This study examined whether there is an association between the activities suggested by a federally mandated Title I learning compact and the reading achievement of at-risk fourth grade students. In addition, it investigated the relationship between specific home and school parent involvement activities and student reading scores. Specifically, connections between reading comprehension achievement and the following parent involvement variables were examined: (1) homework involvement; (2) reading together; (3) monitoring of television viewing; (4) volunteering in the school; and (5) supporting school activities. Data for the study was obtained from surveys given to teachers, the Title I students, and their parents. Reading achievement scores were obtained from fall and spring administrations of the reading comprehension subtest from the Iowa Test of Basic Skills and the gains between the two measures. Findings did not indicate any significant relationships between reading comprehension achievement and the total degree of involvement by parents, teacher, and students--individually or all together--on the learning compact. When specific parental involvement variables were examined, however, some differences among the groups emerged. A significant positive association was found between the degree of homework involvement and achievement while a significant negative relationship was found between the level of parental support and reading achievement. Parents' answers to the open-ended questions indicated that 38.8% of them would like less demands on parents or changes made in the school climate. The usefulness of an unidimensional index of parental involvement is called into question and the results are discussed within the context of instructional implications. Contains 122 references and 28 tables of data; appendixes contain a parent/teacher/student partnership agreement, teacher and parent letters and survey instruments, and the student permission and survey. (Author/RS)
EFFECTS OF HOME-SCHOOL COLLABORATION
AND
DIFFERENT FORMS OF PARENT INVOLVEMENT
ON READING ACHIEVEMENT.

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in
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(School Psychology)

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ON READING ACHIEVEMENT.

by
Barbara Beville Smith
Thomas H. Hohenshil, Co-Chairman
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(ABSTRACT)

This study was designed to examine whether there is an
association between the activities suggested by a federally
mandated Title I learning compact and the reading achievement of
at-risk fourth grade students. In addition, the researcher
investigated the relationship between specific home and school
parent involvement activities and student reading scores.
Specifically, connections between reading comprehension achievement
and the following parent involvement variables were examined: (1)
homework involvement, (2) reading together, (3) monitoring of
television viewing, (4) volunteering in the school, and (5)
supporting school activities.

The subjects used for this study were fourth grade students
who were enrolled in a Title I reading program. Data for the study
was obtained from surveys given to teachers, the Title I students,
and their parents. Reading achievement scores were obtained from
fall and spring administrations of the reading comprehension
subtest from the Iowa Test of Basic Skills and the gains between
the two measures. Chi square analyses were used to examine whether
the levels of involvement by specific parties on the independent
variables were associated with different levels of reading
comprehension achievement. A second analysis was done with analysis
of variance procedures.

The study did not find any significant relationships between
reading comprehension achievement and the total degree of
involvement by all or either parents, teacher, and students on the
learning compact. When specific parental involvement variables were
examined, however, some differences among the groups emerged. A
significant positive association was found between the degree of
homework involvement and achievement while a significant negative
relationship was found between the level of parental support and
reading achievement. Parents' answers to the open-ended questions
indicated that almost forty percent (38.8) of them would like less
demands on parents or changes made in the school climate.

The usefulness of an unidimensional index of parental
involvement is called into question and the results are discussed
within the context of instructional implications.
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CHAPTER 1

Introduction

The United States is struggling to maintain its social stability and competitive edge as it enters the twenty first century. Never has it been more important for students to have a high-quality education so they can gain the skills and knowledge needed to achieve success in today's global economy. Yet, because of differences in students' academic achievement, two workforces are being created: one in low skill minimum-wage jobs, the other in well-paying, highly skilled jobs (Decker, Gregg, & Decker, 1994).

Since the publication of the landmark report *A Nation at Risk* (1983), the educational system has been in a state of flux with greater emphasis being placed on basic subjects such as reading, math, and the sciences. Although positive change has occurred, especially in the areas of math and science, the "back to the basics" approach has not eliminated educational disparities among population subgroups. The achievement of black, Hispanic, and low-income students continues to fall well below white and high-SES students on tests of reading and math skills (Anderson, 1991). The number of disadvantaged students are predicted to rise to unprecedented proportions as revolutionary demographic changes continue to occur in our society (Hernandez, 1997; Pallas, Natriello, & McDill, 1989).

Massive compensatory education efforts over the past two decades have failed to close the achievement gap. Faced with the
growing number of academically and behaviorally at-risk students, policy makers and educators are examining increased parent-school collaboration as a method to improve educational success for all children. This strategy appears promising as the research literature has repeatedly identified family and home variables as one of the most critical factors in school achievement (Fehrmann, Keith & Reimers, 1987; Ugurogulu & Walberg, 1986; Walberg, 1984b).

In America 2000, an Education Strategy, (1991) former President George Bush stated that collaboration with America’s parents was necessary for the plan’s implementation and future success. Secretary of Education Richard Riley, in releasing the research report Strong Families, Strong Schools concurred, noting that “the essential building block for learning is how the American family uses its strength and power to support and encourage young people to meet the high expectations now being demanded of them in the classroom.” (U. S. Department of Education, 1991; 1994)

Both theoretical (Seginer, 1983; Walberg, 1984b) and empirical evidence during the past two decades has repeatedly suggested that increasing family involvement produces measurable gains in achievement. The National Committee for Citizens in Education published annotated bibliographies in 1987 and 1994 which reviewed over seventy-five studies that documented the effectiveness of parent involvement in improving student achievement. When families are involved in their children’s education, children have higher grade and test scores, better attendance, higher graduation rates, and greater enrollment in higher education (Henderson, 1987;
Although research supports the effectiveness of family involvement, much of it is anecdotal or correlational. There is a lack of consensus about what constitutes parent involvement and what forms of involvement are most effective in promoting learning. Studies indicate higher achievement when parents read to their children (Bus, van IJzendoorn, & Pellegrini, 1995), monitor homework and television viewing (Walberg, 1984a; 1984b), participate in school activities (Reynolds, 1992), and have high aspirations and expectations for their children (Halle, Kurtz-Costes & Mahoney, 1997; Henderson, 1987; Singh, Bickley, Keith, Keith, Trivette & Anderson, 1995).

Research findings, however, are inconsistent on the nature and magnitude of effects (Fehrmann, Keith, & Reimers, 1987; White, Taylor & Moss, 1992) and seem to differ according to the age and sex of the child (Hickman, Greenwood, & Miller, 1995), the socio-economic status of the parents (Lee & Croninger, 1994), the type of measure used (Reynolds, 1992), and whether the involvement occurs within the context of the home or within the school. Though parent involvement is related to achievement gains at all income levels, there is, with a few exceptions, little evidence that it has been able to close the academic gap between low and middle-income students (Illinois State Board of Education, 1993).

The appeal of parental involvement as a way to improve academic achievement has not been diminished by the absence of
definitive research. A number of states have recently passed enabling legislation or have inaugurated policies to increase family involvement in education. Parent involvement is mandatory in several federal programs including Title 1, Headstart, and in classrooms serving children with special needs (see Individuals with Disabilities Education Act). The recent reauthorization of Title 1, (The Improving America’s Schools’ Act of 1994), requires parents and educators to develop learning compacts which outline how parents, students, and the school staff will share the responsibility for improving educational success.

Statement of the Problem

Although federal policy makers believe the use of learning compacts in Title 1 programs will significantly impact academic achievement, their effect has not been tested by research. Furthermore, the literature has not sufficiently addressed the types of parental involvement which maximize the potential of at-risk students.

Purpose of the Study

The purpose of this study was to determine whether there is an association between school-home collaboration in a rural, low income school district and the reading comprehension achievement of Title 1 students. This study also examined the effects of specific types of parent involvement upon student academic achievement.
The rationale for this study is supported by the research literature which suggests that parents play an important role in the academic achievement of their children and that their individual activities and participation in home-school partnerships can effect positive changes. It was hypothesized that the amount of involvement displayed by teachers, students, and parents in the educational activities of Title I students would be reflected by significant differences in the students' reading achievement. It was also hypothesized that high parent involvement in specific activities would have a significant influence on reading.

Research Questions

This study was designed to focus on the following questions:

1. Is there a significant difference in the reading achievement of Title 1 students when parents, teachers, and students exhibit the highest compliance with activities on a learning compact and the reading achievement of students where compact partners exhibit less or the least compliance?

2. Does the level of involvement by teachers or by Title 1 students make a difference in reading achievement?

3. Does the degree of parental involvement with activities on a learning compact make a significant difference in the reading achievement of Title 1 students?

4. Does the type of parent involvement (home or school) make a significant difference in reading achievement scores?
5. Does parental monitoring of homework significantly impact reading achievement?

6. Does parental reading with students significantly impact reading achievement?

7. Does parental monitoring of television viewing significantly impact reading achievement?

8. Does parental involvement as a school supporter (attends conferences, attends school functions, eats lunch with child) significantly impact reading achievement?

9. Does parent involvement as a school volunteer (classroom helper, preparation of materials, other volunteer activities) significantly impact reading achievement?

Significance of the Study

Federal and state policy makers and a preponderance of educators and parents consider collaborative efforts between the family and school as important for the improvement of our nation's schools and critical to the achievement of the at-risk student. This study was important because it tested the effectiveness of a home-school collaboration model designed to meet Title 1 legislative mandates. This study was also important because it examined specific parent involvement roles as to their effectiveness in promoting academic achievement. The findings will be useful to policy makers, school administrators, teachers, and families as they search to find better ways to help children become successful scholars and productive citizens.
Limitations of the Study

Any conclusions or implications from this study are limited by the following factors:

1. This study was limited to fourth grade Title 1 reading students in a rural Appalachian county.

2. Title 1 students, because of their eligibility criteria, are reading below grade level. Demographically, they also attend schools at which a preponderance of students are from low-income families. These students, therefore, do not meet assumptions of normality and results can not be generalized to the general population.

3. The data collection was limited to the 1995-96 school year. The school year was unusual because of the large number of school closings caused by inclement weather.

4. Parent involvement can take many dimensions and school achievement is influenced by family process variables as well as by family engagement in specific activities. Although this study was directed toward investigating the effect of specific parent activities upon academic achievement, within-family processes may have influenced its results.

Definition of Terms

The following definitions were used in this study:

1. Title 1: A part of the federally mandated Education Consolidation and Improvement Act passed by Congress in 1981
Title 1 legislation provides funds to state and local education agencies to meet the needs of students defined as "educationally deprived" and it requires parents and educators to collaborate in program planning, implementation, and evaluation. Section 118(d)(1-2) mandates the development of learning compacts in which parents, the school staff, and students share the responsibility for improved student achievement.

2. Title 1 Student: An "educationally deprived" student who is in need of special help to achieve at the expected grade level. This study focused only on those students who were receiving assistance in a Title 1 reading program. Selection criterion requires a reading level below grade level based on end-of-year testing and attendance at a school where there is a concentration of low-income families. Eligible students are ranked and those who exhibit the greatest need have priority for placement in the program.

3. Reading Achievement: Academic achievement as indicated by raw scores on the fall and spring administered ITBS reading comprehension subtests and as the gain between the two measures.

4. Parental Involvement: Activities occurring between a parent and child or between a parent and school that may contribute to the child's educational development. In the present investigation, these activities included the monitoring of homework and television watching, parents reading with their child, volunteering in school,
and supporting the school through activities such as attending conferences, school functions, and/or eating with a child.

**Summary**

The number of educationally disadvantaged students is predicted to rise to unprecedented levels. Faced with this growing number, policy makers and educators are examining increased parent-school collaboration as a method of improving their educational success. Although there is research support, many questions need to be answered about what types of parent involvement will maximize the potential of at-risk students. The purpose of this study was to determine whether there is an association between school-home collaboration and the reading achievement of Title 1 students. This study also examined the effects of specific types of parental involvement upon these students' achievement.
CHAPTER 2
Review of Related Literature

Introduction

The increasing prevalence of educationally disadvantaged students in our nation's schools has pressed educational researchers, policy makers, and school personnel to re-examine the learning process in order to search for strategies which will raise these students' chances of academic success. In the past three decades, parent involvement has been consistently identified as a variable with important potential for improving the school achievement of all students.

In the U. S. Department of Education research publication Strong Families, Strong Schools (1994) the parent is called "a child's first and most important teacher" (pg. 2). In the first 18 years of life, a student only spends 13 percent of the waking, potentially-educative time in school leaving the other 87 percent under nominal control of the parents (Walberg, 1984a). Parents, thus, control over 6 times more potentially educative hours than the school and offer a relatively large and incompletely tapped resource for improving academic achievement (Graue, Weinstein & Walberg, 1983).

Not only do educational leaders and researchers think that parents should play a significant role in improving education, but there is agreement from the parents. A nation-wide survey conducted by the National PTA and Newsweek magazine reported that seventy-one
percent of the polled parents believed they have a major responsibility for school improvement (Finney, 1993).

Overwhelming agreement from parents was also displayed in the 25th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitudes Toward Public Schools in their response to the question of how important it is to encourage parents to take a more active part in educating their children (Elam, Rose, & Gallup, 1993). Ninety-six percent of the respondents indicated parent involvement was very important.

The following literature review will begin with an overview of parent involvement research. This will be followed by an in-depth look at the research related to the effect of parental involvement on achievement and how this achievement is impacted through the use of home-based or school-based parent involvement activities. Next, the research related to specific parent involvement variables will be critically examined as to their effectiveness on academic achievement. The chapter will conclude with a discussion of the at-risk child and school-collaboration with emphasis on the Title I program.

Overview of Parental Involvement Studies

The research in the field of parental involvement is varied and no one empirically based theory or model of parent involvement exists. Investigators in parent involvement have generally approached their studies from one of three major viewpoints: (1) a theory of overlapping spheres of influence between the school and
the home with changes in form and purposes occurring at different developmental stages (Epstein, 1987; 1995), (2) a theory of "social capital" with the home and school providing different inputs for the socialization process of children and the interaction of these inputs resulting in different educational outcomes (Coleman, 1987, 1991) or from (3) a theory of partnership among school, parents and the community with goal consensus and local control. (Swap, 1992).

Parental involvement studies range from focusing on family and school characteristics or behaviors to the examination of specific programs, interventions, and policies. Singh et al. (1995) state that it is difficult to generalize across studies because parental involvement is a multi-dimensional construct and research results vary according to the different meanings attached to the term. According to them, however, it appears that most definitions of parental involvement fall under the following categories: (a) parental academic aspirations and expectations for children, (2) participation in school activities and programs, (3) home structure that supports learning, and (4) communication with children about school.

Despite its lack of an agreed-upon definition, parent involvement does have an influence on student learning. After reviewing 66 studies in A new generation of evidence: The family is critical to student achievement describing the effect of parental involvement on student achievement, Henderson and Berla (1994) concluded that the specific form of parent involvement does not seem to be as important as the amount and variety of involvement.
Parental Involvement and Student Achievement

The effectiveness of education has traditionally been measured by children's academic performance. One of the earliest studies to examine school, teacher, and family variables associated with achievement was the Coleman Report. According to Mosteller and Moynihan's (1972) reanalysis of this report, approximately one-half to two-thirds of the studied student variance in achievement was accounted for not by school variables but by home variables, especially socioeconomic status.

After synthesizing 2,575 empirical studies of productive factors in learning, Walberg (1984b) drew a different conclusion. He argued that educators must consider powerful out-of-school factors, especially the home environment as "the alterable curriculum of the home is twice as predictive of academic learning as is family socioeconomic status." (pg. 25). This curriculum includes: informed parent-child conversations about everyday and school events, encouragement and discussion of leisure reading, monitoring of television viewing and peer activities, expressed interest in children's academic and personal growth, and delay of immediate gratification to accomplish long term goals.

Subsequent investigations of productive learning factors by Uguroglu and Walberg (1986) and by Wang, Haertel, and Walberg, (1993) have provided additional support for the importance of home environment variables in school learning. These variables encompass
not only the educational characteristics of the home but also the parental activities and attitudes that support student learning.

More evidence about the positive consequence of parental involvement on academic achievement is provided by Moles (1982) who summarized research findings on the effectiveness of twenty-eight urban home-school partnership programs aimed at poorly educated and low-income parents. These programs employed various methods to involve parents including individual conferences, workshops, home visits or telephone calls. They also supported the parents in home tutoring and educational planning. Overall results indicated the programs were effective with reported reduction in absenteeism, higher achievement scores, and improved behavior.

A number of researchers have written relatively recent extensive literature reviews about the effects of parent involvement on student achievement (Beecher, 1984; Henderson, 1987, 1994; Illinois Board of Education, 1993; U.S. Department of Education, 1994). These researchers agreed that parent involvement improves learning at all grade levels and at all levels of income. There was consensus that all forms of parent involvement strategies seem to be useful but those that are well-planned and more comprehensive, offer more types of roles for parents to play, and occur over an extended period of time are more effective in raising student achievement. (Beecher, 1984; Henderson, 1987; Henderson & Berla, 1994; U.S. DOE, 1994). In spite of this, many of the reviewers acknowledge that parent involvement has not been able to close the gap in achievement between low and middle income students.
The direct and indirect effects of parent involvement upon children's academic achievement have recently been investigated by a number of researchers through the use of causal modeling techniques and large longitudinal data bases. Utilizing the extensive High School and Beyond data base compiled by the National Center for Education Statistics, Fehrmann et al. (1987) found that parent involvement has a direct, meaningful effect on the grades of high school seniors.

In 1993, Keith et al. conducted a study using eighth grade subjects from the National Education Longitudinal Study of 1988 to determine if the earlier findings would hold for middle-school students and if the influence of parent involvement would be reflected, not only in students' school grades, but in their achievement on standardized tests. The results of this investigation indicated that parent involvement exerts a powerful effect on the achievement of middle school students and that this influence is independent of family background effects. The effect of parent involvement crossed all academic areas and positively impacted student performance on standardized achievement tests. The findings also suggested that parental involvement and academic achievement may have reciprocal effects on each other, leading the researchers to note.." it appears that higher academic performance results in greater involvement, which in turn, leads to still higher academic performance" (p.490).
Not all research supports parental involvement as a powerful indicator of academic success. Baker and Soden (1997), after critically reviewing over 200 articles on parent involvement, state that methodological limitations compromise even the most promising findings. Several causal model investigations of the topic have found that direct parental involvement has little, none, or negative effects on the achievement of high school students (Anderson, 1991; Keith, Reimers, Fehrmann, Pottebaum, & Aubrey, 1986; Natriello & McDill, 1986).

Concern has also been raised about the adequacy of parent involvement research in early childhood intervention programs. White et al. (1992) examined 173 studies, including 20 mentioned in six widely cited reviews in an effort to determine whether the popularly held view that parent involvement makes these programs more effective is actually consistent with the evidence. They analyzed each study as to its effect size and internal validity and whether it involved a direct comparison of parental involvement/no parental involvement treatments or a comparison with a no-treatment group. Most of the studies they examined were judged to be methodologically flawed or failed to present evidence of larger effect size for its parent involvement component. Stressing the need for more definitive research, White et al. stated:

Politics, persuasion, and personal preference have been the tools of past decisions. Parent involvement programs have been marketed like laundry soap and weight-loss programs. Now it is time to begin using research to move the field forward. (p. 120)
Educational researchers are beginning to take a more critical look at the literature to determine exactly how pivotal a role parents play in their children's academic success. According to Fantuzzo, Davis, and Ginsburg (1995), the problem is that many parent involvement studies merely examine the association between reports of naturally occurring parent behaviors or general school-parent initiatives and standardized achievement scores.

Other researchers attribute the inconsistent relationship between parent involvement and academic outcomes to different sources of PI measurement (Reynolds, 1992), a failure to separate school and home influences in examining effectiveness (Black, 1993), the use of different definitions and outcome measures (Baker & Soden, 1997; Christenson, Rounds, & Franklin, 1992; Keith et al. 1993), and the use of non-experimental research designs (Baker & Soden, 1997; Fantuzzo et al. 1995; White et al. 1992).

The inconsistencies in the literature about the effects of parental involvement have not diminished the enthusiasm of the researchers in the field nor their belief that parent involvement can play an important role in children's achievement. However, because of these inconsistencies, researchers are increasingly beginning to view parental involvement as a multidimensional construct with specific parent behaviors producing different educational outcomes.
Parental Involvement within the Home.

Home-based learning activities have been identified as one of the most effective and efficient ways for parents to spend time with their children (Ascher, 1988). According to the U.S. Department of Education (1994), children's learning and behavior are enhanced when families 1) read together, 2) use TV wisely, 3) establish a daily routine, 4) schedule daily homework times, 5) monitor out-of-school activities, 6) talk with their children, 7) communicate positive values and 7) express high expectations and offer praise and encouragement for achievement.

Walberg, Schiller, and Hartel (1979) assert that educational stimulation by parents in the home can account for as much as fifty percent of the difference in grades and test scores among students.

Research has supported the positive influence of certain parental actions such as involvement in their child's academic and social life (Beecher, 1984; Henderson, 1987; Henderson & Berla, 1994), the provision of reading material in the home (Barton & Cooley, 1992; Grolnick & Slowiaczek, 1994; Halle et al., 1997), reinforcement of school achievement (Epstein, 1987; Fantuzzo et al., 1995; Heller & Fantuzzo, 1993) and encouragement of school attendance (Fiordaliso, Lordman, Filipcak, & Friedman, 1977; Sheats & Dunkleberger, 1979).

The belief that effective parental involvement within the home environment will translate into academic success has spurred the development of numerous school-based programs aimed at increasing the educationally stimulating qualities of the home. In 1983, Graue
et al. reviewed twenty-nine controlled studies of elementary school-based programs to determine whether parent training programs were effective or whether success was attributed because these programs selectively attracted competent families or bright children. A quantitative synthesis led them to conclude that school-based home instruction programs have large positive effects on children's academic learning with an average effect size twice that of socioeconomic status.

Hickman et al. (1995) have provided recent evidence about the efficacy of home-based parent involvement strategies. Using a structured interview format, these researchers examined the relationship between students' achievement in high school and different types of parent involvement. Of the seven types of parent involvement examined, only home-based parent involvement was found to have a positive linkage with student grade point average.

Fehrmann et al. (1987) and Keith et al. (1986) examined data from the massive High School and Beyond sample of 28,051 seniors to determine the direct and indirect effects of homework, television viewing and the students' perception of parent involvement (in daily life, school progress, and influence on post high school plans). They found the student's perception of parent involvement in their life was positively correlated with the grades of high school seniors but not with their achievement on standardized tests.

Other researchers, however, have identified a positive connection between students' scores on standardized tests and
parent efforts within the home. Revicki (1981), using a sample of second grade students from two geographically different schools, found a correlation between students' reading achievement and family expectations and provision of language stimulation and home-based educational/reading activities.

The inconsistent findings may result from differences in the definition of parental involvement and the home activities and influences encompassed under each definition. Parents influence their children, not only by engaging in pro-school activities but by modeling and communicating important values about school, learning, and life. Educational outcomes have been related to many family process variables including parents' aspirations and expectations (Natriello & McDill, 1986; Seginer, 1983), use of motivational practices [including use of extrinsic/intrinsic consequences for school behavior] (Gottfried, Fleming, & Gottfried, 1994), parental ability to deliver verbal cues, directions, and problem-solving strategies (Fagot & Gauvain, 1997; Portes, Franke, & Alsup, 1984) and their parenting style (Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987).

Parents are not equal in their skill to provide home supports for their children's learning nor do the children within a given family share equally the home supports provided for learning. Specifically, effects of parental involvement appear to differ by the families' socioeconomic status, the gender and age of the child, ethnicity, the child's ability (Keith et al, 1986), and the educational level of the parents (Dornbusch, 1986). In spite of
the importance of these influences, parents can and do make a difference in their children's educational achievement.

Before schools and family can achieve maximum educational success for children, however, it is necessary that we identify the specific variables that are the most important for achieving such success.

**Homework**

Homework is a part of the lives of most American families. Although estimates of the time students spend on homework have ranged from five hours a week for eight graders (Walberg, 1984b) to less than three a week for seniors (Keith & Page, 1985), Cooper and Nye (1994) state it is not unreasonable to conclude that generally homework accounts for about 20% of the total time students spend on academic tasks.

Homework has always been a major element in American education and has long been an active area of research. However, researchers have been far from unanimous in their assessments of the strength and weaknesses of homework as an instructional device (Roderique, Polloway, Cumblad, Epstein, & Bursuck, 1994).

Nonetheless, an important research base has developed. There is evidence that homework improves achievement for high school (Keith, 1982), middle school (Keith et al., 1993) and elementary students (Paschal, Weinstein, & Walberg, 1984). Its positive
influence extends to both standardized test scores (Walberg, Paschal, & Weinstein, 1985) and grades (Natrillo & McDill, 1986).

Cooper (1989) has conducted the most extensive investigation of the relationship between homework and academic achievement. From a meta-analysis of 120 empirical studies, he found that although there is a correlation between homework and achievement the effects are very grade-level specific. The average high school student with homework would out-perform 69% of no-homework students, in junior high the effects would only be half as strong, and in elementary school there would be no effect on achievement. Cooper discovered a similar pattern when he examined the optimal time a student should spend on homework. In elementary school there is no relationship between homework time and achievement, in junior high the achievement improved until the assignment lasted between one and two hours a night and in high school the achievement effects continued above two hours a night.

Although around 45% of parents assist their children with homework every day (Finney, 1993), surprisingly few methodologically sound studies have examined the effects of their involvement on student achievement.

One large scale study by Natriello and McDill (1986), however, has examined the effect of teacher, parent, and peer standards on the homework of high school students. This study found that younger, male, low-ability students and those whose fathers have low status jobs are more likely to report parent standards for homework. Although all standards increased the time students spent
on homework, the parent standards (in contrast to peer and teacher standards) had a negative correlation with the students' grade point average. Weger (1993) found a similar negative correlation between the amount of time parents spent directly supervising their children's homework and their children's grades and achievement test scores. These findings were unexpected and have led the researchers to speculate that they were caused because parents may find it necessary to set standards and/or police homework due to prior problems their children may have displayed in achievement or study skills.

Other researchers report positive relationships between parent involvement with homework and school achievement. Epstein (1983), in a longitudinal study with inner city students, found homework activities (listening to child read and encouraging & helping in homework) produce significant increases over time, especially in reading. Causal models by Keith et al. (1986; 1993) with senior and eighth grade samples also suggest a positive relationship between parent's involvement with homework and student achievement although the effect is indirect with parent influence strongly increasing the time spent on homework which in turn increases achievement.

Overall, the research to date suggests that homework has a positive influence on academic achievement with its effects becoming stronger as students advance in school. Parent involvement with homework appears to be an effective way to raise student achievement, primarily because of its influence on time.
variables. Correlational research, however, will not always show its positive effect because parent may become involved with homework as a response to already existing achievement problems.

Monitoring of Television Viewing

The percentage of time that children spend watching television has climbed dramatically. In 1990 almost one in four 9-year-olds were watching six hours or more each day (Barton & Cooley, 1992). Many politicians and educators equate inadequate national test scores and rising behavior problems with excessive television viewing. Research suggests that when parents set rules about television their children have higher reading, math, and ability scores. (Ridley-Johnson, Cooper & Chance, 1982).

In 1982, Williams, Haertel, Haertel, and Walberg investigated the relation between leisure television viewing and achievement. Their synthesis of 23 empirical studies found a curvilinear relationship between television viewing and achievement with positive effects occurring for up to ten hours of week. Beyond this, the effects seem to be increasingly negative, especially for girls and high ability students. Overall, television viewing appears to have a small, negative relationship with school achievement.

A more recent study by Keith et al. (1986) also finds a small, negative relationship between television viewing and academic achievement but their research does not indicate a curvilinear
pattern for optimal viewing time. Consistent with the earlier study, high ability students are the more adversely affected.

Keith et al (1993) found that parent involvement increases homework which decreases television time. Although television viewing did not appear to have a significant impact on educational achievement, this study suggests that parent involvement can motivate students to spend time on more educationally productive activities.

Overall, moderate television viewing does not appear to have a strong negative effect on educational achievement. Nevertheless, parent monitoring of television viewing is advantageous as it can ensure that viewing does not replace other activities which have more beneficial outcomes.

**Reading at Home**

The highest-ranking educational desire of teachers and parents may be the development of reading competence in children. Children's success in school is linked to parents engaging in activities such as reading to their children and listening to them read (U.S. DOE, 1994). Beecher (1984) suggests that parent involvement in reading activities is important because "it promotes a bond between children and parents, and establishes reading as a valued personal activity" (p. 8).

The importance of parent involvement in the reading achievement of children has been studied often. The amount of reading materials in the home has been directly associated with

Bus, van IJendoorn, and Pellegrini (1995) conducted a quantitative meta-analysis of empirical literature to determine the effects of parent-preschooler reading. They found that parent-preschooler book reading is related to outcome measures such as language growth, emergent literacy and reading achievement and its effects are independent of the families' socioeconomic status. Although the effects of parent book reading become weaker as children become conventional readers, the parent book reading seems to make the start of school easier, a finding particularly important for children from low socioeconomic families.

In an effort to understand how children learn to comprehend what they read, Meyer, Wardrop, Stahl, and Linn (1994) conducted a literature review and a longitudinal study. The results suggested that while parents reading to children is a highly promoted activity, its positive effects take place before children enter school. Once children are in school, it is their independent reading (active engagement with print) that is positively related to their reading achievement.

A well-designed study by Tizard, Schofield, and Hewison (1982) points to the positive effects of having parents actively involved in the reading process. Using a three group experimental design with random assignment of schools located in a working-class area
of London, the experimenters found that students who read aloud to their parents two to four times a week, using books sent from the school, had "highly significant" gains compared to students who were provided with an extra reading teacher and tutoring assistance, and to those students who were not given any intervention. The students in the parent involvement group continued to show gains well after the end of the two year study and these gains were reflected in the national norms.

Although it appears that out of school reading activities are important, Anderson et al. (1988) suggest that the typical American child may spend as little as 8 to 10 minutes a day when all types of reading are included. This makes the role of the parent critical. Although there continues to be many unanswered questions about the specific ways that parents affect reading achievement, the literature strongly supports the efficacy of parental involvement. Parent's involvement is most effective when home reading activities reflect the child's cognitive development. This suggests that activities such as reading to children may be meaningful in the preschool years while listening to and encouragement of reading in the early school years may be more important.

Parental Involvement with the School

Parents tend to be more involved in their children's education at home than at school but this is changing. The 26th Annual Phi Delta Kappa/Gallup Poll of the Public's Attitude Toward the Public
Schools finds that over the past decade the frequency of family contact with the schools has doubled. Areas showing the greatest gains are attendance at school board meetings, attendance at meetings dealing with school problems, and attendance at plays, concerts, and athletic events (Elam, Rose, & Gallup, 1994).

Henderson (1987) states that parents are eager to play all roles at school. According to Brittle (1994), when parents provide volunteer assistance, act as audience for programs, and/or take part in the decision making process, they benefit the school, all children, and themselves.

Several studies have addressed the importance of parent involvement within the school. A survey by Dornbusch (1986) found that, regardless of the parents' educational level, there is a strong relationship between their degree of participation in school functions and their children's grades. Similar findings were reported from a study by Stevenson and Baker (1987). These researchers discovered that, although the mother's education is a strong predictor of parent involvement with the school (and success), parent involvement itself has a significantly important influence on school performance. Thus, even parents with poor educational background(s) who are involved with their child's school activities can influence achievement outcomes.

Other evidence suggests that when parents participate in school-related activities, they not only have a more positive view of the school (Haynes, Comer, & Hamilton-Lee, 1989; Epstein 1985) but their children have better attendance (Sheats et al, 1979),
better behavior (Fantuzzo et al., 1995) and higher achievement motivation (Grolnick et al. 1994). It would be reasonable to conclude that this results from the children adopting their parents' attitudes towards school.

An observational study was used by Snow, Barnes, Chandler, Goodman, and Hemphill (1991) to compare home and school influences on the literacy achievement of 32 children from low-income families. The researchers found that formal school involvement (attending school activities and volunteering) has the most significant correlation with all literacy skills. Snow et al. suggested that formal parental involvement has an impact on academic achievement because 1) it provides parents with information about the school environment, 2) it demonstrates to children that school is important, and 3) it raises the potential of the child in the eyes of the teacher.

Parent as School Supporter

Parents have traditionally been involved with the school through such activities as parent-teacher conferences, attendance at PTA or school functions, and child-delivered memos. Although these activities seem rather passive, several studies have found a direct relationship between them and student achievement.

Herman and Yeh (1980) examined this relationship through a causal model study. They found that the degree of parent interest and participation in school activities are positively related to student achievement. Studies by Dornbusch (1986) and Dornbusch and
Ritter (1988) suggest this relationship holds true even when controlled for social class and ethnic membership and even when the events parents attend are such as Open School Night, College Night, or athletic events.

Evidence from other researchers questions the assumption that parents attendance alone can influence academic outcomes or if it does, whether its effect generalizes to all students, such as the academically at-risk. Yang and Boykin (1994) and Johnson (1990), for example, do not find a relationship between parents participation in chapter 1 programs and academic improvement.

Several studies have addressed the importance of parents' support in instructional activities. Karraker (1972) reported that academic achievement increased when parents provided reward for students' daily work. In a similar fashion, Heller and Fantuzzo (1993), in an experimental design found children whose parents gave reward (usually a parent-child interaction activity) for performance in a reciprocal peer tutoring intervention had higher performance on a curriculum measure than the reciprocal peer tutoring group alone or controls.

A follow-up study by Fantuzzo et al. (1995) found that without the reciprocal tutoring component, parent reinforcement alone did not have a significant effect on academic achievement. Fantuzzo concluded that this study and the previous one documents the additive benefits of having parents as collaborators in student learning.
The importance of the parent role as school supporter has also been investigated by looking at the relation between teacher/parents' contacts and children's achievement. A survey by Becker and Epstein (1982) has identified teacher to parent communication as the most frequently used parent involvement technique.

Iverson, Brownlee, and Walberg (1981) discovered that a few initial contacts produce gains in reading but contacts beyond a certain point had differential effects according to the grade of the child. The underachieving first grader may receive additional benefit with increasing contacts but with the underachieving eighth grader more than a few initial contacts leads to diminished gains. Interestingly, the distribution of contacts was very unequal with 15% of the students' parents receiving 44% of total contacts.

According to Barton and Cooley (1992), parent contact with the schools is not associated with higher scores; instead this contact occurs more when there is a problem. An observational study by Lareau (1987) suggested that when working class parents contact the school they tend to raise non-academic issues such as a missing lunchbox and their interactions with teachers are stiff. In contrast, the contact by middle class contact parents is more frequent, less formal, and more centered around academic concerns. Overall, Lareau saw the relationship between the working class parents and the school as independent while the relationship between the middle class and the school is interdependent. It is not surprising that the role of parent as school supporter has been
significantly linked to socioeconomic status (Hickman et al., 1995).

Parent as Active Participant

By observing and helping teachers, parents can become more effective in conducting school-related learning activities within the home. Additionally, volunteering and frequent school visitation can also enhance relations between these parents and the school. Parents who are involved hold their children's teachers and the school in higher regard (Epstein, 1985) and, likewise, teachers have higher opinions of these parents and greater expectations for their children (Stevenson & Baker, 1987).

In a large survey examining practices of parent involvement, Becker and Epstein (1982) found about half the teachers sampled had at least some parental assistance in the classroom. There was agreement among the teachers that if parents spend time at school the parents usually make a greater effort to help their children learn at home.

Toomey (1986), in a retrospective review of earlier studies of low-income schools in Australia, found that although home visits were more successful in engaging disadvantaged parents, the programs requiring parents to visit the schools produced greater reading gains. He suggested that the higher achievement may reflect greater self-confidence and commitment from parents who come to school and teacher bias toward those parents.
Some support for this position comes from studies by Hoover-Dempsey, Bassler, & Brissie (1987; 1992) which have identified a significant relationship between teachers and parents' sense of efficacy and parents' active participation in the school.

Research also suggests a link between the specific actions parents take to manage their child's school career and the families' background. Baker and Stevenson (1986) found that, regardless of their children's grade point average, mothers with higher socioeconomic status have more contact with the school, are more likely to manage their children's academic coursework, and are more likely to override the school's recommendation, especially if they have low-achieving children. Baker and Stevenson argue that because high SES parents know more about the system and have better management skills, their children have more post-secondary options.

When parents feel comfortable in the school environment, even those with limited educational attainment and means can make a difference in their children's achievement (Eagle, 1989). Parents' perception of their influence in school decision-making is not related to their socioeconomic status (Herman & Yeh, 1980). When parents feel they make a difference, they participate more in school activities and their children have higher achievement. These achievement gains have been realized by several schools that include parents of at-risk students in planning and decision-making (Comer, 1984; 1988; Gilliam, Schooley, & Novak, 1977; Walberg, Bole, & Waxman, 1980).
Overall, parental participation in school activities appears to be promising way to improve academic achievement. Research evidence about its efficacy is guarded, however, because socio-economic and school climate variables reduce the participation of the parents who need it the most (Grolnick, Benjet, Kurowski, & Apostoleris, 1997; Scott-Jones, 1988).

The At-Risk Student and School-Home Collaboration:

Parent and home environment factors have repeatedly been identified as critical in students' school achievement. Research and the popular press have correlated many of these characteristics with low school achievement. Students' academic success is significantly related to such family variables as low income and occupational status, limited parent education, coping skills; unrealistic aspirations and expectations, ethnic membership, and family structure (Gavida-Payne & Stoneman, 1997; Lee & Croninger, 1994; Milne, Myers, Rosenthal, & Ginsburg, 1986; Pallas et al., 1989; Thornburg, Hoffman, & Remeika, 1991).

The research begins to have more pragmatic application when, instead of defining the home environment of the academically at-risk student, it delineates practices which can help these students achieve optimal school success.

Several researchers have identified parental involvement practices which can help disadvantaged students become more successful in school. Tizard et al. (1982) indicated that when parents listen to their children read, even students from
low-income families make good gains in reading achievement. Eagle's (1989) research found that, independent of socioeconomic status, parents' involvement in high school is significantly related to their children's post-secondary educational attainment. In a similar manner, Stevenson and Baker (1987) discovered that parental involvement in school can negate the effect of the mother's education. Milne (1987), after an extensive review of the literature, concluded that family structure was not what mattered the most but, instead, the educational experiences in the home.

Clark's (1983; 1993) work illustrates that even poor families can make a difference in the educational achievement of their children. Clark compared high achieving and low achieving minority students from low income families. He found the parents of the high achieving students frequently talked with them, set limits, monitored time, were more involved in home learning activities and the encouragement of their children's academic pursuits, and were actively involved with the school.

The research suggests that when parents and the schools work together, disadvantaged students can make high academic gains. Epstein (1985) concludes that when teachers make parental involvement important students achieve, even when other factors are controlled. Heller and Fantuzzo's (1993) study demonstrates that parents are an "additive" effect to school instruction. Studies by Walberg et al. (1980), Gilliam et al. (1977) and Reynolds (1989; 1991; 1993) show that when there is intense parental involvement in the school the at-risk students can make meaningful gains.
The importance of parental involvement in educational achievement is increasingly being recognized. The majority of school programs with a parental involvement component, however, are connected to federal mandates or to federally funded compensatory programs (Nardine & Morris, 1991). The largest federally funded compensatory education program, Title I, has mandated parent involvement since its inception. The Hawkins-Stafford School Improvements Amendment of 1988 reaffirmed this commitment by establishing new requirements for parental involvement (D’Angelo & Adler, 1991). Title I legislation requires schools to have ongoing communication with parents and to seek parents’ input in the planning, design, and implementation of local programs.

The recent reauthorization of Title I (The Improving America’s Schools’ Act of 1994) requires parents and educators to develop learning compacts which outline how parents, the school staff, and students will share the responsibility in working together to support learning in school and at home (U.S. DOE, 1994). The effect of these learning compacts on student achievement has not been tested.

Research suggests that collaboration between the families and school can improve the achievement of all students, even those from disadvantaged background. Nevertheless, there are vast gaps in our knowledge about how we measure the parent involvement and about the particular types of parent activities that are the most educationally productive.
If parent involvement is to be used to maximize the achievement of the at risk student, it is important that new research move away from its past "one size fits all" approach and recognize parent involvement as a multi-dimensional concept. Additional research is needed to identify specific parent involvement activities which are meaningful for the academic success of "educationally deprived" students. The present study addresses this need.

This study examines the relationship between the reading comprehension achievement of low-income students, parents' support of learning activities in the home, and parents' support of learning activities in the school. It also examines the effectiveness of five specific parent involvement activities: 1) supervision of homework, 2) reading with students, 3) monitoring of television viewing, 4) school supporter, and 5) school volunteer. In addition, the present study tests whether there is a significant association between the level of compliance by learning partners with activities on a model home-school learning compact and reading achievement.

Summary

Empirical evidence during the past two decades has repeatedly identified parent involvement as a variable with important potential for improving the school achievement of all students. Many of the studies, however, have been judged to be methodologically flawed and there is a lack of consensus about what
constitutes parent involvement and what forms of involvement are most effective in promoting learning. Because of these concerns, researchers are increasingly beginning to view parent involvement as a multidimensional construct with specific parent behaviors producing different educational outcomes.

The research to date suggests that homework has a positive influence on academic achievement with its effects becoming stronger as students advance in school. The positive effects of parents reading to children appear to take place before children enter school while parents' encouragement of independent reading may be important after their school entry. Parental monitoring of television viewing does not appear to significantly affect students' academic achievement but may be advantageous as it can ensure that television does not replace other activities which may be beneficial.

Although research examining the effects of formal parental involvement in the school is somewhat limited, studies suggest that activities such as attending school functions and volunteering may positively impact students' academic achievement. The findings are inconsistent, however, and tend to reflect socio-economic factors.
CHAPTER 3
Methods and Procedures

Introduction

The purpose of this study was to examine the relationship between parent/teacher/student collaboration and the reading achievement of fourth grade Title 1 students from a rural county in southern Appalachia. This study also investigated the effect of various types of parental involvement activities on reading achievement. Chapter III describes the methodology of the study including a description of the population, the development and implementation of a collaborative learning agreement, the instruments used for collecting data and the procedures followed. The chapter concludes with a discussion of data analysis procedures.

Population and Setting

The potential population for this study was the 86 fourth grade students who, at the beginning of the 1995-96 school year, were served by a Washington County, Virginia School Title 1 reading program. The school district was located in a rural Appalachian county and had a total enrollment of 7500. About 35% of the total school population met the federal guidelines for free or reduced lunch based on household size and income. Six of the seven elementary schools had a high concentration of low income families which allowed them to qualify for Title 1 funding. The fourth
graders in this study were from the six schools with a Title 1 reading program. All of these students were reading below grade level.

In early September, 1995 the Title 1 teachers administered the reading comprehension subtest of the Iowa Test of Basic Skills to their fourth grade students. Following this testing, all Title 1 students and their parents, including the students in this study, were offered parent/teacher/student partnership agreements, or pledges to work in specific ways to further the students' education. The teachers and students completed their sections of the compacts then the compacts were presented to the parents at each school's initial parents' meeting. Parents who were not at the meetings were later contacted by the Title 1 teachers. Although the agreements were voluntary, the parents of only 8 out of the 86 Title 1 students did not sign.

Instrumentation

The variables in this study were taken from the Parent/ Teacher/Student Partnership Agreement developed by Washington County Schools. This document will be described in detail, then the measures developed to examine the level of home-school collaboration and parental involvement activities will be discussed. The third and final instrument reviewed will be a measure of reading comprehension.
Parent/Teacher/Student Partnership Agreement

A parent/teacher/student partnership agreement was developed by the Washington County Title 1 program to be in effect for the 1995-96 school year. Compact items were taken from the research literature and from sample learning compacts provided by the Virginia Department of Education.

The first section of the agreement addressed Family/Child Involvement in the Home and contained home involvement activities such as (1) supervising homework (2) monitoring television viewing, (3) encouraging school attendance (4) reading with the child and a school involvement activity: (5) attending a parent/teacher conference for each child.

The second part of the compact encouraged Parental Involvement with the School. Parents were asked to choose activities from the following list: (1) attend at least two (2) school functions, (2) volunteer as a classroom helper for 30 minutes at least twice a year, (3) help with special school activities, (4) eat lunch with child at least two times a year, (5) prepare materials for the teacher, or (6) their own suggestion.

The third section of the agreement, the Student Checklist, asked students to agree to 1) complete and return homework, 2) follow school and classroom rules, 3) respect other people, 4) take care of school property, and 5) put forth their best effort in class.

The fourth and final part of the compact was the Teacher Checklist, which consisted of nine items generally regarded as good
teaching practices. Teachers pledged on these items to provide a safe and caring environment, to follow an appropriate curriculum and to teach to all learning styles, to take into account the individual strengths of the child, to keep the parent regularly informed of the child's progress, to help the parent find ways to help the child at home, and to schedule conferences to accommodate parent's schedules.

Compliance Surveys

Three survey instruments were developed by the researcher to examine the degree of involvement by each party with the educational activities suggested on the Parent/Teacher/Student Agreement (see Appendix). The surveys were produced by sorting the items on the agreement into three groups: (1) activities about which the teacher would have knowledge of compliance, (2) activities which the student would have knowledge of compliance, and (3) activities about which the parent would have knowledge of compliance. Using the sorted items, three surveys (a Teacher Form, a Student Form, and a Parent Form) were developed to examine compliance with activities on the partnership agreement. Appropriate items on the partnership agreement were worded into statement form on each survey, and the rater was requested to describe a party's compliance as "yes" or "no". Because each partnership agreement activity appeared on two of the survey forms, a two dimensional measure was obtained for all of the activity variables.
The Teacher Form of the surveys was designed to be completed by the child's Title 1 teacher (with consultation with the student's regular teacher if needed). The 20 items on the Teacher Form consisted of those activities on the Parent/Teacher/Student Partnership Agreement for which the teacher would be knowledgeable about the level of involvement by the various parties. Activities were grouped into the following sections: 1) Student Compliance with the Agreement, 2) Teacher Compliance, and 3) parental support of school activities. The teacher completed a separate survey for each student.

The Student Form survey had thirteen items. This two-part survey addressed the student's adherence to the partnership agreement, the helpfulness of the Title 1 teacher, and educational activities in the home.

The third survey, the Parent Form, was designed to produce information about the parent's involvement with the school and with home based educational activities. The two-part survey was also used to record the parent's observations about the Title 1 teacher's helpfulness and availability. Additionally, two open-ended questions were included: "My goal for my child is ___" and "If I were in charge of the school I would change my child's education by ___"

A test-retest reliability measure was employed to establish the stability of the compliance questionnaires. Random retesting was done three weeks after the original distribution of the forms and two weeks after their collection. Pearson product-moment
correlations between the scores on the original surveys and the scores on the retest yielded a reliability coefficient of .89 for the student form (N = 21), .86 for the parent form (N = 20), and .85 for the teacher form (N = 25).

Reading Comprehension

The reading comprehension subtest (level 10) of the Iowa Test of Basic Skills (ITBS) was used to measure reading achievement (Hieronymous, 1986). The ITBS assesses the development of basic academic skills and is frequently used in program planning and evaluation (Yang & Boykin, 1994). It is a group administered, multi-level, paper and pencil test. There are 49 items on the Level 10 reading comprehension subtest. Reliability coefficients for this subtest are reported for both internal consistency (K-R 20: .909 fall administration; .923 spring administration) and equivalent forms (.84).

Procedure

Data for the present study were compiled over a nine month period starting in September, 1995 and ending in June, 1996. The following procedure was used:

Data collection began in early September, 1995 with the administration of level 10 of the ITBS reading comprehension subtest to all fourth grade Title 1 students. A second reading comprehension measure was obtained from the full ITBS battery which
was administered in the spring of 1996 as part of the county testing program.

Parents, teachers, and students completed learning partnership agreements in the fall of 1995 as part of the regular education program. Following the spring administration of the ITBS, the researcher explained the purpose of the study and survey procedures individually to the Title 1 teachers. The Title 1 teachers were requested to convey the same information to their fourth grade students. The teachers were then given Teacher Forms of the survey to complete for each of their fourth grade students, Student Forms to distribute to those students who were willing to participate, explanatory letters, consent forms, and return envelopes. An addressed envelope containing a cover letter, the Parent Form of the survey, a consent form, and a return envelope was sent home with each of the fourth grade Title 1 students.

After completing the surveys, the participants were instructed to seal them in the accompanying, pre-addressed envelopes. Envelopes containing the surveys were collected in the schools or mailed to the researcher. After their receipt, the researcher matched the completed teacher, student, and parent forms, assigned them numerical codes, and removed all names so that individual responses would be held confidential.

One week after the distribution of the surveys, telephone calls were made to those parents who had not yet returned their surveys. The parents were again advised of the study's purpose and assured that confidentiality would be maintained. They were offered
a replacement survey or the option of completing the survey over
the telephone. The latter option was chosen by six of the parents.
Second survey forms were sent to the two parents who requested them
and to non-respondents without a telephone. However, none were
returned. No follow-up was needed with the teachers or the Title 1
students since surveys were completed by all those who gave
consent.

After all data were collected and matched, fourteen of the
original eighty-six Title 1 students were eliminated from the
study. These students were eliminated because of school changes or
removal from the Title 1 program (8 students), missing ITBS scores
(1 student) or incomplete survey information (5 students). The
removal of these students resulted in a study population of 72
students (83.7% of the potential population). Each of these
students had fall and spring ITBS scores and survey data which was
obtained from three different sources.

Using this information, the following scores were generated
for each member of the study: (1) reading comprehension scores, 2)
a total activity score, 3) parent, child, and teacher involvement
scores, 4) a score for the parent's total home activities, 5) a
score for the parent's total school activities, and 6) scores for
specific parental involvement activities such as reading,
monitoring of television viewing and homework, eating lunch with
the student, volunteering at school, or school supporter.

The individual scores on each variable were then numerically
ranked and frequency of occurrence scores were then used to form
three comparison groups: (1) the group with the highest involvement scores on a particular variable, (2) the middle group, and (3) the group with the lowest involvement scores. Because of problems with sample skewedness and limited data range, the variables homework involvement, television monitoring, and teacher activities did not lend themselves to this three group formation. The data allowed, however, for two comparison groups, consisting of "more or less involvement", to be formed for the homework and television monitoring variables. The teacher activities variable could not be divided into comparison groups.

Statistical Treatment of Data

The data collected from the surveys were analyzed in several ways. Descriptive analyses and statistics were generated to produce an overall picture of questionnaire responses and to summarize answers to the open-ended questions on the parent surveys. Both parametric and non-parametric methods were utilized to answer the research questions.

Initially, chi-square contingency tables examined whether group differences in reading achievement gains were associated with (1) the overall level of involvement by partners with the activities on the learning agreement compact, (2) the levels of involvement exhibited by a specific learning partner (students, or parents), (3) a type of parent involvement (home or school), or by (4) specific parent involvement activities. A contingency design was employed to compare three levels of reading comprehension.
scores with different levels of involvement with the research variables. The reading achievement levels were collapsed into "higher" and "lower" categories for comparisons with levels of total activities, parental reading, school support and school volunteerism after initial frequency charting indicated an expected value of less than five in a cell.

A second analysis was done with analysis of variance procedures, comparing levels of involvement on the independent variables with the students' ITBS scores. Homogeneity of variance factors were evaluated with the Levene's Test and satisfied for all of the comparisons. Achievement differences among levels of involvement groups were then examined, using raw scores on the fall and spring ITBS reading comprehension measures and gain scores between the two measures. A significance level of .10 was selected.

Summary

The purpose of the study was to examine the relationship between parent/teacher/student collaboration and the reading achievement of fourth grade Title 1 students from a rural county in southern Appalachia. The study also investigated the effect of the following variables on reading achievement: (1) the total level of involvement by teachers, students, or parents, (2) the type of parent involvement activity (home or school), (3) parental monitoring of homework, (4) parental reading with students, (5) parental monitoring of television viewing, (6) parental involvement
as a school supporter, and (7) parental involvement as a school volunteer.

The research variables were taken from the Parent/Teacher/Student Partnership Agreement which was developed by the school divisions' Title 1 program. Three surveys (a teacher form, a student form, and a parent form) were developed to examine compliance with activities on the partnership agreement. The reading comprehension subtest of the Iowa Test of Basic Skills (ITBS) was used to measure reading achievement.

Data were collected during the period of September 1995 through June 1996 and included scores from two administrations of the reading comprehension subtest of the Iowa Test of Basic Skills and information from surveys completed by the Title 1 reading students, their parents, and their teachers.

Descriptive analyses and statistics were generated to produce an overall picture of questionnaire responses and to summarize answers to the open-ended questions on the parent surveys. A quasi-experimental pretest-posttest design was used to answer the research questions. Chi-square contingency tables were then used to examine (at the .10 level of significance) whether there was an association between group differences in reading achievement and different levels of involvement on the research variables. A second analysis was done with analysis of variance procedures, comparing levels of involvement with the students' ITBS scores.
CHAPTER 4

Results

Introduction

Following a presentation of descriptive data from the ITBS tests and survey samples, the results of the analyses are presented as responses to the nine research questions presented in Chapter 1. A probability level of .10 or less was considered significant on all measures. The research questions are listed below:

1. Is there a significant difference in the reading achievement of Title 1 students when parents, teachers, and students exhibit the highest compliance with activities on a learning compact and the reading achievement of students where compact partners exhibit less or the least compliance?

2. Does the level of involvement by teachers or by Title I students make a difference in reading achievement?

3. Does the degree of parental involvement with activities on a learning compact make a significant difference in the reading achievement of Title I students?

4. Does the type of parent involvement (home or school) make a significant difference in reading achievement scores?

5. Does parental monitoring of homework significantly impact reading achievement?

6. Does parental reading with students significant impact reading achievement?
7. Does parental monitoring of television viewing significantly impact reading achievement?

8. Does parental involvement as a school supporter (attends conferences, attends school functions, eats lunch with child) significantly impact reading achievement?

9. Does parent involvement as a school volunteer (classroom helper, preparation of materials, other volunteer activities) significantly impact reading achievement?

Additionally qualitative data were derived from parents' answers on two open-ended statements: (1) My goal for my child is _______. (2) If I were in charge of the school I would change my child's education by ___________. The results of the two questions will be presented in the final section of this chapter.

Descriptive Statistics

The potential population for this study was the 86 fourth grade students, who at the beginning of 1995-96 school year, were served by a Washington County, Virginia School Title I reading program. Data were gathered during the period of September 1995 through June 1996 and included scores from two administrations of the reading comprehension subtest of the Iowa Test of Basic Skills and information from surveys completed by the Title 1 reading students, their parents, and their teachers. Complete data were obtained on 72 students which represented 83.7% of the potential population.
ITBS Samples

A preliminary examination of the ITBS scores obtained by the 72 students indicated some unusual observations. Three scores on the fall ITBS testing were atypical, causing the distribution of this sample to be abnormally skewed in a positive direction when it was graphically plotted. A boxplot identified these scores as outliers and testing with an Anderson-Darling Normality Test indicated that an assumption of distribution normality could not be made. Because of the violation of this assumption and possible problems of a finding of group differences based solely on the extreme values, a 9% trimmed sample was substituted for the fall ITBS data set. However, when the trimmed sample was tested with an Anderson-Darling Normality Test, it also violated the assumption of normal distribution. An assumption of normality was achieved when the three outlier scores were dropped from the full ITBS data set. The resulting set was employed for all parametric comparisons involving the fall ITBS testing while the full ITBS array was used for non-parametric procedures.

The students' spring ITBS scores did not contain any unusual observations and normality assumptions were met. When gain scores were computed, however, an outlier was present on both ends of the distribution. Because the sample was normally distributed, the full set of gain scores was used for all analyses. Following these analyses, the effect of the outliers was investigated by duplicating the parametric procedures on a 3% trimmed data set which eliminated the two extreme values.
Table 1 displays a descriptive summary of the data from the instrumentation variables.

Table 1.
Descriptive Data for ITBS Samples

<table>
<thead>
<tr>
<th>ITBS 1 (fall administered)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>15.38</td>
</tr>
<tr>
<td>Range</td>
<td>3 to 33</td>
</tr>
<tr>
<td>S.D.</td>
<td>6.87</td>
</tr>
<tr>
<td>Mean with outliers removed</td>
<td>14.64</td>
</tr>
<tr>
<td>Range with outliers removed</td>
<td>3 to 29</td>
</tr>
<tr>
<td>S.D. with outliers removed</td>
<td>6.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ITBS 2 (spring administered)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>22.19</td>
</tr>
<tr>
<td>Range</td>
<td>7 to 41</td>
</tr>
<tr>
<td>S.D.</td>
<td>6.84</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gain Scores</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>6.82</td>
</tr>
<tr>
<td>Range</td>
<td>-10 to 26</td>
</tr>
<tr>
<td>S.D.</td>
<td>6.14</td>
</tr>
</tbody>
</table>

Survey Samples

All of the 78 surveys that were given to the Title 1 teachers and students were returned. The Title 1 parents returned 73 surveys, yielding a total parent return rate of 93%. Seventy-two students had complete survey information and ITBS scores. Forty of this number (56%) were male and thirty-two (44%) were female. Comparison groups for the research questions were determined by scoring the "yes" responses on appropriate items on the child, teacher, and parent surveys. The individual scores on each variable were then numerically ranked and frequency of occurrence
scores were used to form three comparison groups: (1) the group with the highest involvement scores on a particular variable, (2) the middle group, and (3) the group with the lowest involvement scores. All variables except homework involvement, television monitoring, and teacher activities lent themselves to this three group formation. Because of problems with limited range and the skewness of the sample, two comparison groups, representing "more" or "less" involvement, were formed for the homework monitoring and television monitoring variables. The variable teacher activities was not able to be divided into comparison groups.

Analysis of the Data

Both parametric and non-parametric methods were utilized to answer research questions. Initially, the data were examined by contingency tables to determine whether there was an association between levels of reading comprehension achievement and the levels of involvement exhibited by (1) the compact partners, (2) a specific learning partner, (3) a type of parent involvement (home or school), or on (4) a specific parent involvement activity. The independence of the reading and involvement variables was first tested by comparing high, middle, and low levels of student achievement on the ITBS reading comprehension measures and gain scores with involvement levels on the research variables. The reading achievement levels were collapsed into "higher" and "lower"
categories for research variables whenever initial frequency charting indicated an expected value of less than five in a cell.

A second analysis was done with analysis of variance procedures, comparing levels of involvement on the independent variables with the students' ITBS scores. Because the numbers of subjects in the comparison groups were unequal, homogeneity of variance factors were evaluated with the Levene's Test. Results indicated the homogeneity of variance requirement was met for all comparisons. Table 2 presents the raw score means and standard deviations for all variables.

Table 2.

Raw Score Means and Standard Deviations of Involvement Groups on Reading Comprehension Measures.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Least involved</th>
<th>Mid involved</th>
<th>Most involved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
</tr>
<tr>
<td>Total Activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1</td>
<td>27</td>
<td>13.63</td>
<td>6.00</td>
</tr>
<tr>
<td>ITBS2</td>
<td>28</td>
<td>22.32</td>
<td>7.10</td>
</tr>
<tr>
<td>Gain</td>
<td>28</td>
<td>8.00</td>
<td>6.09</td>
</tr>
<tr>
<td>Child Activities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1</td>
<td>22</td>
<td>14.18</td>
<td>6.50</td>
</tr>
<tr>
<td>ITBS2</td>
<td>23</td>
<td>22.04</td>
<td>7.26</td>
</tr>
<tr>
<td>Gain</td>
<td>23</td>
<td>7.04</td>
<td>4.62</td>
</tr>
<tr>
<td>Total Parent Inv.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1</td>
<td>24</td>
<td>14.91</td>
<td>5.33</td>
</tr>
<tr>
<td>ITBS2</td>
<td>24</td>
<td>21.91</td>
<td>6.78</td>
</tr>
<tr>
<td>Gain</td>
<td>24</td>
<td>7.00</td>
<td>6.61</td>
</tr>
</tbody>
</table>
Table 2 (continued)

Raw Score Means and Standard Deviations of Involvement Groups on Reading Comprehension Measures.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Least involved</th>
<th>Mid involved</th>
<th>Most involved</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>M</td>
<td>SD</td>
</tr>
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<td><strong>Total Home Inv.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1</td>
<td>29</td>
<td>14.17</td>
<td>5.35</td>
</tr>
<tr>
<td>ITBS2</td>
<td>29</td>
<td>21.59</td>
<td>5.94</td>
</tr>
<tr>
<td>Gain</td>
<td>29</td>
<td>7.41</td>
<td>5.20</td>
</tr>
<tr>
<td><strong>Total School Inv.</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1</td>
<td>22</td>
<td>15.41</td>
<td>5.25</td>
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<tr>
<td>ITBS2</td>
<td>23</td>
<td>23.44</td>
<td>6.77</td>
</tr>
<tr>
<td>Gain</td>
<td>23</td>
<td>7.26</td>
<td>6.63</td>
</tr>
<tr>
<td><strong>Homework Monitoring</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1</td>
<td>31</td>
<td>13.42</td>
<td>6.28</td>
</tr>
<tr>
<td>ITBS2</td>
<td>32</td>
<td>21.53</td>
<td>7.02</td>
</tr>
<tr>
<td>Gain</td>
<td>32</td>
<td>7.50</td>
<td>5.59</td>
</tr>
<tr>
<td><strong>Reading at home</strong></td>
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<td></td>
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</tr>
<tr>
<td>ITBS1</td>
<td>17</td>
<td>15.06</td>
<td>5.09</td>
</tr>
<tr>
<td>ITBS2</td>
<td>17</td>
<td>21.82</td>
<td>5.88</td>
</tr>
<tr>
<td>Gain</td>
<td>17</td>
<td>6.77</td>
<td>5.22</td>
</tr>
<tr>
<td><strong>TV Monitoring</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1</td>
<td>26</td>
<td>13.77</td>
<td>6.04</td>
</tr>
<tr>
<td>ITBS2</td>
<td>26</td>
<td>20.73</td>
<td>6.04</td>
</tr>
<tr>
<td>Gain</td>
<td>26</td>
<td>6.96</td>
<td>4.79</td>
</tr>
<tr>
<td><strong>School Support</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1</td>
<td>17</td>
<td>15.94</td>
<td>4.89</td>
</tr>
<tr>
<td>ITBS2</td>
<td>17</td>
<td>22.77</td>
<td>7.21</td>
</tr>
<tr>
<td>Gain</td>
<td>17</td>
<td>6.82</td>
<td>7.14</td>
</tr>
<tr>
<td><strong>School Volunteer</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1</td>
<td>30</td>
<td>14.90</td>
<td>5.32</td>
</tr>
<tr>
<td>ITBS2</td>
<td>33</td>
<td>23.66</td>
<td>7.17</td>
</tr>
<tr>
<td>Gain</td>
<td>33</td>
<td>7.18</td>
<td>7.14</td>
</tr>
</tbody>
</table>

**Note.** The ITBS administered in the fall is labeled ITBS 1. The spring administered ITBS is labeled ITBS2.
Research Question 1

Is there a significant difference in the reading achievement of Title 1 students when parents, teachers, and students exhibit the highest compliance with activities on a learning compact and the reading achievement of students where compact partners exhibit less or the least compliance?

Statistical analyses did not show a significant relationship between the total degree of involvement by students, teachers, and parents and Title I students' reading achievement. Initially, the relationship between these variables was investigated with 3 X 3 chi-square analyses, comparing high, middle, and low levels of achievement on the ITBS reading comprehension measures and gain scores with the levels of total involvement. This was changed to a 2 X 3 design when the resulting contingency tables showed an expected value of less than five on one of the cells. No findings of significance were made with the latter analysis.

Testing with an analysis of variance did not show a significant difference in the reading achievement means of the compliance groups. The students whose learning partners were the most involved achieved a mean score of 15.56 on the fall testing, 21.86 on the spring ITBS testing and had a gain score mean of 5.68. Students whose learning partners had less or the least involvement received mean scores respectively of 14.80 and 13.63 on the fall testing, 22.56 and 22.32 on the spring ITBS testing and had gain
means of 6.75 and 8.00. The chi-square and ANOVA reports on the total compliance variable are displayed in Tables 3 and 4.
Table 3

Contingency Table for Levels of Total Activity by Levels of Reading Comprehension Achievement

<table>
<thead>
<tr>
<th></th>
<th>Least activity</th>
<th>More activity</th>
<th>Highest activity</th>
<th>$X^2$</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column Totals</td>
<td>28</td>
<td>16</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1 (fall)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>16</td>
<td>8</td>
<td>13</td>
<td>.66</td>
<td>.72</td>
</tr>
<tr>
<td>high ach.</td>
<td>12</td>
<td>8</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS2 (spring)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>15</td>
<td>6</td>
<td>15</td>
<td>1.29</td>
<td>.53</td>
</tr>
<tr>
<td>high ach.</td>
<td>13</td>
<td>10</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gains</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>13</td>
<td>8</td>
<td>17</td>
<td>1.21</td>
<td>.55</td>
</tr>
<tr>
<td>high</td>
<td>15</td>
<td>8</td>
<td>11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4

Analysis of Variance Report for ITBS Reading Achievement by Level of Total Involvement

<table>
<thead>
<tr>
<th>Measure</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>$F$</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITBS 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>50.6</td>
<td>2</td>
<td>25.3</td>
<td>.70</td>
<td>.50</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2397.4</td>
<td>66</td>
<td>36.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>5.8</td>
<td>2</td>
<td>2.9</td>
<td>.06</td>
<td>.94</td>
</tr>
<tr>
<td>Within Ss</td>
<td>3315.5</td>
<td>71</td>
<td>48.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dif 1 &amp; 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>75.5</td>
<td>2</td>
<td>37.8</td>
<td>1.00</td>
<td>.37</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2599.1</td>
<td>71</td>
<td>37.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question 2

Does the level of involvement by teachers or by Title 1 students make a difference in reading achievement?

There were no differences in the achievement of the sample population that could be attributed to differences in teacher involvement because survey results overwhelmingly gave teachers perfect or almost perfect scores. Teachers rated themselves highly compliant with suggested activities on the learning compact and were likewise rated highly by the students and parents. A positively skewed distribution was also found for the level of involvement displayed by the Title 1 students but the range of observations was sufficient for a three group comparison. When the three groups were compared on the reading comprehension measures, no significant differences were found in their achievement. The results of the analyses on the level of child activity variable are presented in Tables 5 and 6.

Students who were most involved achieved a mean score of 15.17 on the fall ITBS testing while the less involved achieved a mean score on this measure of 14.52 and the least involved achieved a mean score of 14.18. The most involved students had a mean score of 22.96 on the spring ITBS and a mean gain score of 7.79 while the mean score of the mid-involvement group was 21.60 with a gain of
5.68. The least involved group achieved a mean score of 22.04 on the spring ITBS and had a mean gain score of 7.043.
Table 5
Contingency Table for Levels of Child Involvement by Levels of Reading Comprehension Achievement

<table>
<thead>
<tr>
<th></th>
<th>Least activity</th>
<th>More activity</th>
<th>Highest activity</th>
<th>$X^2$</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column Totals</td>
<td>23</td>
<td>25</td>
<td>24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1 (fall)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>8</td>
<td>9</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid ach.</td>
<td>7</td>
<td>8</td>
<td>12</td>
<td>3.47</td>
<td>.48</td>
</tr>
<tr>
<td>high ach.</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS2 (spring)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>10</td>
<td>10</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid ach.</td>
<td>5</td>
<td>9</td>
<td>8</td>
<td>3.33</td>
<td>.51</td>
</tr>
<tr>
<td>high ach.</td>
<td>8</td>
<td>6</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gains</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>6</td>
<td>11</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>8</td>
<td>6</td>
<td>5</td>
<td>3.29</td>
<td>.51</td>
</tr>
<tr>
<td>high</td>
<td>9</td>
<td>8</td>
<td>12</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6
Analysis of Variance Report for ITBS Reading Achievement by Level of Child Involvement

<table>
<thead>
<tr>
<th>Measure</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>$F$</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITBS 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>11.6</td>
<td>2</td>
<td>5.8</td>
<td>.16</td>
<td>.86</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2436.3</td>
<td>66</td>
<td>36.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>23.4</td>
<td>2</td>
<td>11.7</td>
<td>.24</td>
<td>.78</td>
</tr>
<tr>
<td>Within Ss</td>
<td>3297.9</td>
<td>69</td>
<td>47.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dif 1 &amp; 2</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>56.3</td>
<td>2</td>
<td>28.1</td>
<td>.74</td>
<td>.48</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2618.4</td>
<td>69</td>
<td>37.9</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question 3

Does the degree of parental involvement with activities on a learning compact make a significant difference in the reading achievement of Title I students?

Statistical analyses did not identify a significant relationship between the degree of total parental involvement and reading comprehension achievement. The mean scores on the fall reading achievement measure for the three groups were 14.91, 15.12, and 14.11 respectively. The mean scores on the spring ITBS testing ranged from 21.21 and 23.90 for the higher parent involvement groups to 21.91 for the group with the lowest total parent involvement scores. Tables 7 and 8 display the statistical analyses for the total parental involvement variable.
Table 7

Contingency Table for Levels of Total Parental Involvement by Levels of Reading Comprehension Achievement

<table>
<thead>
<tr>
<th></th>
<th>Least activity</th>
<th>More activity</th>
<th>Highest activity</th>
<th>$X^2$</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column Totals</td>
<td>24</td>
<td>20</td>
<td>28</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1 (fall)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>6</td>
<td>4</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid ach.</td>
<td>13</td>
<td>7</td>
<td>7</td>
<td>6.67</td>
<td>.15</td>
</tr>
<tr>
<td>high ach.</td>
<td>5</td>
<td>9</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS2 (spring)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>8</td>
<td>5</td>
<td>13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid ach.</td>
<td>7</td>
<td>7</td>
<td>8</td>
<td>2.72</td>
<td>.60</td>
</tr>
<tr>
<td>high ach.</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gains</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>9</td>
<td>5</td>
<td>10</td>
<td>3.20</td>
<td>.53</td>
</tr>
<tr>
<td>mid</td>
<td>4</td>
<td>8</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high</td>
<td>11</td>
<td>7</td>
<td>11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 8

Analysis of Variance Report for ITBS Reading Achievement by Level of Parental Involvement

<table>
<thead>
<tr>
<th>Measure</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITBS 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>13.7</td>
<td>2</td>
<td>6.8</td>
<td>.19</td>
<td>.83</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2434.3</td>
<td>66</td>
<td>36.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>86.4</td>
<td>2</td>
<td>43.5</td>
<td>.93</td>
<td>.40</td>
</tr>
<tr>
<td>Within Ss</td>
<td>3234.3</td>
<td>69</td>
<td>46.9</td>
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</tr>
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<td>Dif 1 &amp; 2</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>10.8</td>
<td>2</td>
<td>5.39</td>
<td>.14</td>
<td>.87</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2663.9</td>
<td>69</td>
<td>38.6</td>
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<td></td>
</tr>
</tbody>
</table>
Research Question 4

Does the type of parental involvement (home or school) make a significant difference in reading achievement scores?

The reading achievement of the Title I students was not significantly affected by either the parents' level of involvement in the home or in the school environment. Students whose parents were the most involved with home activities or had mid-level home involvement achieved higher mean scores on the fall and spring ITBS testing than students whose parents were the least involved. Differences in scores, however, did not reach a level of significance.

The parents of the students with the lowest fall ITBS mean score (13.90) displayed the greatest amount of involvement with the school while the parents of the students with the highest ITBS mean (16.17) had the least school involvement. The three groups held their relative positions on the spring ITBS testing.

Chi-square analyses did not show any significant associations between reading achievement and the level of home or school involvement. Tables 9 and 11 display the chi-square report on these two variables. Tables 10 and 12 present the analysis of variance reports on reading achievement by level of home involvement and reading achievement by level of school involvement.
Table 9

Contingency Table for Levels of Total Home Involvement by Levels of Reading Comprehension Achievement

<table>
<thead>
<tr>
<th>Least activity</th>
<th>More activity</th>
<th>Highest activity</th>
<th>X²</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column Totals</td>
<td>29</td>
<td>21</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>ITBS1 (fall)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>8</td>
<td>5</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>mid ach.</td>
<td>15</td>
<td>7</td>
<td>5</td>
<td>5.91</td>
</tr>
<tr>
<td>high ach.</td>
<td>6</td>
<td>9</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>ITBS2 (spring)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>10</td>
<td>7</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>mid ach.</td>
<td>10</td>
<td>7</td>
<td>5</td>
<td>.95</td>
</tr>
<tr>
<td>high ach.</td>
<td>9</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>Gains</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>8</td>
<td>7</td>
<td>9</td>
<td></td>
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<td>mid</td>
<td>8</td>
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<td>2.71</td>
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<tr>
<td>high</td>
<td>13</td>
<td>10</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Table 10

Analysis of Variance Report for ITBS Reading Achievement by Level of Total Home Involvement

<table>
<thead>
<tr>
<th>Measure</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITBS 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>18.1</td>
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<td>9.1</td>
<td>.25</td>
<td>.78</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2429.8</td>
<td>66</td>
<td>36.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>29.9</td>
<td>2</td>
<td>14.9</td>
<td>.31</td>
<td>.73</td>
</tr>
<tr>
<td>Within Ss</td>
<td>3291.4</td>
<td>69</td>
<td>47.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dif 1 &amp; 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>28.8</td>
<td>2</td>
<td>14.4</td>
<td>.38</td>
<td>.69</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2645.8</td>
<td>69</td>
<td>38.3</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 11
Contingency Table for Level of Total School Involvement by Levels of Reading Comprehension Achievement

<table>
<thead>
<tr>
<th></th>
<th>Least activity</th>
<th>More activity</th>
<th>Highest activity</th>
<th>$\chi^2$</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column Totals</td>
<td>23</td>
<td>29</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1 (fall)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>5</td>
<td>9</td>
<td>7</td>
<td>3.81</td>
<td>.43</td>
</tr>
<tr>
<td>mid ach.</td>
<td>12</td>
<td>8</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high ach.</td>
<td>6</td>
<td>12</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS2 (spring)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>6</td>
<td>10</td>
<td>10</td>
<td>4.75</td>
<td>.31</td>
</tr>
<tr>
<td>mid ach.</td>
<td>6</td>
<td>11</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high ach.</td>
<td>11</td>
<td>8</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gains</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>9</td>
<td>10</td>
<td>5</td>
<td>3.58</td>
<td>.47</td>
</tr>
<tr>
<td>mid</td>
<td>3</td>
<td>9</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high</td>
<td>11</td>
<td>10</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 12
Analysis of Variance Report for Reading Achievement by Level of School Involvement

<table>
<thead>
<tr>
<th>Measure</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITBS 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>24.2</td>
<td>2</td>
<td>12.1</td>
<td>.33</td>
<td>.72</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2423.8</td>
<td>66</td>
<td>36.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>55.3</td>
<td>2</td>
<td>27.6</td>
<td>.58</td>
<td>.56</td>
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<td>68</td>
<td>47.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dif 1 &amp; 2</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>27.6</td>
<td>2</td>
<td>13.8</td>
<td>.36</td>
<td>.70</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2647.1</td>
<td>68</td>
<td>38.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question 5

Does parental monitoring of homework significantly impact reading achievement?

There was mixed support for the relationship between monitoring of homework and reading achievement. A three by two chi-square analysis found a significant association between low homework completion and low reading comprehension scores on the fall ITBS test ($X^2 = 9.06; p = .01$). No significant associations between homework and reading comprehension scores, however, were indicated on the spring ITBS measure or in gain scores.

When the reading achievement means of the two levels of homework groups were tested with an analysis of variance, a difference approaching the .10 significance level was found on the fall ITBS test (Prob > F = 2.37 = .13) The mean score of the higher homework involvement group was 15.63 and the mean score of the lower homework involvement was 13.42. No differences of interest were found in the achievement of the two compliance groups on the spring ITBS reading comprehension subtest or in their test gain scores. Tables 13 and 14 present the results of statistical analyses on the level of homework variable.
Table 13
Contingency Table for Levels of Homework Involvement by Levels of Reading Comprehension Achievement

<table>
<thead>
<tr>
<th></th>
<th>Least activity</th>
<th>More activity</th>
<th>$X^2$</th>
<th>$P$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column Totals</td>
<td>32</td>
<td>40</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1 (fall)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>15</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid ach.</td>
<td>8</td>
<td>19</td>
<td>9.06</td>
<td>.01*</td>
</tr>
<tr>
<td>high ach.</td>
<td>9</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS2 (spring)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>14</td>
<td>12</td>
<td>1.59</td>
<td>.45</td>
</tr>
<tr>
<td>mid ach.</td>
<td>8</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high ach.</td>
<td>10</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gains</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low</td>
<td>9</td>
<td>15</td>
<td></td>
<td></td>
</tr>
<tr>
<td>mid</td>
<td>10</td>
<td>9</td>
<td>.99</td>
<td>.61</td>
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<tr>
<td>high</td>
<td>13</td>
<td>16</td>
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<td></td>
</tr>
</tbody>
</table>

Table 14
Analysis of Variance Report for Reading Achievement by Level of Homework Involvement

<table>
<thead>
<tr>
<th>Measure</th>
<th>$SS$</th>
<th>df</th>
<th>$MS$</th>
<th>$F$</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITBS 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>83.6</td>
<td>1</td>
<td>83.6</td>
<td>2.37</td>
<td>.13</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2364.4</td>
<td>67</td>
<td>35.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>25.3</td>
<td>1</td>
<td>25.3</td>
<td>.54</td>
<td>.47</td>
</tr>
<tr>
<td>Within Ss</td>
<td>3295.9</td>
<td>70</td>
<td>47.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dif 1 &amp; 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>26.7</td>
<td>1</td>
<td>26.7</td>
<td>.71</td>
<td>.40</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2648.0</td>
<td>70</td>
<td>37.8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question 6

Does parental reading with students significantly impact reading achievement?

Statistical analyses did not show a significant relationship between the level that parents read with students and the students' reading achievement. The results of these analyses are presented in Tables 15 and 16.

The students whose parents read the most with them achieved a mean score of 14.78 on the fall ITBS reading comprehension subtest and 21.96 on the spring ITBS subtest. The students in the mid parent reading group attained mean scores of 14.20 and 22.67 on these measures. The students whose parents read the least with them received a mean score of 15.06 on the fall test and 21.82 on the spring test.
Table 15
Contingency Table for Levels of Parental Reading with Child by Levels of Reading Comprehension Achievement

|                  | Least reading | Some Reading | Most reading | X² | P
|------------------|---------------|--------------|--------------|----|---
| Column Totals    | 17            | 27           | 28           |    |    |
| ITBS1 (fall)     |               |              |              |    |    |
| lower ach.       | 10            | 13           | 14           | .51| .77|
| higher ach.      | 7             | 14           | 14           |    |    |
| ITBS2 (spring)   |               |              |              |    |    |
| low ach.         | 10            | 11           | 15           | 1.60| .45|
| high ach.        | 7             | 16           | 13           |    |    |
| Gains            |               |              |              |    |    |
| lower            | 11            | 12           | 15           | 1.73| .42|
| higher           | 6             | 15           | 13           |    |    |

Table 16
Analysis of Variance Report for Reading Achievement by Level of Parental Involvement

<table>
<thead>
<tr>
<th>Measure</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITBS 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>8.3</td>
<td>2</td>
<td>4.2</td>
<td>.11</td>
<td>.89</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2439.6</td>
<td>66</td>
<td>37.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>9.8</td>
<td>2</td>
<td>4.9</td>
<td>.10</td>
<td>.90</td>
</tr>
<tr>
<td>Within Ss</td>
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<td>69</td>
<td>47.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dif 1 &amp; 2</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>5.2</td>
<td>2</td>
<td>2.6</td>
<td>.07</td>
<td>.94</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2669.4</td>
<td>69</td>
<td>38.7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question 7

Does parental monitoring of television viewing significantly impact reading achievement?

The Title I students who had the greater monitoring of their television viewing made the highest mean scores on both the fall and the spring ITBS tests. However, when the means were statistically compared, the results indicate that differences were not significant at the .10 level (see Table 10). The group with the highest television monitoring received a mean score of 15.16 on the fall ITBS and a mean score of 23.02 on the spring test. The group with less or no television monitoring received mean scores of 13.77 and 20.73 on these measures.
## Table 17
Contingency Table for Levels of Television Monitoring by Levels of Reading Comprehension Achievement

<table>
<thead>
<tr>
<th></th>
<th>Least activity</th>
<th>More activity</th>
<th>$\chi^2$</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column Totals</td>
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<td></td>
</tr>
<tr>
<td>ITBS1 (fall)</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>9</td>
<td>12</td>
<td>1.95</td>
<td>.38</td>
</tr>
<tr>
<td>mid ach.</td>
<td>11</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high ach.</td>
<td>6</td>
<td>18</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS2 (spring)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>low ach.</td>
<td>12</td>
<td>14</td>
<td>1.96</td>
<td>.38</td>
</tr>
<tr>
<td>mid ach.</td>
<td>6</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high ach.</td>
<td>8</td>
<td>16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gains</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>low</td>
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<td>17</td>
<td>.84</td>
<td>.66</td>
</tr>
<tr>
<td>mid</td>
<td>8</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>high</td>
<td>11</td>
<td>18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## Table 18
Analysis of Variance Report for Reading Achievement by Level of Television Monitoring

<table>
<thead>
<tr>
<th>Measure</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITBS 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>31.5</td>
<td>1</td>
<td>31.5</td>
<td>.87</td>
<td>.35</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2416.5</td>
<td>67</td>
<td>36.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>87.2</td>
<td>1</td>
<td>87.2</td>
<td>1.89</td>
<td>.17</td>
</tr>
<tr>
<td>Within Ss</td>
<td>3234.1</td>
<td>70</td>
<td>46.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dif 1 &amp; 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>.8</td>
<td>1</td>
<td>.8</td>
<td>.02</td>
<td>.88</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2673.8</td>
<td>70</td>
<td>38.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question 8

Does parental involvement as a school supporter (attends conferences, attends school functions, eats lunch with child) significantly impact reading achievement?

Statistical analyses did not show a consistent relationship between the parents' involvement as a school supporter and their children's reading achievement. Chi-square analyses indicated a significant association between achievement level on the fall ITBS and degree of parental involvement as a school supporter ($X^2 = 4.53; p = .10$) with the children of the less involved parents receiving higher achievement scores. However, this association was not significant when involvement levels were compared to the spring test scores or to gain scores.

The students whose parents demonstrated the greater amount of school support had the lower mean scores on the fall ITBS. These students achieved mean scores of 14.00 and 14.42 on this measure while the students whose parents were the least involved received a mean score of 15.94. On the spring administered test, the mean scores for the three groups respectively were 22.23, 21.83, and 22.77. The greatest gain in scores between the two measures was made by the pupils whose parents exhibited the greatest amount of school support. These students posted a mean gain score of 8.23 while the students in the other two levels had gain score means of
5.55 and 6.82. Tables 19 and 20 display the statistical analyses on the school support variable.
Table 19
Contingency Table for Levels of School Support by Levels of Reading Comprehension Achievement

<table>
<thead>
<tr>
<th></th>
<th>Least support</th>
<th>Some support</th>
<th>Most support</th>
<th>( \chi^2 )</th>
<th>( P )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column Totals</td>
<td>17</td>
<td>29</td>
<td>26</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1 (fall)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lower ach.</td>
<td>5</td>
<td>16</td>
<td>16</td>
<td>4.53</td>
<td>.10*</td>
</tr>
<tr>
<td>higher ach.</td>
<td>12</td>
<td>13</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS2 (spring)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lower ach.</td>
<td>8</td>
<td>14</td>
<td>14</td>
<td></td>
<td>.25</td>
</tr>
<tr>
<td>higher ach.</td>
<td>7</td>
<td>15</td>
<td>12</td>
<td></td>
<td>.88</td>
</tr>
<tr>
<td>Gains</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lower</td>
<td>10</td>
<td>16</td>
<td>12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>higher</td>
<td>7</td>
<td>13</td>
<td>14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 20
Analysis of Variance Report for Reading Achievement by Level of Parental School Support

<table>
<thead>
<tr>
<th>Measure</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITBS 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>40.7</td>
<td>2</td>
<td>20.3</td>
<td>.56</td>
<td>.58</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2407.3</td>
<td>66</td>
<td>36.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>9.5</td>
<td>2</td>
<td>4.7</td>
<td>.10</td>
<td>.91</td>
</tr>
<tr>
<td>Within Ss</td>
<td>3311.8</td>
<td>69</td>
<td>48</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dif 1 &amp; 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>98.4</td>
<td>2</td>
<td>49.2</td>
<td>1.32</td>
<td>.27</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2673.8</td>
<td>69</td>
<td>38.2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Research Question 9

Does parent involvement as a school volunteer (classroom helper, preparation of materials, other volunteer activities) significantly impact reading achievement?

No significant differences at the .10 level were found between the level of parental volunteering and the reading achievement of Title 1 students. The mean scores on the reading achievement measure for the higher, mid, and lower volunteer groups were 14.68, 14.00, and 14.90 respectively for the fall testing. The groups held their relative position on the spring administered ITBS. Tables 21 and 22 summarize the results of the statistical analyses on the level of volunteering variable.
Table 21

Contingency Table for Levels of School Volunteering by Levels of Reading Comprehension Achievement

<table>
<thead>
<tr>
<th></th>
<th>Least volunteer</th>
<th>Some volunteer</th>
<th>Most volunteer</th>
<th>(X^2)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Column Totals</td>
<td>33</td>
<td>14</td>
<td>25</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS1 (fall)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lower ach.</td>
<td>15</td>
<td>7</td>
<td>15</td>
<td>1.22</td>
<td>.54</td>
</tr>
<tr>
<td>higher ach.</td>
<td>18</td>
<td>7</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS2 (spring)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lower ach.</td>
<td>14</td>
<td>7</td>
<td>15</td>
<td>1.76</td>
<td>.41</td>
</tr>
<tr>
<td>higher ach.</td>
<td>19</td>
<td>7</td>
<td>10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gains</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lower</td>
<td>17</td>
<td>6</td>
<td>15</td>
<td>1.10</td>
<td>.58</td>
</tr>
<tr>
<td>higher</td>
<td>16</td>
<td>8</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 22

Analysis of Variance Report for Reading Achievement by Level of School Volunteering

<table>
<thead>
<tr>
<th>Measure</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>Prob&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>ITBS 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>7.8</td>
<td>2</td>
<td>3.9</td>
<td>.11</td>
<td>.90</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2440.1</td>
<td>66</td>
<td>37.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ITBS 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>133.2</td>
<td>2</td>
<td>66.6</td>
<td>1.44</td>
<td>.24</td>
</tr>
<tr>
<td>Within Ss</td>
<td>3188.0</td>
<td>69</td>
<td>46.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dif 1 &amp; 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Ss</td>
<td>8.9</td>
<td>2</td>
<td>4.4</td>
<td>.12</td>
<td>.89</td>
</tr>
<tr>
<td>Within Ss</td>
<td>2665.8</td>
<td>69</td>
<td>38.6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Open-ended Questions

Sixty-three parents responded to the first open-ended question "My goal for my child is ___." The second question "If I were in charge of the school I would change my child's education by ___" was completed by forty-seven parents. The researcher and an independent rater examined the parent responses and identified emergent themes or categories among the answers on the two questions. The researcher, a school psychologist, and two teachers then independently sorted the cards containing the parent responses into the pre-selected themes or categories. Tables 23 and 24 present the categories and the rater's distribution of responses.

The most frequently occurring response on the goal question was a desire by parents for their children to succeed within their capability--"to do the best they can". This was followed by the goals to have their children succeed generally "to receive as good an education as possible" or to succeed in a specific academic subject. Less mentioned goals include global goals such as "good citizen, well rounded, happy" and specific behavioral goals such as "to try to help her to stay focused on work and use time wisely".

If the Title 1 parents were in charge of the school, they would push for more individualized instruction and changes in the curriculum such as "having more computer time", "extending Title 1 programs beyond the fourth grade", and "concentrating on the most important subjects then the others". Many parents (17 to 20% of
all the responses) stated that they would make less demand on the parents, specifically reducing homework and the need for parent instruction. A similar number of parents stated they would change the school climate. Their comments ranged from "allowing the children more input, more involvement", "take out Epic (a gifted program) and treat all children the same" to the expression of alienated feelings such as "Some of the teachers have a hateful attitude--act like they are better than you" and "Make sure all the teachers care about the students. There are a few that are just there for a pay check and the money is all they care about."

Approximately ten percent (10%) of the parents expressed satisfaction with the school or said no changes needed to be made.
Table 23

The goal for my child is

<table>
<thead>
<tr>
<th>Type of Goal</th>
<th>Raters #1</th>
<th>#2</th>
<th>#3</th>
<th>#4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Succeed within capability</td>
<td>25</td>
<td>28</td>
<td>23</td>
<td>23</td>
</tr>
<tr>
<td>Succeed academically</td>
<td>15</td>
<td>18</td>
<td>18</td>
<td>22</td>
</tr>
<tr>
<td>Specific academic goal</td>
<td>11</td>
<td>7</td>
<td>12</td>
<td>6</td>
</tr>
<tr>
<td>Good citizen, well rounded</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Specific behavioral goal</td>
<td>7</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>No parent goal (up to child)</td>
<td>2</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Table 24

If I were in charge of the school I would change my child's education by

<table>
<thead>
<tr>
<th>Types of Change</th>
<th>Raters #1</th>
<th>#2</th>
<th>#3</th>
<th>#4</th>
</tr>
</thead>
<tbody>
<tr>
<td>More individualized instruction</td>
<td>13</td>
<td>10</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Curriculum changes</td>
<td>9</td>
<td>12</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Less demand on parents</td>
<td>8</td>
<td>8</td>
<td>10</td>
<td>11</td>
</tr>
<tr>
<td>Change in school climate</td>
<td>10</td>
<td>10</td>
<td>9</td>
<td>7</td>
</tr>
<tr>
<td>No changes needed</td>
<td>6</td>
<td>6</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Misc.</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>
Summary

The purpose of this study was to assess whether there was an association between the degree of engagement with the activities on a parent/teacher/student learning compact and the ITBS reading comprehension achievement of fourth grade Title 1 students. The study also examined the relationship of various types of parental involvement with reading achievement. Using survey responses, comparison groups were formed for the following independent variables: total involvement, student activities, parent activities, parent's home activities, parent's school activities, parent involvement in homework, parent's reading with students, parent's monitoring of television, parent's support of the school, and parent's involvement as a school volunteer.

Chi-square contingency tables were used to examine whether the levels of involvement by specific parties on the independent variables were associated with different levels of reading comprehension achievement on the Iowa Test of Basic Skills. A second analysis was done with analysis of variance procedures.

A basic assumption of this study was that high compliance with the activities on a learning compact would be positively reflected in students' reading comprehension scores. The data from this investigation did not substantiate this assumption. Although there were observed differences in reading achievement among comparison groups, findings of significance at the .10 level
were only found for two of the analyses. Both of these analyses used chi-square techniques.

The chi-square analyses found a significant association between levels of homework involvement and levels of reading achievement on the fall administered Iowa Test of Basic Skills ($X^2 = 9.06; p = .01$). A significant, but negative, association was also found on the fall ITBS between lowest parental support in the school and higher reading achievement ($X^2 = 4.53; p = .10$). No significant relationships were found between the independent variables and levels of achievement on the spring ITBS reading test or in gain scores.

Analysis of variance tests did not find any differences of significance among group means when levels of involvement on the various independent variables were compared with reading comprehension measures. The groups with the highest level of involvement generally had the highest mean scores on the fall ITBS while the lowest involvement groups had the lowest mean scores. No general differences were evident among involvement groups on the spring reading comprehension scores. The groups who had students with the lowest mean scores on the fall testing tended to post the larger gain scores.

Some patterns of interest were demonstrated among the specific parent involvement variables when students' reading comprehension scores were compared differentially according to parent involvement level. Students who received the greater parental monitoring of their homework and television viewing made higher mean scores on
both the fall and spring reading measures. Students with the lower scores on the two reading comprehension tests had parents who were more involved as a school supporter or as a school volunteer. The largest single gain score between the two ITBS measures was achieved by the Title 1 students whose parents exhibited the highest level of school support although it did not reach the .10 level of significance (\( p = .27 \)).

A summary of the significant findings from the statistical measures is presented in Table 25.

Table 25
Summary of Effects on Reading Achievement by Research Variables.

<table>
<thead>
<tr>
<th>Question #</th>
<th>Research Variable:</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Level of Total Involvement</td>
<td>not sign.</td>
</tr>
<tr>
<td>2.</td>
<td>Level of Student Involvement</td>
<td>not sign.</td>
</tr>
<tr>
<td>3.</td>
<td>Level of Total Parent Involvement</td>
<td>not sign.</td>
</tr>
<tr>
<td>4.</td>
<td>Level of Parental Home Involvement</td>
<td>not sign.</td>
</tr>
<tr>
<td></td>
<td>Level of Parental School Involvement</td>
<td>not sign.</td>
</tr>
<tr>
<td>5.</td>
<td>Level of Homework Monitoring</td>
<td>( p \leq .01^{**} )</td>
</tr>
<tr>
<td>6.</td>
<td>Level of Reading with Student</td>
<td>not sign.</td>
</tr>
<tr>
<td>7.</td>
<td>Level of Television Monitoring</td>
<td>not sign.</td>
</tr>
<tr>
<td>8.</td>
<td>Level of School Support</td>
<td>( p \leq .10^{*} )</td>
</tr>
<tr>
<td>9.</td>
<td>Level of School Volunteering</td>
<td>not sign.</td>
</tr>
</tbody>
</table>

When parents were asked to identify the goal for their Title 1 child, their most common response category was a desire for the
student to succeed to the best of his or her capability. This was followed in order of frequency by general academic goals, specific academic goals, global goals ("well-rounded, happy"), then by specific behavioral goals.

Parents indicated that if they were in charge of the school system, they would push for more individualized instruction. Next in rank by number of responses was an interest in making specific curriculum changes. Almost forty percent of the responders would make less demands on parents or make changes in the school climate.
CHAPTER 5

Discussion and Conclusions

Discussion of the Results

Our hypotheses that there would be an association between academic achievement and the total degree of involvement by parents, teachers, and students were not confirmed. Although there were observed differences among the mean scores of level of involvement groups, these differences were not found significant at the .10 level. When specific parental involvement variables were examined, however, some differences among the groups emerged. Significant associations were found between the degree of homework involvement and achievement and between the degree of school volunteerism and achievement. Parents' level of homework monitoring was positively linked to students' reading comprehension achievement while their level of school volunteerism was negatively related.

In the discussion that follows, the results of the study will be reviewed in more detail. Before the findings are discussed, however, several points need to be made about the characteristics of the adopted research design and their possible impact on the inferences which may be drawn.

A quasi-experimental pretest-posttest design was used for this investigation. Although a quasi-experimental design can have greater control over external threats to validity than a true experimental design, it sacrifices control over internal threats
such as maturation, instrumentation, statistical regression and history (Huck et al., 1974). The latter two threats are especially important to consider when studies are done with students who are at risk for academic failure.

Statistical comparisons in the present study indicated that those students who made the lower scores on the fall administration of the ITBS reading comprehension subtest tended to post the larger gain scores. Because this trend appeared to occur independently of level of involvement, the higher gain scores may reflect some shifts due to statistical regression toward the mean and/or a ceiling effect which permits greater room upwards for the lower group.

The second threat, history, should always be considered when subjects are not randomly selected and when studies occur over a length of time. A number of variables outside of the present study have been associated with the academic outcomes of at-risk students. These include not only instructional variables but student and family factors such as ability and motivation (Anderson, 1991), low income, occupational status and limited parent education, (Lee & Croninger, 1994), knowledge of problem-solving strategies (Portes et al, 1984), and parents' coping skills (Gavidia-Payne & Stoneman, 1997). Although studies by Keith et al. (1993) and Reynolds (1991) suggest that parent involvement may mitigate negative background variables, the results of this study should be considered suggestive until they are replicated by a true experimental model.
Despite these caveats, this research is a valuable contribution to our knowledge about parent involvement factors which contribute to the academic success of at-risk students. Prior to this study, scant research has focused on the mutual effects of home and school influences on student performance (Christenson et al. 1992). Learning compacts have generally been used as part of a package of treatment services (Walberg et al. 1980) and its specific effects have not been isolated.

This results of this study suggest that although parent-teacher-student learning compacts have political appeal, high commitment by the parties does not guarantee success for at-risk students. The lack of a significant relationship between reading comprehension achievement and the total degree of involvement by students, teachers and parents can be explained in a number of ways. The most obvious explanation is that home-school partnerships may not a necessary component of school achievement. Among other possible reasons why the present study failed to show a significant positive relationship between the level of total compliance with the learning compact and reading achievement may be shortcomings in the survey instrument or the failure to examine parent, teacher, and student activities as complex processes in which different types of involvement interact with each other to mediate, moderate or suppress each others' effects on student achievement. As Epstein (1995) notes, the development of a partnership is a process not a single event. Without true
experimental research, the effect of a teacher/parent/student learning compact can not be isolated.

Interactions among the research variables may also have led to the insignificant findings when comparisons were made between reading achievement and the levels of total child activities and the levels of total parent involvement. The differences that were demonstrated in this study between specific parent involvement practices and their effects on reading comprehension achievement certainly call in question the usefulness of "global" involvement scores in predicting reading achievement. A similar concern has been raised by White et al. (1992) who, after a an extensive literature review, noted "We can no longer assume that all kinds of parent involvement are beneficial or argue for the necessity of a particular type of involvement in the absence of evidence."

Heretofore, few studies have compared effects across the inherently multiple dimensions of parent involvement, particularly between home involvement and school involvement (Reynolds, 1992). Even more limited are studies examining the effects of specific parent involvement activities or studies using surveys completed by parties with direct knowledge about the areas they are assessing. Because of these limitations, the present study is an important addition to the research about the effectiveness of parent involvement.

In the present study, home-based learning activities were the only type of parent involvement positively related to reading
comprehension achievement. This is consistent with previous findings (Hickman et al. 1995; Mosteller & Moynihan, 1972).

The strong positive relationship that was demonstrated in this study between parent involvement in homework monitoring and the reading comprehension achievement of at-risk students also supports previous research (Clark, 1993; Epstein, 1983; Keith & Page, 1985). A meta-analysis by Cooper (1989) did not find a relationship between homework and elementary school achievement. However, his research did not focus on students who are at risk for academic failure. Keith and Page (1985) assert that low ability students can partially compensate for their handicap through increased study. The present study suggests that even disadvantaged elementary students can benefit academically when their parents monitor homework.

The positive, albeit not significant, relationship found between parental monitoring of television viewing and reading comprehension achievement suggests that there may be some value in this type of parental involvement. Other researchers have found a small, but positive effect from parents' monitoring of television viewing (Williams et al., 1982). This effect may be indirect, however, as parental monitoring may ensure that television viewing does not replace time which can be spent on more educationally productive activities (Keith et al., 1993).

Surprisingly, the present study did not show a relationship between parental reading with students and reading comprehension outcomes. This may be due to limitations in the surveys which
paraphrased the "parental reading with students" item in the Parent/Teacher/Student Partnership Agreement. In retrospect, this item appears ambiguous as it does not clarify who does the reading or the amount of reading accomplished. The positive effects of parents' reading with children take place before children enter school, but once they are in school, it is their independent reading that is positively related to their reading achievement (Meyer et al., 1982).

One of the interesting findings in this study was the negative relationship between parent involvement in the school and reading achievement. This raises questions about why parents of under achieving students become involved in the school environment. According to Barton and Cooley (1992), parent contact with the schools is not associated with higher scores; instead this contact occurs more when there is a problem. In spite of this, several researchers have found parental participation in school activities a promising way to improve academic achievement (Eagle, 1989; Walberg et al., 1980) although its efficacy may be reduced by socio-economic and school climate variables (Scott-Jones, 1988).

In spite of the finding of a negative relationship between high parent involvement in school support activities (conferences, school functions, etc.) and the fall and spring ITBS reading scores, these activities may produce gains over time. Although it did not reach the .10 level of significance, the largest single gain score between the two ITBS measures was achieved by the Title 1 students whose parents exhibited the highest level of school
support (p = .27). The importance of this finding is very tentative, however, because other factors can not be ruled such as extraneous variables or a ceiling effect which allows greater room upwards for the lower group.

The parents' answers on the open-questions provide some insight about their goals for their children and their relationship with the school. Most of the parents had general goals for their children rather than specific ones. However, the parents gave very specific suggestions when they were asked what changes they would make if they were in charge of the school system. These responses generally fell into four categories: (1) the need for more individualized instruction, (2) curriculum changes, (3) less demands on parents, and (4) climate variables. The latter two categories are particularly interesting to parent involvement research. While national policy makers are pushing for greater parent involvement in education, it appears that a number of parents in this study think that the schools should be demanding less of them, not more.

Climate variables may be one factor in the parents' reluctance to be involved. Around twenty percent (20%) of the parents expressed a desire that either they or their children be treated with more respect by the system generally and by the teachers specifically. These misgivings were directed toward the general education system rather than towards the Title 1 program.

The more positive feelings toward the Title 1 program may be due to the Title 1 teacher's familiarity with high risk students
and their parents. It would be reasonable to speculate that, because of the parental involvement component in the Title 1 program, interactions between these parents and the Title 1 teachers are more frequent, more positive, and less formal than the interactions generally seen between working parents and the general education system (Lareau, 1987). Findings by Epstein (1985) indicate that when teachers work at parent involvement practices, parents view them as having better interpersonal skills and higher overall teaching abilities.

Conclusions and Implications

Title 1, the largest federally funded compensatory education program, has mandated parental involvement since its inception. The Improving America's Schools Act of 1994, in reauthorizing Title 1, reaffirmed this commitment for parental involvement by making Title 1 funding contingent upon the development of school-family learning compacts which outline how parents, the school staff and children will share the responsibility for improving educational success. Heretofore, scant research, if any, has examined the effectiveness of these compacts in improving the reading achievement of educationally disadvantaged students.

Although the forging of student, teacher, and parent learning compacts may be a desirable policy goal, this study suggests there is no magic in just complying with activities on a learning compact. Indeed, the findings call into question the usefulness of
a "global" involvement score because of the different educational effects produced by the various forms of involvement.

In the present study, a significant positive association was found between the level of parental homework monitoring and the ITBS reading comprehension scores of the fourth grade Title students. However, a significant negative association was found between high parent involvement in school support activities such as attendance at conferences and school functions and reading comprehension scores. The latter finding does not mean that parental school support leads to academic failure but, instead, raises questions about the reasons why some parents of educationally at risk students have high contact with the schools.

One can only conclude that there is still much to be learned in the area of parental invention. Although parent involvement may be valuable to reinforce the work and values of the school (Singh et al., 1995), there is also a need for parents to feel that their efforts are making a difference in the educational success of their children (Grolnick et al., 1997). In order for this to happen, educators need re-examine their beliefs about parents, their capabilities, and their interests. Instead of parents being considered the cause of their children's problems, they must regarded as a valuable partner in the educational process. This regard should not be limited to the warm cocoon of programs for at-risk students but, instead, has to extend throughout the whole educational environment.
However, this study as well as research by Lareau (1987) and Scott-Jones (1988) suggests that many parents do not feel comfortable or welcome in their interactions with the school. This may stem from the negative school experiences that these parents themselves have had or reflect their reaction to negative feedback from the school about their children's academic shortcomings or behavior. Researcher Susan Black (1993) states that the research on successful school programs is clear: School executives must break down these barriers before developing parent involvement programs.

This means that schools must reach out to parents in a positive, meaningful manner. This can be accomplished by treating parents as dignified and unique, regardless of their station in life. If educators want parent involvement programs to succeed, they must take the lead. Parent involvement must be more than the school telling parents what they need to do. Parents need to become meaningful partners--a part of the planning process. Successful home-school partnerships are created where there is mutual respect, mutual cooperation, and mutual benefits.

School personnel and policy makers should not assume that all parents want to be involved or that all have the skills necessary to maximize their children's achievement. It is important to give parents choices about, and control over, their participation (Heller & Fantuzzo, 1993). Programs designed to increase parents' ability to help with their children's education should reflect their perceived needs and interests.
Teachers are usually the first and sometimes the only contact that parents have with the school system. Their attitudes and behaviors convey to parents whether or not they are welcome and helpful allies in children's education. Therefore, they need to be careful that they don't appear condescending and that they show appreciation for parents' efforts. Teachers also need to show that they value their children. This is especially important when these children are struggling academically.

Parents of children who have made limited academic progress also need to know that their efforts can make a difference (Grolnick et al., 1997). Home-based learning activities appear to be one of the most effective and efficient ways for parents to impact the education of at-risk students (Ascher, 1988; Clark, 1983; 1993; Tizard et al, 1982). This study, as well as prior research (Epstein, 1983; Keith, 1982) suggests that the parental monitoring of homework may be particularly important.

If policy makers and educators are serious about improving the educational achievement of students who are academically at risk, they need to devise ways to help parents become more willing and effective homework helpers. At the system level, for example, the school and parents might work together in reviewing and/or revising homework policies. At the school and classroom level, the emphasis could be on improving communication through activities such as a homework hotline, a syllabus given to the parents at the beginning of the course, or comments on homework. It may also be helpful for teachers to send out instructional newsletters telling what
activities the class is working on and suggesting strategies that parents can use to help their children.

Future research needs to identify other parental involvement practices which can help low-achieving students. Many questions are still to be answered about the importance of different types of parental involvement, their relationships among each other, and their effects on students' achievement. These answers are needed more than ever if parental involvement is to be an tool in helping disadvantaged students gain the skills and knowledge necessary to compete in the twenty-first century.
References


attendance of elementary school students. The Journal of Educational Research, 72, 310-312.


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APPENDIX A

PARENT/TEACHER/STUDENT PARTNERSHIP AGREEMENT
The Washington County School System is dedicated to the success of every student. We make the commitment to motivate, to challenge, and to inspire each other to become the best we can possibly be.

To accomplish this parents, teachers, and students need to work together. We ask that you promise to do this by completing and signing the part of the agreement that belongs to you.

PARENT/SIGNIFICANT/ADULT CHECKLIST

I will do my personal best to:

- Supervise the completion of student homework.
- Attend at least one (1) parent/teacher conference for each of my children.
- Monitor my child’s television viewing.
- See that my child comes to school every day except in the case of personal illness or family emergency.
- Read with my child at home.

(Choose at least three (3) of the following)

I will do my personal best to:

- Attend at least two (2) school functions.
- Volunteer as a classroom helper (We suggest 30 minutes at least two (2) times a year.).
- Help with other school activities such as health screening, book fairs, field trips, PTA projects.
- Eat lunch at school with my child at least two (2) times a year.
- Prepare material for the teacher.
- Other (Write your suggestion here.)

Parent/Significant Adult's Signature __________________________ Date _____________

Student Checklist

I will do my personal best to:

- Return my homework completed and on time.
- Follow school rules.
- Follow classroom rules.
- Respect other people and the community.
- Take care of school property
- Always put forth my best effort in class.

Student's Signature __________________________ Date _____________

Teacher Checklist

I will do my personal best to:

- Provide a safe and caring environment where your child will be encouraged to become an active participant in his/her learning
- Follow the curriculum designed for your child.
- Take into account the individual strengths of your child.
- Help your child follow the school and classroom rules.
- Keep you informed of your child's progress on a regular basis.
- Schedule parent/teacher conferences to accommodate parent's schedules.
- Attend school functions.
- Help you with ways to help your child at home.
- Teach to all learning styles.

Teacher's Signature __________________________ Date _____________
Dear Title 1 Teacher:

Thank you for taking the time to talk with me about my research project. As I explained to you, the Washington County School System has agreed to participate in a Virginia Tech research project examining the effectiveness of the Parent/Teacher/Child learning agreement developed by the Title 1 program and the effectiveness of various parental involvement activities.

Enclosed with this letter is a permission form and the surveys which need to be completed on each of your fourth grade students. Each students' name is at the top of the page. Please take a few minutes to answer all items as well as you can. If you are unsure of an answer please check with the student's regular classroom teacher. If at all possible, please send your completed surveys to my office at the school board annex by June __, 1996.

I am also enclosing the letters that your fourth grade students are to take home for their parents to complete. Please tell the students to bring back the parent surveys the day after they are distributed. I would appreciate it if you would remind any students who forget to return the parent form. If a form is lost please let me know (Ext. 1937) and I will send another.

Student surveys will be delivered within the next two weeks. I know this is a very busy time of the year for everybody but your help is vital to this project. Hopefully, the research will provide us with valuable information that will help parents and educators more effectively work together.

Thank you.

Yours sincerely,

Barbara Smith
This research project has been approved, as required, by the Institutional Review Board for Research Involving Human subjects at Virginia Polytechnic Institute and State University, by the VPI Department of Education, and by Washington County Schools.

This study has been described to me in detail. I understand what I need to do and I voluntarily agree to participate in this project. If I participate, I may withdraw at any time without penalty. I agree to abide by the rules of this project.

_________________________________________   _______________________
Signature                                      Date

Should I have any questions about this research or its conduct, I may contact:

Barbara Smith (540) 629-1935
Researcher Phone

Dr. Tom Hohenshil (540) 231-9720
Faculty Advisor Phone

Dr. Ernie Stout (540) 231-9359
Chair, IRB Phone
Research Division
Dear Title 1 Teacher:

I appreciate all the help you have been giving me. Before I can draw conclusions about the effectiveness of activities on the Parent/Teacher/Student learning agreement I need to do a reliability check. Please have the following students complete another survey. (Explain that it is important that the person doing the study is sure of their answers and that she really thanks them for their help.) I will also need for you to complete new teacher forms on the selected students.

You have been great and I thank you so much. This will complete all the data that I need from you or your students. I will be following up with the parents. If some parent forms have not been returned, I would appreciate your encouraging the students to bring them back. I am enclosing an extra parent form in case the first form was misplaced.

Again, I know how busy you are and I thank you for your time.

I need another student form and teacher form completed on the following:

Enclosure
APPENDIX C
TEACHER SURVEY
STUDENT'S NAME: ____________________________

COMPLIANCE WITH THE 1995-96 PARTNERSHIP AGREEMENT.
TEACHER FORM

Instructions Part I and Part II: After reading each item, please circle the response you feel most correctly describes the student's or your compliance with the partnership agreement. (Consult with the student's regular teacher if you are unsure of a response.) Please do not skip any items.

PART I: STUDENT COMPLIANCE WITH AGREEMENT

1. The student returned homework complete and on time. yes no
2. The student followed school rules. yes no
3. The student followed classroom rules. yes no
4. The student took care of school property. yes no
5. The student always put forth his/her best effort in class. yes no

PART II TEACHER COMPLIANCE (This is not a personal evaluation but an examination of the feasibility of the items in the agreement and whether you were able to carry them out...Please be honest......Your answer is confidential).

1. I followed the curriculum designed for the student. yes no
2. I helped the student follow school and classroom rules. yes no
3. I kept the parent informed of the student's performance on a regular basis. yes no
4. I scheduled parent/teacher conferences to accommodate the parent's schedule. yes no
5. I attended school functions. yes no
6. I helped the parent(s) with ways to help the student at home. yes no
7. I taught to all learning styles. yes no
Instructions Part III: Please circle the response that best describes the educational activities and support provided by this student's parent(s). Please fill in all items. (Consult with the student's regular teacher if you are unsure of an item.

PART III. SUPPORT FROM PARENT(S) (parent is considered any significant family member)

1. The parent(s) saw the student attended school except for personal illness or family emergency. 
   [ ] yes [ ] no

2. The parent(s) attended at least one (1) parent/teacher conference. 
   [ ] yes [ ] no

3. The parent(s) volunteered as a classroom helper. 
   [ ] yes [ ] no

4. The parent(s) attended at least two school functions. 
   [ ] yes [ ] no

5. The parent ate lunch with the child. 
   [ ] yes [ ] no

6. The parent prepared materials for the teacher. 
   [ ] yes [ ] no

7. The parent of this student helped with school activities such as book fairs, field trips, health screening and PTA projects. 
   [ ] yes [ ] no

8. Parent(s) helped with a parent suggested activity. 
   [ ] yes [ ] no

Activity suggested: ________________________________________

Comments: ________________________________________________

__________________________________________________________

__________________________________________________________

__________________________________________________________
APPENDIX D

PARENT LETTER
Dear Parent:

The Washington County School System has agreed to participate in a Virginia Tech research project examining the effectiveness of the Parent/Teacher/Child learning agreement developed by the Title I program and the effectiveness of various parental activities. Your opinion is vital for this research.

Please take a few minutes to answer each question then put it in the enclosed envelope, seal it, and have your child take it to the Title I reading class where the surveys will be collected and forwarded to the person conducting the study. Only the researcher will see your responses. Although your responses will be compared on the computer to your child's achievement scores, your child's identity and your responses on the survey will be confidential.

With your permission, a survey will also be completed with your child. The results of that survey will be confidential and used only in the research project.

Although your and your child's involvement in this project is voluntary, any information you supply will be much appreciated. It is hoped that these surveys will provide us with valuable information which will help parents and educators work together to improve your child's education.

If you are willing to participate, please sign the enclosed permission form and return it tomorrow with your child. Within the next two or three days please complete the attached survey and return it in the enclosed envelope. If you have any questions or would like a copy of the results, please call your child's Title I reading teacher or get in touch with the researcher, Barbara Smith, at 628-3422.

Your participation and opinion are very important! Thanking you in advance for your help.
This research study has been approved, as required, by the Institutional Review Board for Research Involving Human subjects at Virginia Polytechnic Institute and State University, by the VPI Department of Education, and by Washington County Schools.

I voluntary agree for my child and I to participate in this project. If I participate, I may withdraw at any time without any penalty to my child. I agree to abide by the rules of this project.

Signature _______________________________ Date _______________________________

Should I have any questions about this research or its conduct, I may contact my child's Title 1 teacher or any of the following:

Barbara Smith (540) 629-1935
Researcher

Dr. Tom Hohenshil (540) 231-9720
Faculty Advisor

Dr. Ernie Stout (540) 231-9359
Chair, IRB
Research Division
COMPLIANCE WITH THE 1995-96 PARTNERSHIP AGREEMENT

PARENT FORM

Instructions: Part I: After reading each item, please circle the response you feel most correctly describes the Title I teacher's compliance with the partnership agreement. Do not skip any items. (This is an examination of the feasibility of the items in the agreement and whether the activities were able to be carried out. Your answer is confidential.)

PART I: TEACHER COMPLIANCE WITH THE AGREEMENT

1. The Title I teacher kept me informed of my child's performance on a regular basis. yes no
2. The Title I teacher scheduled parent/teacher conferences to accommodate my schedule. yes no
3. The Title I teacher attended the school functions where I was present. yes no
4. The Title I teacher helped me with ways to help my child at home. yes no

Instructions: Part II: After reading each item, please circle the response you feel most correctly describes the educational activities you do with your child. Do not skip any items. (Part II is an examination of all the parent activities listed in the agreement and whether you as a parent were able to carry them out. Your answer is confidential and the way you answer the question will not negatively reflect upon you in any manner.)

PART II: PARENT ACTIVITIES

1. I usually make sure my child completes his or her homework. yes no
2. I have attended at least one parent/teacher conference. yes no
3. I monitor how long my child watches television. yes no
4. My child reads with me most evenings. yes no
5. I have attended at least two school functions. yes no
6. I have volunteered as a classroom helper this school year. yes no
7. I have helped this school year with school activities such as health screening, book fairs, field trips or PTA projects. yes no
8. I have eaten lunch with my child at least twice this school year. yes no
9. I have prepared class materials for the teacher. yes no

My goal for my child is

If I were in charge of the school I would change my child's education by:
APPENDIX F

STUDENT PERMISSION AND SURVEY
I voluntarily agree to participate in this study. My teacher has answered any questions I have. All I need to do is to answer a survey about how I did this school year and how my teacher and parents worked with me. Only the person who wrote the survey will see my answers. I understand that if I do not want to answer the survey I do not have to and that I will not be penalized. If I have any more questions I can ask my teacher to have Barbara Smith (the person who is doing the study) get in touch with me.

_____________________________  _______________________
Signature                               Date
STUDENT FORM

PART ONE
Instructions: After reading each item, please circle the response you feel best describes how you did or how you feel about this school year. Be honest. Please answer all eight items. Your teacher will not see your answers.

1. I returned most homework complete and on time. yes no
2. I usually followed school rules. yes no
3. I followed my reading teacher's rules. yes no
4. I did not damage any school property. yes no
5. I always put forth my best effort in class. yes no
6. I feel safe at school. yes no
7. I feel like my reading teacher cares about me. yes no
8. I come to school every day unless I am sick or there is a real emergency at home. yes no

PART TWO
Instructions: After reading each item, please circle the response you feel most correctly describes how your teacher and parents worked with you this year. Be honest. Please answer all five items. Your teacher will not see your answers.

1. My reading teacher helped me follow school and classroom rules. yes no
2. My parent usually makes sure I finish my homework. yes no
3. My parent sets rules about television. yes no
4. My parent and I read together most nights. yes no
5. My reading teacher encourages me to ask questions when I don't understand something. yes no
VITA
BARRBARA BEVILLE SMITH

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Richmond Professional Institute
B.S. 1966, history, art
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