; Ziegler, 1987).

### Current Research

Since the 1980s, the concept of family involvement has continued to evolve and prove beyond dispute the positive connection between parent involvement and student success. Many educators today embrace a “partnership” model of involvement, centered on the belief that in order to serve and support families, schools must work to create and sustain communication with parents, listen carefully to what parents have to say, and be willing to welcome parents into the school as valued partners in the educational process (Baker, Scher, & Mackler, 1998).

Effectively engaging parents in the education of their children has the potential to be more transformational than any other type of school improvement effort (Zellman, Waterman, & Eastman, 1997).

Despite the evidence on parent involvement and its powerful influence, Caldas and Bankston (1999) reported that many schools are still dominated by cultures that give parents only marginal roles to play and that more than 40% of all parents still do not take part. The knowledge base that exists can enable schools to support families, help them maintain a home environment that encourages learning, and foster the specific behaviors at home that promote student performance. The most comprehensive survey of research, developed by Henderson and

Berla, reported that neither families nor schools can do the job alone (1995). Even more conclusively, Henderson and Berla (1995) found that the more the relationship between parents and educators approach a comprehensive, balanced, and well-planned partnership, the higher the students' level of academic achievement.

Other studies continue to send a strong message: students at all grade levels have more positive school attitudes, higher academic achievement, and higher aspirations if they have parents who provide structure, guidance, emotional support, and remain actively involved. Many different types of parenting practices and behaviors have been associated with positive student outcomes. Those include authoritative parenting practices (Baker & Stevenson, 1986, Fletcher, Darling, Steinberg, & Dornbusch, 1995); high expectations and aspirations (Baker & Stevenson, Epstein, 1995; Henderson & Berla, 1995; Zellman et al., 1997); parent-teacher communications, participation in school events, and parental assistance at home (Baker & Stevenson, Griffin, 1996; Steinberg, 1996); and participation in school-level governing or decision-making roles (Baker et al., 1998; Caldas & Bankston, 1999, Epstein, 1987).

Fletcher et al. (1995) found that parents who practice authoritative parenting have distinct styles of interacting with their children that are positively associated with student outcomes. Authoritative parents provide strict guidance in the family setting. Guidance includes the involvement of routines at home, monitoring the child's expenditure of time, teaching and explaining concepts, helping with homework, and providing emotional support. These parents view school performance as being accomplished through regular practice and work and accept the responsibility that the home environment is among the most important influences on academic performance (Baker & Stevenson, 1986).

Henderson and Berla (1995) found that one of the most accurate predictors of a student's achievement is the extent to which that child's family is able to express high expectations for their child's achievement and future careers. As support and encouragement from parents accumulate, children feel more secure, work to achieve their full potential, and build positive attitudes toward school (Zellman et al., 1997).

Steinberg (1996) found a significant correlation of achievement with parents' attendance at school programs, conferences, and extracurricular activities. According to Griffin (1996), parents can set a good example by attending school programs and parent conferences; their presence at all school meetings shows the child that they place a premium on their child's education. When parents show an interest in their children's education and maintain high expectations for their performance, they are promoting attitudes that are critical to achievement--attitudes that can be formed independent of social rank and other external circumstances (Henderson & Berla, 1995).

Efforts to bring the voices of parents into school decision-making and school improvement were found to be an effective means of improving student achievement (Baker et al., 1998). Decision-making activities refer to those in which the parent takes an active role in the processes of parent teacher organizations, parent councils, and other committees at the school or district level. The claim of shared decision-making proponents is that ownership is shared by all stakeholders (Caldas & Bankston, 1999). While few studies examine the impact of involving parents in decision-making roles, Caldas and Bankston claim that teachers, parents, and administrators would like more parent impact in decision-making.

## Effects of Parent Involvement

Research on the potential effects of family involvement in the elementary grades presents a favorable picture. The commonality of findings from several studies strengthens the credibility and further supports the notion that families' involvement in their children's education is critical to their cognitive, emotional, and social development.

In examining how the effects of parent involvement influence the child, McLaughlin and Shields (1987) found two conclusive links between parent involvement and student achievement. First, students, including those from low socioeconomic status, whose parents are involved in their schools, do better in their academic subjects and are less likely to drop out than those students whose parents are uninvolved. Second, those schools whose parents are well-informed and highly involved are most likely to be effective schools. In fact, most studies reviewed indicated that students at all grade levels are likely to benefit from family involvement (Comer, 1986; Henderson, 1987). Although little analytical research exists on the effects on students of specific practices of partnership, there is much to be said for comprehensive programs and the benefits they reap. A summary of the benefits affecting students include: students are likely to improve their academic achievement, including grades and standardized tests, have better attendance, regular homework habits, more positive attitudes toward school, better behavior, and an increase in the completion of secondary and postsecondary education (Henderson, 1987; Epstein, 1986).

Data obtained directly from parents contribute important information about the benefits of family and school connections to parents. Studies conclude that school, family, and community partnerships provide family services and support, increase parent skills and leadership, connect families with others in the school and in the community, and increase parent

efficacy, as well as increased confidence in their child's school (Coleman, 1991; Henderson, 1987).

Schools that work to maintain high levels of parental involvement improve school programs and school climate. Parental involvement in schools has been associated with reduction in dropout rates as well as delinquency and pregnancy rates. In addition, Comer (1986) reported that parent involvement in a well-structured program helps to eliminate stereotypes that teachers hold about families. Working with these families raises teachers' expectations and appreciation of parents as partners. In turn, high ratings and appreciation from parents bolster teachers' efficacy and their willingness to expand the practice of involvement (Baker & Stevenson, 1986; Coleman, 1991; Henderson, 1987).

## CHAPTER 3

### RESEARCH METHODOLOGY

The purpose of this study was to examine specific parent involvement practices, as proposed by Epstein (1987), to determine their relationship, if any, to student achievement. The investigation of these relationships among various demographic groups included parents' educational background, annual income level, and family demographics. This chapter describes the research design, sampling procedures, instrumentation, procedures, and the analysis of data.

#### Research Design

A causal comparative design, as described by Gall, Borg, and Gall (1996), was used for this study. This investigation was to examine specific parenting practices in four East Tennessee counties to determine their relationships among various demographic groups. This study included status variables, such as parents' educational and income levels and family structure.

#### Sampling Procedures

The population consisted of students in grade 4 in four counties in East Tennessee. These counties were chosen based on their location in order to facilitate data retrieval. A total of 6,166 students were enrolled in the 4th grade in the selected counties. In order to accrue a sample estimate of plus or minus 5%, with a 95% level of confidence (Sawyer, 1982), a sample of 375 participants was suggested. To help ensure a high rate of return, each classroom that achieved a minimal return rate of 90% was given coupons to Chic-Fil-A, A & W Restaurant, Papa John's, Dairy Queen, or Sonic. With the intent of increasing the return rate of questionnaires, cluster sampling was used rather than randomization.

Systematic sampling was employed to select two schools from each district to participate in the study. Within each school, all students in grade 4 were selected as participants. Parent participation was strictly on a voluntary basis and data were presented on all those who chose to be participants. Achievement data were obtained for each student from the school records.

### Instrumentation

Developed by Epstein and Salinas (1993), the School and Family Partnerships: Questionnaires for Teachers and Parents in Elementary and Middle Grades, was used to gather data generalizable to the population. The questionnaires used in this study provided a profile of the current level of involvement in schools from the perspectives of parents. In this study, “parent” means the adult in the family who has the most contact with the school about the student. This is the person who was asked to complete the parent survey.

The survey was composed of two independent questionnaires: (a) Survey of Teachers in Elementary and Middle Grades, and (b) Survey of Parents in Elementary and Middle Grades. Although not used in this study, the seven- page survey of teachers includes 12 sections with 131 items. The teacher questionnaires ask for professional judgments about parent involvement, the practices teachers are using, and partnership programs teachers would like to see implemented or improved in their schools and classroom.

The Survey of Parents in Elementary and Middle Grades includes 10 sections with 79 items of information on family attitudes about the school, family practices of involvement, workshops and community services desired by families, homework practices, family structure and experiences; and open-ended questions for ideas and suggestions. For purposes of this



study, only Section 3 of the parent survey was sent to parents. A copy of the parent involvement survey instrument is included in Appendix A.

Section 3, family practices of involvement, includes 18 items on which parents were asked to indicate the level of participation they achieved. Epstein, Salinas, and Horsey (1994) reported this questionnaire as having a reliability coefficient of .77 based on analyses of data collected in 1992. The data on which the scales were developed were based on information gathered from 243 teachers and 2,115 parents in 15 elementary and middle schools in Baltimore, Maryland. The schools were in economically depressed areas in the inner city. The reliability of this scale was reported in terms of the internal consistency of scores on items that purport to measure the same concept. The alpha reliability formula reflects the intercorrelation of a set of items, accounting for variations in responses to the items.

For purposes of this study, survey items were linked to Epstein's (1987) typologies of parent involvement. For example: items a and r were used to measure Type 1 Parent Involvement- Parenting; items j and k were used to measure Type 2 Parent Involvement- Communication; items b, n, and o were used to measure Type 3 Parent Involvement- Volunteering; items c, d, e, f, g, h, i, m, and p were used to measure Type 4 Parent Involvement - Learning at Home; item l was used to measure Type 5 Parent Involvement- Decision-Making; and item q was used to measure Type 6 Parent Involvement- Collaborating with the Community.

Because of the need to address local issues of importance, the final form of the survey included additional questions to address particular interests and issues. Family demographic questions that refer to parents' educational level, annual income level, and family structure were added. These additions provided further insight into the relationship between parent involvement and student achievement for various demographic groups.

The scores used in this study for student achievement were the Normal Curve Equivalents (NCEs) for the Total Battery on the Terra Nova Standardized Test (CTB/ McGraw-Hill, 1997). This assessment is a norm-referenced and criterion-referenced test designed to measure achievement in the basic skills commonly found in state and district curricula. NCEs for the Total Battery were used to identify student achievement. NCEs are based on an equal-interval scale ranging from 1 to 99 with a mean of 50 and a standard deviation of approximately 21. The Terra Nova is state-mandated in grades 3 through 8 in Tennessee.

### Procedures

Before the study was initiated, approval was obtained from the Institutional Review Board, as well as permission from the superintendents and principals in each of the four school districts (See Appendix B). Packets containing a cover letter and the questionnaires were given to each teacher whose classroom was selected (See Appendix C). Each child was given a questionnaire by his or her teacher and asked to have his or her parent or guardian fill out the questionnaire and return it to school within five days. The questionnaires were coded to the student for purposes of matching parent responses to student achievement scores. Parents were assured of confidentiality and that no unauthorized persons would have access to them. The privacy of the students, whose student achievement scores were applied, remained fully protected. Parents with more than one child were asked to return surveys in relation to their involvement with the child whose classroom was chosen. Parent confidentiality was assured.

### Analysis of Data

As an initial step in the data analysis, Pearson's product-moment, Spearman's rho, and Kendall's Tau B correlation coefficients were used to describe the relationship between Epstein's typologies of parental involvement and student achievement. A t-test was used to describe the relationship between student achievement and the number of parents in the home. One-way Analyses of Variance were used to describe the relationships between student achievement and parents' educational and income levels. Kruskal Wallis tests were used to analyze differences in parent involvement, by the number of parents in the home, parental income, and education levels. Hierarchical regression analysis was also used to determine the extent to which parents' income, educational levels, and family structure assist in predicting student achievement.

## CHAPTER 4

### RESULTS

The purpose of this study was to examine specific parent involvement practices of parents in four East Tennessee counties and determine the relationship, if any, to student achievement, among the various demographic groups. The investigation of these relationships included status variables such as parents' educational background, annual income level, and family structure. Students' NCE (Normal Curve Equivalent) scores on the Terra Nova were used to measure student achievement and the Epstein (1987) typologies were used to classify parent involvement modalities.

#### Descriptive Analyses

Fourth graders in the public schools from the participating East Tennessee counties yielded a population of 6,166 students. Systematic sampling was used to select two schools from each of the four counties to provide a representative sample of students. Data were gathered and results were reported on the two schools from each county that was chosen. Seven hundred twenty surveys were distributed to students in grade 4 in the two schools selected from each county. Four hundred seventy-five surveys were returned, which exceeded the minimum requirement of 375 surveys in addressing the 95% level of confidence. Of these returned surveys, usable data were analyzed for 413 (57%) surveys. Sixty-two surveys were unusable because of incomplete answers or missing student achievement scores. Table 1 presents the breakdown of this sample by county.

TABLE 1

## FOURTH GRADE POPULATION BY COUNTY WITH PERCENTAGES OF PARTICIPANTS INVITED AND USABLE DATA

County	4 <sup>th</sup> Grade Population	4 <sup>th</sup> Grade Sample used to gather data	Number and Percent of Participation with Usable Data
A	352	130	49 (38%)
B	565	157	104 (66%)
C	4,158	274	156 (57%)
D	1,091	159	104 (65%)
TOTAL	6,166	720	413 (57%)

In order to determine the extent to which relationships between student achievement and parental involvement vary among demographic groups, the survey asked parental/guardian respondents to identify their highest educational level, number of parents living in the home, and their annual income level. Table 2 presents the descriptive background data of the sample by county in relation to these variables.

The highest educational level of the majority of the parents who responded to the survey in this study was a college degree (42.6%), followed by those who had some college (27.3%), completed high school (21.9%), and some high school (8.2%). The total percentage of

respondents' highest education level indicated that 91.5% of the parents had completed high school.

Most of the students lived in homes in which two parents were present (84.5%). Demographic data indicated that single-parent homes accounted for a small percentage of the sample (15.4%). In addition, only two cases overall indicated "other" as the family structure.

In exploring parents' annual income level, the most frequent income level of the parents participating in this study was \$50,000 or more (40.2%), followed by those who reported \$31,000 to \$40,000 (19.1%), \$21,000 to \$30,000 (16.5%), \$10,000 to \$20,000 (13.1%), and \$41,000 to \$50,000 (11.1%). Over 70% of the parents earned \$31,000 or more annually.

Student achievement was measured by the Normal Curve Equivalent (NCE) scores obtained on the Total Battery on the Terra Nova Standardized Test. The Terra Nova assessment is a norm-referenced and criterion-referenced test designed to measure achievement in the basic skills commonly found in state and district curricula. NCEs are based on an equal-interval scale ranging from 1 to 99 with a mean of 50 and a standard deviation of approximately 21. Table 3 presents student achievement levels by county.

TABLE 2

## PARENTS' EDUCATIONAL LEVEL, NUMBER OF PARENTS AT HOME, AND ANNUAL INCOME LEVEL, BY COUNTY

	County A		County B		County C		County D		TOTALS	
	f	%	f	%	f	%	f	%	f	%
Parents' Educational Level:										
Some High School	2	4.1	13	12.7	3	1.9	16	15.2	34	8.2
Completed High School	14	28.6	30	29.4	18	11.5	27	25.7	89	21.9
Some College	14	28.6	40	37.3	31	21.0	28	27.6	113	27.3
College Degree	19	38.8	21	20.6	103	65.6	33	31.4	177	42.6
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
Annual Income Level:										
10,000-20,000	5	10.2	21	20.6	7	4.5	21	20.0	54	13.1
21,000-30,000	9	18.4	24	23.5	11	7.0	24	23.8	68	16.5
31,000-40,000	15	30.6	27	24.5	15	9.6	22	21.0	79	19.1
41,000-50,000	6	12.2	14	13.7	14	8.9	12	11.4	46	11.1
50,000 or more	14	28.6	18	17.6	109	70.1	25	23.8	166	40.2
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
Number of Parents Living At Home:										
One	5	10.2	16	15.7	23	14.6	18	17.1	62	15.4
Two	44	89.8	86	82.4	133	85.4	85	81.9	349	84.5
Other	0	0	1	1.0	0	0	1	1.0	2	.004
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0

TABLE 3

## STUDENT ACHIEVEMENT SCORES BY COUNTY

County	n	Mean NCE Scores	SD
A	49	67.5	16.5
B	104	58.4	17.1
C	156	68.9	16.7
D	104	61.2	19.3
TOTAL	413	64.2	17.9

Student achievement ranged from a high mean NCE of 68.9 in County C to a low mean NCE of 58.4 in County B. Standard deviation scores ranged from a high of 19.3 in County D to a low standard deviation of 16.5 in County A.

Parent involvement was measured through a survey based on Epstein's (1987) typologies of parent involvement. The Family Practices of Involvement Questionnaire was used to measure parent involvement typologies. Tables 4 through 8 contain an item analysis with number and percent of responses for each item of the survey. Their division into separate tables was designed to facilitate visual presentation. Table 4 contains responses (a) through (d), Table 5 (e) through (h), Table 6 (i) through (l), Table 7 (m) through (p), and Table 8 (q) and (r).

The independent variables in this study, parental involvement typologies, included Type 1 - Parenting; Type 2 - Communication; Type 3 - Volunteering; Type 4 - Learning at Home; Type 5- Decision-Making; and Type 6 - Collaborating with the Community.

For each of the survey items, response choices were assigned the value label (1) for "Never", meaning the parent does not do this or has not done this yet this school year; the value



label (2) for “1-2 Times”, meaning the parent has done this one or two times this school year; the value label (3) for “Few Times”, meaning the parent has done this a few times this school year; and the value label (4) for “Many Times”, meaning the parent has done this many times this school year.

As indicated by the item analysis, parents responded that they were most involved in parenting, learning at home, and collaborating with the community. In regard to parenting, 96.6% of the parents indicated that many times they had talked with their child about school to establish values of importance for school and learning. Analysis of items categorized as learning at home activities indicated that 93.5% of the parents checked many times to see that their child had done his/her homework, at least 85.5 % had helped plan time for homework and practice skills for tests, and 81.1% had helped their child with homework many times.

Analysis of items categorized as collaborating with the community indicated that 63.4% of the parents had many times provided opportunities for their child’s collaboration with community groups and agencies.

As indicated by the summative item analysis, parents responded that they were least involved in volunteering, communicating, and decision-making. In regard to volunteering, 17.5% of the respondents had never volunteered at school or in their child’s classroom and only 28.9% had attended special programs or events sponsored by the school a few times.

Analysis of items categorized as communicating indicated that only 24.9% had ever talked to their child’s teacher at school or on the phone and only 54.2% had talked with their child’s teacher one to two or a few times.

TABLE 4

## BY COUNTY RESPONSES TO ITEMS (a) THROUGH (d)

County	A		B		C		D		TOTALS	
	f	%	f	%	f	%	f	%	f	%
a. Talk to my child about school										
Never	0	0	1	1.0	0	0	0	0	1	.2
1-2 Times	0	0	1	1.0	1	.6	0	0	2	.4
Few Times	5	10.2	1	1.0	1	.6	4	4.8	11	2.7
Many Times	44	89.8	101	97.1	154	98.7	100	95.2	399	96.7
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
b. Visit my child's classroom										
Never	7	14.3	13	12.7	3	1.9	5	4.8	28	6.8
1-2 Times	13	26.5	28	27.5	24	15.3	24	22.9	89	21.5
Few Times	14	28.6	37	36.3	68	43.3	43	41.0	162	39.2
Many Times	15	30.6	26	23.5	61	39.5	32	31.4	134	32.5
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
c. Read to my child										
Never	1	2.0	5	4.9	2	1.3	8	7.6	16	3.9
1-2 Times	7	14.3	11	10.8	5	3.2	8	7.6	31	7.5
Few Times	21	42.9	32	30.4	37	23.6	36	34.3	126	30.5
Many Times	20	40.8	56	53.9	112	72.0	52	50.5	240	58.1
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
d. Listen to my child read										
Never	1	2.0	2	2.0	1	.6	2	1.9	6	1.5
1-2 Times	4	8.2	9	8.8	2	1.3	5	4.8	20	4.9
Few Times	13	26.5	24	23.5	38	24.2	18	17.1	93	22.4
Many Times	31	63.3	69	65.7	115	73.9	79	76.2	294	71.2
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0

TABLE 5

## BY COUNTY RESPONSES TO ITEMS (e) THROUGH (h)

County	A		B		C		D		TOTALS	
	f	%	f	%	f	%	f	%	f	%
e. Listen to a story my child wrote										
Never	6	12.2	10	9.8	2	1.3	1	1.0	19	4.6
1-2 Times	6	12.2	10	9.8	6	3.8	16	15.2	38	9.2
Few Times	11	22.4	24	23.5	49	31.2	26	24.8	110	26.6
Many Times	26	53.1	60	56.9	99	63.7	61	59.0	246	59.6
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
f. Help my child with homework										
Never	0	0	5	4.9	1	.6	2	1.9	8	1.9
1-2 Times	4	8.2	11	10.8	0	0	5	4.8	20	4.9
Few Times	4	8.2	31	30.4	5	3.2	10	9.5	50	12.1
Many Times	41	83.7	57	53.9	150	96.2	87	83.8	335	81.1
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
g. Practice spelling or other skills before a test										
Never	2	4.1	1	1.0	0	0	4	3.8	7	1.8
1-2 Times	2	4.1	1	1.0	2	1.3	3	2.9	8	1.9
Few Times	6	12.2	12	11.8	11	7.0	12	11.4	41	9.9
Many Times	39	79.6	90	86.3	143	91.7	85	81.9	357	86.4
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
h. Talk with my child about a TV show										
Never	1	2.0	2	2.0	2	1.3	1	1.0	6	1.5
1-2 Times	3	6.1	3	2.9	8	5.1	9	8.6	23	5.5
Few Times	15	30.6	30	29.4	47	29.9	23	21.9	115	27.9
Many Times	30	61.2	69	65.7	99	63.7	71	68.6	269	65.1
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0

TABLE 6

## BY COUNTY RESPONSES TO ITEMS (i) THROUGH (l)

County	A		B		C		D		TOTALS	
	f	%	f	%	f	%	f	%	f	%
i. Help my child plan time for homework and chores										
Never	0	0	1	1.0	0	0	0	0	1	.2
1-2 Times	2	4.1	3	2.9	5	3.2	3	2.9	13	3.1
Few Times	10	20.4	8	7.8	12	7.6	16	15.2	46	11.2
Many Times	37	75.5	92	88.2	139	89.2	85	81.9	353	85.5
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
j. Talk to my child's teacher at school										
Never	5	10.2	16	15.7	4	2.5	3	2.9	28	6.8
1-2 Times	11	22.4	24	23.5	27	17.2	17	16.2	79	19.1
Few Times	19	38.8	30	29.4	64	40.8	41	39.0	154	37.3
Many Times	14	28.6	34	31.4	61	39.5	43	41.9	152	36.8
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
k. Talk to my child's teacher on the phone										
Never	21	42.9	74	72.5	43	27.4	40	38.1	178	43.1
1-2 Times	16	32.7	12	11.8	57	36.3	20	19.0	105	25.4
Few Times	11	22.4	17	14.7	42	26.8	39	37.1	109	26.4
Many Times	1	2.0	1	1.0	14	9.6	5	5.7	21	5.1
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
l. Go to PTA/PTO meetings										
Never	21	42.9	62	60.8	48	30.6	65	61.9	196	47.5
1-2 Times	8	16.3	16	15.7	46	29.3	15	14.3	85	20.6
Few Times	10	20.4	14	13.7	38	24.2	15	14.3	77	18.6
Many Times	10	20.4	12	9.8	24	15.9	9	9.6	55	13.3
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0

TABLE 7

## BY COUNTY RESPONSES TO ITEMS (m) THROUGH (p)

County	A		B		C		D		TOTALS	
	f	%	f	%	f	%	f	%	f	%
m. Check to see that my child has done his/her homework										
Never	1	2.0	1	1.0	3	1.9	1	1.0	6	1.5
1-2 Times	1	2.0	0	0	0	0	3	2.9	4	.9
Few Times	3	6.1	3	2.9	3	1.9	8	7.6	17	4.1
Many Times	44	89.8	100	96.1	150	96.2	92	88.6	386	93.5
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
n. Volunteer at school or in my child's classroom										
Never	21	42.9	49	48.0	21	13.4	39	37.1	130	31.5
1-2 Times	3	6.1	12	11.8	33	21.0	18	17.1	66	15.9
Few Times	7	14.3	26	25.5	34	21.7	25	23.8	92	22.3
Many Times	18	36.7	17	14.7	68	43.9	22	21.9	125	30.3
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
o. Go to special events at school										
Never	6	12.2	26	25.5	6	3.8	11	10.5	49	11.9
1-2 Times	8	16.3	15	14.7	17	10.8	22	21.0	62	15.1
Few Times	8	16.3	18	17.6	43	27.4	35	33.3	104	25.2
Many Times	27	55.1	45	42.2	90	58.0	36	35.2	198	47.8
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
p. Take my child to a library										
Never	12	24.5	33	32.4	13	8.3	22	21.0	80	19.4
1-2 Times	4	8.2	18	17.6	26	16.6	20	19.0	68	16.5
Few Times	19	38.8	32	31.4	47	29.9	36	34.3	134	32.4
Many Times	14	28.6	21	18.6	70	45.2	26	25.7	131	31.7
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0

TABLE 8

BY COUNTY RESPONSES FOR ITEMS (q) THROUGH (r)

County	A		B		C		D		TOTALS	
	f	%	f	%	f	%	f	%	f	%
q. Take my child to special places or events in the community										
Never	3	6.1	6	5.9	1	.6	3	2.9	13	3.1
1-2 Times	4	8.2	6	5.9	12	7.6	4	3.8	26	6.4
Few Times	11	22.4	38	37.3	31	19.7	32	30.5	112	27.1
Many Times	31	63.3	54	51.0	112	72.0	65	62.9	262	63.4
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0
r. Tell my child how important school is										
Never	0	0	0	0	0	0	0	0	0	0
1-2 Times	3	6.1	0	0	0	0	0	0	3	.6
Few Times	1	2.0	5	4.9	4	2.5	1	1.0	11	2.7
Many Times	45	91.8	99	95.1	152	97.5	103	99.0	399	96.7
TOTAL	49	100.0	104	100.0	156	100.0	104	100.0	413	100.0

Inferential Analyses

Research Question #1: Is there a relationship between student achievement and the six types of parent involvement?

The initial research question examined the connection between student achievement and Epstein’s (1987) six typologies of parent involvement. To determine the relationship between those two variables, Pearson Product Moment, Spearman’s Rho, and Kendall’s Tau B Correlations were conducted. Each was tested at the .05 probability level. Table 9 depicts the results of those correlations.

In analyzing the data to determine if a significant relationship existed between student achievement and Epstein's (1987) six typologies of parent involvement, no significant relationship existed between Type 1 – Parenting or Type 2 – Communicating and student achievement by county or summative totals.

Data analysis utilizing Pearson's product moment, Spearman's rho, and Kendall's TauB revealed a significant relationship between Type 3 – Volunteering and student achievement ( $r = 0.00, p < .05$ ;  $r_s = 0.00, p < .05$ ;  $\text{Tau B} = 0.00, p < .05$ ). These significant findings were also present in County C analyses ( $r = 0.12, p < .05$ ;  $r_s = 0.00, p < .05$ ;  $\text{Tau B} = 0.14, p < .05$ ).

In analyzing the data to determine if a significant relationship existed between Type 4- Learning at Home and student achievement, a moderately significant relationship was evident utilizing Spearman's rho and Kendall's Tau B ( $r_s = .019, p < .05$ ;  $\text{Tau B} = .017, p < .05$ ). These findings were also present in the analyses of County C using Pearson's product moment ( $r = 0.11, p < .05$ ). In analyzing the data to determine if a significant relationship existed between Type 5 – Decision-Making and student achievement, significant relationships were found to exist ( $r = .000, p < .05$ ;  $r_s = .000, p < .05$ ;  $\text{Tau B} = .000, p < .05$ ).

TABLE 9

## STUDENT ACHIEVEMENT AND PARENT TYPOLOGIES CORRELATIONS

County	Typologies	Pearson Correlations (r)	Spearman Correlations $r_s$	Kendall's Tau B
A	1	.044	.086	.077
	2	.018	.029	.022
	3	.120	.175	.140
	4	-.076	-.027	-.014
	5	.154	.197	.148
	6	.112	.087	.065
	TOTAL	.035	.093	.080
B	1	-.108	.031	.026
	2	-.084	-.044	-.033
	3	.010	.012	.007
	4	-.097	.056	.038
	5	.006	.020	.017
	6	-.071	.000	.001
	TOTAL	-.072	.036	.034
C	1	-.071	-.059	-.049
	2	.025	.049	.038
	3	.200*	.197*	.143*
	4	.202*	.148	.113
	5	.354*	.370*	.287*
	6	.089	.140	.113
	TOTAL	.244*	.228*	.167*
D	1	-.033	-.048	-.040
	2	-.103	-.089	-.060
	3	.171	.174	.126
	4	-.021	.018	.008
	5	.096	.124	.097
	6	.129	.156	.130
	TOTAL	.051	.084	.060
OVERALL	1	-.040	-.005	-.044
	2	.014	.028	.022
TOTALS	3	.190*	.202*	.141*
	4	.056	.116*	.083*
	5	.224*	.239*	.185*
	6	.087	.132*	.106*
	TOTAL	.131*	.184*	.129*

\* p&lt;.05



Further data analyses utilizing Spearman's rho and Kendall's Tau B correlation coefficients revealed a significant relationship between Type 6 – Collaborating with the Community and student achievement ( $r_s = .007$ ,  $p < .05$ ; Tau B = .007,  $p < .05$ ).

Research Question # 2: Is there a difference in student achievement by family demographics, to include the number of parents in the home, annual income level, and parents' educational background?

Differences in student achievement were compared among students of various demographic backgrounds. A t-test was conducted for the status variable, "parents at home," because with the exception of only two cases, all respondents reported either one or two parents in the home. Table 10 presents the t-test results for student achievement, by "parents at home," for the individual counties and the overall sample.

Overall, there were no significant differences in student achievement between those children with one parent and those with two parents in the home ( $p = .274$ ). Among the individual counties, County B was the only one in which student achievement varied significantly in relation to the number of parents in the home; students with two parents in the home performed at higher levels than those with only one parent.

TABLE 10

## t-TEST FOR MEAN DIFFERENCES IN STUDENT ACHIEVEMENT BY THE NUMBER OF PARENTS IN THE HOME

	Parents in the Home	n	M	SD	t	p
County A	One	5	64.00	23.69	.501	.145
	Two	44	67.93	15.81		
County B	One	16	53.37	23.46	.894	.006*
	Two	84	58.82	15.18		
County C	One	23	62.60	16.53	1.962	.733
	Two	134	69.94	16.56		
County D	One	18	61.38	18.65	.106	.697
	Two	86	60.86	19.40		
Overall Totals	One	62	59.98	19.58	1.940	.274
	Two	348	64.75	17.53		

\* p&lt;.05

Prior to conducting the One-way Analysis of Variance test for student achievement and parents' educational level, each variable was tested for homogeneity of variance. Those results are presented in Table 11.

TABLE 11

## LEVENE'S TEST OF HOMOGENEITY OF VARIANCE FOR STUDENT ACHIEVEMENT AND PARENTS' EDUCATIONAL LEVEL

County	Levene's Statistic	p
A	.130	.941
B	.088	.966
C	.809	.491
D	.232	.232
Overall Total	.264	.852

\*  $p < .05$

The results for Levene's test were not significant; therefore, the assumptions for the ANOVA were considered to have been met. Table 12 presents ANOVA results for student achievement and parents' educational level, by county, and for the overall sample.

TABLE 12

## ANOVA SUMMARY OF STUDENT ACHIEVEMENT BY VARYING LEVELS OF PARENTS' EDUCATIONAL ATTAINMENT

County	Educ. Level	<u>n</u>	<u>M</u>	<u>SD</u>	<u>F</u>	<u>p</u>
A	Some H.S.	2	49.00	18.38	2.082	.116
	H.S.	14	62.78	14.37		
	Some Col.	14	67.35	17.78		
	College	19	73.10	15.53		
	TOTAL	49	67.53	16.50		
B	Some H.S.	13	51.92	15.07	1.145	.335
	H.S.	30	57.56	17.26		
	Some Col.	38	58.81	17.47		
	College	23	62.90	17.06		
	TOTAL	104	58.41	17.08		
C	Some H.S.	3	68.00	22.60	4.840	.003*
	H.S.	18	58.66	16.09		
	Some Col.	33	64.09	18.30		
	College	102	72.20	15.22		
	TOTAL	156	68.86	16.70		
D	Some H.S.	16	44.68	19.45	8.616	.000*
	H.S.	27	55.92	18.33		
	Some Col.	29	66.65	15.87		
	College	32	68.87	17.21		
	TOTAL	104	61.24	19.33		
Overall Total	Some H.S.	34	49.76	18.45	20.736	.000*
	H.S.	89	58.11	16.82		
	Some Col.	114	63.38	17.47		
	College	176	70.56	16.03		
	TOTAL	413	64.18	17.98		

\* p&lt;.05

Summative results for the One-way Analysis of Variance for student achievement and parents' educational level indicate a significant difference in student achievement by parents'

educational levels ( $p = .000^*$ ). That is, the parents with greater levels of educational attainment have children who achieve academic levels greater than those whose parents are less educated.

Bonferroni’s Post Hoc testing of significant differences was conducted to identify specific groups with significant differences. In County C, differences were found between those who “completed high school” and those who had a “college degree.” In County D, differences were found between “some high school” and “some college”, “some high school” and “college degree”, and “completed high school” and “college degree.”

Prior to conducting the One-way Analysis of Variance test for student achievement and annual income level, each variable was tested for homogeneity of variance. Those results are presented in Table 13.

TABLE 13

LEVENE’S TEST OF HOMOGENEITY OF VARIANCE FOR STUDENT ACHIEVEMENT AND ANNUAL INCOME LEVEL

County	Levene’s Statistic	p
A	1.711	.165
B	.122	.974
C	.266	.899
D	1.165	.331
TOTAL	.348	.846

\*  $p < .05$

The results of Levene’s test were not significant; therefore, the assumptions for the ANOVA were considered to have been met. Table 14 presents ANOVA results for student achievement and annual income level, by county, and the overall sample.

Summative results for the One-way ANOVA for student achievement and annual income level indicate significant differences in student achievement as compared to parental income ( $p = .000$ ). That is, parents who reported greater levels of income have students who achieve more academically.

Bonferroni's Post Hoc testing of significant differences was conducted to identify specific groups with significant differences. In County C, the achievement scores of students whose parents reported an annual income of \$31,000 to \$40,000 were significantly different than those whose parents reported \$50,000 or more. In County D, differences were found between \$10,000 to \$20,000 and \$31,000 to \$40,000, \$10,000 to \$20,000 and \$41,000 to \$50,000, and between \$10,000 to \$20,000 and \$50,000 or more. Overall differences were found between \$10,000 to \$20,000 and \$41,000 to \$50,000; \$10,000 to \$20,000 and \$50,000 or more; \$21,000 to \$30,000 and \$50,000 or more; and \$31,000 to \$40,000 and \$50,000 or more.

Research Question #3: Is there a difference in the levels of parent involvement between groups based on the number of parents in the home, annual income level, and parents' educational background?

Table 15 presents the results for Levene's Test for Homogeneity of Variance for parent involvement and the number of parents in the home. Because Levene's test was found to be significant, the non-parametric parallel of ANOVA was conducted. Kruskal Wallis tests (See Table 16) were used to analyze differences in parent involvement by the number of parents in the home.

TABLE 14

## ANOVA SUMMARY OF STUDENT ACHIEVEMENT BY VARYING ANNUAL INCOME LEVELS

County	Annual Income Level	n	M	SD	F	p
A	10,000-20,000	5	58.40	7.09	1.721	.163
	21,000-30,000	9	64.88	14.66		
	31,000-40,000	15	63.00	15.54		
	41,000-50,000	6	72.33	21.13		
	50,000 or more	14	75.28	17.01		
	TOTAL	49	67.53	16.50		
B	10,000-20,000	21	53.19	19.23	1.289	.280
	21,000-30,000	24	59.70	15.71		
	31,000-40,000	25	55.68	16.99		
	41,000-50,000	14	62.21	16.52		
	50,000 or more	20	63.61	16.17		
	TOTAL	104	58.41	17.08		
C	10,000-20,000	7	63.57	19.89	3.928	.005*
	21,000-30,000	11	60.00	19.03		
	31,000-40,000	15	57.46	15.67		
	41,000-50,000	14	66.85	16.26		
	50,000 or more	109	71.90	15.61		
	TOTAL	156	68.86	16.70		
D	10,000-20,000	21	46.61	20.08	7.323	.000*
	21,000-30,000	25	57.68	17.00		
	31,000-40,000	22	61.90	16.15		
	41,000-50,000	12	73.16	12.08		
	50,000 or more	24	70.80	18.23		
	TOTAL	104	61.24	19.33		
OVERALL TOTALS	10,000-20,000	54	52.46	19.33	17.319	.000*
	21,000-30,000	69	59.69	16.40		
	31,000-40,000	77	59.23	16.20		
	41,000-50,000	46	67.80	16.15		
	50,000 or more	167	71.12	16.30		
	TOTAL	413	64.18	17.98		

\* p&lt;.05

TABLE 15

LEVENE'S TEST OF HOMOGENITY OF VARIANCE FOR PARENT INVOLVEMENT  
 TYPOLOGIES AND THE NUMBER OF PARENTS IN THE HOME

County	Levene's Statistic	p
A	.031	.860
B	1.436	.243
C	.967	.327
D	1.368	.259
TOTAL	13.021	.000*

\* p<.05

Moderately significant differences were found at the .05 level for the overall total (p = .020) and for two individual counties. Among the individual counties, Counties A and C were the only two in which student achievement varied significantly in relation to the number of parents in the home; students with parents who stay involved in their child's education performed at higher academic levels. Using the Mann Whitney U test, differences were found between groups in each individual county and the overall total. In County A, County C, and the overall total, differences existed between those who reported having "one" parent and those who reported having "two" parents at home; children whose parents were more involved in their child's education more often came from a two-parent home.



TABLE 16

## KRUSKAL WALLIS TEST FOR PARENT INVOLVEMENT TYPOLOGIES AS RELATED TO PARENTS AT HOME

County	Parents at Home	n	M	Mean Rank	X <sup>2</sup>	p
A						
	One	5	48.20	12.10	4.553	.033*
	Two	44	58.56	26.47		
	TOTAL	49	57.51			
B						
	One	16	54.62	43.94	4.363	.113
	Two	85	56.98	53.52		
	TOTAL	101	55.27			
C						
	One	23	59.26	60.09	4.679	.031*
	Two	133	62.50	82.25		
	TOTAL	156	62.02			
D						
	One	18	57.27	51.44	1.660	.436
	Two	86	58.57	52.27		
	TOTAL	104	58.03			
OVERALL TOTALS						
	One	62	56.59	167.19	7.783	.020*
	Two	348	59.69	212.33		
	TOTAL	410	59.15			

\*p&lt;.05

Table 17 presents Levene's test for Homogeneity of Variance for parent involvement typologies and parents' educational level. Levene's test revealed that group variances were significantly different; therefore, non-parametric analyses for these variables were conducted.

Table 18 presents the Kruskal Wallis results for parent involvement typologies and parents' educational level.

TABLE 17

LEVENE'S TEST FOR HOMOGENEITY OF VARIANCE FOR PARENT INVOLVEMENT  
TYPOLOGIES AND PARENTS' EDUCATIONAL LEVEL

County	Levene's Statistic	p
A	2.267	.077
B	.968	.429
C	2.157	.076
D	1.002	.410
TOTAL	3.796	.005*

\*p&lt;.05

Significant differences were found at the .05 probability level for the overall total ( $p = .000$ ) and in two individual counties. Among the individual counties, counties C and D were the only two in which parent involvement varied significantly in relation to parents' educational level; parents who spend more time involved with their child's education tend to have higher educational levels. Mann Whitney U tests were used to identify specific differences between groups. In county C, a difference was found between those who reported that they had "completed high school" and those who reported having a "college degree." In county D, differences were found between those who reported "some high school" and "completed high school", "some high school" and "some college", and "some high school" and "college degree." The overall totals found differences between "some high school" and "completed high school", "some high school" and "some college", "some high school" and "college degree" and "some college" and "college degree".

TABLE 18

## KRUSKAL WALLIS TEST FOR PARENT INVOLVEMENT TYPOLOGIES AS RELATED TO PARENTS' EDUCATIONAL LEVEL

County	Educ. Levels	n	M	Mean Rank	X <sup>2</sup>	p
A	Some H.S.	2	53.50	8.25	5.815	.060
	H.S.	14	54.78	19.00		
	Some Col.	14	56.92	26.46		
	College	19	57.21	30.11		
	TOTAL	49	55.51			
B	Some H.S.	13	55.30	45.35	4.42	.219
	H.S.	30	55.36	50.45		
	Some Col.	38	55.65	47.97		
	College	23	59.28	63.19		
	TOTAL	104	56.27			
C	Some H.S.	3	57.00	36.50	10.95	.012*
	H.S.	18	57.27	56.00		
	Some Col.	33	61.39	71.77		
	College	102	63.20	86.57		
	TOTAL	156	62.02			
D	Some H.S.	16	51.00	28.34	12.83	.005*
	H.S.	27	59.03	57.72		
	Some Col.	29	60.07	53.26		
	College	32	60.21	59.48		
	TOTAL	104	58.43			
OVERALL TOTALS	Some H.S.	34	52.85	113.50	49.60	.000*
	H.S.	89	57.08	177.25		
	Some Col.	114	58.33	192.51		
	College	176	61.97	248.56		
	TOTAL	413	59.15			

\*p&lt;.05

Table 19 presents Levene's test for Homogeneity of Variance for parent involvement typologies and annual income level. The assumptions for ANOVA were not met; group variances are significantly different; therefore, non-parametric analyses for these variables were

conducted. Table 20 presents the results for the Kruskal Wallis test for parent involvement typologies and annual income levels.

TABLE 19

LEVENE’S TEST FOR HOMOGENEITY OF VARIANCE FOR PARENT INVOLVEMENT TYPOLOGIES AND ANNUAL INCOME LEVEL

County	Levene’s Statistic	p
A	2.442	.076
B	1.141	.336
C	5.561	.001*
D	2.877	.040*
TOTAL	2.578	.053

\*p<.05

Significant differences were found at the .05 level for the overall total ( $p = .000$ ) and individual counties. Among the individual counties, Counties A, B, and C varied significantly in relation to parent involvement typologies by varying annual income levels; students with parents whose income ranks with higher levels of income were more involved in their child’s education. Mann Whitney U tests were used to find differences between groups in each individual county and the overall total. In County A and B, differences were found between “\$10,000 to \$30,000” and “\$50,000 or more.” In County C, differences were found between “\$10,000 to \$30,000” and “\$50,000 or more” and between “\$31,000 to \$50,000” and “\$50,000 or more. The overall totals revealed differences between “\$10,000 to \$30,000” and “\$31,000 to \$50,000”, “\$31,000 to \$50,000” and “\$50,000 or more”, and “\$10,000 to \$30,000” and “\$50,000 or more”.

TABLE 20

KRUSKAL WALLIS TEST FOR PARENT INVOLVEMENT TYPOLOGIES AS RELATED TO ANNUAL INCOME LEVEL

County	Annual Income Level	n	M	Mean Rank	X <sup>2</sup>	p
A	10,000-30,000	14	53.07	16.86	7.619	.022*
	31,000-50,000	21	57.19	26.07		
	50,000 or more	14	62.42	31.54		
	TOTAL	49	57.51			
B	10,000-30,000	45	54.46	43.04	8.921	.012*
	31,000-50,000	39	56.66	54.12		
	50,000 or more	20	59.94	66.97		
	TOTAL	104	56.27			
C	10,000-30,000	18	57.22	47.44	16.566	.000*
	31,000-50,000	29	59.55	63.62		
	50,000 or more	109	63.46	88.22		
	TOTAL	156	62.02			
D	10,000-30,000	45	57.88	49.56	.920	.631
	31,000-50,000	34	59.47	56.10		
	50,000 or more	25	58.00	52.90		
	TOTAL	104	58.43			
OVERALL TOTALS	10,000-30,000	122	55.97	151.54	53.42	.000*
	31,000-50,000	123	58.21	196.62		
	50,000 or more	168	62.17	253.93		
	TOTAL	413	59.15			

\*p<.05

Research Question #4: To what extent are the differences in student achievement explained by parental education level, family income, and the number of parents at home?

In order to examine the extent to which differences in student achievement are explained by parental education level, family income, and the number of parents in the home, a hierarchical

multiple regression analysis of the effects of the independent variables on student achievement was conducted (See Table 21).

TABLE 21

HIERARCHICAL MULTIPLE REGRESSION ANALYSIS OF THE EFFECTS OF INDEPENDENT VARIABLES ON STUDENT ACHIEVEMENT

	Socioeconomic Predictors			Annual Income and Family Predictors		
	<u>b</u>	<u>Beta</u>	<u>p</u>	<u>b</u>	<u>Beta</u>	<u>P</u>
<b>SES</b>						
<u>Variables:</u>						
Income	1.76	.219	.000	1.80	.223	.000*
Educ. Level	1.10	.205		1.05	.195	
<b>Family Structure</b>						
<u>Variable:</u>						
Parents at Home				.433	.020	.689
	R <sup>2</sup> = .14			R <sup>2</sup> = .14		
	F = 34.392			F = 22.94		
	p = .000			p = .00		

\* p<.05

As Table 21 indicates, 14% of the variance in student achievement scores can be explained by the predictors of parental income and educational level. These variables were significant at the .05 level (p =.000). With the addition of the family structure variable to the regression model, the percentage of variance that could be attributed to the independent variables remained at 14%.

The following chapter will highlight in greater detail the results of this investigation, along with recommendations for further practice and for subsequent research.

## CHAPTER 5

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

The purpose of this investigation was to assess the relationships between student achievement and parental involvement. Epstein's (1987) typologies of parental involvement were used to outline examples of parent involvement and status variables were examined to learn the extent to which these connections were consistent among various family demographics. The typologies included Type 1- Parenting, Type 2-Communication, Type 3- Volunteering, Type 4- Learning at Home, Type 5- Decision-Making, Type 6- Collaborating with the Community.

#### Summary

The analysis centered on four research questions that were tested at the .05 level of significance. The independent variables for this study were Epstein's six typologies, parent's educational level, annual income level, and family demographics. The dependent variable was student achievement. Pearson's product-moment, Spearman's rho, and Kendall's Tau B correlation coefficients were used to analyze the degree of relationship between Epstein's six typologies and student achievement. A t-test was used to describe the relationship between student achievement and the number of parents in the home. One-way Analyses of Variance were used to describe the relationships between student achievement and parents' educational and income levels. Kruskal Wallis tests were used to analyze differences in parental involvement by the number of parents in the home, parental income, and education levels. A Hierarchical Regression Analysis was also used to determine the extent to which parents' income, educational levels, and family structure assist in predicting student achievement. The

sample consisted of 413 students in grade 4 in four counties in East Tennessee. Two schools were selected from each county to provide a representative sample of the population.

The results of this study indicated significant relationships between student achievement and the parent involvement typologies volunteering, learning at home, decision-making, and collaborating with the community. The relationships between student achievement and parent involvement in conjunction with parents' educational level and income levels were also significant. Both parental involvement typologies and family demographics emphasize goals that are achieved most effectively when families and schools work together.

The findings from this study are consistent with those of other researchers such as Baker and Stevenson (1986), Caldas and Bankston (1999), Dauber and Epstein (1993), Epstein (1986), Lareau (1989), and McNeal (1999). As indicated in these studies, certain characteristics emerged which supported the link between parents' educational level, parental income, parent involvement practices, and student achievement. Other findings as reported in previous studies were contradictory. Fraser (1961), Mann (1983), and Mayes (1965) found that children from single-parent homes experience effects that are detrimental to their success in school. The results of this study do not support these findings.

### Recommendations for Practice

This study added considerable support to basic theories and practices adhered to by proponents of Epstein's Typologies of Parent Involvement. Numerous studies have alerted schools and families to the value of parent involvement in the education of children. Along with this attention has come greater efforts to facilitate the growth of educational programs and



approaches that place a premium on such involvement. As a result, the following recommendations are made.

Schools should:

1. Communicate to parents that the typologies of volunteering, learning at home, decision-making, and collaborating with the community are significantly related to student achievement.
2. Consider the inclusion of the typologies volunteering, communicating, and decision-making in initial efforts to enhance parent involvement programs.
3. Clarify how and why parents can become involved, especially those parents who do not know how to initiate such contact. Schools need to clarify the opportunities that exist and provide direction in specific parent involvement behaviors.
4. Examine school policies that may be regarded as barriers to parent involvement. Are there language and cultural barriers that exist? Is there a welcoming attitude in formal and informal settings? Does the lack of transportation and/or childcare present a barrier to school contact? Do teachers feel comfortable having parents in their classrooms? Are there clear and meaningful opportunities to participate? Does the school seek to involve stakeholders in the school community such as business partnerships and adopt-a-school programs?
5. Build on existing parent involvement programs by making meaningful connections with parents, extending invitations for other types of participation, and initiating dialogue between parents and staff members.
6. Provide positive feedback to parents to let them know when their children are doing well.

7. Inform parents of behavioral and academic problems in a timely fashion. Teachers and administrators should be considerate of parents and enlist their support as soon as it is needed.
8. Provide on-going professional support and training for teachers in working with parents. Training on how to facilitate school-home partnerships can help make parent involvement more effective.
9. Plan, implement, and monitor parent involvement programs with the goal of educational excellence constantly in the forefront in order for parent involvement to be transformed into meaningful support for student achievement and continuous school improvement.

#### Recommendations for Further Research

Further investigations suggested by this study include:

1. An investigation of the perceptions of parents and teachers concerning views toward parental involvement with the inclusion of student perceptions of their parents' involvement in their education may establish greater insight.
2. A longitudinal case study that assesses the full impact of parental involvement programs targeting specific parent behaviors and anticipated academic and behavioral changes of children over time.
3. A replication study using populations more diverse in socioeconomic background and environmental conditions than those available in this study.
4. A replication study using populations across grade levels to determine causes of the breakdown of parent involvement between primary, intermediate, and middle grades.

5. A revision of the survey instrument used in this study to include an equitable number of response items as correlated with specific typologies.
6. A study that accounts for differences in parent involvement as related to student achievement using different measures of achievement.

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APPENDIX A

PARENT INVOLVEMENT SURVEY

The following survey will be helpful in gaining an understanding how parent involvement effects student achievement. Please identify which of the following you do in an average school year with your child at school. Please CIRCLE one choice for each item.

-----  
NEVER means you do NOT do this  
1-2 TIMES means you do this one or two times per year  
A FEW TIMES means you do this a few times during the year  
MANY TIMES means you have done this many times  
-----

PARENT DEMOGRAPHIC INFORMATION: Please CIRCLE one choice as it applies to the parent or guardian completing the survey.

1. What is your highest level of education? CHECK ONE

- \_\_\_\_\_ (1) Some high school
- \_\_\_\_\_ (2) Completed high school
- \_\_\_\_\_ (3) Some college or training
- \_\_\_\_\_ (4) College degree

2. How many parents live at home? CHECK ONE

- \_\_\_\_\_ (1) One
- \_\_\_\_\_ (2) Two
- \_\_\_\_\_ (3) Other

3. Which best describes your family's annual level of income? CHECK ONE

- \_\_\_\_\_ (1) 10,000-20,000
- \_\_\_\_\_ (2) 21,000-30,000
- \_\_\_\_\_ (3) 31,000-40,000
- \_\_\_\_\_ (4) 41,000-50,000
- \_\_\_\_\_ (5) 50,000 or more

- 
- |                                     |       |           |           |            |
|-------------------------------------|-------|-----------|-----------|------------|
| a. Talk to my child about school    | NEVER | 1-2 TIMES | FEW TIMES | MANY TIMES |
| b. Visit my child's classroom       | NEVER | 1-2 TIMES | FEW TIMES | MANY TIMES |
| c. Read to my child                 | NEVER | 1-2 TIMES | FEW TIMES | MANY TIMES |
| d. Listen to my child read          | NEVER | 1-2 TIMES | FEW TIMES | MANY TIMES |
| e. Listen to a story my child wrote | NEVER | 1-2 TIMES | FEW TIMES | MANY TIMES |
| f. Help my child with homework      | NEVER | 1-2 TIMES | FEW TIMES | MANY TIMES |

- |   |                                      |
|---|--------------------------------------|
| g. Practice spelling or other skills before a test            | NEVER 1-2 TIMES FEW TIMES MANY TIMES |
| h. Talk with my child about A TV show                         | NEVER 1-2 TIMES FEW TIMES MANY TIMES |
| i. Help my child plan time for homework and chores            | NEVER 1-2 TIMES FEW TIMES MANY TIMES |
| J. Talk with my child's teacher at school                     | NEVER 1-2 TIMES FEW TIMES MANY TIMES |
| k. Talk to my child's teacher on the phone                    | NEVER 1-2 TIMES FEW TIMES MANY TIMES |
| l. Go to PTA/PTO meetings                                     | NEVER 1-2 TIMES FEW TIMES MANY TIMES |
| m. Check to see that my child has done his/her homework       | NEVER 1-2 TIMES FEW TIMES MANY TIMES |
| n. Volunteer at school or in my child's classroom             | NEVER 1-2 TIMES FEW TIMES MANY TIMES |
| o Go to special events at school                              | NEVER 1-2 TIMES FEW TIMES MANY TIMES |
| p. Take my child to a library                                 | NEVER 1-2 TIMES FEW TIMES MANY TIMES |
| q. Take my child to special places or events in the community | NEVER 1-2 TIMES FEW TIMES MANY TIMES |
| r. Tell my child how important school is                      | NEVER 1-2 TIMES FEW TIMES MANY TIMES |

## APPENDIX B

May 19, 2000

Dear Mr. XXXX

As a student at East Tennessee State University, I am currently involved in the dissertation phase of the Educational Leadership and Policy Analysis doctoral program. My dissertation, Parent Typologies as Related to Student Achievement, will address the relationships between specific parenting practices, student achievement, and demographic characteristics that may impact student outcomes.

I would like your permission to survey the parents of students in grade 4 in your school. Parents will be asked to complete the Family Practices of Involvement Questionnaire. This instrument, developed by Epstein and Salinas (1993) at the Johns Hopkins University, was designed to produce a profile of the current levels of parent involvement in schools. Parents will not be asked to sign the survey or identify their child's name in any way.

I am also seeking permission to access non-identifiable NCE scores on the 1999-2000 Terra Nova. The scores and the surveys will be assigned a random number to prevent the identification of any student or parent.

As an incentive to the student for the return of the survey, I would like permission to distribute to the students a coupon redeemable at Chick-Fil-A, A & W Restaurant, Papa John's Pizza, Dairy Queen, or Little Caesar's Pizza. In response to their interest in this study and education in general, over 1,000 coupons have been donated.

In preparation for the study, I plan to discuss with each principal the most appropriate means of survey distribution and to request their permission with regard to the study. Distribution and collection of data will be conducted in a manner as to limit the disruption of normal school activities.

Thank you for your cooperation

Sincerely,

Stacia Derrick-Lewis

## APPENDIX C

Dear Parent or Guardian:

Because of extensive research in the field of parent involvement, an increased interest in the way schools and families can help children succeed is a topic of much concern. I would like your ideas about this. To do the best job, I need responses from EVERY FAMILY.

Your answers will be grouped together with those from other families. No individual will be identified. Of course, you may skip any question, but I hope you will answer them all.

Please have your child return this survey to his or her teacher TOMORROW or AS SOON AS POSSIBLE. If you have more than one child in elementary school, please return the surveys as they pertain to each child.

This survey is part of a research project assessing parent involvement and its effects on student achievement in school districts across East Tennessee. Stacia Derrick-Lewis, a Sevier County administrator and doctoral candidate at East Tennessee State University will conduct the data analysis. A summary of the results will be made available upon request.

This survey should be answered by the PARENT or GUARDIAN who has the most contact with the school.

DO NOT SIGN YOUR NAME OR IDENTIFY YOUR CHILD IN ANY WAY. Your child's teacher will collect the returned surveys. If you prefer to not answer the survey, please place a check here [ ] and return the unanswered survey.

THANK YOU IN ADVANCE FOR YOUR SUPPORT

## VITA

Stacia M. Derrick-Lewis

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Education:            Public Schools, Sevierville Tennessee  
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