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PARENTS' AND TEACHERS' BELIEFS ABOUT PARENTAL INVOLVEMENT IN SCHOOLING

by

Mary Kelly Haack

A DISSERTATION

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PARENTS' AND TEACHERS' BELIEFS ABOUT

PARENTAL INVOLVEMENT IN SCHOOLING

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University of Nebraska, 2007

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Parental involvement in schooling is critical for children's academic success. Despite its importance, parental involvement appears to be discouragingly low. Attribution theory may provide an explanation for perceived limited parental participation in specific activities to support their children's schooling and for strained parent/teacher relations. This study identified and compared the causal attributions made by teachers and parents for a hypothetical situation in which a parent was not sufficiently involved in their elementary aged child's schooling. In addition, differences in attributions based on the education level of the parent were examined. Participants for the study were 80 regular education teachers in eight public elementary schools and 80 parents or guardians of children in the same eight elementary schools. Parents and teachers completed questionnaires containing vignettes about a mother of a third-grade child, Jamie, who was having difficulty in mathematics and provided probable reasons for why the mother did not perform specific parental involvement activities. Responses were coded as internal or external causal attributions. An analysis of variance was conducted to examine the effect of respondent type (teacher or parent) and the vignette parent's education level, lower or higher, on the proportion of internal attributions. Results showed that parents and teachers identified a higher proportion of internal attributions than external attributions. Eight categories identified an internal locus of causality while seven categories identified an external locus of causality. A significant interaction was found. Participants in the parent-lower-education vignette condition were more likely to identify a higher proportion of internal attributions than were participants in the parent-higher-education vignette condition.

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CHAPTER I

IMPORTANCE

There are many different ways that parents can be involved in their children's schooling (Becker & Epstein, 1982; Epstein, 1987a, 2005a; Moles, 1993; Pelco, Jacobson, Ries, & Melka, 2000; Sheldon & Epstein, 2005). They can attend parent-teacher conferences, attend sporting events or volunteer in classrooms. They can help their child at home by ensuring that homework is completed, reading to their child, or bringing their child to museums. Parents can collaborate and communicate with the school, observe how their child's teacher instructs, and talk with teachers about their child's progress. Parent involvement is what parents do to enhance their children's schooling success and strengthen the communication they have with their children's school.

There is emerging evidence that all types of parental involvement are critically important for children's academic success (Comer, 1988; Eccles & Harold, 1996; Epstein, 1985; Senechal & LeFevre, 2002; Sheldon & Epstein, 2005). Students' reading scores improved when their parents had contracts with teachers to assure homework completion (Epstein, 1985). The language and emergent literacy of 3rd grade students developed when their parents taught them to read and print words, and read storybooks with them for 2 or 3 years (Senechal & LeFevre, 2002). Improvements in reading achievement due to earlier parent involvement were seen for 3rd and 8th grade students whose parents were involved during preschool (Graue, Clements, Reynolds, & Niles, 2004). Similarly, students' scores on mathematics achievement tests improved when

their teachers assigned homework that required the student to show and discuss their math skills with a family member (Sheldon & Epstein, 2005). Another school implemented teams that recruited parents to attend and sponsor school events and activities, assist in classrooms, and participate in decision-making (Comer, 1988). Students in this school had more positive attitudes toward school, improved social skills, and improved behavior, in addition to improved test scores and grades. Kindergarten children were more cooperative, self-controlled, inviting, and respectful with peers at school when their parents talked to them about the importance of school and helped them practice what they were learning at school (McWayne, Hampton, Fantuzzo, Cohen, & Sekino, 2004).

Other benefits to students when parents are involved include improved school attendance (Christenson & Conoley, 1992; Epstein & Sheldon, 2002; Henderson & Mapp, 2002), regular homework habits and increased completion of homework (Callahan**,** Rademacher, & Hildreth, 1998; Epstein & Becker, 1982; Henderson, 1989), more positive attitudes toward school (Christenson & Conoley, 1992; Epstein, 1985; Kelleghan, Sloan, Alvarez, & Bloom 1993; Shumow & Miller, 2001), a more positive self-concept and academic self-confidence (Christenson & Conoley, 1992; Henderson, 1989; Sanders & Herting, 2000), increased educational and career aspirations in adolescents (Hill et al., 2004), fewer suspensions and conduct problems (Comer & Haynes, 1991; Fantuzzo, McWayne, Perry, & Childs, 2004), lower rates of grade retention (Graue et al., 2004), and fewer placements in special education (Graue et al., 2004; Lazar & Darlington, 1978).

Parents have also benefited from being involved in their children's schooling. Parents have learned how to effectively help their children with schoolwork; become more aware of what teachers do, what their children are learning, and how the school functions; and developed more positive feelings about their children's teachers and school (Collins, Moles, & Cross, 1982; Desimone, Finn-Stevenson, & Henrich, 2000; Epstein, 1985, 1986, 1987a, 1995). Additionally, parents who are involved feel useful and have a better understanding of how they can help their children succeed in school (Davies, 1993; Desimone et al., 2000; Mapp, 2003).

When parents are involved, teachers feel more comfortable asking other parents to be involved and believe that their classrooms are managed more effectively (Collins et al.; Desimone et al., 2000; Epstein, 1985, 1986, 1987a). Additionally, more parents become involved when teachers are caring and trustworthy (Mapp, 2003). Parents and principals also give teachers more recognition for their teaching and interpersonal skills (Christenson, 1995).

Despite its' importance, parental involvement is generally believed to be discouragingly low (Davies, 2002; Gonzalez-DeHass & Willems, 2003; Mapp, 2003). However, there are limited empirical studies to support this belief. One survey of 51 elementary parents showed that only 30% of the parents volunteered in the classroom or helped with fund-raising activities (Becker & Epstein, 1982). In a second study, 30% of 1,269 elementary parents volunteered at school or helped with fund-raisers, and 65% of elementary parents attended parent-teacher conferences (Epstein, 1986). Parent-teacher conferences have been found to be the most common means of involving parents (Shores,

1998). The Harvard Family Research Project found that parent-teacher conferences were the most frequently cited family involvement activity (Shartrand, Kreider, & Erickson-Warfield, 1994).

A different survey, with 341 teachers of 1,205 kindergarten through third-grade students, showed that 41% of the parents attended Parent-Teacher Organization meetings and 48% attended school activities, such as plays and bake sales (Izzo, Weissberg, Kasprow, & Fendrich, 1999). Additionally, 53% of these parents participated in activities at home to foster their children's academic development, and 49% participated in activities at home to foster their children's social skills. The National Center for Education Statistics gathered information regarding rates of parental involvement via telephone interviews with parents of 9,700 children in kindergarten through eighth grade (Chen & Chandler, 2001). Results showed that 84% of parents attended an open house or back-to-school night and 81% attended parent-teacher conferences.

More recent studies have shown that the rate of parental involvement is particularly low with economically disadvantaged, ethnic minority, and less-educated families (Dauber & Epstein, 1993; Dornbusch & Ritter, 1988; Griffith, 1996; Ho, 2002; Moles, 1993). Single mothers and parents with lower socioeconomic status (SES) are significantly less involved in school activities and home activities than married parents and those with higher SES (Grolnick, Benjet, Kurowski, & Apostoleris, 1997). They go to fewer school events, go to the library less, talk with teachers less, and talk about current events with their children less than married parents and parents with higher SES. White parents reported more frequent involvement at school and at home than parents of

Hispanic, Asian, Black, Pacific Islander, and Native American ethnicity (Griffith; Ho). White parents talked to teachers more, ensured homework was completed, listened to their child read, and communicated more with the school than parents of other ethnicities (Ho). Parents who had completed high school or beyond were more involved in their children's education than parents who did not complete high school (Dauber & Epstein).

The purpose of this dissertation is to examine one possible explanation for limited participation by a parent in specific parental involvement activities that a teacher suggests. Specifically, beliefs held by parents and teachers about each other could contribute to potential conflict among them and result in limited parental participation in specific parental involvement activities (Christenson & Hirsch, 1998). Several different studies have shown that parents believe that teachers will judge them negatively, blame them for their children's difficulties, not value their input, and treat them the same unpleasant way that they were treated by their own teachers (Christenson & Hirsch; Fine, 1990; Feuerstein, 2000). Some teachers believe that parents with less educational attainment are intimidated, have few skills, do not feel welcome at school, and are therefore less likely to become involved (Caspe, 2003; Epstein & Becker, 1982; Lawson, 2003). These disparate attitudes and beliefs may lead to conflicts between parents and teachers (Baker, Kessler-Sklar, Piotrkowski, & Parker, 1999; Christenson & Hirsch; Epstein & Becker; Lawson; Lazar & Slostad, 1999). This dissertation will examine the nature and extent of differences between parents' and teachers' attributions for perceived limited parental participation in specific parental involvement activities.

There are some special challenges that must be overcome when studying parental involvement. In preparation for this dissertation, all published studies with the descriptor "parent involvement" or "parental involvement" were identified. Studies that were published between 1982 and 2005 were included. Additional criteria for inclusion were studies that defined, theorized, or measured the frequency of parental involvement, or investigated parental involvement with student achievement or behavior at school as an outcome variable. In addition, if articles cited another study examining parental involvement, that study was also examined. Some studies were rejected because they failed to clearly define how they measured parental involvement. This process resulted in a sample of 39 studies.

The first challenge evident in these 39 studies was that the definition of parental involvement varied from study to study. Traditionally, parental involvement was defined as parents' physical presence at the school: volunteering, attending school activities, or meeting with teachers (e.g., Comer & Haynes, 1991; Epstein, 1984; Georgiou, 1997; Griffith, 1996; Shaver & Walls, 1998; Stevenson & Baker, 1987). Other research emphasized the importance of home activities as ways that parents are involved in children's schooling (Keith, 1991; Walberg, 1984). For example, teachers frequently ask that parents read to their children, listen to their children read, take their children to the library, talk with their children about their school day, or provide rewards or punishments based on school performance. Home-school collaboration and communication have been emphasized as still another form of parental involvement.

All of these parental involvement activities have been grouped in various ways (Drummond & Stipek, 2004; Graue, Clements, Reynolds, & Niles, 2004; Hill et al., 2004; Hong & Ho, 2005; Hoover-Dempsey, Bassler, & Brissie, 1992; Porter De Cusati & Johnson, 2004) or types (Epstein, 1995) and dimensions (Grolnick & Slowiaczek, 1994) or represented with a continuum that extends from home-based activities to school-based activities to home-school collaboration (Shores, 1998). Several researchers have based their definitions on Epstein's six types (Fantuzzo, McWayne, Perry, & Childs, 2004; McWayne, Hampton, Fantuzzo, Cohen, & Sekino, 2004; Simon, 2004). Some researchers have broadened the definition to include the quality of the involvement (Kohl, Lengua, & McMahon, 2000), parental beliefs and attitudes as influenced by racial-ethnic and economic backgrounds (Desimone, 2001), and the process and context of interactions (Gaitan, 2004),

The second challenge was that much of the research on parental involvement was atheoretical. Of the 39 studies reviewed, only 10 based their definitions of and hypotheses about parental involvement on theory (Brody, Stoneman, & Flor, 1995; Comer, 1988; Comer & Haynes, 1991; Desimone, 2001; Epstein, 1990; Fantuzzo et al., 2004; Keith & Keith, 1993; McWayne et al., 2004; Simon, 2004; Smith et al., 1997). Epstein (1990) outlined a theory of overlapping spheres of influence on student development based on the work of three theorists: Bronfenbrenner, Seeley, and Leichter. First, Bronfenbrenner's (1979) ecological model proposes that children function within multiple systems. Second, Seeley (1981) proposed that responsibility for child development was shared by parents, teachers and community members. Finally, Leichter

(1974) proposed the “families as educators” theory. The ecological theory was also the basis for four other studies (Brody et al.; Fantuzzo et al.; McWayne et al.; Smith et al.). In addition to ecological theory, Fantuzzo et al. and McWayne et al. referred to Wentzel’s (1999) theory of early interactions between parents and children influencing expectations for behavior at school. Keith and Keith’s path analysis was based on Epstein’s work and the Majoribanks (1979) family learning model. Simon based her work on Epstein’s theory of overlapping spheres and the theory of symbolic interaction (Blumer, 1969). Comer’s work (1988; Comer & Haynes) was based on theories from social ecology, child development, and social and behavioral sciences. Finally, Desimone based her definition of parental involvement on the theory that group formation is influenced more by individual level actions, beliefs, and attitudes than other specific causes (Horowitz, 1975).

Finally, the quality of research on parental involvement was mixed. Some of the 39 studies only gathered information from a single type of informant. Two studies only assessed the perception of students (Keith, Reimers, Fehrmann, Pottebaum, & Aubey, 1986; Keith, 1991), three other studies assessed only the perception of teachers (Baker et al., 1999; Graue et al., 2004; Stevenson & Baker, 1987), and five other studies assessed the perception of parents (Drummond & Stipek, 2004; Fantuzzo et al., 2004; McWayne et al., 2004; Sheldon, 2002; Smith et al., 1997). Others focused only on home or school activities. Two studies focused on home activities (Keith et al., 1986; Keith, 1991) while others focused only on school activities (Brody et al., 1995; Comer, 1988; Comer & Haynes, 1991; Griffith, 1996; Stevenson & Baker). Some used a small and homogenous

sample of participants, and others used limited data collection methods. Many studies included less than 300 participants (Baker et al.; Brody et al.; Epstein, 1991; Fantuzzo et al., 2004; Porter De Cusati & Johnson, 2004; Sheldon; Smith et al.; Stevenson & Baker). Most of the studies used questionnaires, surveys, or rating scales to assess parental involvement. Only one study used direct observation (Porter De Cusati & Johnson). None of the studies compared groups of involved and uninvolved parents. Finally, most of the studies used correlational survey methods. While correlational studies can suggest that there is a relationship between two variables, they cannot prove that one variable causes a change in another variable. For example, a correlational study might suggest that there is a relationship between parental involvement and grades, but it cannot show if parental involvement increases or decreases grades.

This study will address one of these challenges by applying the strong methodological traditions of attribution theory to parental involvement. Attribution theory may provide an explanation for perceived limited parental participation in specific activities to support their children's schooling and for strained parent/teacher relations. Attribution theory is concerned with ‘causal attributions,’ the beliefs people hold for why someone behaved in a certain way (Weiner, 1972a). Causal attributions play an important role in determining how people react to the behavior of others (Graham & Weiner, 1986; Kelley & Michela, 1980). In particular, teachers may make attributions about parents’ characteristics to explain low rates of specific parental involvement activities whereas parents may make attributions about circumstances to explain low rates of specific parental involvement activities. Additionally, teachers and parents may make

different attributions depending on a parent's education level or occupation. These differences in attributions could contribute to conflicts or strained relationships between parents and teachers.

As a first step toward applying attribution theory to parental involvement, the variables examined in this study were deliberately limited to include parents' responses to tutoring worksheets sent home with the child and parental attendance at school meetings scheduled with the teacher. The activities of parental involvement described in this study are a part of most of the definitions of parental involvement. They were also the easiest to isolate.

Purpose of the Present Study

Parent involvement is what parents do to enhance their children's schooling success and strengthen the communication they have with their children's school. The long-term goal of research on parental involvement is to better understand ways to improve parental participation in children's schooling. As a first step towards this goal, the proposed study will identify and compare the causal attributions made by teachers and parents for perceived limited parental participation in specific parental involvement activities to support their children's schooling. In addition, this study will examine differences in attributions based on the education level of a vignette parent. Specifically, three research questions will be examined:

1. To what do teachers and parents attribute perceived limited parental participation in specific parental involvement activities?
2. Do teachers differ from parents in the causal attributions (internal vs external)

that they make for perceived limited parental participation in specific parental involvement activities?

3. Do parents and teachers differ in the internal attributions that they make about the perceived limited participation by lower-educated versus higher-educated parents in specific parental involvement activities?

CHAPTER II

LITERATURE REVIEW

The purpose of this study is to identify and compare the causal attributions made by teachers and parents for perceived limited parental participation in specific parental involvement activities to support their children's schooling. In addition, this study will examine differences in the attributions that parents and teachers make about the involvement of low-educated versus highly-educated parents. This chapter reviews the literature describing parental involvement and attribution theory. First, parental involvement will be defined and studies examining the effectiveness and rate of parental involvement will be reviewed. Second, factors affecting the rate of parental involvement will be identified including the family characteristic of socioeconomic status. Third, attribution theory will be explained along with applications of attribution theory to academic achievement, self and others' behavior, and nonacademic problem behavior. Finally, the application of attribution theory to parental involvement will be described.

Parental Involvement

There are many ways that parents can be involved in their children's schooling. A multidimensional typology of parental involvement, including a wide variety of parent behaviors, is important to fully characterize the activities and interactions that parents engage in at school and outside of school (Fan & Chen, 2001; Kohl et al., 2000).

Definitions of parental involvement

Researchers have grouped school and home activities of parental involvement into different dimensions (Epstein, 1995; Grolnick & Slowiaczek, 1994). Behavioral, cognitive-intellectual, and personal are three dimensions representing resources that parents have available to children (Grolnick & Slowiaczek). The at-school and at-home activities of 'volunteering' and 'helping with homework' are behavioral resources. Exposing the child to cognitively stimulating activities, such as going to the library or talking about current events, are cognitive-intellectual resources. Personal resources include parents' affective involvement reflected in his or her positive attitude, caring, and expectations toward school and learning.

Parental involvement activities have also been represented as existing along a single continuum that extends from home-based activities to school-based activities and finally to home-school collaboration (Shores, 1998). At one end of the continuum are at-home activities, such as reviewing report cards, ensuring school attendance, and monitoring homework. Called "limited capacity for involvement" (p. 13), Shores implies that some parents do not have the ability, resources, or time for more involvement, and that these activities are not as important for child success. In the middle are traditional at-school activities, such as attending parent-teacher conferences and volunteering. At the other end are more collaborative at-school activities, such as planning classroom activities with teachers and participating in policy making activities. These activities give parents more power and influence over how the school is run.

Finally, Epstein (1995) provides a more complex definition of parental involvement. Epstein and her colleagues are working to develop an empirically validated, multidimensional description of parental involvement (Becker & Epstein, 1982; Epstein, 1986; Epstein & Dauber, 1991). In a series of studies, she has systematically refined her description of parental involvement from five categories describing 14 techniques, to four more succinct categories, and finally to six types of parental involvement.

In one example of the earlier studies, researchers asked 3,698 public elementary school teachers in Maryland to complete surveys describing 14 specific techniques that teachers use to involve parents (Becker & Epstein, 1982). The majority of the teachers were female (91%), white (78%), and had been teaching for more than 10 years (51%). The school district was comprised of 32% rural communities or small cities and 49% suburban areas. Most of the parents were high school graduates. The researchers grouped the 14 techniques, and other techniques written in by teachers, into five categories: 1) reading: recommending that parents read to their child, listen to their child read, or take their child to the library; 2) discussion: recommending that parents discuss school or television programs; 3) informal activities at home: recommending that parents play games, include their child in daily activities, and stimulate their child's interest in reading; 4) contracts: recommending that parents contract to support their child's homework and provide rewards and punishments contingent on school performance and behavior; and 5) evaluation: training parents to observe the classroom, tutor, or evaluate their child's progress. Approximately 66% of teachers used the reading technique, 33%

used the discussion technique, 30% used informal activities, 13% used contracts, and 21% taught parents evaluation skills.

In another early survey of 1,269 parents of first-, third-, and fifth-grade students, Epstein (1986) examined the percentage of parents involved in four categories of parental involvement activities: 1) Involvement in basic obligations, 2) Involvement in school-to-home communications, 3) Involvement at school, and 4) Involvement with learning activities at home. She identified these as customary activities that parents can use to increase their children's educational success. Over 90% of the parents provided a regular place for their children to do homework and over 97% provided school supplies. The rate of parent participation in different types of home/school communication ranged from 4% to 84%, depending on the type of communication. In this school, only 4% hosted teacher visits in their home, but 64% of parents attended parent-teacher conferences, and 84% of parents received memos from teachers. About 30% volunteered in classrooms and helped with fundraising activities, and 12% helped in the library, cafeteria, or other school area. Finally, 15% to 54% of parents were involved with five different learning activities at home, which included most of the techniques described in the Becker and Epstein (1982) study.

Based on these and other studies (Becker & Epstein, 1982; Epstein, 1985, 1986, 1987a), Epstein and Dauber (1991) concluded that there were six major types of parental involvement that schools ask of parents: 1) basic obligations of families, 2) basic obligations of schools to communicate with families, 3) parent involvement at school, 4) parent involvement in learning activities at home, 5) parent involvement in decision

making, and 6) collaboration with community organizations. Consequently, they administered questionnaires to 171 elementary and middle school teachers to examine the first five types. Correlations among the first five types of parental involvement (ranging from $r = .303$ to $r = .569$) showed that these types of involvement were interrelated but also made separate contributions to the school's parental involvement program.

Epstein (1995) continued to refine her six types of parental involvement into a categorical model of parental involvement that has been acclaimed as well-defined and comprehensive (Georgiou, 1997; Kohl et al., 2000). Epstein's six types of parental involvement incorporate school-based involvement, home-based involvement and home-school communication.

Epstein's (1995) first type of parental involvement is parenting. Parents can support their children's school success by providing a home environment that fosters readiness to learn by rearing their children in positive ways, providing healthcare and nutritious meals, and ensuring regular school attendance (Becker & Epstein, 1982; Eccles & Harold, 1996; Epstein, 1984, 1987a; Moles, 1993). This type is analogous to Grolnick and Slowiaczek's (1994) personal resources. Parents' resources not only include the behavioral resources described by Epstein's first type but also personal resources, such as parents' positive attitude, caring, and expectations toward school and learning.

Home-school communication is Epstein's (1995) second type of parental involvement. Parent-teacher conferences are the most typical form of communication between home and school (Becker & Epstein, 1982; Shores, 1998). These conferences provide an opportunity for parents and teachers to discuss students' progress and

problems and allow parents to inform teachers of family experiences that may support learning. Home-school notes are another effective way for teachers to communicate with parents (Becker & Epstein). Teachers may also send home student folders that contain work for parents to review or information about school activities (Becker & Epstein; Eccles & Harold, 1996; Epstein, 1984, 1987a; Moles, 1993). Additional communication strategies include parent observation in the classroom to see how instruction is conducted, and parent participation with the teacher to plan classroom activities (Becker & Epstein; Moles).

Epstein's (1995) third type of parental involvement is volunteering. Parents help and support schools by volunteering in classrooms, attending sporting events and concerts, and helping with fundraising activities (Becker & Epstein, 1982; Eccles & Harold, 1996; Epstein, 1984, 1987a; Moles, 1993). Moreover, while parents are at the school attending performances or sporting events, teachers can talk with them about other volunteering opportunities, their child's progress, or important school information (Epstein, 1987b). Parents' presence at school strengthens school programs and communicates to the children that school plays an important role in their lives (Epstein, Coates, Salinas, Sanders, & Simon, 1997).

In the fourth type of parental involvement, learning at home (Epstein, 1995), the teacher suggests ways that parents can help their children with homework or other school-related activities. Walberg (1984) called such home activities the "curriculum of the home." For example, teachers frequently ask parents to read with their children, take their children to the library, and borrow books. Teachers may also ask that parents talk

with their children about their school day. Some teachers may ask that parents provide rewards or punishments based on school performance or behavior. Parents may also review report cards, schoolwork, and tests; play games or use everyday activities to enhance academic learning; and tutor children to supplement the teacher's instruction at school (Becker & Epstein, 1982; Epstein; Moles, 1993; Shores, 1998). Grolnick and Slowiaczek (1994) describe a similar category of parental involvement called cognitive-intellectual resources, which includes exposing the child to cognitively stimulating activities at home, like going to art museums or talking about current events and social problems.

Home activities are an important aspect of parental involvement because logistical constraints frequently prevent parents from going to the school. This is especially true for working-class parents (Dauber & Epstein, 1993; Lareau, 1989; Moles, 1993; Ramirez, 2001). Parents may have inflexible work schedules that do not allow them to be available during school hours. Additionally, parents may not have transportation to the school or may not have care for their children while they are at the school.

The fifth type of parental involvement, decision making (Epstein, 1995), includes parents in decisions about school programs via the PTA/PTO, advisory councils, and school improvement committees (Becker & Epstein, 1982; Eccles & Harold, 1996; Moles, 1993). Being involved in these organizations allows parents to learn about school programs, policies, curriculum, and budgets (Epstein, 1987b; Epstein et al., 1997). Consequently, parents can suggest ideas for school improvement and voice opinions about the quality of the school and school programs. Parents are also encouraged to be

involved in advocacy groups independent of the school (Epstein, 1987b, 1995). These groups review federal, state, and district budgets; report on school goals and processes, problems, and resources; and work to increase school funding.

The sixth and final type of parental involvement is collaborating with the community (Epstein, 1995). The school collaborates with the community to identify resources and services for the school and families, and to identify ways that the school and families can help the community. Examples of collaboration are providing information to families about health, cultural, recreational, and social support resources available in the community; recruiting applications for summer programs that promote learning and talents; and showing how families and schools can serve the community by recycling or helping seniors.

Epstein (2005a) continues to maintain these six types of parental involvement as a comprehensive model for examining the shared responsibility between school, family, and community in the success of children. Additionally, her perspective is that No Child Left Behind's (U.S. Department of Education, 1997) requirements for school, family, and community partnerships include these six types of involvement to engage families at school and at home.

In her definition, Epstein (1995) also specifies how schools and teachers can facilitate parental involvement, describes challenges that schools and teachers may face, expands schools' and teachers' understanding of parental involvement, and describes the outcomes for students, parents, and teachers that are likely to result from each type of involvement.

The Family Involvement Questionnaire for families of preschool through fifth grade students was based on Epstein's (1995) six types of parental involvement (Fantuzzo, Tighe, & Childs, 2000; Manz, Fantuzzo, & Power, 2004). Factor analysis conducted on this questionnaire confirmed a three-factor solution of home-based involvement, school-based involvement, and home-school communication. Additionally, two other studies have identified four dimensions parental involvement: (1) parent participation at school (e.g., attending meetings), (2) parent supervision at home, including monitoring homework, (3) communication between home and school, and (4) parental educational aspirations for their children (Fan & Chen, 2001; Hong & Ho, 2005). These studies support the need for a multidimensional model of parent/family involvement.

Kohl and colleagues (2000) have criticized Epstein's (1995) and Grolnick and Slowiaczek's (1994) definitions of parental involvement for two reasons. First, they argue that Epstein's six types measured only school-initiated involvement and Grolnick and Slowiaczek's dimensions were too broad and focused only on parent-initiated involvement. Second, while they agree that parental involvement should encompass school-based involvement, home-based involvement, and home-school collaboration, they believe that previous definitions left out another important factor, the quality of the involvement.

Consequently, Kohl et al. (2000) proposed an alternative model of parental involvement that assessed six dimensions: parent-teacher contact, parent involvement at school, quality of parent-teacher relationship, teacher's perception of parent's value of

education, parent involvement at home, and parent endorsement of school. Questionnaires and interviews were administered to 385 parents of low- to middle-socioeconomic status and an undisclosed number of teachers from North Carolina, Tennessee, Washington, and Pennsylvania. Forty-nine percent of the parents were of ethnic minority status (i.e., African American) and 41% were single parents. A confirmatory factor analysis was conducted to test this model of parental involvement and the authors concluded that each of the six parental involvement dimensions was "conceptually distinct, yet empirically related aspects of parental involvement" (p. 518).

Kohl et al.'s (2000) model of parental involvement is more comprehensive and added to previous definitions by assessing internal beliefs, feelings, thoughts, and speculations. Examples of questions that asked about parent and teacher beliefs included, "teacher pays attention to my suggestions" and "parent is interested in knowing the teacher." Feelings elicited by the study included "feel the teacher cares about my child" and "teacher comfortable talking about the child's problems." Questions that asked about thoughts regarding school, teachers, and parents were "child's school is a good place for my child" and "teacher can talk to the parent." Finally, teachers answered some questions by speculating about the parent, such as the "parent is interested in knowing the teacher" and "parent encourages positive attitudes toward education."

An even more comprehensive definition of parental involvement is posited here based on Epstein's (1995) types, Grolnick and Slowiaczek's (1994) cognitive-intellectual and personal dimensions, and Kohl et al.'s (2000) model. An example of a comprehensive definition is described here and compared to the Epstein, Grolnick and

Slowiaczek, and Kohl et al. definitions in Table 1. Parent involvement is what parents do to enhance their children's schooling success and strengthen the communication they have with their children's school. This definition of parental involvement addresses both parent-initiated and school-initiated activities and includes home-based activities, school-based activities, and home-school collaboration. These dimensions of parental involvement reflect the many different ways that parents can participate in their children's schooling.

Home-based involvement entails parenting activities, personal resources, learning at home, and cognitive-intellectual resources. Parenting activities include rearing their children in positive ways, providing healthcare and nutritious meals, and ensuring regular school attendance. Personal resources are having a positive attitude, caring, and communicating expectations toward school and learning. Parents can assist with learning at home by helping with homework. Finally, home-based involvement includes providing cognitive-intellectual resources such as going to the library and talking about current events.

School-based involvement entails parents helping and supporting schools through volunteering in classrooms, attending sporting events and concerts, and helping with fundraising activities. Finally, home-school collaboration includes communication between home and school or parent and teacher (e.g., parent-teacher conferences), decision making (e.g., PTA/PTO), and school collaboration with the community (e.g., identifying services and resources for schools and families).

Table 1

Types of Parental Involvement

Epstein (1995)	Grolnick & Slowiaczek (1994)	Kohl et al. (2000)	Combined
1. Parenting	Personal Resources		Home-Based Activities
2. Home-School Communication		Parent-Teacher Contact	Home-school Collaboration
3. Volunteering		Parent Involvement at School	School-Based Activities
4. Learning at Home	Cognitive-Intellectual Resources	Parent Involvement at Home	Home-Based Activities
5. Decision Making			Home-school Collaboration
6. Collaborating with the Community			Home-school Collaboration

Conceptual framework for parental involvement

An ecological approach to children's academic and behavioral success is vital when defining parental involvement. The ecological model proposed by Bronfenbrenner (1979) offers a useful conceptual framework (Christenson & Sheridan, 2001; Fine, 1990; Smith et al, 1997). Within the ecological model, children function within multiple

systems. For example, a child functions within the microsystems of their home and their school and the exosystem of their neighborhood. All the systems are interconnected and influence the functioning and behavior of the people within them. Understanding a child's development and behavior requires understanding of all the systems in a child's life.

The home and school are prominent microsystems in a child's life. They interact in the mesosystem, the interface between the two microsystems. Events in one microsystem affect the other microsystems, influencing interactions in the mesosystem. The mesosystem integrating home and school is important because the child travels daily between home and school, experiencing the cultural values, norms, beliefs, and expectations in each microsystem. The ecological model asserts that families and schools influence each other and, together, have a profound impact on child development.

One aspect of the ecological framework has particular utility for enhancing parental involvement. It posits a shared responsibility between teachers and parents for children's academic and behavioral success (Christenson, 1995). This suggests that families and schools need to communicate the beliefs and information they have about each other and their motivation to interface with another. When the microsystems of a child's home and school are in conflict, this conflict disrupts the functioning of the mesosystem and negatively affects the children (Bronfenbrenner, 1979; Christenson & Hirsch, 1998).

Effectiveness of parental involvement

When parents and teachers work together, children are positively affected. One meta-analysis conducted on twenty-five empirical studies found that parental involvement has a positive effect on student academic achievement (Fan & Chen, 2001). However, effects differed depending on the definition used for parental involvement, the area of academic achievement that was evaluated, and the manner in which academic achievement was measured. For this meta-analysis, parental involvement was defined as: parent-child communication, home supervision, educational aspirations for children, and school contact and participation. Depending on the source study, academic achievement was measured by test scores and grades in mathematics, reading, science, social studies, or other classes (such as music); general school GPA; or combined grades in several academic areas. The average correlation coefficient between parental involvement and academic achievement was .25, indicating a medium effect size and positive relationship between the two variables. The strongest relationships were between academic achievement and parents' aspirations and expectations for children's educational achievement (r = .40), and between parental involvement and general school GPA (r = .33). Age and ethnicity both showed small but statistically significant moderating effects on the relationship between parental involvement and academic achievement.

A second meta-analysis conducted on forty-one published and unpublished qualitative studies set in an urban elementary school also found that parental involvement has a positive effect on urban students' academic achievement (Jeynes, 2005). For this meta-analysis, parental involvement was defined as: parental participation in the

educational processes and experiences of their children. Variables assessed were general parental involvement and specific components of parental involvement including communication about school activities, checking of homework, parental expectations of achievement, reading with children, attendance and participation in school functions, and supportive and helpful parenting styles. Depending on the source study, academic achievement was measured by grades, standardized tests, and teacher ratings of academic behaviors. General parental involvement yielded a medium effect size of .74 (Hedges' *g*). With regards to specific parental involvement, parental expectations of achievement yielded the largest effect size at .58, also a medium effect size.

Parental involvement is beneficial for students, parents, and teachers from early childhood through high school (Eccles & Harold, 1996). When parents become more involved in their children's education, elementary school students have shown improved school progress, attendance, behavior, and attitudes. The most widespread improvements have been seen in higher grades, and in test scores in math and reading (Collins et al., 1982; Comer, 1988; Epstein, 1985; Graue et al., 2004; Keith, 1991; Shaver & Walls, 1998; Sheldon & Epstein, 2005; Witt, Hannafin, & Martens, 1983). Across multiple studies, Epstein and her colleagues (1985, 1986, 1987a, 1987b, 1991, 1995) have administered questionnaires about parental involvement to parents, teachers, and principals of nearly 5000 first-, third-, and fifth-grade students. A survey of 3700 first-, third-, and fifth-grade teachers and 613 fifth-grade students showed improved reading scores for students whose parents had contracts with teachers to assure homework completion (Epstein, 1985). In addition, the participating fifth grade students had more

regular homework habits, more positive attitudes toward school, and appreciated the positive connections between teachers and parents. In one of the school districts included in the Epstein (1985) study, 293 third- and fifth-grade students showed gains from fall to spring in reading scores on the California Achievement Test (Epstein, 1991). These students had teachers who asked parents to read with their child.

Recently, Epstein (2005b) evaluated a school improvement model, the Partnership Schools Comprehensive School reform (CSR) model. The CSR model specifies that schools must have four or five action teams to improve the curriculum, instruction, management, and partnerships in the areas of reading, math, writing, and other school improvement goals. The CSR model is based on Epstein's theory of overlapping spheres of influence (1990) and includes activities for her six types of involvement (parenting, communicating, volunteering, learning at home, decision making, and collaborating with the community; Epstein, 1995). The implementation of the model at a Title I elementary school was monitored over 3 years. Results showed that the quality of parent involvement activities improved and the percentage of students reaching high proficiency levels on state achievement tests in math, reading, and writing increased.

One year after the implementation of a parent involvement program in seven Title I schools in Chicago, 420 kindergarten through eighth graders had higher scores on standardized tests in reading and math (Collins et al., 1982). Telephone and on-site interviews with principals, teachers, and administrators documented the activities that parents completed. Involvement consisted of parents providing appropriate health care

and nutrition, attending workshops at school, and helping their children at home with workbooks containing academic activities.

Children of parents who attended meetings and workshops at a Title I school in West Virginia saw similar improvements in reading and math (Shaver & Walls, 1998). School records for 335 second- through eighth-grade students in nine Title I schools described the number of meetings and workshops that each parent attended. These meetings and workshops taught parents how to implement learning activities at home, communicate with teachers on a regular basis, and use discipline strategies. ANOVAs showed significant main effects for parent involvement on reading achievement, reading comprehension, and mathematics achievement.

Two inner-city elementary schools serving predominately black (99%) children used school teams to increase parental involvement (Comer, 1988). School teams consisted of parents, teachers, mental health professionals, and the principal. The teams recruited parents to attend and sponsor school events and activities, assist in classrooms, and participate in decision-making. Students with involved parents showed improved test scores and grades as well as more positive attitudes toward school and improved social skills and behavior. Finally, when parents volunteered in the classroom to assist kindergarten students with emergent literacy, the students showed an increase in word recognition (Porter & Johnson, 2004). Additionally, all students whose parents volunteered felt happy about their parents being in the classroom.

A subsample of children in the Chicago Longitudinal Study who attended the Child-Parent Center preschool program showed improvements in school readiness and

reading achievement in third and eighth grade (Graue et al., 2004). A key component of this program was parent involvement that consisted of volunteering in classrooms, reinforcing learning at home, participating in parent resource room activities, and attending school events and field trips. Results showed that increases in parent involvement were associated with increases in prereading skills and word analysis skills in kindergarten and greater reading achievement in third grade and eighth grade.

In addition to improvements in academics, schools and families have reported improvements in school attendance, higher educational aspirations, and reductions in retention, suspension, behavior problems, and years in special education (Epstein & Sheldon, 2002; Hill et al., 2004; Miedel & Reynolds, 1999; U.S. Department of Education, 1997). Over 3 years, school attendance increased at 12 elementary schools and 6 middle schools when the schools made home visits, rewarded students for improved attendance, had a person at the school for parents to contact, and called home when a student was absent (Epstein & Sheldon, 2002). In a longitudinal study, 704 parents or guardians completed a survey about the frequency of volunteering in the classroom and attending meetings, conferences, assemblies, and class trips in preschool and kindergarten (Miedel & Reynolds, 1999). Results showed lower rates of grade retention through eighth grade when parents participated at least once a week or were involved in six or more activities. Also, as the number of activities a parent was involved in increased, the number of years a child was in special education decreased.

Telephone interviews with parents of 16, 910 kindergartners through 12th graders conducted by the U.S. Department of Education (1997) indicated that when parents were

highly involved at school, children were less likely to repeat a grade, be suspended, or be expelled. 'Highly involved' was defined as participating in three or more of four identified activities during the school year. The four activities were: attendance at general school meetings, such as back to school night, attendance at parent-teacher conferences, attendance at a school or class event, and volunteering at school.

In another study, adolescents in 7th, 8th, 9th, and 11th grade from 463 families showed improvements in educational aspirations and fewer behavior problems (Hill et al., 2004). Students whose parents had a high school education or less showed increases in educational aspirations when their parents were involved by attending PTA meetings or open houses, discussing school with their children, and communicating with teachers about their children's progress. Students whose parents had achieved a higher education (i.e., some college or a college degree) and were involved in the same way showed improvements in school behavior.

The use of the Parent Involvement in Children's Education Scale (PICES) with kindergarten children showed similar improvements in school behavior (McWayne et al., 2004). Parents of 307 kindergarten children (95% African-American) completed the PICES by rating 40 items about aspects of their home environment that support learning (e.g., buy educational materials, convey expectations about behavior at school, and provide rewards for doing well in school), contact with the school (e.g., attend parent meetings and talk with teacher), and inhibited involvement (e.g., household tasks, work responsibilities, and concerns about not being involved enough). When parents of kindergarteners talked to their children about the importance of school and helped them

practice what they were learning, the children's behavior was more cooperative, self-controlled, inviting, and respectful than that of kindergarten children with less involved parents.

To demonstrate the influence of home activities on academic achievement, Keith (1991) asked over 58,000 sophomores and seniors from over 1,000 high schools to describe their parent's communication with them about school. Parental involvement was defined as monitoring their child's whereabouts, homework completion, and school progress; influencing their children's plans after graduating from high school; and regulating television viewing. A significant positive correlation existed between parental involvement and high school grades. Similar results were found for students in 10 elementary and 8 middle or high schools (Sheldon & Epstein, 2005). Standardized mathematics test scores for two years were correlated with school practices for involving families. Results showed that students' scores on mathematics achievement tests improved when their teachers assigned homework that required them to show and discuss their math skills with a family member. Finally, a longitudinal study that followed children from kindergarten or 1st grade through 3rd grade showed that home-based involvement of parents was associated with the development of receptive language and emergent literacy (Senechal & LeFevre, 2002). Parents of 93 children followed from kindergarten though grade 3, 66 children followed from kindergarten though grade 3, and 45 children followed from grade 1 through grade 3 exposed their children to storybooks and taught their children to read and print words.

Other research has shown that parental involvement also yields positive outcomes for parents and teachers (Collins, Moles, & Cross, 1982; Desimone, Finn-Stevenson, & Henrich, 2000; Epstein, 1985, 1986, 1987a, 1995). Through their involvement, parents learn how to help their children with schoolwork; are involved in more learning activities at home; become more aware of what teachers do, what their children are learning, and how the school functions; feel more positive about their children's teachers and school; and give higher ratings to teachers. Additionally, parents feel useful and have a better understanding of how they can help their children succeed in school (Davies, 1993; Desimone et al., 2000; Mapp, 2003).

Through parental involvement, teachers become more comfortable asking other parents to be involved, manage their classrooms more effectively, and appreciate parents' help with learning activities (Collins et al.; Desimone et al., 2000; Epstein, 1985, 1986, 1987a). Additionally, more parents become involved when teacher are caring and trustworthy (Mapp, 2003). Parents and principals also give teachers more recognition for their teaching and interpersonal skills (Christenson, 1995).

Other parent involvement programs showed similar results (Collins et al., 1982). The 'Parents in Touch' program improved parent-teacher conferences. Teachers were trained to give parents workbooks containing daily learning activities to complete with their children. Approximately 15,000 (70%) parents of children in kindergarten through ninth grade attended parent-teacher conferences. Survey results showed that 99% of parents thought the conferences were helpful, and the community became more aware of the parents' role in their children's education.

In a similar program, a Houston school district improved procedures for parent-teacher conferences with the “Operation Fail-Safe” program (Collins et al., 1982). Teachers provided parents with activity booklets for the parents to complete with their children at home. A survey of parents and teachers showed that 97% of parents felt more positive about their child’s teacher and school, 93% of teachers thought that parents were more receptive to their suggestions, and 85% of teachers felt more positive about their relationship with parents.

School and home share the responsibility of fostering children’s learning and development (Comer, 1988; Epstein, 1987a, 1990). Epstein asserts that the frequent involvement of parents with schools diffuses boundaries between parents and teachers by increasing the flow of information from school to home (Becker & Epstein, 1982; Epstein, 1986). Teachers and parents can then combine their resources, goals, and practices to provide children with consistent learning opportunities (Epstein & Lee, 1995). Additionally, when working together, teachers and parents are sending a consistent message that education is important (Epstein, 1990; Scott-Jones, 1995). Furthermore, involvement at home is especially important for parents who cannot go to school (Thornburg, Hoffman, & Remeika, 1991).

Rates of parental involvement

Despite the benefits of parental involvement, many researchers believe that there is still a low rate of involvement of parents in schools at all educational levels (Davies, 2002; Gonzalez-DeHass & Willems, 2003; Mapp, 2003). In fact, parental involvement in their children’s schooling declines as children move from early childhood programs to

elementary school, and declines even further in secondary school (Eccles & Harold, 1996; Epstein & Dauber, 1991; Shaver & Walls, 1998). However, there are limited studies with data to support this notion and most studies are 10 years old or older. One survey conducted with 51 parents of elementary public school students found that only 30% of the parents volunteered in the classroom or helped with fund-raising activities (Becker & Epstein, 1982). In a second study, 30% of 1,269 parents of elementary public school students volunteered at school or helped with fund-raisers (Epstein, 1986). In contrast, 90% to 97% of these parents provided school supplies and a regular place for their children to do homework. In addition, 84% of these parents reported that they received notices sent from the school, and 65% attended parent-teacher conferences.

Telephone interviews with parents and guardians of 16,910 kindergarten through 12 grade students showed slightly more involvement (U.S. Department of Education, 1997). For elementary aged students, 84% of parents attended a general school meeting, 87% attended a parent-teacher conference, 72% attended a class event, and 50% volunteered at school.

A different survey, with 341 teachers of 1,205 kindergarten through third-grade students, showed that 41% of the parents attended Parent-Teacher Organization meetings and 48% attended school activities, such as plays and bake sales (Izzo, Weissberg, Kasprow, & Fendrich, 1999). Additionally, 53% of these parents participated in activities at home to foster their children's academic development, and 49% participated in activities at home to foster their children's social skills. The National Center for Education Statistics gathered information regarding rates of parental involvement via

telephone interviews with parents of 9,700 children in kindergarten through eighth grade (Chen & Chandler, 2001). Results showed that 84% of parents attended an open house or back-to-school night and 81% attended parent-teacher conferences.

Another study with parents of high school seniors examined the frequency of involvement in traditional activities, such as attendance at school events and help with homework, and career or college planning (Simon, 2004). Over 11,300 parents of students at over 1000 schools completed a survey conducted by the National Center for Educational Statistics to rate their frequency of involvement. Sixty-eight percent of parents attended school events, 65% helped with homework sometimes, and 21% helped with homework frequently. A discussion about classes was done by 53% and a discussion about grades was done by 77%. Discussions about college and jobs were conducted by 69% and 48% of parents, respectively.

The rate of parental involvement is also affected by what teachers and schools do to promote parental involvement. Elementary school teachers often request very limited types of parental involvement (Gonzalez-DeHass & Willems, 2003). A survey of about 3,700 first-, third-, and fifth-grade teachers across 600 schools in Maryland revealed that the most common parental involvement activity used by teachers was school-home communication (90% to 95%; Becker & Epstein, 1982). Teachers sent notes home, held parent-teacher conferences, talked with parents at open houses, and asked parents to check and sign homework. Teachers reported little or no use of parent volunteers in the classroom. The most frequent activity that teachers asked parents to do at home was to read to their children (66%). Other home activities requested by teachers included

playing learning games and tutoring (30%), discussing school activities (15%), and discussing television shows (2%). In a later study, 68% of parents were asked by their child's teachers to read with their children, 57% were asked to help with homework, 66% were asked to sign homework, 61% were asked to give spelling or math drills, and 49% were asked to discuss school activities (Epstein, 1986).

It is possible that teacher reports underestimate parents' involvement. Teachers may not know what parents are doing to support children's education, particularly when parents are doing things at home. One survey of 190 kindergarten and first-grade teachers from 65 schools found that more than 50% of the teachers did not know if parents were using home activities to support children's learning (Baker et al., 1999). For example, they did not know whether parents helped their children with school projects, read with them, or discussed school with them. Furthermore, a study involving 66 schools found that parents from higher SES schools exhibited higher levels of involvement at the school (e.g., attendance at parent-teacher conferences, classroom volunteers) but that parents of both high and low SES schools were equally involved in the home-based activities of tutoring and home instructional programs (Hoover-Dempsey, Bassler, & Brissie, 1987). The U.S. Department of Education's (1997) interview with parents and guardians of students in grades 6 through 12 also measured social capital in the families. Social capital included discussing future courses, helping with homework, and sharing activities. Results showed that mothers and fathers helped with homework at least once per week, 75% helped students in grades 6 through 8, and 48% helped students in grades 9 through 12.

Factors affecting the rate of parental involvement

There are several possible reasons why parents are not as involved as teachers would like them to be (Caspe, 2003; Fine, 1990; Gettinger & Guetschow, 1998; Hoover-Dempsey & Sandler, 1995; Moles, 1993). These reasons encompass the systems of family and school, the systems that are most influential in the academic, social, and emotional development of children.

School characteristics and parental involvement. School characteristics, and especially school climate, have been shown to affect the rate of parental involvement (U.S. Department of Education, 1997; Wright & Smith, 1998). School climate was identified as the best predictor of involvement at school from mother and fathers (U.S. Department of Education, 1997). Parents are more likely to become involved at school if the school welcomes the parental involvement, makes it easy for parents to be involved, maintains classroom and school discipline, and if teachers and students respect each other.

Some teachers may view parents as unable to work collaboratively, and may not try to involve them or tell them how they can help (Christenson & Hirsch, 1998). Many teachers do not know how to involve parents, do not think their involvement will make a difference, believe parents do not have the necessary skills, or do not think it is fair to ask parents to spend time on school-related activities at home (Becker & Epstein, 1982; Gal & Stoudt, 1995). Additionally, teachers may not have to time to devote to parental involvement given their other instructional responsibilities.

The culture of the school tends to mimic white, middle-class cultural values, resources, and communication methods. It is possible that teachers may have difficulty relating to economically disadvantaged and ethnically diverse parents, whose ways of behaving and communicating differ from their own. Teachers in two elementary schools, one predominantly white working-class and the other predominately white upper-middle-class, perceived the involvement behavior of parents as reflecting the parents' value of education (Lareau, 1989). Teachers believed that parents who were present at school valued education more than parents who were not seen at school. However, all parents had expressed their value of education, whether they were involved at school or not.

Similarly, teachers reported a higher level of comfort communicating with parents with a college education than with parents with less education (Hill et al., 2004). Also, teachers believe that lower-SES parents do not have the skills or interest to be involved (Weiss et al., 2003).

Schools have challenges to meet if they are going to reach all families (Sheldon & Epstein, 2005). For example, schools need to make sure limited English speaking families have access to all information in a language they can understand. Procedures need to be in place for communication to flow from school to family and from family to school. Teachers need to initiate communication between schools and families in order to find out what parents are doing and to let them know how to help (Drummond & Stipek, 2004). Teachers need to reach out to families and offer them support and feedback for what they are doing to help their children learn (Hoover-Dempsey et al., 2005). Perhaps most importantly, teachers need to respect families and the variation in

resources that families have (Hoover-Dempsey et al.). Without these provisions, families need to be familiar with the dominant culture in order for their students to be successful in school (Bourdieu, 1977).

Family characteristics and parental involvement. Certain family characteristics predict parental involvement. Practical family considerations may influence parents' decisions to be involved, such as the availability of transportation, babysitting, and flexibility of work schedules, (Fine, 1990; Gettinger & Guetschow, 1998; Heymann & Earle, 2000).

Hoover-Dempsey and Sandler (1995) have identified three psychological factors that contribute to parents' involvement. First, parents may not be sure what role they should play in their children's schooling or how to interact with teachers (Hoover-Dempsey & Sandler). Parents' role construction is constructed socially, particularly from experiences at school and with school staff (Hoover-Dempsey et al., 2005). Some parents are satisfied with how teachers are handling their child's education and see no need to become involved. Second, parents may not have the skills that they need to help with their child's schoolwork, or may believe that they will not be effective at helping their child (Hoover-Dempsey & Sandler). Third, parents may want to support their children's education but may believe that teachers do not want their help, do not support their efforts, or do not value their contributions (Hoover-Dempsey & Sandler).

Hoover-Dempsey and Sandler's (1995) original theoretical model of why parents become involved included two levels. The first level was comprised of the three factors that contribute to the decision to become involved (role-construction, self-efficacy, and

invitations), as described above. The second level was comprised of factors that contribute to the parents' choice of involvement activities. Hoover-Dempsey, Sandler, and colleagues have revised this model (Hoover-Dempsey et al., 2005; Walker, Wilkins, Dallaire, Sandler, & Hoover-Dempsey, 2005). The revised model combines these two levels into one level with three factors: 1) Parents' motivational beliefs, including role-construction and self-efficacy; 2) Perceptions of invitations from others, including invitations from the school, teacher, and child; and 3) Perceived life context, including time, energy, skills, and knowledge. The parents' perceived time, energy, skills, and knowledge are now viewed as contributing to decisions to become involved. Moreover, the importance of life context variables within the family culture has been recognized.

The lowest rates of parental involvement are found in economically disadvantaged, less-educated, and ethnic minority families (Dauber & Epstein, 1993; Dornbusch & Ritter, 1988; Ho, 2002; Moles, 1993). In one study, 209 third- through fifth-grade children, their mothers, and their 28 teachers rated the mother's involvement at school and home (Grolnick et al., 1997). Parent, teacher, and child rating scales measured how frequently parents attended school events, such as parent-teacher conferences and activities. Parent and child rating scales described parent's cognitive involvement with their children, such as going to the library and talking about current events. Finally, parent and child rating scales described the parent's knowledge about their children's school activities, such as knowing what they do in school and who their friends are. Results showed significantly less involvement at school and with home

activities by parents of lower socioeconomic status (SES) and single-parent mothers than by parents of higher SES and married parents.

Similar results were reported when a working-class elementary school was compared to a middle-class school (Lareau, 1987). Sixty percent of the working-class school's parents attended parent-teacher conferences, 50% read to their children, 3% volunteered in classrooms, and only a few reviewed homework. Alternatively, 100% of the middle-class parents attended parent-teacher conferences, 96% attended open houses, and 43% volunteered in classrooms.

In another study, 1,135 parents of five Chapter I elementary schools and 1,182 parents of three Chapter I middle schools rated their involvement at school and at home, and their communication with the school (Dauber & Epstein, 1993). Parents who had completed high school or beyond were more involved in their children's education than parents who did not complete high school.

Over 200 fourth-grade parents completed a questionnaire about their involvement at home and at school (Smith et al., 1997). At-home activities included reading to their child, checking their child's homework, and taking educational trips with their child. At-school activities included attending conferences, participating in Parent-Teacher Organizations, volunteering, and visiting the classroom. Parent education level was positively correlated with parental involvement at school (r = .17) and at home (r = .18). Parent education level was also positively correlated with teachers' requests for involvement (r = .18). Parent attitudes toward involvement were positively correlated with parental involvement at home (r = .25). In addition, parental involvement at home

was positively correlated with parental involvement at school (r = .28). Similar results were found with the U.S. Department of Education (1997) study. As fathers' and mothers' education increased, the rate of involvement in school increased. Moreover, as involvement increased at home, so did involvement at school. Generally, these results indicate that the more education a parent has, the more involved they become at school and at home, and the more teachers ask them to be involved.

A survey of 286 parents of children attending a Chapter I elementary school resulted in similar findings related to ethnicity (Ho, 2002). White parents reported more frequent involvement at school and at home, and more communication with the school than non-White parents (e.g., Hispanic, Asian, Black, Pacific Islander, and Native American). It is possible that Latino parents may not become involved because they believe in respecting authority figures and teachers are viewed as authority figures (Holloway, Rambaud, Fuller, & Eggers-Pierola, 1995). Additionally, involvement was higher for parents speaking English as their primary language than parents whose primary language was not English (Ho).

Despite the low rates of involvement from economically disadvantaged and ethnically diverse parents, most parents believe that involvement in their children's schooling is important (Drummond & Stipek, 2004). Low-income, ethnically diverse parents of 234 children in second and third grade were asked if they should be involved. Most parents (56%) said they should help with homework in general, while 21% said they should help with reading homework and 35% said they should help with math homework. Additionally, 55% thought they should ask the teacher what their children

are learning, 18% thought they should ask their children what they are learning, and 16% thought they should go through their children's school papers to find out what they are learning.

In most studies, parents' education level and profession were used to define social class (Lareau, 1987; Lareau, 1989; Mills & Rubin, 1990). Parents were identified as 'working-class' when they were high school graduates or high school dropouts and were employed in skilled, semiskilled, or unskilled occupations. Parents were described as 'middle-class' or 'upper-middle-class' when they were college graduates and were employed as professionals (e.g., executives, managers) or semiprofessionals (e.g., sales, technicians). Parent education alone has also been used as a marker for socioeconomic status (Hill et al., 2004). A low education level was defined as having 12 years of schooling (graduation from high school) or less and a high education level was defined as receiving an education beyond high school. This is important because parental education has been shown to have an influence on parental involvement in schools (U.S. Department of Education, 1997).

Families belonging to middle or upper social classes have advantages and resources that families from lower social class do not have (Lareau, 1989). These advantages and resources are called "cultural capital" (Bourdieu, 1977) and describe educational and cultural activities that families from different social classes carry out. Examples of cultural capital are reading books, going to the theater, listening to classical music, visiting museums and art galleries, and possessing computers, televisions, and radios. There is a positive relationship between the level of education attained by parents

and the amount of cultural capital possessed by the family. As the level of education increases, the amount of cultural capital increases. Parents with less cultural capital have a more difficult time helping their children with school (Christenson, 2004). Additionally, lower-educated parents may not have the skills to help their children in school and may be less confident that they will be effective (Weiss et al., 2003). Children from families with more cultural capital enter school better prepared to adjust to school and achieve academically (Lareau, 1989).

Some parents may have difficulties relating to teachers who are different than themselves. Parents of students in two elementary schools, one predominantly white, working-class and the other predominately white, upper-middle-class, communicated differently with teachers depending on their social class status (Lareau, 1989). Upper-middle-class parents had more social and conversational parent-teachers conferences than lower class parents. Unfortunately, the time demands of single parent families, dual income families, and lower SES families limit the parents' ability to be present at the school (Christenson, 2004; U.S. Department of Education, 1997; Weiss et al., 2003).

Attributions and parental involvement. An additional factor affecting the rate of parental involvement could be attributions that parents and teachers make regarding parental involvement. Specifically, attributions made by parents and teachers of differing social classes may conflict.

Attribution Theory

This study will examine attribution theory as one explanation for limited parental participation in specific parental involvement activities. Attribution theory is a cognitive

model of behavior originated by Fritz Heider (Weiner, 1972a). It provides insights about the perceived causes of behavior (Kelley & Michela, 1980). Attributions are a person's explanations for why a particular event turned out as it did. For example, a person may try to explain why they passed or failed a test. Their explanation may include: "I worked hard for that A", "I don't have the ability to do this work", or "I did not study hard enough." According to Weiner (1972b), these attributions, in turn, give rise to affective consequences, such as motivation, and consequently play an important role in determining future behaviors. In the preceding example, the explanation of "I worked hard for that A" may result in being proud and working hard in preparation for the next test. Conversely, the explanation of "I don't have the ability to do this work" may result in feeling defeated and not studying for the next test.

Heider (1958) hypothesized that behavior is influenced by attributions that distinguish between the ability of an individual, the difficulty of the task, and the effort an individual puts into a task. Ability and effort were considered to be internal to the individual and the difficulty of the task was considered to be external to the individual. Subsequently, Rotter (1965) described internal and external dimensions of attributions as locus of control. This refers to whether or not individuals perceive that they possess the power or lack the power to control what happens to them.

Weiner (1972a; 1985) applied Heider's (1958) and Rotter's (1965) formulation of attribution theory to achievement behavior by first specifying the outcome of the achievement task, such as pass or fail. The outcome is typically followed by a general

emotional reaction, which is either positive or negative. Attributions occur after this emotional response and provide explanations for the outcome.

Attributions are proposed causal antecedents used to explain why an outcome occurred (Kelley & Michela, 1980; Weiner, 1985). Causal antecedents may include personal characteristics, such as having a history of failure or success. They may describe circumstances, such as feeling ill or the fire-alarm sounding. They may also be a comparison to what others would do in the same situation. Finally, causal antecedents may describe the motivation the person has for performing or explaining their behavior. People make different attributions about academic success or failure depending on their personal history and achievement motivation (Weiner, 1972b).

Attributions are described in terms of three dimensions: locus of causality, stability, and controllability (Weiner, 1985). The first dimension, locus of causality, is Rotter's (1965) locus of control and distinguishes between personal (internal) and environmental (external) causes of behavior. An internal locus of causality is a belief that an event is caused by an inherent disposition or personal characteristic of oneself (e.g., something within the person; Mills & Rubin, 1990; Weiner, 1985). The cause of behavior is internal if the person intended to behave in that way (Munton, Silverster, Stratton, & Hanks, 1999). An external locus of causality is a belief that an event is caused by circumstances or situational influences outside oneself (e.g., something outside the person; Mills & Rubin; Weiner). The cause of the behavior is external if the person was reacting to the situation (Munton et al.).

The second dimension, stability, distinguishes between a stable and enduring and

an unstable and changing cause of behavior (Weiner, 1985). Both internal and external causes of behavior can be stable or unstable. For example, an internal cause of ability could be considered stable if it does not change. In contrast, an internal cause of effort could be considered unstable if it could change. Similarly, an external cause of task difficulty could be considered stable if a teacher created every test with the same level of difficulty, and an external cause of luck could be considered unstable since it could change from day to day. The final dimension is controllability. A person may be able to or unable to control their behavior. Ability may be internal, stable and uncontrollable, if it is genetically determined. Effort may be internal, unstable, and controllable, as an individual increases or deceases the amount of effort they expend. Luck may be considered external, unstable, and uncontrollable and task difficulty may be considered external, stable, and uncontrollable.

Attribution theory and academic achievement

Attribution theory has been applied extensively to academic learning and understanding the development of achievement motivation. For achievement tasks, typical attributions include ability, effort, task difficulty, and luck (Weiner, 1972; Clark, 1997). Success with achievement tasks may result in attributions of high ability, a lot of effort, easy tasks, or luck whereas failure may result in attributions of low ability, little effort, difficult tasks, or no luck. Table 2 applies these achievement characteristics to an example. Ability attributions are internal, stable, and uncontrollable, whereas effort attributions are internal, unstable, and controllable (Clark).

Table 2

Examples of Attribution Theory and Academic Achievement

History	Outcome	Attribution
Failure	Fail a test	Internal & uncontrollable: Inability
Success	Fail a test	Internal & controllable: Lack of effort

These causal dimensions, locus of causality, stability, and controllability, lead to emotions and expectations of success. Thus, when failure is attributed to internal, stable causes, such as low ability, it is seen as resulting from a fixed characteristic over which the individual does not have control. Having no control may lead to feelings of hopelessness and expectations of continued failure. Failure attributed to internal, unstable, controllable causes, such as lack of effort, is viewed as more changeable and thereby under the individual's control. Having control may lead to feelings of hopefulness and uncertain expectations for future outcomes.

Weiner has applied his attribution theory principally to student academic behavior. Students who attribute success to internal, controllable causes, such as effort, are more likely to feel pride, satisfaction, and confidence, and have a higher sense of self-esteem (Weiner, 1972b). Consequently, these students will initiate achievement activities, choose to work on more difficult tasks, persist longer in the face of failure, and work with greater intensity. For example, a student who attributes passing a test to effort will feel proud of their success and will expect to be successful at future tasks, so they are more likely to pursue academic tasks.

Students who attribute failure to internal, uncontrollable stable factors, such as inability, are more likely to feel shame and humiliation and will show little effort or persistence with future tasks. For example, a student who attributes failing a test to inability will feel ashamed and believe they will continue to fail, so they are likely to quit trying.

Students who attribute success to external factors, such as task difficulty, are not going to experience the self-enhancing emotions of pride, satisfaction, confidence, or self-esteem. For example, if a student thinks they passed a test because the questions were easy, they will not feel pride and their academic behavior may not change.

Attributions about another's behavior

In addition to the attributions that people make about their own behavior, they also make attributions about other people's behavior. The causal attributions that a person makes about another person's behavior are influenced by what the observer knows about the other person's behavior, what the observer believes about the causes of behavior, and why the observer wants to explain the other person's behavior (Kelley & Michela, 1980). In studying the ratings made regarding one's self and others, Nisbett, Caputo, Legant, and Marocek (1973) found that people tend to use internal attributions to explain the negative behavior of others, but use external attributions when describing their own negative behavior.

Overestimating the influence of internal attributions on others and underestimating the influence of external attributions is called the "fundamental attribution error" (Martin, 1983). A pair of studies has illustrated this concept (Nisbett et

al., 1973). In the first study, 23 male college students wrote four paragraphs explaining why they liked their girlfriend, why they had chosen their major, why their best friend liked his girlfriend, and why their best friend chose their major. Coding of paragraphs indicated internal and external reasons. The participants made more external than internal attributions for liking their girlfriend and an equal number of external and internal attributions for their best friend liking his girlfriend. Participants made an equal number of external and internal attributions for choosing their major and more internal than external attributions for their best friend choosing his major. The interaction between answers for self versus friend and external versus internal attributions was significant for both liking a girlfriend and choosing a major.

In the second study, 24 college students completed questionnaires indicating whether a personal trait, the trait's opposite, or "depends on the situation" described themselves, their best friend, their father, an admired acquaintance, and Walter Cronkite (Nisbett et al., 1973). Examples of personal traits and their opposites are: intense/calm, energetic/relaxed, cautious/bold, and quiet/talkative. Results showed that participants selected "depends on the situation" significantly more often when describing themselves than for the four others.

There are four possible reasons why the fundamental attribution error can occur (Kelley & Michela, 1980; Martin, 1983). (1) Observers may have access to different information than the person actually performing the behavior. The person performing the behavior knows about his or her behavior in many situations whereas the observer only knows his or her behavior in one particular situation. (2) The focus of attention may

differ for observers and the person performing the behavior. The person performing the behavior attends to his or her behavior while the observer attends to the other person's behavior. (3) Observers may expect others to behave as they would in a given situation. (4) Internal attributions allow for better future predictions of behavior than external attribution. Therefore, observers may expect the same behavior from that particular person in future, similar situations.

Attribution theory and nonacademic problem behavior

Attribution theory has also been applied to nonacademic problem behaviors with students, teachers, and parents. In a test of the fundamental attribution error, Guttmann (1982) hypothesized that students would attribute the misbehavior of a student similar to themselves to external reasons, while teachers and parents would attribute a student's misbehavior to internal reasons. As evidence of this phenomenon, fourth-, fifth-, and sixth-grade students, teachers, and parents from three lower-middle-class schools in Israel ranked the importance of 26 reasons for the problem behavior of a hypothetical child. As hypothesized, students attributed the misbehavior to external reasons, such as being misunderstood, the teachers' attitude, other children annoying him, and bad examples at home. Also as hypothesized, teachers attributed the misbehavior to internal reasons, such as the child's need for attention, the need to let off steam, and the desire to gain status. Parents, however, attributed equal importance to internal and external reasons to the child. Examples of parents' internal reasons included the need for attention, psychological problems, and bad character. Examples of parents' external reasons included the neighborhood's influence and bad examples at home.

Attribution theory has also been applied to the nonacademic behavior of aggression (e.g., Crick, 1995; Crick, Grotpeter, & Bigbee, 2002; Dodge & Frame, 1982; Nasby, Hayden, & DePaulo, 1980; Quiggle, Garger, Panak, & Dodge, 1992). In one study, 252 third- through sixth-grade students nominated up to three peers as nonaggressive, relationally aggressive, and both relationally and physically aggressive (Crick). A relationally aggressive student was a person who, when they got mad, got even by keeping other people out of their group of friends. A physically aggressive student was described as a person who hit, pushed, or shoved other people. The students read hypothetical stories describing a situation in which another student was relationally aggressive or physically aggressive but had not been provoked. Examples of stories included "the student does not invite you to a party that a lot of other students have already been invited to" and "a peer breaks your radio when you are out of the room."

The students selected one of four possible reasons for the relational or physical aggression described in the stories. Two of the reasons described a hostile intent, such as "the kid doesn't want me to come to the party", and two of the reasons described a benign intent, such as "the kid hasn't had a chance to invite me yet." Results indicated that the relationally aggressive children made more hostile attributions for relationally aggressive situations than for physically aggressive situations. Children who were identified as both relationally and physically aggressive made hostile attributions for both situations. Both groups made more hostile attributions than children identified as nonaggressive.

These results were replicated in a second study with nonaggressive, relationally aggressive, physically aggressive, and both relationally and physically aggressive

children (Crick et al., 2002). When the children were only physically aggressive, they attributed hostile intent to instrumental situations more than nonaggressive or relationally aggressive peers. In other studies, children who attributed relational and physical aggression to hostile intent were more likely to act aggressively and less likely to behave prosocially than children who did not make hostile intent attributions (Crick et al.; Zahn-Waxler et al, 1994).

Attribution Theory Applied to Parental Involvement

Attribution theory is promising for explaining specific parental involvement activities because the attributions parents and teachers make about parental involvement may influence their actual behavior of being involved or initiating involvement activities. In constructing attributions, parents and teachers are likely to make either internal or external inferences about the causes of low rates of specific parental involvement activities. For example, specific parental involvement activities may be attributed to a parent's lack of caring about their child's education (an internal reason) or to a parent's busy work schedule that does not permit them to be very involved (an external reason).

Attribution theory would predict that teachers and parents would be susceptible to the fundamental attribution error. Teachers may attribute low parental involvement to reasons that are internal to the parent. Consequently, teachers may assume that they can do nothing to improve parental involvement and that it rests solely on the parents' shoulders. Conversely, parents may attribute low parental involvement to reasons that are external to them. They may believe that they can do nothing to improve parental

involvement and that the responsibility rests with others, such as teachers, their employer, or their spouse.

If this is the case, attributions held by parents and teachers could contribute to potential conflict between them and, ultimately, to low rates of specific parental involvement activities. Beliefs held by teachers and parents translate into actions that can either enhance or inhibit parental involvement (Christenson & Hirsch, 1998; Eccles & Harold, 1993). Teacher beliefs could influence their strategies for involving parents, and parent beliefs could influence their involved practice. These parent and teacher beliefs can be general or specific to a child (Eccles & Harold). General beliefs teachers and parents have included: assumptions about the role parents play in their children's education, confidence that they can help the child, gender-role schema, their beliefs of how the family's ethnicity affects their involvement, and knowledge of techniques. Specific beliefs teachers have regarding the child include: their ability to help the child, their desire to help the child, their goals for the child's education, and their affective relationship toward the child. Specific beliefs parents have regarding the child include: achievement expectations, perceptions of child's abilities and interests, value of various skills, socialization goals, and self-efficacy.

Differences in attributions that parents and teachers make for low rates of specific parental involvement activities may lead to conflicts or blaming. For example, parents and teachers may have disagreements about the role parents play in their children's education (Christenson & Hirsch, 1998). Parents may believe that teachers are responsible for their children's education and blame teachers when they their children are

having difficulties. Conversely, teachers may believe they need help from parents with school activities at home. Conflicts may also arise when teachers and parents disagree about what techniques should be used to teach and discipline children at school. If the disagreement is not resolved, one or both may become frustrated, hostile, or complain to an authority figure, such as the school principal.

Specific beliefs parents have about what contributes to their child's academic success may influence their rate of involvement. Parents may make internal or external attributions about their child. Internal attributions to the child may be the amount of effort they put into school or their academic ability. External attributions to the child may be luck or the teachers' or parents' help with school work.

Only one study was found that assessed the degree and type of parental involvement at home and school, and parental attributions made about their child's achievement (Georgiou, 1999). Of the 473 parents, 28.5% were classified into a low socioeconomic status (SES), 53.1% were classified into an average SES, and 18.4% were classified into a high SES, as SES was measured by the parents' education level, occupation, and income. Parents who attributed their child's academic achievement to significant others (an external factor) were more controlling of their child's behavior. Results showed a significant correlation between attributing achievement to factors external to the child and the parent's behavior of controlling their child's diet and appearance, TV watching time, approval of friends, encouragement to read and try new hobbies, and providing lessons to promote talents. There was not a significant correlation between attributing achievement to factors external of the child and the parent's help with

homework and monitoring of school progress. SES was found to correlate with school achievement; however, the correlation between SES and parental attributions was not computed.

Family characteristics and attributions

It is also possible that teachers' or parents' parental involvement attributions may differ depending on the socioeconomic status of a parent (Lareau, 1989). For example, some teachers believe that low-income families and parents with no college education have low educational expectations for their children, lack the skills to effectively help their children, are not concerned about their children and are, therefore, generally less involved in schooling (Caspe, 2003; Dauber & Epstein, 1993). Teachers form these beliefs about all low-income families and low-education parents based on their past experiences with similar families or siblings, and their own knowledge, values, and perceptions from their experiences as a child or parent (Caspe).

Parents of differing social classes have different resources and dispositions. Middle-class and upper-middle-class parents have the confidence and competence to help their children and can afford educational materials, convenient childcare, and transportation. Working-class parents may not have the confidence or ability to help their children and may not be able to afford new educational materials, childcare, or transportation to the school. Some parents believe that teachers do not tell them how to help, provide them with materials to help, and make meeting times convenient (Gettinger & Guetschow, 1998).

Collecting, Categorizing, and Coding Attributions

How attributions have been collected

Prior researchers have gathered attributions by using vignettes presented with a list of attributions, vignettes with open-ended response formats, video-taped interactions with open-ended response formats, and open-ended questions.

The use of hypothetical stories describing relational and instrumental provocation situations have been used by Crick and her colleagues (Crick, 1995; Crick et al., 2002). In one study, 10 hypothetical stories were read by 252 third-, fourth-, fifth-, and sixth-grade children (Crick). The children selected one of four presented attributions describing the intent of the aggressor in the stories. In two subsequent studies, the same 10 hypothetical stories were presented to 825 third-grade children and 535 third- to sixth-grade children. Again, the children selected one of four presented attributions for the intent of the aggressor (Crick et al.).

To assess parents' attributions for their children's aggressive and social withdrawal behavior, Mills and Rubin (1990) had 122 mothers and 67 fathers of 4-year-old children read four vignettes describing their child being aggressive at preschool or at home and their child being socially withdrawn at preschool or at a birthday party. Parents responded to the open-ended question, "Why do you think that your child has been acting this way?" Similarly, videotaped parent-child interactions designed to elicit inattentive-overactive, oppositional-defiant, and prosocial behaviors were presented to 91 parents of 83 children (Johnston, Reynolds, Freeman, & Geller, 1998). Sixty-one were parents of 34 children (average age 8 years old) with ADHD and 49 were parents of 30

children (average age 8 years, 4 months) without problems. Parents responded to an open-ended question asking why they thought their child performed a specific behavior displayed in the video-taped interaction. Another study assessed children's attributions for conflicts with friends (Joshi & Ferris, 2002). Seventy-three children between the ages of 9 and 12 respond to an open-ended question, "Why do you think fights with friends happen at all?"

Other uses of vignettes with open-ended response formats

Children, parents, and teachers have been presented with vignettes to elicit possible reactions. In one study, 97 kindergarten children were presented with a vignette describing a conflict between a child and their father, mother, or a peer (McDowell, Parke, & Sptizer, 2002). The children were asked to imagine the conflict happening to them and what strategies they would use to resolve the conflict. In the same study, both of the children's parents read two vignettes describing a social situation in which they or their child were interrupted. The parents were asked to describe what they would do and what they would want to accomplish and what their child should do and what they would want their child to accomplish.

Finally, 94 elementary school teachers read 6 vignettes describing physical, verbal, and social exclusion bullying (Yoon & Kerber, 2003). Teachers responded to an open-ended question asking how they would respond to the perpetrators in each situation.

How attributions have been categorized and coded

The use of an open-ended response format requires a coding system to categorize attributions. The responses of 189 parents to the open-ended question, "Why do you think that your child has been acting this way?" were categorized according to locus of causality and type of attribution (Mills & Rubin, 1990). Two coders were trained to identify responses as an internal and stable, internal and unstable, or external attribution until the level of agreement between them and one of the investigators was 80%. Intercoder agreement was calculated as the number of agreements divided by the total number of agreements and disagreements.

The responses that 91 parents gave to an open-ended question asking why they thought their child performed a specific behavior displayed in a video-taped parent-child interaction were coded into seven categories (Johnston et al., 1998). They were coded according to locus of causality, controllability, and stability attributions: internal-controllable-stable, internal-controllable-unstable, internal-uncontrollable-stable, internal-uncontrollable-unstable, external-situational, external-parent, and medication. Three coders were trained and all responses were coded by two of three coders. Intercoder agreement was calculated as the number of agreements divided by the total number of agreements and disagreements. Disagreements were re-coded in group meetings.

General categories of causes were generated for the responses of 73 children to the question "Why do you think fights with friends happen at all?" (Joshi & Ferris, 2002). Categorizing the responses was done a second time to ensure that the categories were exhaustive and to refine the definition of each category. Four categories of causes

were identified: human or relationship characteristics, interactional condition, person characteristics, and extraneous characteristics. Next, the responses were coded according to locus of causality (e.g., internal, external, or mutual/interpersonal) and stability. Intercoder agreement was calculated for the general categories of causes, locus of causality, and stability. However, the calculation used was not specified.

A vignette approach was also used because parents and teachers would be allowed to make unbiased judgments about limited parental participation in specific parental involvement activities and judge the same event. Additionally, specific home-based and school-based parental involvement activities could be assessed through vignettes. Finally, the mother's education and profession could be manipulated to allow the evaluation of attributions based on socioeconomic status.

Studies designed to assess attributions were reviewed to determine a method for assessing parents' attributions for the limited parental participation in specific parental involvement activities described in the vignettes. Most studies used rating scales to assess attributions (Antshel, Brewster, & Waisbren, 2004; Dodge & Frame, 1982; Georgiou, 1999; Guttmann, 1982; Keltikangas-Jarvinen, 1989; Quiggle et al., 1992; Russell, McAuley & Tarico, 1987). Respondents are asked to rate a list of potential causes of behavior along dimensions of locus, control, and stability or rate level of agreement with causes. However, using a rating scale poses two concerns (Guttmann; Johnston et al., 1998; McDowel1 et al., 2002). First, they restrict the respondent's ability to spontaneously generate reasons. Second, they presume that the researcher-determined

reasons are a comprehensive representation of all possible reasons. Therefore, an open-ended response format was used in this study.

The use of an open-ended response format requires the use of a coding method. Methods for coding teacher and parent responses to the vignettes were adapted from methods used in previous studies (Earn & Sobol, 1990; Johnston et al., 1998; Joshi & Ferris, 2002; Mills & Rubin, 1990; Munton et al., 1999). Two of these studies assessed parents' attributions for their children's behavior (Johnston et al.; Mills & Rubin). Johnston et al. videotaped parent-child interactions designed to elicit inattentive-overactive, oppositional-defiant, and prosocial behaviors. Sixty-one parents of 34 children (average age 8 years old) with ADHD and 49 parents of 30 children (average age 8 years, 4 months) without problems responded to an open-ended question asking why they thought their child performed a specific behavior. To assess parents' attributions for their children's aggressive and social withdrawal behavior, Mills and Rubin had 122 mothers and 67 fathers of 4-year-old children read four vignettes and respond to the open-ended question, "Why do you think that your child has been acting this way?" Another study assessed children's attributions for conflicts with friends (Joshi & Ferris). Seventy-three children between the ages of 9 and 12 respond to an open-ended question, "Why do you think fights with friends happen at all?"

Summary

There has not been sufficient research examining the causal attributions made by parents and teachers about low rates of specific parental involvement activities. Parent involvement is what parents do to enhance their children's schooling success and

strengthen the communication they have with their children's school. Differences in causal attributions that teachers and parents make for low rates of specific parental involvement activities may lead to misunderstandings and relationship conflict (Christenson & Hirsch, 1998; Robins, Mendelsohn, Connell, & Kwan, 2004). Interactions between teachers and parents will likely be more positive, cooperative, and understanding if they understand each other's explanations for low rates of specific parental involvement activities (Guttmann, 1982). Additionally, the reasons one person gives for another's behavior will affect his or her own attitude and behavior toward that person. Awareness of the fundamental attribution error may help teachers and parents view parental involvement from different perspectives (Martin, 1983).

Research Questions

This study will identify and compare the causal attributions that teachers and parents make regarding perceived limited parental participation in specific parental involvement activities to support their children's schooling. For purposes of measurement, the operational description of parental involvement was narrowed to include parental response to tutoring worksheets sent home with the child and parental attendance at school meetings scheduled with the teacher. These activities of parental involvement are a part of most definitions of parental involvement and are easiest to isolate. The study will also examine differences in causal attributions that parents and teachers make about perceived limited participation by lower-educated versus higher-educated parents in specific parental involvement activities. Specifically, three research questions will be examined:

1. To what do teachers and parents attribute perceived limited parental participation in specific parental involvement activities?
2. Do teachers differ from parents in the causal attributions (internal vs external) that they make for perceived limited parental participation in specific parental involvement activities?
3. Do parents and teachers differ in the internal attributions that they make about the perceived limited participation by lower-educated versus higher-educated parents in specific parental involvement activities?

Based on Caspe's (2003) research on teachers' understanding of families and attribution theory (Kelley & Michela, 1980) it is hypothesized that teachers will tend to attribute perceived limited parental participation in specific parental involvement activities to reasons within the parent (internal causality) for lower-educated parents and to reasons outside the parent (external causality) for higher-educated parents.

CHAPTER III

METHOD

This study will identify and compare the causal attributions that teachers and parents make regarding perceived limited parental participation in specific parental involvement activities to support their children's schooling. For purposes of measurement, the operational description of parental involvement was narrowed to include parental response to tutoring worksheets sent home with the child and parental attendance at school meetings with the teacher. These activities of parental involvement are a part of most definitions of parental involvement and are easiest to isolate. The study will also examine differences in causal attributions that parents and teachers make about perceived limited participation by lower-educated versus higher-educated parents in specific parental involvement activities.

A researcher-developed attribution questionnaire was used to identify and compare the causal attributions made by teachers and parents for perceived limited parental participation in specific parental involvement activities to support their children's schooling. The independent variables in this study were the education level and profession of the mother in the questionnaire vignettes and respondent status as a parent or teacher.

Participants

Participants for the study were 80 regular education teachers in seven public elementary schools and 80 parents or guardians of children in the same seven elementary schools. This sample size is appropriate for maintaining 88% power to detect a moderate

effect size (Cohen's $f = .25$). Two hundred and fifty-five regular education teachers had been invited to participate in the study. The 80 participating teachers represent 31% of the invited teachers. The majority of the teachers were White/Caucasian females teaching for less than 11 years (60%) and were parents (63%) of children younger than 12 years old (43%) or older than 18 years old (35%). The distribution of the grades taught was fairly evenly distributed from kindergarten through fifth grade. The ethnicity and gender composition of the respondent sample was similar to that of all the teachers in the school district (i.e., 96% White and 78% female). Table 3 provides the teacher demographic information.

The investigator asked 120 parents to participate in the study while they attended parent-teacher conferences held at the school and 80 parents agreed. Fifty-five (69%) of the parents were White/Caucasian mothers who had attended some college. This distribution of ethnicity is similar to the proportion of White students (78%) in the district for grades K through 5. Nineteen percent of these mothers were homemakers and 11% were nurses. Table 4 provides the parent demographic information.

Table 3

Teacher Demographics

Demographic Variable	n	% of sample
Gender		
Female	66	83%
Male	11	14%
Ethnicity		
White/Caucasian	68	86%
Other	11	14%
Number of Years Teaching		
1 to 10 years	46	60%
11 to 20 years	17	22%
Over 20 years	14	16%
Grade Level Taught		
Kindergarten	11	14%
First	14	18%
Second	15	19%
Third	13	17%
Fourth	13	17%
Fifth	12	15%
Parents of children		
All under 12 years old	21	43%
All under 18 years old	3	8%
All over 18 years old	17	35%

Table 4

Parent Demographics

Demographic Variable	n	% of sample
Relationship to student		
Father	17	22%
Mother	61	77%
Other	1	1%
Ethnicity		
White/Caucasian	68	86%
Other	11	14%
Education Level		
Did not finish High School	4	5%
High School Graduate or GED	21	26%
Attended some college	29	37%
College Graduate	25	32%

Measures

To assess parents' and teachers' causal attributions for perceived limited parental participation in specific parental involvement activities in this study, Attribution Questionnaires were developed, each consisting of a hypothetical vignette and an open-ended response format. The decision to use vignettes was based on several reasons. First, studies have shown that vignettes are useful ways to assess how people would respond in real-life situations (Crick, 1995; McDowell et al., 2002; Mills & Rubin, 1990;

Yoon & Kerber, 2003). Second, the use of vignettes allowed parents and teachers to make unbiased judgments about limited parental participation in specific parental involvement activities. They could generate a list of possible reasons they believed contributed to limited parental participation in specific parental involvement activities without input from others.

Third, specific home-based and school-based parental involvement activities could be assessed through vignettes. This allowed for more than one type of involvement to be assessed. Fourth, all respondents rated the same event in a vignette. Finally, descriptions of the mother's education and profession in the vignette could be manipulated to allow for the evaluation of attributions based on socioeconomic status.

Studies designed to assess attributions were reviewed to determine a method for assessing parents' attributions for the limited parental participation in specific parental involvement activities described in the vignettes. Most studies used rating scales to assess attributions (Antshel et al., 2004; Dodge & Frame, 1982; Georgiou, 1999; Guttmann, 1982; Keltikangas-Jarvinen, 1989; Quiggle et al., 1992; Russell et al., 1987). Respondents were asked to rate a list of potential causes of behavior along dimensions of locus, control, and stability or rate level of agreement with causes. However, using a rating scale restricts the respondent's ability to spontaneously generate reasons and presumes that the researcher-determined reasons are a comprehensive representation of all possible reasons (Guttmann; Johnston et al., 1998; McDowell et al., 2002).

Respondents in this study were asked to write an open-ended response describing why something occurred. An open-ended response format allowed respondents to

spontaneously generate attributions without restriction to a generated list of possible reasons (Guttmann, 1982; Johnston et al., 1998; McDowell et al., 2002).

Attribution Questionnaire. Four forms of the Attribution Questionnaire were used. All forms are included in Appendix B. The first section of the questionnaire asked the respondents to provide general demographic information about themselves. Parents reported their relationship to their student, ethnicity, education level attained, and profession. Teachers reported their gender, ethnicity, grade level they taught, the number of years teaching experience, their status as a parent, and if they had children, the ages of their children.

In the second section of the questionnaire, each participant read one of two vignettes about a hypothetical mother of a third-grade child, Jamie, who is having difficulty in mathematics. The low-education vignette depicted Jamie with a mother who had a high school diploma, worked in an unskilled profession that did not require a college diploma (i.e., housekeeping at a hotel). An accompanying picture showed a small, single-family house that was at least 50 years old. The high-education vignette depicted Jamie with a mother who had a college degree, was a professional (i.e., a lawyer). An accompanying picture showed a larger single-family house that was less than 10 years old. In all other respects, the two vignettes were identical, with both vignettes describing low parent involvement based on the narrow operational description of parental involvement to include parental response to tutoring worksheets sent home with the child and parental attendance at school meetings scheduled with the teacher. After reading the

vignette, parents and teachers were asked to write: “What are the likely reasons why this mother was not coming to the teacher meetings or why the worksheets weren’t returned?”

Procedure

The investigator e-mailed a brief summary of the project along with an invitation to participate to school principals of Lincoln Public Schools with whom the investigator had conducted previous research. To follow up, the investigator called the principal or sent a second e-mail to the principal to request their participation. When the principal agreed, the investigator arranged to either attend a staff meeting or provide the principal with the questionnaires to distribute to teachers. To ensure that 80 teachers completed questionnaires, the investigator distributed the questionnaires in both ways at the seventh school. Teachers were randomly assigned to one of two conditions. Approximately half the teachers (38) read the Form C vignette about a low-educated mother of a third-grade child with academic difficulties living in the pictured single-family house. The other half (42) read the Form D vignette about a high-educated mother of third-grade child with academic difficulties living in the pictured larger, single-family house. The investigator recruited parents at parent-teacher conferences held at the same schools by setting up a table in the hallway, identified by the principal as a “high traffic” area, and asking parents to volunteer to participate. In this way, the investigator approached approximately 120 parents while they were waiting for conferences and asked them if they would complete a questionnaire regarding parental involvement in children’s schooling. If a parent agreed to participate, they were given an informed consent information form that explained the research. Then the investigator gave the parent a pen and a questionnaire on a clipboard

and walked away. The investigator continued to approach parents until 80 questionnaires were completed. Half the parents (40) read the Form A vignette about a low-educated mother of a third-grade child with academic difficulties living in the pictured single-family house. The other half (40) read the Form B vignette about a high-educated mother of a third-grade child with academic difficulties living in the pictured larger, single-family house.

Coding of causal attributions. The responses were coded to determine the attributions that parents and teachers made for perceived limited parental participation in specific parental involvement activities and the type of attributions (internal versus external) that they made. The use of an open-ended response format requires a coding method to interpret the responses. Methods for coding teacher and parent responses to the vignettes were adapted from methods used in previous research (Johnston et al., 1998; Joshi & Ferris, 2002; Mills & Rubin, 1990; Munton et al., 1999). These methods were tested in a pilot study (summarized in Appendix C) and are described below.

First, the investigator parsed each Attribution Questionnaire response into separate attributions. Separate attributions in each response were identified by periods, commas, ‘and’ and ‘or’ markers, line spaces, bullets, or numbers. The investigator marked the beginning of each new attribution with a capital letter. Another graduate student independently parsed a random sample of 37% of the Attribution Questionnaire responses (30) for reliability purposes. An agreement of 92% was obtained, with the investigator identifying nine attributions not identified by the graduate student and the graduate student identifying one attribution not identified by the investigator.

Second, the investigator trained three graduate students to code the attributions as representing an internal or external locus of causality. Graduate students were trained using 30 questionnaires from a pilot study conducted in the spring of 2005. An internal locus of causality was described as something within the mother, such as the vignette mother's feelings, thoughts, beliefs, and physical health (Mills & Rubin, 1990; Weiner, 1985). An external locus of causality was described as something outside the mother, such as the vignette mother's work situation, family situation, and circumstances surrounding the schoolwork sent home (Mills & Rubin, 1990; Weiner, 1985). See Table 5 for the operational definitions and examples from the pilot study.

Two of the graduate students independently coded two sets of 15 questionnaires each from the pilot study. Disagreements were discussed following the coding of each set of 15 questionnaires. Agreement for the first set of 15 questionnaires was 95% and agreement for the second set of 15 questionnaires was 97%.

Third, two of the graduate students independently coded each attribution in all 160 questionnaires from this study as representing either an internal or external locus of causality. The coders were blind to the demographic information and did not know if the responses were from teachers or parents.

Fourth, intercoder agreement was monitored after the two graduate students had coded 20 questionnaires of each form (A, B, C and D). Agreement was calculated as the number of agreements of locus of causality over the possible number of agreements times 100. Agreement for the two sets of Form A questionnaires was 92% and 94%. Agreement for the two sets of Form B questionnaires was 95% and 96 %. Agreement for

the two sets of Form C questionnaires was 90% and 94%. Agreement for the two sets of Form D questionnaires was 94% and 97%. Disputed codes were re-coded by the third graduate student and majority opinion was used as data for the study.

Table 5

Internal and External Locus of Causality

Locus of Causality	Definition (Mills & Rubin, 1990)	Examples
Internal	An inherent disposition or property or personal characteristic of the mother	Views, thinks, feels, believes, considers, regards, perceives, assumes, deems, and judges
External	Circumstances or situational influences	Works evenings, busy, worksheets did not make it home, and other children to care for.

Finally, Cohen's Kappa, an index that corrects for chance agreements, was used to assess intercoder reliability when all coding was complete. Kappa values range from -1 to +1 (Cohen, 1960). A value of 1 indicates perfect agreement, a value of 0 indicates chance-level agreement, and values less than 0 indicate poorer than chance-level agreement. Cutoff values indicating the strength of the agreement were adopted from Landis and Koch (1977). Cohen's Kappa was .876, indicating high agreement.

The number of internal and external attributions was totaled separately. The proportion of internal attributions was then calculated for each participant by dividing the number of internal attributions by the total number of attributions (internal plus external).

Data and Analysis

Data for this study were: (a) respondent status as a parent or teacher; (b) parent relationship to the student; (c) ethnicity of parent and teacher; (d) education level attained by parents; (e) parent's profession; (f) gender of teacher; (g) grade level taught by teacher; (h) number of years teaching experience; (i) status of the teacher as a parent; (j) the ages of the teacher's children; (k) socioeconomic status of the vignette mother (low or high); and (l) proportion of internal attributions. See Appendix A for a list of the variables and the nature of the data.

Data Entry. A single data file was created for all parent and teacher data. All parent and teacher data were entered individually with each participant's demographic information and proportion of internal attributions.

Analysis. Parent and teacher participant demographic information was gathered for descriptive purposes only. Data were analyzed using a two-way ANOVA to examine the effect of respondent type (teacher or parent) and the target parent's education level (low or high) on internal attributions. Results were examined to determine (a) the differences in the proportion of internal and external attributions parents and teachers make for low levels of parental involvement, and (b) the influence of a target parents' education level.

CHAPTER IV

RESULTS

First, the nature of the attributions that teachers and parents made for perceived limited parental participation in specific parental involvement activities was described. Second, means and standard deviations for parents' and teachers' attributions were computed. Third, a two-way analysis of variance (ANOVA) with the proportion of internal attributions as a dependent variable was conducted. With this analysis, differences in the proportion of internal attributions between teachers and parents for the two vignette conditions would appear as a significant interaction effect (Respondent X Vignette Condition).

Descriptive Data

Teachers and parents identified a total of 623 attributions. Of these 623, 105 were distinct attributions (some attributions were made by more than one participant). Sixty-five attributions were coded as representing an internal locus of causality and 40 were coded as representing an external locus of causality. The mean number of internal attributions per parent was 1.85, whereas the mean number of external attributions per parent was 1.36. Two parents did not provide any useable attributions. The mean number of internal attributions per teacher was 2.5, whereas the mean number of external attributions per teacher was 2.11. The 105 attributions have been grouped into 15 categories (See Table 6). The first 8 categories contain causes that were identified as representing an internal locus of causality, while the last 7 categories contain causes that were identified as representing an external locus of causality.

Table 6

Causal Attributions for Limited Participation in Specific Parental Involvement Activities

Attribution Category	Parent Frequency	Teacher Frequency	Locus of Causality
1. The mother's views about the problem and involvement	44	46	Internal
2. The mother's physical, emotional, and mental status	39	40	Internal
3. The mother's negative relationship with the school and teacher	18	54	Internal
4. The mother's lack of ability to help	23	35	Internal
5. The mother's feelings/views about herself and her child	7	13	Internal
6. The mother's lack of education and her feelings about it	10	8	Internal
7. The mother's lack of parenting abilities	6	3	Internal
8. Poor relationship between the mother and child	2	1	Internal
Subtotal Internal Attributions	149 (59%)	200 (54%)	349 (56%)
9. The mother's busy life	69	86	External
10. Child's responsibilities	17	45	External
11. School or teacher's responsibilities	5	14	External
12. The mother's additional responsibilities	3	11	External
13. The mother's limited resources	5	9	External
14. The mother's other relationships	4	3	External
15. The father's responsibilities	2	1	External
Subtotal External Attributions	105 (41%)	169 (46%)	274 (44%)
Total Internal and External Attributions	254 (100%)	369 (100%)	623 (100%)

The first category is *the mother's views about the problem and involvement*. Twenty-one respondents noted that the mother did not care, 17 said that the mother did not make the child's education a priority, 11 mentioned that the mother thought it was the school's responsibility, 10 thought that the mother did not think the problem was as bad as it seemed or was in denial that there was a problem, and 10 thought that the mother did not think school or math was important. Additional reasons given by respondents were that the mother did not think involvement was important, was too busy to be a parent, or did not teach her child about the importance of school. Examples of responses included, "Not care enough to help her daughter learn it" and "No or low priority of child's education."

Attributions regarding *the mother's physical, emotional, and mental status* are included in the second category. Eighteen respondents mentioned that the mother was probably tired, 13 thought that the mother was stressed or overwhelmed, and 10 thought that the mother was using drugs or alcohol. Additional reasons included in this category were that the mother had personal issues, forgot, was sick, or had a mental illness. Examples of responses included, "She could be just very tired" and "The mother is overwhelmed with job and kid's homework, activities, etc."

The third category, *the mother's negative relationship with the school and teacher*, encompasses the mother's point of view of how she felt about the school and the teacher and how they treated her. The most prevalent response in this category was that the mother felt intimidated and uncomfortable at the school, with the teacher, or with the math work. Additional responses in this category were that the mother did not

understand what the problem was, felt embarrassed to face the teacher, was afraid to hear what the teacher had to say, believed that the teacher was targeting her child, or was not getting along with the teacher. Examples of responses included, “Many times a parent can be intimidated by a child’s math and need more than a simple worksheet” and “Embarrassed to see math teacher.”

The fourth category, *the mother’s lack of ability to help*, included beliefs that the mother did not know how to help with the math (mentioned by 51 respondents), did not know how to ask for help, and felt incompetent. Examples of responses included, “The mother may also not know how to do the math so she can’t tutor Jamie” and “Mother feels incompetent.”

The fifth category, *the mother’s feelings/views about herself and her child*, described the mother as being generally embarrassed about herself and her child (mentioned by 14 respondents), being career-oriented, and not liking others telling her what to do. Examples of responses included, “Maybe she is embarrassed for some reason of herself or her child” and “Mother felt ashamed that she was a single parent and couldn’t face teacher.” The sixth category is *the mother’s lack of education and her feelings about it*. These reasons included that the mother was embarrassed about not graduating and did not know how to help, and the mother was afraid of doing poorly with her child and of her child knowing of her incompetence. Examples of responses included, “Mother embarrassed for not graduating and math teacher did” and “Maybe she didn’t feel that successful in school and therefore is brining that baggage with her.”

Included in the seventh category, *the mother’s lack of parenting abilities*, were

explanations that the mother lacked parenting skills, did not pay attention to the child or the problem, and did not check the child's backpack for school work. Examples of responses included, "The mom did not ask the child about the worksheets" and "The mother didn't take care of her child." In the eighth category, *poor relationship between the mother and child*, respondents mentioned fighting, a power struggle, and lack of communication between the mother and child. Examples of responses included, "Lack of communication with child" and "Mother's relationship deteriorates when she asks her child to sit down with her to complete work and a power struggle ensues."

The two most frequently cited possible reasons for the mother's low rate of involvement was that she was simply busy and she had to work. Both of these reasons were mentioned by 68 respondents and fall under the ninth category, *the mother's busy life*. Examples of responses included, "She is too busy trying to keep up with work and responsibilities of being a single parent" and "She may have been really busy." The tenth category is the *child's responsibilities*. Thirty-seven respondents thought the child did not bring the worksheets home or did not give the mother the worksheets. Other reasons were that the child had lost the worksheets or threw them away, did not give the mother messages from the teacher, did not bring the worksheets back to school, did not try to do the work, and was involved in too many extracurricular activities. Examples of responses included, "The child has not shown worksheets to the parent" and "Homework didn't arrive home."

In the eleventh category, *school or teacher's responsibilities*, 10 respondents mentioned that meetings were not scheduled at times that were convenient for the mother.

Additionally, four mentioned that the teacher did not make the worksheets understandable, and three mentioned that the teacher talked in a negative tone of voice and only said negative things about the child. Examples of responses included, “Teacher scheduled the meetings without consulting mother about times she is available” and “The teacher doesn’t explain how to help.” The twelfth category, *the mother’s additional responsibilities*, suggested that the mother may have cared for other children, cared for other relatives, worked more than one job, or had cultural and religious commitments. Examples of responses included, “Special needs children at home that require more attention” and “Unexpected emergencies.”

The thirteenth category is *the mother’s limited resources* and included a lack of childcare, transportation, and support. Examples of responses included, “Trouble scheduling childcare” and “No or lack of transportation.” The fourteenth category, *the mother’s other relationships*, suggested that the mother had a bad or abusive relationship with a boyfriend or conflicts with the father. Examples of responses included, “Maybe a new boyfriend was around and got all of mother’s attention” and “Jamie’s mom got beat by Jamie’s dad every time the school points out that Jamie is having problems and so Jamie’s mom can’t attend or worse yet she has begun to deny problems.” Finally, the last category, *the father’s responsibilities*, suggested that the father might say he would help and then not follow through or the father could have partial custody of the child, which limited the mother’s available time to help her child. Examples of responses included, “Father said he would help son and never did” and “Maybe father had son in evenings.”

Means and standard deviations for teachers' and parents' proportion of internal attributions are included in Table 7. Results show that the mean proportion of internal attributions for teachers and parents was the same at .53. This indicates that parents and teachers provided an almost equal number of internal and external attributions for perceived limited parental participation in specific parental involvement activities, regardless of the vignette condition. Depending on the vignette condition, the mean proportion of internal attributions identified differed. For example, the mean proportion of internal attributions for teachers and parents who read the lower-education vignette was .57 and .69, respectively. Parents identified approximately 12% more internal attributions than teachers did when reading the lower-education vignette. The proportion of internal attributions for parents who read the lower-education vignette was .69. Therefore, these parents also identified a proportion of external attributions of .31.

Table 7

Means and Standard Deviations for Vignette Education Conditions as a Function of Respondent

	Teacher			Parent			Total		
Vignette	M	SD	N	M	SD	N	M	SD	N
Lower-Education	.57	.25	38	.69	.23	39	.63	.25	77
Higher-Education	.49	.29	42	.38	.33	39	.44	.32	81
Total	**.53**	.27	80	**.53**	.33	78	.53	.30	158

Analysis of Variance (ANOVA)

A 2 (respondent) X 2 (vignette education) ANOVA with the proportion of internal attributions as the dependent variable revealed a significant interaction effect ($F(1,154) = 6.373$; $p < .05$). An interaction effect is testing to see if the differences in the population means of the proportion of internal attributions among respondents (teachers and parents) is the same across vignette conditions (lower-education and higher-education). The significant interaction indicates that the mean proportion of internal attributions depended on both the respondent and vignette condition. A statistically significant interaction implies that the main effects are not directly interpretable.

Table 8

Summary of Two-Way Analysis of Variance for Respondent and Vignette Education Conditions

Source	df	SS	MS	F
Respondent	1	9.678E-07	9.678E-07	.000
Vignette	1	1.498	1.498	19.019**
Respondent X Vignette	1	.502	.502	6.373*
Within Cells	154	12.130	7.877E-02	
Total	158	58.864		

*$p < .05$, **$p < .01$

Two conditions were established as criteria for meaningful differences between groups: (1) measures of effect size and (2) comparisons resulting in non-overlapping 95% confidence intervals. The goal of effect size measures is to quantify the magnitude of the

results in a way that is not influenced by sample size. Additionally, use of confidence intervals for determining meaningful differences is encouraged to ensure robust analyses (Cumming & Finch, 2005).

Figure 1

Estimated Marginal Means of Proportion of Internal Attributions

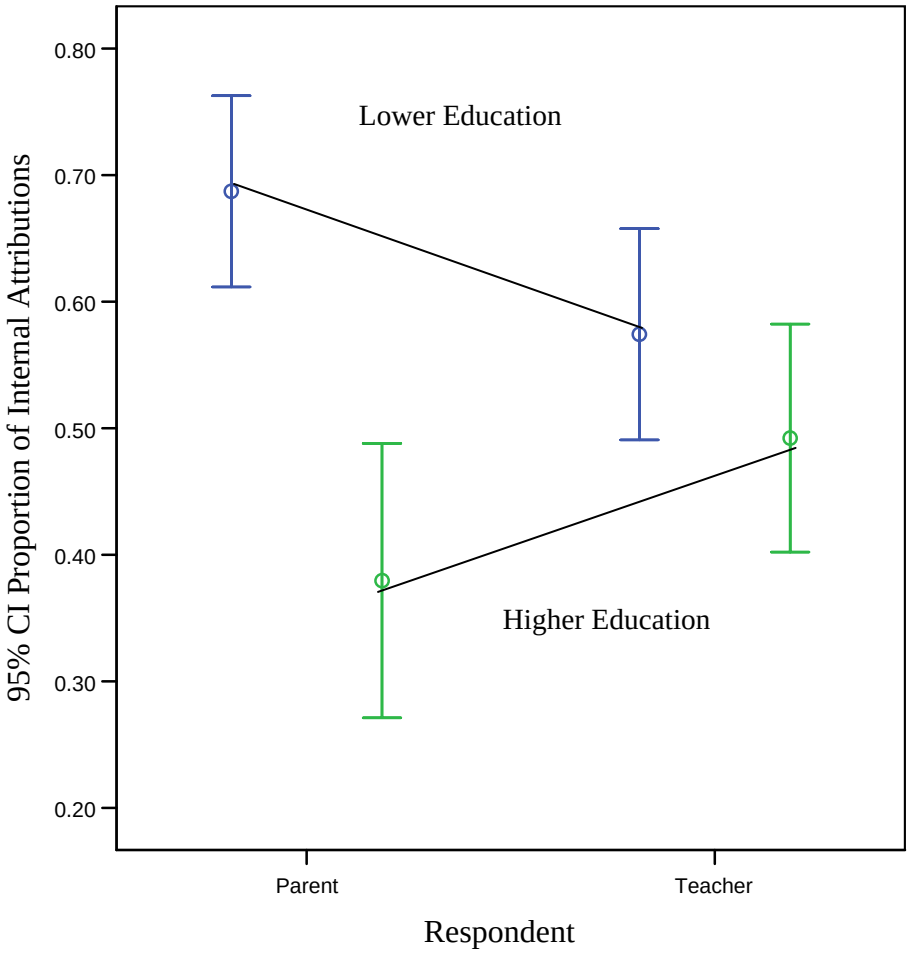

Figure 1 represents mean proportions of internal attributions for parents and teachers across the lower-education and higher-education vignette conditions. Specifically, within the figure, mean proportions are represented by the small circles. The horizontal lines extending above and below each small circle represent the 95%

confidence interval for that mean proportion. The mean proportion of internal attributions for parents who read the lower-education vignette is .69, with a 95% confidence interval that extends below the mean proportion to a proportion of .598, and above the mean proportion to a proportion of .776. The mean proportion of internal attributions for parents who read the higher-education vignette is .38, with a 95% confidence interval that extends below the mean proportion to a proportion of .291, and above the mean proportion to a proportion of .468. For the teachers, the mean proportion of internal attributions of the lower-education vignette respondents is .57, with a 95% confidence interval that extends below the mean proportion to a proportion of .484, and above the mean proportion to a proportion of .664. The mean proportion of internal attributions of the higher-education vignette respondents is .49, with a 95% confidence interval that extends below the mean proportion to a proportion of .407, and above the mean proportion to a proportion of .578.

A statistical interpretation of the data becomes a matter of visually examining the confidence intervals for all parents and teachers across vignette conditions to see which intervals overlap and which ones do not. Those that overlap are not significantly different statistically, while those confidence intervals that do not overlap are significantly different from one another to a 95% certainty. As seen above, the large gap between the parents who read the lower-education vignette (upper left bar) and parents who read the higher-education vignette (lower left bar) intervals represent a significant difference between groups. Additionally, a significant difference is seen between the parents who read the lower-education vignette and teachers who read the higher-education vignette

(far right bar). Effect sizes, using Cohen's *d*, for these two sets of significant group differences is .933 and .714, respectively. Based on Cohen's (1992) definition of a small effect size as 0.2 to 0.49, a medium effect size as 0.5 to 0.79, and a large effect size as 0.8 and greater, these effect sizes are large and medium, respectively.

Teacher and parent participants identified a total of 349 internal attributions and 274 external attributions. Overall, teachers and parents identified approximately the same number of internal and external attributions. However, ANOVA results revealed that the proportion of internal attributions depended on both who the respondent was, teacher or parent, and which vignette condition they read, lower- or higher-education. There was a statistically significant difference between the proportion of internal attributions identified by parents who read the lower-education vignette and parents who read the higher-education vignette. The difference between these two was considered to be large (effect size of .933). There was also a statistically significant difference between the proportion of internal attributions identified by parents who read the lower-education vignette and teachers who read the higher-education vignette. The difference between these two was considered to be medium (effect size of.714).

CHAPTER V

DISCUSSION

Three research questions were addressed in the study. They were:

1. To what do teachers and parents attribute perceived limited parental participation in specific parental involvement activities?
2. Do teachers differ from parents in the causal attributions (internal vs external) that they make for perceived limited parental participation in specific parental involvement activities?
3. Do parents and teachers differ in the internal attributions that they make about the perceived limited participation by lower-educated versus higher-educated parents in specific parental involvement activities?

For purposes of measurement, the operational description of parental involvement was narrowed to include parental response to tutoring worksheets sent home with the child and parental attendance at school meetings scheduled with the teacher. These activities of parental involvement are a part of most definitions of parental involvement and are easiest to isolate.

Research Findings

Research Question #1: To what do teachers and parents attribute perceived limited parental participation in specific parental involvement activities?

Results of this study showed that parents and teachers identified a higher number of internal attributions (349) to explain the vignette mother's limited participation in specific parental involvement activities than external attributions (274). Eight distinct

categories identified an internal locus of causality, while seven categories identified an external locus of causality. The majority of the internal attributions identified by parents and teachers were *the mother's views about the problem and involvement, the mother's physical, emotional, and mental status, and the mother's negative relationship with the school and teacher*. The majority of the external attributions identified had to do with *the mother's busy life*.

Several of the identified attributions for why the vignette mother was not involved in her child's schooling were described by Hoover-Dempsey and Sandler (1995) in their model of three contributors to parents' involvement. In regards to their first contributor, parent's role construction, identified attributions included that the mother did not think her involvement was important and she thought it was the school's responsibility.

The second contributor, parents' sense of efficacy for helping, is evident in the identified attributions that the vignette mother did not know how to help with the math. Finally, the third contributor is the parents' perceived invitations for help from the school, teacher, and child. In this study, life context attributions were also identified as possible reasons for the vignette mother's low rate of involvement.

Other attributions identified in this study do not appear to fit into any of these factors; however, they are important to consider. Some participants thought that the mother's internal beliefs included not caring, the problem was not as bad as it seemed, there was not a problem, or others should not tell her what to do. Parental attitudes such as these have been identified as family factors influencing parent involvement (Smith et al., 1997).

The identified attributions were similar to the reasons for low rates of parental involvement in other studies. For example, lack of parental skills and limited teacher knowledge about how to teach parents how to work with their children at home were cited as two possible reasons for low rates of parental involvement with their children's math (Gal & Stoudt, 1995). Parents' and teachers' reasons for a lack of parental involvement at a Title I Midwestern elementary school comprised of 60% African-American children were parents' views of involvement as unimportant or not following through with involvement tasks, conflicting views on who is responsible for helping the child, a negative relationship between families and schools, low parental education, lack of parenting skills, inflexible work schedules, and children not bringing materials home (Lawson, 2003). Lack of childcare and transportation were more frequently identified as a barrier to involvement for parents of fourth grade children in a southeastern school district where parents believed that the school climate was negative (Smith et al., 1997).

The causal attributions identified in this study are consistent with previous studies. Other studies have identified contributors, reasons, and barriers to parental involvement. This study attempted to conceptualize all these reasons, contributors, and barriers for low rates of specific parental involvement activities using attribution theory.

Research Question #2: Do teachers differ from parents in the causal attributions (internal versus external) that they make for perceived limited parental participation in specific parental involvement activities?

As you may recall, the "fundamental attribution error" is overestimating the influence of internal attributions on others and underestimating the influence of external

attributions (Martin, 1983). Based on the "fundamental attribution error" (Kelley & Michela, 1980), it was hypothesized that teachers' and parents' causal attributions would differ, with teachers identifying a higher proportion of internal attributions about parents and parents identifying a higher proportion of external attributions. This hypothesis was not supported. The mean difference between the proportion of internal attributions for parents and teachers was .000. Overall, teachers and parents made the same proportion of internal attributions about the mother in the vignette.

This hypothesis may not have been supported because the "fundamental attribution error" may not be applicable to this particular situation. First, it was expected that only teachers, not parents, would overestimate the influence of internal attributions and underestimate the influence of external attributions on the vignette mother's limited participation in specific parental involvement activities. It was assumed that the parent participants were a close enough approximation to the vignette mother that they would be judging themselves'. However, the parent participants were not judging themselves, but instead were judging hypothetical parents. The "fundamental attribution error" only applies when participants are judging themselves in addition to someone else.

Second, participants in this study may be better able to identify with the vignette mother than participants in studies conducted 33 years ago. Family cultures are different today than they were when Nisbett and colleagues (1973) first introduced the concept of the "fundamental attribution error." There are more working mothers, single-parent families, and more life contexts that produce more stress on a family. Today, people in general may be more prone to understanding other's perspectives.

Research Question #3: Do parents and teachers differ in the internal attributions that they make about the perceived limited participation by lower-educated versus higher-educated parents in specific parental involvement activities?

Parents and teachers in this study differed in the attributions that they made about the perceived limited participation by lower-educated versus higher-educated parents in specific parental involvement activities. The results of the ANOVA showed a significant interaction for respondent and vignette education. The difference between the proportion of internal attributions for the lower-educated mother and the proportion of internal attributions for the higher-educated mother was larger for parents (mean difference = .31) than for teachers (mean difference = .08). This indicates that parents identified a significantly higher proportion of internal attributions than teachers did for the vignette mother who was a high school drop out relative to the vignette mother who had a college degree.

Based on Caspe's (2003) research on teachers' understanding of families and attribution theory (Kelley & Michela, 1980), it was hypothesized that teachers would attribute perceived limited parental participation in specific parental involvement activities to reasons within the parent (internal causality) for lower-educated parents and to reasons outside the parent (external causality) for higher-educated parents. Given the results of the analysis, this hypothesis was supported. However, this was true for both teachers and parents. Both teachers and parents identified a significantly higher proportion of internal attributions for the lower-educated mother than the higher-educated mother. However, as the significant interaction indicates, the parent respondents showed

a greater, and significant, mean difference between the proportion of internal attributions for the lower-educated and higher-educated mothers than the teacher respondents.

Again, considering the “fundamental attribution error” the opposite would be expected. One would expect teacher participants to make more internal attributions for the lower-educated mother than parent participants. However, as previously stated, parent participants were not judging themselves and may not have believed that the vignette mother was similar to themselves. Therefore, the parent participants may tend to make more internal attributions to explain the negative behavior of someone else, in this case the vignette mother.

Other researchers have shown that parents’ and teachers’ reasons for low rates of parental involvement have differed. For example, low-income parents identified barriers to parental involvement that were external to them, such as the teacher not initiating communication and their children not bringing home flyers with opportunities for involvement (Lawson, 2003). Teachers in the same study identified reasons that were internal to the low-income parents, such as lack of skill and low importance for education. These teachers also acknowledged external reasons for employed parents, such as inflexible work schedules, but external reasons were not identified for unemployed parents.

Limitations

Design and Internal Validity

The results of this study should be interpreted with the following cautions in mind. A source of threat to internal validity is the reliability of measures and procedures.

Parent and teacher respondents read a hypothetical vignette with limited information. Parental involvement of the vignette mothers was not fully described. Parent involvement was defined as what parents do to enhance their children's schooling success and strengthen the communication they have with their children's school. This definition encompassed home-based activities, school-based activities, and home-school collaboration. Home-based involvement entails parenting activities, personal resources, learning at home, and cognitive-intellectual resources. School-based involvement entails parents helping and supporting schools through volunteering in classrooms, attending sporting events and concerts, and helping with fundraising activities. Finally, home-school collaboration includes communication between home and school or parent and teacher (e.g., parent-teacher conferences), decision making (e.g., PTA/PTO), and school collaboration with the community (e.g., identifying services and resources for schools and families). However, for measurement purposes, the operational description of parental involvement was narrowed to include parental response to tutoring worksheets sent home with the child and parental attendance at school meetings scheduled with the teacher. This description is by no means comprehensive. Limited ways that the vignette mother could have been involved were described but other ways that she may have been involved were not discussed. Therefore, the participants' understanding of "parental involvement" may have been vague. This study assessed attributions based on the respondent's perceptions of the vignette parent's involvement activities. Perhaps the results would be different if the description of parental involvement were broadened. Of

additional importance is that parental involvement is not just about what parents do but also about the relationship between parents and school staff.

Additionally, circumstances regarding the vignette family's life were implied with a few descriptions and a picture of their home. The mother in both vignettes was described as single. A low socioeconomic status was implied in one of the vignettes with further description of the mother as never having graduated from high school, working as a housekeeper, and living in a small, one-story house. A higher socioeconomic status was implied in the other vignette with the description of the mother as a college graduate, working as a lawyer, and living in a larger, two-story house. It is possible that respondents made assumptions beyond the given information.

Although this study intended to understand low rates of specific parental involvement activities from the perspective of parents, the method used may not have captured the parents' perspectives about their own involvement. It was assumed that parent respondents would identify with the vignette mother and write their reasons for low rates of involvement. However, parent respondents were asked to provide reasons regarding someone else's limited parental participation in specific parental involvement activities, not their own.

Another source of threat to internal validity is selection. Although the participants were randomly assigned to vignette groups, the sample only included parents who attended parent-teacher conferences. This sample of parents may be a biased sample of parents. It is possible that whatever prompted these parents to attend parent-teacher

conferences and complete the questionnaire, not the vignette itself, caused the observed proportion of internal attributions.

External Validity and Generalizability

The generalizability of the identified causal attributions for perceived limited parental participation in specific parental involvement activities may be limited. First, participating schools were located in one city in the Midwest. Second, the majority of the teachers were female (83%), Caucasian (86%), and teaching less than 10 years (60%). Third, the majority of the parents were mothers (77%), Caucasian (86%), and attended college (69%). Finally, only English speaking parents and teachers were asked to participate.

Analysis and Statistical Power

The sample size was analyzed to be appropriate for maintaining 88% power to detect a moderate effect size (Cohen's $f = .25$). In fact, the difference between the mean proportion of internal attributions between parents who read the lower-education vignette and parents who read the higher-education vignette and teachers who read the higher-education vignette was large (Cohen's $d = .933$) and medium (Cohen's $d = .714$), respectively. However, given that the sample was predominantly Caucasian and female, it was not possible to analyze the data by respondent ethnicity or gender.

Measurement

The Attribution Questionnaire is a researcher-created measure. There is no known validity or reliability information outside of that collected in this study. Nominal

data were used to categorize the vignette mother in a lower-education or higher-education group based on limited information. Even though the method for coding the responses was developed from previous coding schemes, the method for parsing the responses into separate attributions was created by the researcher. The coding of responses was piloted with undergraduate students working on teaching degrees rather than practicing teachers. Although the coding of responses was piloted by the researcher, the final vignette was not.

General Implications of Findings

Theoretical Implications

The theoretical rationale for attributions regarding low rates of specific parental involvement activities has important implications for improving parental participation in children's schooling. The expected differences in causal attributions between parents and teachers were not found in this study. The majority of attributions identified by both parents and teachers were internal. Based on the "fundamental attribution error," it was expected that teachers would make more internal attributions and parents would not. However, this was not the case. In fact, parent participants identified a significantly higher proportion of internal attributions for the lower-educated vignette mother than any of the other scenarios. Attribution theory could still provide an explanation for low rates of specific parental involvement activities in schooling and for strained parent/teacher relations if parents were judging their own behavior rather than that of hypothetical vignette parents.

Research Implications

The findings showed that parents and teachers in this study do make different attributions for perceived limited parental participation in specific parental involvement activities based on the education level achieved by the vignette mother and corresponding smaller or larger house lived in. Therefore, continued research of causal attributions for low rates of specific parental involvement activities is important. This research failed to find expected differences between parent and teacher participants' causal attributions for the lower- versus higher-educated mother in the vignette. This could be because a vignette was used instead of personal experience. It is also possible that the picture of the mother's house influenced responses. Furthermore, it is possible that parents and teachers do not differ that much in their attributions. Future researchers should assess attributions for low rates of specific parental involvement activities by asking parents, teachers, and students about actual involvement activities and frequencies rather than through the use of a hypothetical situation.

Applied Implications

Results of this study suggest that: (a) there are several possible attributions for limited parental participation in specific parental involvement activities, (b) some attributions may be circumstantial, whereas others may be personal characteristics, and (c) attributions made by parents and teachers can differ depending on the characteristics of the parents. This study demonstrated that teachers and parents drew conclusions about limited parental participation in specific parental involvement activities based on very little information. They attributed it to several internal and external reasons. Internal

reasons included not caring, denying there was a problem, thinking it was the school's responsibility, being tired or stressed, personal issues, being uncomfortable at the school, not knowing how to help, being embarrassed, lack of parenting skills, and a poor relationship with her child. External reasons included having multiple responsibilities, being too busy with work and parenting, the child did not keep her informed, the school scheduled meeting times that were inconvenient, the teacher was negative, a lack of resources, poor relationships, and other adults not helping. While some of these reasons may be accurate for some parents, other may be misunderstandings and inaccurate conclusions.

The same may be true regarding the attributions parents believe. Although this study's results were not in the direction expected (that is parents did not identify a higher proportion of external attributions) it is possible that in some situations parents do attribute low rates of involvement to external factors. For example, if parents believe that school staff are not scheduling meetings at convenient times or providing adequate information on how to help, they may place the blame for their children's difficulties on school staff. Consequently, they may leave it up to school staff to resolve the problem.

These views may lead to strained relationships, conflict, and a lack of problem-solving. It is important for both teachers and parents to be aware of and understand what they, and each other, attribute low rates of specific parental involvement activities to. This will allow for an open discussion of factors contributing to low rates and how to overcome them, instead of placing blame and passing the buck.

School psychologists can help foster greater levels of parental involvement by considering the aforementioned attributions when working with teachers and parents. School psychologists can lead efforts to find out what specific reasons prohibit, or may potentially prohibit, involvement by parents in their school and generate ideas on how to address those reasons. One way this can be done is to form committees consisting of school staff and parents to survey parents and teachers, review data, inform teachers and parents of results to spark discussions, and formulate school- or class-wide plans to increase parent involvement.

Future Directions

Further assessment is needed of the attributions held by parents, teachers, and students regarding parental involvement and family-school partnerships. This could be done by replicating the current study with a more diverse sample. For example, the recruitment of more male parents and teachers would allow for gender differences to be examined. In addition, an ethnically-diverse sample would allow for the examination of varying attributions based on ethnicity. Replications of the current study, using hypothetical vignettes and surveys of both involved and uninvolved parents, would also be useful. This study was limited to parents attending parent-teacher conferences. These parents could be considered involved to a certain extent. A sample of parents that contained parents exhibiting varying levels of involvement may generate different results.

Future researchers should examine similarities and differences in attributions of parents and teachers in different regions of the country, in areas where cultural values are prominent or of varying cultures, in public versus private schools, in schools with varying

philosophies and styles of teaching, in schools where more than one language is spoken, and in alternative schools, to name a few. It is important for teachers, school administrators, and parents to be aware of the specific attributions that may be inhibiting parental involvement.

Future studies are needed to determine the most effective ways to measure attributions. Devising new ways to measure attributions would be beneficial to determine if the method produces different results. One way this could be done is by assessing attributions related to real situations, not hypothetical.

Of additional importance to research is defining a clear, specific, and ecological definition of parental involvement that encompasses school- and home-based activities as well as home-school collaboration. Parental involvement is not just about what parents do, but also about the relationship between parents and school staff. As evident from this dissertation's review of the literature, the way that parental involvement is defined varies. Additionally, the operational description of parental involvement used in this study was very narrow. If the operational description were broadened to encompass more actions, interactions, and processes, it is possible that more or fewer attributions would be generated, or the proportion of internal attributions would differ. This is an important consideration for future researchers.

This study represented socioeconomic status with parents' education level and occupation, along with a picture of the family's house. However, these variables alone do not capture a family's social standing. Significant differences were found between some of the respondents based on socioeconomic status, but would they have been found

if more information was given? It will be important for future research to broaden the conceptualization and measurement of socioeconomic status. Ideally, further research on attributions for low rates of specific parental involvement activities would lead to consistent findings that could generalize to several populations, ultimately increasing parental involvement and improving family-school relationships.

REFERENCES

Antshel, K. M., Brewster, S., & Waisbren, S. E. (2004). Child and parent attributions in chronic pediatric conditions: Phenylketonuria (PKU) as an exemplar. *Journal of Child Psychology and Psychiatry, 45*, 622-630.

Baker, A. J. L., Kessler-Sklar, S., Piotrkowski, C. S., & Parker, F. L. (1999). Kindergarten and first-grade teachers' reported knowledge of parents' involvement in their children's education. *The Elementary School Journal, 99*, 367-383.

Becker, H. & Epstein, J. L. (1982). Parent involvement: A survey of teacher practices. *Elementary School Journal, 83*, 85-102.

Blumer, H. (1969). *Symbolic interactionism: Perspectives and methods.* Englewood Cliffs, NJ: Prentice-Hall.

Bourdieu, P. (1977). Cultural reproduction and social reproduction. In J. Karabel & A. Halsey (Eds.), *Power and ideology in education* (pp. 487-511). New York: Oxford University Press.

Brody, G. H., Stoneman, Z., & Flor, D. (1995). Linking family processes and academic competence among rural African American youths. *Journal of Marriage and the Family, 57*, 567-579.

Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge, MA: Harvard University Press.

Callahan, K., Rademacher, J. A., & Hildreth, B. L. (1998). The effect of parent

participation in strategies to improve the homework performance of students who are at risk. *Remedial and Special Education, 19*, 131-141.

Caspe, M. S. (2003). How teachers come to understand families. *School Community Journal, 13*, 115-131.

Chen, X., & Chandler, K. (2001). *Efforts by public K-8 schools to involve parents in children's education: Do school and parent reports agree?* (NCES 2001-076). Washington, DC: US Department of Education. National Center for Educational Statistics. ED458256. http://nces.ed.gov/pubresearch/index.asp.

Christenson, S. L. (1995). Best practices in supporting home-school collaboration. In A. Thomas, & J. Grimes (Eds.), *Best practices in School Psychology-III* (pp. 253-267). Washington, DV: National Association of School Psychologists.

Christenson, S. L. (2004). The family-school partnership: An opportunity to promote the learning competence of all students. *School Psychology Review, 33*, 83-10.

Christenson, S. L., & Conoley, J. C. (1992). *Home-school collaboration: Enhancing children's academic and social competence.* Silver Spring, MD: National Association of School Psychologists.

Christenson, S. L., & Hirsch, J. A. (1998). Facilitating partnerships and conflict resolution between families and schools. In K. C. Stoiber, & T. R. Kratochwill (Eds.), *Handbook of group intervention for children and families* (pp. 307-344). Needham Heights, MA: Allyn & Bacon.

Christenson, S. L., & Sheridan, S. M. (2001). *Schools and families: Creating essential connections for learning.* NY: The Guildford Press.

Clark, M. D. (1997). Teacher response to learning disability: A test of attributional principles. *Journal of Learning Disabilities, 30*, 69-79.

Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement, 20*, 37-46.

Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*, 155-159.

Collins, C. H., Moles, O. C., & Cross, M. (1982). *The home-school connection: Selected partnership programs in large cities.* Boston Institute for Response Education.

Comer, J. P. (1988). Educating poor minority children. *Scientific American, 259*, 42-48.

Comer, J. P., & Haynes, N. M. (1991). Parent involvement in school: An ecological approach. *The Elementary School Journal, 91*, 271-278.

Crick, N. R. (1995). Relational aggression: The role of intent attributions, feelings of distress, and provocation type. *Development and Psychopathology, 7*, 313-322.

Crick, N. R., Grotpeter, J. K., & Bigbee, M. A. (2002). Relationally and physically aggressive children's intent attributions and feelings of distress for relational and instrumental peer provocations. *Child Development, 73*, 1134-1142.

Cumming, G., & Finch, S. (2005). Inference by eye: Confidence intervals, and how to read pictures of data. *American Psychologist, 60*, 170–180.

Dauber, S. L., & Epstein, J. L. (1993). Parents attitudes and practices of involvement in inner-city elementary and middle schools. In N. F. Chavkin (Ed.), *Families and schools in a pluralistic society* (pp. 53-71). Albany: State University of New York Press.

Davies, D. (1993). Benefits and barriers to parent involvement: from Portugal to Boston to Liverpool. In N. F. Chavkin (Ed.), *Families and schools in a pluralistic society* (pp. 53-72). Albany: State University of New York Press.

Davies, D. (2002). The 10th school revisited: Are school/family/community partnerships on the reform agenda now? *Phi Delta Kappan, 83*, 388-392.

Desimone, L. (2001). Linking parent involvement with student achievement: Do race and income matter? *The Journal of Educational Research, 93*, 11-30.

Dodge, K. A., & Frame, C. L. (1982). Social cognitive biases and deficits in aggressive boys. *Child Development, 55*, 163-173.

Dornbusch, S. M., & Ritter, P. L. (1988). Parents of high school students: A neglected resource. *Educational Horizons, 66*, 75-77.

Drummond, K. V., & Stipek, D. (2004). Low-income parents' beliefs about their role in children's academic learning. *The Elementary School Journal, 104*, 197-213.

Earn, B. M., & Sobol, M. P. (1990). A categorical analysis of children's attributions for social success and failure. *Psychological Record, 40*, 173-185.

Eccles, J. S., & Harold, R. D. (1993). Parent-school involvement during the early adolescent years. *Teachers College Record, 94*, 568-587.

Eccles, J. S., & Harold, R. D. (1996). Family involvement in children's and adolescents' schooling. In A. Booth & J. Dunn (Eds.), *Family–school links: How do they affect educational outcomes?* (pp. 3-34). Mahwah, NJ: Lawrence Erlbaum.

Epstein, J. L. (1984). School policy and parent involvement: Research results. *Educational Horizons, 62*, 70-72.

Epstein, J. L. (1985). Home and school connections in schools of the future: Implications of research on parent involvement. *Peabody Journal of Education, 62,* 18-41.

Epstein, J. L. (1986). Parents' reactions to teacher practices of parent involvement. *The Elementary School Journal, 86,* 277-294.

Epstein, J. L. (1987a). Parent Involvement: What research says to administrators. *Education and Urban Society, 19,* 229-137.

Epstein, J. L. (1987b). What principals should know about parent involvement. *Principal, 66,* 6-9.

Epstein, J. L. (1990). School and family connections: Theory, research, and implications for integrating sociologies of education and family. *Marriage and Family Review, 15,* 99-126.

Epstein, J. L. (1991). Effects on student achievement of teacher's practices of parent involvement. In S. Silver (Ed.), *Literacy through family, community and school interaction* (pp. 261-276). Greenwich, CT: JAI Press.

Epstein, J. L. (1995). School / family / community partnerships: Caring for the children we share. *Phi Delta Kappan, 76,* 701-712.

Epstein, J. L. (2005a). Attainable goals? The spirit and letter of the No Child Left Behind Act on parental involvement. *Sociology of Education, 78,* 179-182.

Epstein, J. L. (2005b). A case study of the partnership schools comprehensive school reform (CSR) model. *The Elementary School Journal, 106,* 151-170.

Epstein, J. L., & Becker, H. J. (1982). Teacher reported practices of parent involvement:

Problems and possibilities. *Elementary School Journal, 83*, 103-113.

Epstein, J. L., Coates, L., Salinas, K. C., Sanders, M. G., & Simon, B. S. (1997). *School, family, and community partnerships: Your handbook for action*. Thousand Oaks, CA: Corwin Press, Inc.

Epstein, J. L,. & Dauber, S. L. (1991). School programs and teacher practices of parent involvement in inner-city elementary and middle schools. *Elementary School Journal, 91*, 291-305.

Epstein, J. L, & Lee, S. (1995). National patterns of school and family connections in the middle grades. In B. A. Ryan, G. R. Adams, T. P. Gullotta, R P. Weissberg, & R. L. Hampton (Eds.), *The family-school connection: Vol. 2. Theory research and practice* (pp. 108-154). Thousand Oaks: Sage.

Epstein, J. L., & Sheldon, B. (2002). Present and accounted for: Improving student attendance through family and community involvement. *The Journal of Educational Research, 95*, 308-318.

Fan, X., & Chen, M. (2001). Parental involvement and students' academic achievement: A meta-analysis. *Educational Psychology Review, 13*, 1-22.

Fantuzzo, J. W., Tighe, E., & Childs, S. (2000). Family involvement questionnaire: A multivariate assessment of family participation in early childhood education. *Journal of Educational Psychology, 92*, 367-376.

Fantuzzo, J., McWayne, C. Perry, M. A., & Childs, S. (2004). Multiple dimensions of family involvement and their relations to behavioral and learning competencies for urban, low-income children. *School Psychology Review, 33*, 467-480.

Feuerstein, A. (2000). School characteristics and parent involvement: Influences on participation in children's schools. *The Journal of Educational Research, 94*, 29-54.

Fine, M. (1990). Facilitating home-school relationships: A family-oriented approach to collaborative consultation. *Journal of Educational and Psychological Consultation, 1*,169-187.

Gaitan, C. D. (2004). *Involving Latino families in schools: Raising student achievement through home-school partnerships*. Thousand Oaks, CA: Corwin Press.

Gal, I., & Stoudt, A. (1995, September). Family achievement in mathematics. *NCAL Connections*, 9-10.

Georgiou, S. N. (1997). Parental involvement: Definition and Outcomes. *Social Psychology of Education, 1*, 189-209.

Georgiou, S. N. (1999). Parental attributions as predictors of involvement and influences on child achievement. *British Journal of Educational Psychology, 69*, 409-429.

Gettinger, M., & Guetschow, K. W. (1998). Parental involvement in schools: Parent and teacher perceptions of roles, efficacy, and opportunities. *Journal of Research and Development in Education, 32*, 38-52.

Gonzalez-DeHass, A. R., & Willems, P. P. (2003). Examining the underutilization of parent involvement in the schools. *The School Community Journal, 13*, 85-99.

Graham, S., & Weiner, B. (1986). From attribution theory to developmental psychology: A round-trip ticket? *Social Cognition, 4*, 152-179.

Graue, E., Clements, M.A. Reynolds, A. J., & Niles M. D. (2004). More than teacher

directed or child initiated: Preschool curriculum type, parent involvement, and children's outcomes in the child-parent centers. *Educational Policy Analysis Archives, 12*(72) 1-38. Retrieved May, 2007 from http://epaa.asu.edu/epaa/v12n72.

Griffith, J. (1996). Relation of parental involvement, empowerment, and school traits to student academic performance. *Journal of Educational Research, 90,* 33-41.

Grolnick, W. S., Benjet, C., Kurowski, C. O., & Apostoleris, N. H. (1997). Predictors of parent involvement in children's schooling. *Journal of Educational Psychology, 89,* 538-548.

Grolnick, W. S., & Slowiaczek, M. L. (1994). Parents' involvement in children's schooling: A multidimensional conceptualization and motivational model. *Child Development, 64*, 237-252.

Guttmann, J. (1982). Pupils', teachers', and parents' causal attributions for problem behavior at school. *Journal of Educational Research, 76,* 14-21.

Heider, F. (1958). *The psychology of interpersonal relations.* New York: Wiley.

Henderson (1989). The evidence continues to grow: Parent involvement improves student achievement. Columbia, MD: National Committee for Citizens in Education.

Henderson, A. T., & Mapp, K. L. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement.* Austin, TX: Southwest Educational Development Laboratory.

Heymann, S. J., & Earle, A. (2000). Low-income parents: How do working conditions

affect their opportunity to help school-age children at risk? *American Educational Research Journal, 37*, 833-848.

Hill, N. E., Castellino, D. R., Lansford, J. E., Nowlin, P., Dodge, K. A., Bates, J. E., & Pettit, G. S. (2004). Parent academic involvement as related to school behavior, achievement, and aspirations: Demographic variations across adolescence. *Child Development, 75*, 1491-1509.

Ho, B. S. (2002). Application of participatory action research to family-school intervention. *School Psychology Review, 31*, 106-121.

Hoover-Dempsey, K. V., & Sandler, H. M. (1995). Parental involvement in children's education: Why does it make a difference? *Teachers College Record, 97*, 310-331.

Hoover-Dempsey, K.V., Bassler, O. C., & Brissie, J. S. (1987). Parent involvement: Contributions of teacher efficacy, school socioeconomic status, and other school characteristics. *American Educational Research Journal, 24*, 417-435.

Hoover-Dempsey, K. V., Bassler, O. C., & Brissie, J. S. (1992). Explorations in parent-school relations. *Journal of Educational Research, 85*, 287-294.

Hoover-Dempsey, K. V., Walker, J. M. T., Sandler, H. M., Whetsel, D., Green, C. L., Wilkins, A. S., & Closson, K. (2005). Why do parents become involved? Research findings and implications. *The Elementary School Journal, 106, 105-130.*

Holloway, S. D., Rambaud, M. F. Fuller, B., & Eggers-Pierola, C. (1995). What is

"Appropriate Practice" at home and in child care?: Low-income mothers' views on preparing their children for school. *Early Childhood Research Quarterly, 10*, 451-473.

Hong, S., & Ho, H-Z. (2005). Direct and indirect longitudinal effects of parental involvement on student achievement: Second-order latent growth modeling across ethnic groups. *Journal of Educational Psychology, 97*, 32-42.

Horowitz, D. L. (1975). Ethnic identity. In N. Glazer & D. P. Moynihan (Eds.), *Ethnicity: Theory and experience* (pp. 111-140). Cambridge, MA: Harvard University Press.

Izzo, C. V., Weissberg, R. P., Kasprow, W. J., & Fendrich, M. (1999). A longitudinal assessment of teacher perceptions of parental involvement in children's education and school performance. *American Journal of Community Psychology, 27*, 817-839.

Jeynes, W. H. (2005). A meta-analysis of the relation of parental involvement to urban elementary school student academic achievement. *Urban Education, 40*, 237-29.

Johnston, C., Reynolds, S., Freeman, W. S., & Geller, J. (1998). Assessing parent attributions for child behavior using open-ended questions. *Journal of Clinical Child Psychology, 27*, 87-97.

Joshi, A., & Ferris, J. C. (2002). Causal attributions regarding conflicts between friends in middle childhood. *Social Behavior and Personality, 30*, 65-74.

Keith, T. Z. (1991). Parent involvement and achievement high school. In S. Silvern

(Ed.), *Advances in reading/language research: Literacy through family, community, and school interaction* (Vol. 5). (pp. 125-141). Greenwich, CT: JAI Press.

Keith, T. Z., & Keith, P. B. (1993). Does parental involvement affect eighth-grade student achievement? Structural analysis of national data. *School Psychology Review, 22*, 474-494.

Keith, T.Z., Reimers, T. M., Fehrmann, P. G., Pottebaum, S. M., & Aubey, L. W. (1986). Parental involvement, homework, and TV times: Direct and indirect effects on high school achievement. *Journal of Educational Psychology, 78*, 373-380.

Kellaghan, T., Sloan, K., Alvarez, B., & Bloom, B. S. (1993). *The home environment and school learning*. San Francisco: Jossey-Bass.

Kelley, H. H., & Michela, J. L. (1980). Attribution theory and research. *Annual Review of Psychology, 31*, 457-501.

Keltikangas-Jarvinen, L. (1989). Attributional style of the mother as a predictor of aggressive behavior of the child. *Aggressive Behavior, 16*, 1-7.

Kohl, G. O., Lengua, L. J., & McMahon, R. J. (2000). Parent involvement in school: conceptualizing multiple dimensions and their relations with family and demographic risk factors. *Journal of School Psychology, 38*, 501-523.

Landis, J. R., & Koch, G. G. (1977). The measurement of observer agreement for categorical data. *Biometrics, 33*, 159-174.

Lareau, A. (1987). Social class difference in family-school relationships: The importance of cultural capital. *Sociology of Education, 60*, 73-85.

Lareau, A. (1989). *Home advantage: Social class and parental intervention in elementary education.* London: Falmer.

Lawson, M. A. (2003). School-family relations in context: Parent and teacher perceptions of parent involvement. *Urban Education, 38*, 77-133.

Lazar, I., & Darlington, R. B. (1978). *Summary: Lasting effects after preschool*. Ithaca, NY: Cornell University Consortium for Longitudinal Studies. (ERIC Document Reproduction Service No. ED 175 523).

Lazar, A., & Slostad, F. (1999). How to overcome obstacles to parent-teacher partnerships. *The Clearing House, 72*, 206-210.

Leichter, H. J. (1974). *The family as educator*. New York: Teachers College Press.

Majoribanks, K. (1979). Family environments. In H. J. Walberg (Ed.), *Educational environments and effects* (pp. 15-37). Berkeley, CA: McCutchan.

Manz, P. H., Fantuzzo, J. W., Power, T. J. (2004). Multidimensional assessment of family involvement among urban elementary students. *Journal of School Psychology, 42*, 461-475.

Mapp, K. L. (2003). Having their say: Parents describe why and how they are engaged in their children's learning. *The School Community Journal, 13*, 35-64.

Martin, R. P. (1983). Consultant, consultee, and client explanations of each others behavior in consultation. *School Psychology Review, 12*, 35-41.

McDowell, D. J., Parke, R. D., & Spitzer, S. (2002). Parent and child cognitive representations of social situations and children's social competence. *Social Development, 11*, 469-486.

McWayne, C., Hampton, V., Fantuzzo, J., Cohen, H. L., & Sekino, Y. (2004). A multivariate examination of parent involvement and the social and academic competencies of urban kindergarten children. *Psychology in the Schools, 41,* 363-377.

Miedel, W. T., & Reynolds, A. J. (1999). Parent involvement in early intervention for disadvantaged children: Does it matter? *Journal of School Psychology, 37,* 379-402.

Mills, R. S. L., & Rubin, K. H. (1990). Parental beliefs about problematic social behaviors in early childhood. *Child Development, 61,* 138-150.

Moles, O.C. (1993). Collaboration between schools and disadvantaged parents: Obstacles and openings. In N. F. Chavkin (Ed.), *Families and schools in a pluralistic society* (pp. 21-49). Albany: State University of New York.

Munton, A. G., Silverster, J., Stratton, P., & Hanks, H. (1999). *Attributions in action: A practical approach to coding qualitative data.* NY: John Wiley & Sons.

Nasby, W., Hayden, B., & DePaulo, B. M. (1980). Attributional bias among aggressive boys to interpret unambiguous social stimuli as displays of hostility. *Journal of Abnormal Psychology, 89,* 459-468.

Nisbett, R. E., Caputo, C. G., Legant, P., & Marocek, J. (1973). Behavior as seen by the actor and as seen by the observer. *Journal of Personality and Social Psychology, 27,* 154-164.

Pelco, L. E., Jacobson, L., Ries, R. R., & Melka, S. (2000). Perspectives and practices in

family-school partnerships: A national survey of school psychologists. *School Psychology Review, 29*, 235-250.

Porter De Cusati, C. L., & Johnson, J. E. (2004). Parents as classroom volunteers and kindergarten students' emergent reading skills. *Journal of Educational Research, 97*, 235-246.

Quiggle, N., Garber, J., Panak, W., & Dodge, K. A., (1992). Social-information processing in aggressive and depressed children. *Child Development, 63, 1305-1320.*

Ramirez, A.Y. (2001). Parent involvement is like apple pie: A look at parental involvement in two states. *High School Journal, 85*, 1-9.

Robins, R. W., Mendelsohn, G. A., Connell, J. B., & Kwan, V. S. Y. (2004). Do people agree about the causes of behavior? A social relations analysis of behavior ratings and causal attributions. *Journal of Personality and Social Psychology, 86*, 334-344.

Rotter, J. B. (1965). Internal versus external control of reinforcement and decision time. *Journal of Personality & Social Psychology, 2*, 598-604.

Russell**,** D. W., McAuley, E., & Tarico, V. (1987). Measuring causal attributions for success and failure: A comparison of methodologies for assessing causal dimensions. *Journal of Personality and Social Psychology, 52*, 1248-1257.

Sanders, M. G., & Herting**,** J. R. (2000). Gender and the effects of school, family, and church support on the academic achievement of African-American urban adolescents. In M. G. Sanders (Ed.), *Schooling students placed at risk:*

Research, policy, and practice in the education of poor and minority adolescents. (pp. 141-161). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.

Scott-Jones, D. (1995). Parent-child interactions and school achievement. In B. A. Ryan, G. R. Adams, T. P. Gullotta, R P. Weissberg, & R. L. Hampton (Eds.), *The family-school connection: Vol. 2. Theory research and practice* (pp. 75-109). Thousand Oaks: Sage.

Seeley, D. S. (1981). *Education through partnership: Mediating structures and education.* Cambridge, MA: Ballinger.

Senechal, M., & LeFevre, J. (2002). Parental involvement in the development of children's reading skill: A five-year longitudinal study. *Child Development, 73*, 445-460.

Shartrand, A., Kreider, H., & Erickson-Warfield, H. (1994). *Preparing teachers to involve parents: A national survey of teacher education programs*. Cambridge, MA: Harvard Family Research Project.

Shaver, A. V., & Walls, R. T. (1998). Effects of Title I parent involvement on student reading and mathematics achievement. *Journal of Research and Development in Education, 31*, 90-97.

Sheldon, S. B. (2002). Parents' social networks and beliefs as predictors of parent involvement. *Elementary School Journal, 102*, 301-316.

Sheldon, S. B., & Epstein, J. L. (2005). Involvement counts: Family and community

partnerships and mathematics achievement. *The Journal of Educational Research, 98*, 196-206.

Sheridan, S. M., & Kratochwill, T. R. (1992). Behavioral parent-teacher consultation: Conceptual and research considerations. *Journal of School Pyschology, 30*, 117-139.

Shores, E. F. (1998). *A call to action: Family involvement as a critical component of teacher education programs*. Tallahassee, FL: South Eastern Regional Vision for Education.

Shumow, L., & Miller, J. D. (2001). Parents' at-home and at-school academic involvement with young adolescents. *Journal of Early Adolescence, 21*, 68-91.

Simon, B. S. (2004). High school outreach and family involvement. *Social Psychology of Education, 7*, 185-209.

Smith, E. P., Connell, C. M., Wright, G., Sizer, M., Norman, J. M, Hurley, A., & Walker, S. N. (1997). An ecological model of home, school, and community partnerships: Implications for research and practice. *Journal of Educational and Psychological Consultation, 8*, 339-360.

Stevenson, D. L., & Baker, D. P. (1987). The family-school relation and the child's school performance. *Child Development, 58*, 1348-1357.

Thornburg, K. R., Hoffman, S., & Remeika, C. (1991). Youth at risk: Society at risk. *The Elementary School Journal, 91*, 199-208.

U.S. Department of Education (1997). *Fathers' involvement in their children's schools.*

Washington, DC: National Center fro Educational Statistics, Office of Educational Research and Improvement.

Walberg, H. J. (1984). Families as partners in educational productivity. *Phi Delta Kappan, 65*, 397-400.

Walker, J. M. T., Wilkins, A. S., Dallaire, J. R., Sandler, H. M., & Hoover-Dempsey, K. V. (2005). Parental involvement: Model revision through scale development. *The Elementary School Journal, 106*, 85-104.

Weiner, B. (1972a). *Theories of motivation: From mechanism to cognition.* Chicago: Markham Publishing Company.

Weiner, B. (1972b). Attribution theory, achievement motivation, and the educational process. *Review of Educational Research, 42*, 203-215.

Weiner, B. (1985). An attributional theory of achievement motivation and emotion. *Psychological Review, 92*, 548-573.

Weiss, H. B., Mayer, E., Kreider, H., Vaughan, M., Dearing, E., Hencke, R., & Pinto, K. (2003). Making it work: Low-income working mothers' involvement in their children's education. *American Educational Research Journal, 40*, 879-901.

Wentzel, K. R. (1999). Social-motivational processes and interpersonal relationships: Implications for understanding motivation at school. *Journal of Educational Psychology, 91,* 76-97.

Witt, J.C., Hannafin, M. J., & Marten, B. K. (1983). Home-based reinforcement: Behavioral covariation between academic performance and inappropriate behavior. *Journal of School Psychology, 21,* 337-348.

Wright, G., & Smith, E. P. (1998). Home, school, and community partnerships: Integrating issues of race, culture, and social class. *Clinical Child and Family Psychology Review, 1*, 145-162.

Yoon, J. S., & Kerber, K. (2003). Bullying. *Research in Education, 69*, 27-35.

Zahn-Waxler, C., Cole, P. M., Richardson, D. T., Friedman, R. J., Michel, M. K., & Belonad, F. (1994). Social problem solving in disruptive preschool children: Reactions to hypothetical situations of conflict and distress. *Merrill-Palmer Quarterly, 40*, 98-119.

APPENDIX A

LIST OF VARIABLES AND THE NATURE OF THE DATA

Variable	Measure	Number of Response options	Nature of data	Range
Respondent		2	Nominal	1 = Parent 2 = Teacher
Relationship to Student	Demographic Information	3	Nominal	1 = Father 2 = Mother 3 = Other
Parent Ethnicity	Demographic Information	6	Nominal	1 = African American 2 = Asian American 3 = Latina/Latino 4 = Native American 5 = White/Caucasian 6 = Mixed Ethnicity 7 = Other
Parent Education Level	Demographic Information	3	Nominal	0 = High School dropout 1 = High School Graduate or GED 2 = Attended some college

				3 = College Graduate
Parent Profession	Demographic Information		String	
Teacher Gender	Demographic Information	2	Nominal	0 = Female 1 = Male
Teacher Ethnicity	Demographic Information	6	Nominal	1 = African American 2 = Asian American 3 = Latina/Latino 4 = Native American 5 = White/Caucasian 6 = Mixed Ethnicity 7 = Other
Teacher Grade Level	Demographic Information	1	Nominal	
Number of Years Teaching	Demographic Information	1	Ratio	
Is the Teacher a Parent?	Demographic Information	2	Nominal	0 = No 1 = Yes
Age of Children	Demographic Information	1	Nominal	All children are: 1 = 0 to 11 years old 2 = 12 to 18 years old 3 = 19 years old and

				higher 4 = 0 to 18 years old 5 = 0 to 19 years old +
Social Class of Vignette Mother	Attribution Questionnaire Forms A and C are working-class and Forms B and D are middle-class	2	Nominal	1 = Low-Education 2 = High-Education
Proportion of Internal Attributions	Coded from Attribution Questionnaires All Forms		Ratio	

APPENDIX B

ATTRIBUTION QUESTIONNAIRES

Attribution Questionnaire
Form A 2006

Please read the following hypothetical situation:

Jamie, a third grade student, is not doing well in math. The math teacher has told Jamie's mother about her child's difficulties in math. The teacher has scheduled a couple of meetings to talk with Jamie's mother, but both were cancelled at the last minute. Then, the math teacher sent some math worksheets home so that Jamie's mother could tutor her child in the evenings. However, the work was never done. All the teacher knows about Jamie's mother is that she is a single parent who works as a housekeeper at a nearby hotel. Another teacher has told her that Jamie lives at 101 Goldenrod Street, and that Jamie's mother attended the same high school as the math teacher did but never graduated.

101 Goldenrod Street

What are the likely reasons why this mother was not coming to the teacher meetings or why the worksheets weren't returned?

Attribution Questionnaire
Form A 2006

Relationship to student:

Father _____
Mother _____
Other (please specify):_____

Ethnicity:

African American _____
Asian American _____
Latina/Latino _____
Native American _____
White/Caucasian _____
Mixed Ethnicity _____
Other (please specify):_____

Education:

Did not finish High School _____
High School Graduate _____
Attended some college _____
College Graduate _____

Profession: _____

Attribution Questionnaire
Form C 2006

Please read the following hypothetical situation:

Jamie, a third grade student, is not doing well in math. The math teacher has told Jamie's mother about her child's difficulties in math. The teacher has scheduled a couple of meetings to talk with Jamie's mother, but both were cancelled at the last minute. Then, the math teacher sent some math worksheets home so that Jamie's mother could tutor her child in the evenings. However, the work was never done. All the teacher knows about Jamie's mother is that she is a single parent who works as a housekeeper at a nearby hotel. Another teacher has told her that Jamie lives at 101 Goldenrod Street, and that Jamie's mother attended the same high school as the math teacher did but never graduated.

101 Goldenrod Street

What are the likely reasons why this mother was not coming to the teacher meetings or why the worksheets weren't returned?

Attribution Questionnaire
Form C 2006

Gender:	Female	_____
	Male	_____
Ethnicity:	African American	_____
	Asian American	_____
	Latina/Latino	_____
	Native American	_____
	White/Caucasian	_____
	Mixed Ethnicity	_____
	Other (please specify):_____	

Grade level you teach: _____

Number of years teaching: _____

Are you are parent? Yes_____ No_____
If Yes, ages of children: _____

Attribution Questionnaire
Form B 2006

Please read the following hypothetical situation:

Jamie, a third grade student, is not doing well in math. The math teacher has told Jamie's mother about her child's difficulties in math. The teacher has scheduled a couple of meetings to talk with Jamie's mother, but both were cancelled at the last minute. Then, the math teacher sent some math worksheets home so that Jamie's mother could tutor her child in the evenings. However, the work was never done. All the teacher knows about Jamie's mother is that she is a single parent who is a lawyer. Another teacher has told her that Jamie lives at 101 Goldenrod Street, and that Jamie's mother graduated from the same college as the math teacher did.

101 Goldenrod Street

What are the likely reasons why this mother was not coming to the teacher meetings or why the worksheets weren't returned?

Attribution Questionnaire
Form B 2006

Relationship to student:

Father _____
Mother _____
Other (please specify):_____

Ethnicity:

African American _____
Asian American _____
Latina/Latino _____
Native American _____
White/Caucasian _____
Mixed Ethnicity _____
Other (please specify):_____

Education:

Did not finish High School _____
High School Graduate _____
Attended some college _____
College Graduate _____

Profession: _____

Attribution Questionnaire
Form D 2006

Please read the following hypothetical situation:

Jamie, a third grade student, is not doing well in math. The math teacher has told Jamie's mother about her child's difficulties in math. The teacher has scheduled a couple of meetings to talk with Jamie's mother, but both were cancelled at the last minute. Then, the math teacher sent some math worksheets home so that Jamie's mother could tutor her child in the evenings. However, the work was never done. All the teacher knows about Jamie's mother is that she is a single parent who is a lawyer. Another teacher has told her that Jamie lives at 101 Goldenrod Street, and that Jamie's mother graduated from the same college as the math teacher did.

101 Goldenrod Street

What are the likely reasons why this mother was not coming to the teacher meetings or why the worksheets weren't returned?

Attribution Questionnaire
Form D 2006

Gender:	Female	_____
	Male	_____
Ethnicity:	African American	_____
	Asian American	_____
	Latina/Latino	_____
	Native American	_____
	White/Caucasian	_____
	Mixed Ethnicity	_____
	Other (please specify):_____	

Grade level you teach: _____

Number of years teaching: _____

Are you are parent? Yes_____ No_____
If Yes, ages of children: _____

APPENDIX C

PILOT STUDY PROCEDURE

These procedures were used in a pilot study with 19 pre-service teachers' and 15 parents' responses. Pre-service teachers and parents were randomly assigned to one of two conditions. Half the pre-service teachers and half of the parents completed a questionnaire with a vignette describing a low-educated mother and the others completed a questionnaire with a vignette describing a high-educated mother.

First, the investigator parsed each Attribution Questionnaire response into separate attributions. Parents and pre-service teachers had listed responses in the format of bulleted lists, numbered lists, sentences, and paragraphs. Separate attributions in each response were identified by periods, commas, 'and' and 'or' markers, line spaces, bullets, or numbers. The investigator marked the beginning of each new attribution with a capital letter.

Second, the investigator trained one graduate student to code the attributions as representing an internal or external locus of causality. The investigator and graduate student separately coded the attributions in four questionnaires. Agreement was calculated as the number of agreements of locus of causality over the possible number of agreements times 100. Agreement for the training was calculated at 90% (19/21 agreement).

Third, the investigator and graduate student coded each attribution in the remaining 30 questionnaires as either an internal or external locus of causality. Agreement was calculated at 98% (60/61 agreement) for the pre-service teacher questionnaires and 91% (71/78 agreement) for the parent questionnaires.

APPENDIX D

IRB APPROVAL

UNIVERSITY OF Nebraska Lincoln

RESEARCH COMPLIANCE SERVICES
Institutional Review Board

January 25 2005

M. Kelly Haack
Educational Psychology
32 TEAC
(0345)

IRB#: **2004-12-119 EX**

TITLE OF PROPOSAL: **Parents and Teachers Beliefs about Parental Involvement in Schooling**

Dear Ms. Haack :

This letter is to officially notify you of the approval of your project by the Institutional Review Board (IRB) for the Protection of Human Subjects. This project has been approved by the Unit Review Committee from your college and sent to the IRB. It is the Board=s opinion that you have provided adequate safeguards for the rights and welfare of the participants in this study. Your proposal seems to be in compliance with this institution=s Federal Wide Assurance 00002258 and the DHHS Regulations for the Protection of Human Subjects (45 CFR 46) and has been classified as exempt.

Date of EX Review: **12/17/04**

You are authorized to implement this study as of the Date of Final Approval: **01/25/05**. This approval is Valid Until: **01/24/06.**

1. Enclosed is the IRB approved Informed Consent form for this project. Please use this form when making copies to distribute to your participants. If it is necessary to create a new informed consent form, please send us your original so that we may approve and stamp it before it is distributed to participants.

This project should be conducted in full accordance with all applicable sections of the IRB Guidelines and you should notify the IRB immediately of any proposed changes that may affect the exempt status of your research project. You should report any unanticipated problems involving risks to the participants or others to the Board. For projects which continue beyond one year from the starting date, the IRB will request continuing review and update of the research project. Your study will be due for continuing review as indicated above. The investigator must also advise the Board when this study is finished or discontinued by completing the enclosed Protocol Final Report form and returning it to the Institutional Review Board.

If you have any questions, please contact Shirley Horstman, IRB Administrator, at 472-9417 or email at shorstman1@unl.edu.

Sincerely,

Dan R. Hoyt, Chair
for the IRB

Shirley Horstman
IRB Administrator

cc: Faculty Advisor
Unit Review Committee

Alexander Building West / 312 N. 14th Street / P.O. Box 880408 / Lincoln, NE 68588-0408 / (402) 472-6965 / FAX (402) 472-9323

UNIVERSITY OF Nebraska
Lincoln

RESEARCH COMPLIANCE SERVICES
Institutional Review Board

March 18, 2005

M. Kelly Haack
Ed Psych
32 TEAC
(0345)

IRB #2004-12-119 EX

TITLE OF PROJECT: **Parents and Teachers Beliefs about Parental Involvement in Schooling**

Dear Kelly:

The Institutional Review Board for the Protection of Human Subjects has completed its review of the Request for Change in Protocol submitted to the IRB.

1. It has been approved to make editorial changes the vignettes to prompt a more thoughtful response.

This letter constitutes official notification of the approval of the protocol change. You are therefore authorized to implement this change accordingly.

If you have any questions, please contact Shirley Horstman, IRB Administrator, at 472-9417 or email shorstman1@unl.edu.

Sincerely,

Dan R. Hoyt, Chair
for the IRB

Shirley Horstman
BRF
Shirley Horstman
IRB Administrator

cc: Faculty Advisor

Alexander Building West / 312 N. 14th Street / P.O. Box 880408 / Lincoln, NE 68588-0408 / (402) 472-6965 / FAX (402) 472-9323

UNIVERSITY OF Nebraska Lincoln

HUMAN RESEARCH PROTECTIONS
Institutional Review Board

January 10, 2006

M. Kelly Haack
Dr. Beth Doll
32 TEAC
(0345)

IRB#2004-12-119 EX

TITLE OF PROJECT: **Parents and Teachers Beliefs about Parental Involvement in Schooling**

Dear Kelly:

This is to officially notify you of the approval of your project's Continuing Review by the Institutional Review Board for the Protection of Human Subjects. It is the committee's opinion that you have provided adequate safeguards for the rights and welfare of the subjects in this study. Your proposal seems to be in compliance with DHHS Regulations for the Protection of Human Subjects (45 CFR 46).

We wish to remind you that the principal investigator is responsible for reporting to this Board any of the following events within 48 hours of the event:

- Any serious event (including on-site and off-site adverse events, injuries, side effects, deaths, or other problems) which in the opinion of the local investigator was unanticipated, involved risk to subjects or others, and was possibly related to the research procedures;
- Any serious accidental or unintentional change to the IRB-approved protocol that involves risk or has the potential to recur;
- Any publication in the literature, safety monitoring report, interim result or other finding that indicates an unexpected change to the risk/benefit ratio of the research;
- Any breach in confidentiality or compromise in data privacy related to the subject or others; or
- Any complaint of a subject that indicates an unanticipated risk or that cannot be resolved by the research staff.

It is the responsibility of the principal investigator to provide the Board with a review and update of the research project each year the project is in effect. This approval is valid until **January 24, 2007.**

If you have any questions, please contact Shirley Horstman, IRB Administrator, at 472-9417 or email at shorstman1@unl.edu.

Sincerely,

Dan R. Hoyt, Chair
For the IRB

Shirley Horstman
IRB Administrator

209 Alexander Building West / 312 N. 14th Street / P.O. Box 880408 / Lincoln, NE 68588-0408 / (402) 472-6965 / FAX (402) 472-6048

APPENDIX E

LINCOLN PUBLIC SCHOOL DISTRICT APPROVAL

Lincoln Public Schools

5901 O Street • Box 82889 • Lincoln, NE 68501 • (402) 436-1790

RR 06-24a

January 5, 2006

Kelly Haack
College of Education and Human Sciences
114 Teachers College Hall
P.O. Box 880345
Lincoln, NE 68588-0345

RE: Request to Conduct Research in the Lincoln Public Schools

Dear Ms. Haack:

Your request to administer surveys to approximately 80 teachers and 80 parents of elementary school-age children in Lincoln Public Schools is approved. Before beginning your study, please provide this office with a list of the elementary schools you wish to work with. You will need to contact the Principal of each school to secure his/her permission to proceed with the administration of the surveys. Please be advised, that the participation of schools, teachers and parents is voluntary given that this is an external research study.

Sincerely,

Leslie E. Lukin

Leslie E. Lukin
Director of Assessment and Evaluation Services

Title of Research: Parental Involvement