

**University of Alberta**

Parent-School Partnerships in Early Elementary:  
The Importance of Parent Educational  
Involvement in Children's Social-Emotional  
Functioning

by

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To my Grandma and Grandpa Gordon, who I know would be bursting with pride  
if they were here today to see their granddaughter as “Dr. Gordon”.

## **Abstract**

This quantitative study investigated the direct and indirect contributions of parent involvement (i.e., the quality and quantity of school-based and home-based involvement) in children's social-emotional functioning during early elementary grades (K-2). The sample was composed of 286 parents and 237 teachers. Data were collected using parent and teacher reports. After controlling for relevant background variables, the quality of home-based involvement was found to be the strongest predictor of children's social-emotional functioning (i.e., pro-social skills, emotional regulation, and school liking), as rated by parents. Parent-teacher contact negatively predicted children's social-emotional outcomes as rated by teachers (i.e., pro-social skills, emotional regulation, school liking, cooperative and autonomous participation), whereas parents' school-based participation positively predicted these outcomes. Parent-school relationship quality positively predicted children's pro-social skills and school liking as rated by parents, and was a salient predictor of boys' school liking and cooperative participation, as rated by teachers. Parents' school-based participation also predicted boys' autonomous participation (but not girls), as rated by teachers. Finally, parent-teacher contact positively predicted parents' frequency of home-based involvement, which in turn, positively predicted children's pro-social skills and school liking, as rated by parents. School-based participation also predicted children's pro-social skills indirectly through parents' home-based involvement. Findings and implications are discussed in relation to research and theory, and aim to inform future parent-school partnership initiatives.

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## **Introduction**

It is widely recognized that parents are immensely influential to their child's well-being and development. Whether parents are playing with their infants, reading with toddlers and preschoolers, or helping with homework in elementary grades (Davis, 2000), they are undoubtedly their child's first teacher and socializer, and provide a central context for learning in multiple domains. It is not surprising then that over the previous decades, there has been an extensive amount of research examining the behavioural, cognitive, and affective elements of parenting in relation to children's developing competences within and outside the family (Pomerantz, Grolnick, & Price, 2005).

Like parents, today's schools also educate and socialize children, with the aim of fostering learning and development in multiple areas. Similar to trends in parenting research, an abundance of education literature has demonstrated the unique influence of school factors, such as teacher and classroom characteristics, on children's academic and social trajectories (e.g., Birch & Ladd, 1997; Howes, 2000; Pianta & Stuhlman, 2004; Rimm-Kaufman, La Paro, Downer & Pianta, 2005).

In short, considerable research has examined the extent to which home and school factors independently facilitate various child outcomes. Only recently, however, have researchers begun to examine the importance of the parent-school link (e.g., parents and schools working together) in fostering children's school-related developments (Downer & Myers, 2010; Fan & Williams, 2009). This recent shift towards examining parent-school factors, now evident in both child

development and education literature, is generally represented by terms such as *family-school partnerships*, *parent educational involvement*, or simply, *parent involvement* (Christenson & Reschly, 2010; Grolnick & Slowiaczek, 2004; Kohl, Lengua, & McMahon, 2000; Reynolds & Shlafer, 2010; Wanders, Mendez, & Downer, 2007).

Although there is a lack of consensus on a precise definition, parent educational involvement can be generally defined as “parents’ interactions with schools and with their children to promote school-related success” (Hill et al., 2004, p. 1491). Likewise, parent-school partnerships have been operationalized to reflect an array of independent and interactive activities at school and at home (Downer & Myers, 2010; Epstein, 1996). Thus, both terms have been used to represent a broad and multifaceted construct that involves both the contributions of parents and schools to interact in ways that support children’s learning and development. Parent educational involvement may take the form of engaging in learning activities in supportive home environments, participating in school activities (e.g., parent-teacher meetings), and developing positive parent-school relationships. These involvement dimensions form the foundation for parent-school partnerships and epitomize one of the ways that parents keep their children on a healthy developmental path throughout their educational years (Christenson & Reschly, 2010).

Researchers and educators alike have demonstrated that parental involvement is important to consider during early learning experiences (e.g., preschool) and throughout grade school. In particular, parents’ educational

involvement has been reported to facilitate children's academic, cognitive, language, and motivational development, as well as decrease bullying, foster pro-social behaviours, and decrease school drop-out (e.g., Fan & Chen, 2001; Fan & Williams, 2009; Fantuzzo, McWayne, Perry, & Childs, 2004; Hill & Craft, 2003; Izzo, Weissberg, Kasprow, & Fendrich, 1999; Jeynes, 2008; Pomerantz, Moorman & Litwack, 2007; Powell, Son, File, & Jua, 2010; Sheridan, Warnes, & Dowd, 2010).

Furthermore, some researchers have reported that parents' educational involvement may be more important to children's school success than family income or parent's educational level (e.g., Davis, 2000; Epstein & Sanders, 2002; Mapp & Hong, 2010; Rimm-Kaufman, Pianta, Cox, & Bradley, 2003). This suggests that for children facing multiple environmental stressors, parent educational involvement may be a key protective factor that supports resilience (Epstein & Sanders, 2002; Myers & Taylor, 1998). Extant research has also demonstrated that parent educational involvement is beneficial for all students; that is, both low- and high-achieving students across grade levels (Crosnoe, 2001; Henderson & Berla, 1994; Hoover-Dempsey & Sandler, 1995; Mapp & Hong, 2010; McDermott & Rothenberg, 2000; Pomerantz et al., 2007).

In short, despite family background, school, or child characteristics, when parents are actively engaged in learning activities at home and at school, they may be better able to facilitate their child's development in multiple areas. Given the demonstrated importance of parents' educational involvement in understanding children's early and later success in school, it is not surprising that parent

involvement has become integral to recent educational initiatives (e.g., Alberta Education, 2008), and serves a key component in early intervention programs (e.g., Head Start) that aim to facilitate resilience in children at-risk for school difficulties (Chang et al., 2009; El Nokali, Bachman & Votruba-Drzal; 2010; Hill & Tyson, 2009; Pianta & Walsh, 1996; Reynolds & Shlafer, 2010; Sheridan et al., 2010).

### **Gaps in Existing Literature**

To date, researchers have only paid peripheral attention to the effects of parent educational involvement, and a number of important conceptual and methodological gaps remain. First, although the concept remains consistent, the nature and influence of parent educational involvement has not been studied equally across periods of child development (Hill & Tyson, 2009). Most studies have been conducted with either preschool children (e.g., Head Start samples) or in older elementary grades (e.g., Barnard, 2004; Fantuzzo et al., 2004; Foster et al., 2005; Grolnick & Slowiaczek, 1994; Powell et al., 2010; Rogers, Theule, Ryan, Adams, & Keating, 2009). Surprisingly, one child developmental period that has received relatively little empirical examination is early elementary (i.e., K-2). During this period, children are expected to approach tasks and peers in a confident and competent manner, to regulate their emotions and behaviours to meet changing situational demands, to adapt to new classroom expectations, and to function independently (Barth & Parke, 1996; Morrison, Rimm-Kaufman & Pianta, 2000; NICHD, 2004; Pianta & Cox, 1999). Failures to meet these developmental milestones can place children on a trajectory of increasing risk for

social-emotional and academic difficulties in later years (Briggs-Gowan & Carter, 2008; Campbell, Spieker, Burchinal, & Poe, 2006; Rimm-Kaufman & Pianta, 2000). Thus, developing positive patterns of parent-school partnerships during this time assumes particular importance.

A second gap in the parent-school partnership literature highlights the challenges to investigating parent educational involvement, including the conceptualization of what exactly parental involvement entails. The vast majority of current conceptual models and empirical examinations have focused almost exclusively on the quantity or frequency of parental involvement in school and home contexts and have subsequently neglected to simultaneously take into account the *quality* of these factors (Kohl et al., 2000; Pomerantz et al., 2007). In fact, many quantitative studies have utilized inconsistent and often one-dimensional measures of parent educational involvement, which fail to capture the complex and multiple ways in which parents are involved in their children's lives (El Nokali et al., 2010; McWayne, Hampton, Fantuzzo, Cohen, & Sekino, 2004; Reynolds & Shlafer, 2010). These notable limitations in previous research have resulted in equivocal findings regarding the influence of parent educational involvement in children's development. Consequently, it remains unclear as to which facets of parent educational involvement have specific implications for children's early school outcomes.

A third notable gap is that the vast majority of research examining the influence of parent educational involvement remains situated in academic domains such as children's achievement, attendance rates, and academic

motivation (Fan & Chen, 2001; Henderson & Berla, 1994; Hill, 2001; Hoover-Dempsey & Sandler, 2005; Jeynes, 2005; Pomerantz et al., 2005; 2007).

Considerably less is known about the role that these parent-school dimensions play in children's social-emotional outcomes (El Nokali et al., 2010). Although this is a conceptual gap for parent-school partnership literature in general, it is especially true for studies examining the influence of parent educational involvement on these outcomes during early elementary years (e.g., K-2).

Early social-emotional development has been repeatedly demonstrated as foundational for later learning and school success (Rhoades, Warren, Domitrovich, & Greenberg, 2011; Royer, Provost, Tarbulsy, & Coutu, 2008; Webster-Stratton & Reid, 2004; Zins, Bloodworth, Weissberg, & Walberg, 2004). Furthermore, social-emotional functioning has been considered to be inextricably linked and as equally important to school adjustment as academic proficiency, as these skills and abilities allow children to meet classroom expectations, build positive relationships, and cope effectively in the face of challenge (Pianta & Walsh, 1996; Webster-Stratton & Reid, 2004; Zins et al., 2004). Accordingly, when parents are positively engaged in school-related activities, they may extend opportunities for children to learn social-emotional skills, model the interactional and relationship skills they intend to teach, and facilitate engagement and connectedness across home and school environments; all of which are necessary for subsequent adjustment and success in both academic and interpersonal domains (Albright & Weissberg, 2010).

In accordance with addressing these key conceptual and methodological gaps, the present study examined the direct and indirect contributions of four facets of educational involvement (i.e., the quality and quantity of school-based and home-based involvement) in early elementary children's social-emotional functioning (i.e., pro-social skills, emotional regulation, school liking, cooperative participation, and autonomous participation). Furthermore, this study examined whether these predictive relationships differed for boys and girls during these formative years (i.e., K-2).

## **Literature Review**

This section provides an overview on parent-school partnership literature as it relates to early child development. First, this chapter will begin by briefly highlighting dominant conceptual models of parent educational involvement (e.g., Epstein, 1995; Grolnick & Slowiaczek, 1994; Kohl et al., 2000). The importance of, and notable lack of conceptual and empirical research that considers both the quality and quantity of home-based and school-based involvement is discussed. The importance of early social-emotional functioning during the transition to formal elementary school years, empirical evidence supporting the link between facets of parent involvement and early social-emotional development, and theoretical mechanisms for these associations are then highlighted. The purpose of the present study, research questions, and expected outcomes are presented as the final section of this chapter.

### **Conceptual Models of Educational Involvement and Parent-School**

#### **Partnerships**

There has been a historical shift away from parental involvement models that separate the roles of family and school in fostering children's development and in which parents are viewed as passive in their children's school success, to models that recognize the dynamic and active collaboration between parents and schools in supporting children's development (Adams & Ryan, 2005; Baker, Kessler-Sklar, Piotrkowski, & Parker, 1999; Downer & Myers, 2010; Grolnick & Slowiaczek, 2004). Today, parent involvement is seen as multidimensional and

evident across multiple settings to reflect the reality that parents are involved in their children's learning and development in multiple and diverse ways.

Likewise, several researchers have proposed theoretical frameworks to conceptualize the multifaceted dimensions of parent educational involvement and parent-school partnerships (e.g., Epstein, 1995; Grolnick & Slowiaczek, 1994; Hoover-Dempsey & Sandler, 2005; Kohl et al., 2000). Most of these models are informed by a developmental-ecological framework (Bronfenbrenner, 1986), though they vary with regards to perspective (e.g., parent versus school), the number and scope of components, and which areas of child development are explicitly highlighted (e.g., academic versus broader areas of child development).

**A guiding developmental-ecological framework.** Since parent educational involvement is defined within the context of home and school systems, Bronfenbrenner's (1986) ecological model provides a useful framework for conceptualizing this construct in relation to child development (Downer & Myers, 2010). In short, this framework posits that children function and develop within a variety of contexts, in which there are multiple relationships that can be examined at different levels (Vickers & Minke, 1995). At one level, home and schools are *microsystems* that directly influence children's development. As noted, there has been considerable research on the extent that home and school processes (e.g., parent-child or teacher-child interactions) independently influence child development, as it is these two contexts where children spend the majority of the time (Downer & Myers, 2010).

These prominent microsystems in turn are interconnected to form *mesosystems*. Parent-school relationships are often conceptualized as a mesosystem level variable (e.g., El Nokali et al., 2010), in which home and school influences interact, and together also uniquely impact children's development (Bronfenbrenner, 1986; Christenson & Sheridan, 2001; Downer & Myers, 2010). This aspect of the model exemplifies the importance of not only the home and/or school microsystem, but the bi-directional relationship between home and school for children's academic, social, and behavioural success (Powell et al., 2010).

The home-school mesosystem may be disrupted when home or school microsystems are in conflict, which in turn can have a negative impact on child development (Bronfenbrenner, 1986; Epstein, & Sanders, 2002). Furthermore, the home-school mesosystem (e.g., parent-school relationships) may influence child development indirectly although its influence on more proximal micro-level variables (e.g., home-based involvement; Downer & Myers, 2010). In short, based on this conceptual framework, facets of parent educational involvement can be viewed as comprising both microsystem (e.g., activities at home) and mesosystem (e.g., parent-school relationship) variables; each of which may differentially influence children's developing skills and competences, as well as influence each other in multiple ways.

***Epstein's (1995) model of parent educational involvement.*** Epstein (1995) proposed an ecological partnership model in which parent educational involvement is classified into six areas. These areas range from proximal and more direct home influences, to more distal and indirect community influences on

child development (Epstein & Sanders, 2002). The dimensions of involvement include: (a) parenting, (b) communication, (c) volunteering at school, (d) home-learning environment, (e) decision-making, and (f) collaborating with the community.

*Parenting* includes basic obligations of the parent (e.g., providing a safe environment), which can be fostered through schools' understanding of families' backgrounds and parents' goals for their children (Epstein, 1995, 1996; Epstein & Sanders, 2002). *Communication* refers to two-way contact between home and school, and is alternatively seen by Epstein as basic obligations of the school. Communication may be facilitated through conferences, phone calls, newsletters, and emails that aim to ensure children's needs are met in the classroom, and that parents feel comfortable providing input and sharing their concerns (Epstein & Sanders, 2002). *Volunteering at school* involves schools providing opportunities for parents to spend time assisting teachers, administrators, students, and other parents. Such opportunities have been noted to facilitate awareness that parents are welcome and valued at school (Anthony, 2008). *Home-learning environment* involves parents' assisting children with homework and providing learning opportunities in the home setting (e.g., sharing ideas from school; reading, listening, discussing). *Decision-making* refers to parents being involved in school decision-making opportunities through serving as leaders, advocates, and representatives in parent-teacher associations and other committees (Epstein, 1995). Finally, *collaborating with the community* involves schools coordinating community resources to strengthen parental involvement, such as increasing

parenting skills and interactions with other families through the provision of community services (Epstein & Sanders, 2002).

Although Epstein's model is well informed by empirical research, a notable critique is that it focuses on the schools' perceptions and school-initiated involvement (i.e., what schools do to engage parents), while neglecting parents' perceptions of involvement (Kohl et al., 2000). Kohl and colleagues asserted that accounting for parents' perceptions (and differentiating between the two) may help to clarify some of the inconsistent findings in child development research. For instance, teacher-initiated involvement (e.g., teachers contacting parents) has been found to be associated with lower achievement and problem behaviour; whereas parent-initiated contact may be associated with higher achievement and school adjustment (Epstein, 1996; Hill, 2001). Furthermore, parents' perceptions of educational involvement and parent-school partnership quality have demonstrated low correspondence with teachers' perceptions of parental involvement (Epstein, 1996). Generally, schools tend to view involvement as parents attending school activities, whereas parents may view involvement more broadly to include involvement in activities at home and in the community (Jackson, 2009). Moreover, teachers have been found to report generally lower levels of parental involvement in single-parent families, whereas single parents consistently report more involvement at home (Epstein, 1996; Kohl et al., 2000). For these reasons, differentiating between parent and teacher perspectives assumes importance when examining this multi-dimensional construct in relation to child developmental outcomes.

***Grolnick and Slowiaczek's (1994) motivational model of parental***

***involvement.*** Grolnick and Slowiaczek (1994) similarly proposed a multidimensional model of parent educational involvement that alternatively highlights three involvement components: (a) behavioural involvement, (b) cognitive-intellectual involvement, and (c) personal involvement. First, *behavioural involvement* refers to parents' overt participation in school-related activities, such as communicating with teachers, attending school functions, volunteering, and assisting their child with homework. *Cognitive-intellectual involvement* reflects more home-based involvement and includes parents' role in providing cognitively stimulating activities (e.g., reading) and learning materials at home. Lastly, *personal involvement* refers to parents' level of care and value of education, their expectations regarding school, and their level of enjoyment when engaging in their child's educational endeavours (Dearing & Tang, 2010).

Although Grolnick and Slowiaczek's (1994) model has also been used to guide an extensive amount of empirical inquiry on parents' level of educational involvement, it too may be criticized for focusing on unidirectional aspects of educational involvement (e.g., what parents do at home and school). This may misrepresent the dynamic relationship *between* parents and schools, and in turn obscure our understanding of parent educational involvement in relation to child outcomes.

In short, these two dominant conceptual models notably fail to account for the *quality* of parents' educational involvement and parent-school partnerships in facilitating children's development. Rather, they almost exclusively focus on the

frequency or range of parental educational involvement activities at home and school.

***Kohl, Lengua, and McMahon's (2000) multi-dimensional parental involvement framework.*** A notable exception to the consistent neglect of parent involvement quality is the multidimensional framework developed by Kohl and colleagues (2000). This model broadens the definition of parent educational involvement to incorporate both the quantity of parental involvement and the quality of the relationship between home and school. Specifically, parent educational involvement is delineated into six components: (a) parent-teacher contact, (b) parent involvement at school, (c) parent involvement at home, (d) parent-teacher relationship quality, (e) parents' value of education, and (f) parents' endorsement of school.

*Parent-teacher contact* is characterized by how often parents and teachers communicate with each other (e.g., via notes or in person). *Parental involvement at school* includes how often parents are involved in school-based activities. This may include volunteering and attending school functions and parent-teacher meetings. *Parental involvement at home* is congruent with the aforementioned models and refers to involvement behaviours such as how frequently parents read to their child, assist with homework, or take their child to the library. *Parent-teacher relationship quality* uniquely reflects elements such as the extent that parents enjoy and feel comfortable talking with their child's teacher and feel that the teacher cares about their child. *Parents' value of education* refers to teachers' perceptions of the extent to which parents' reflect positive attitudes towards

education and view education as important at home. Finally, *parents' endorsement of school* reflects parents' perceptions of their child's school as being a good and valuable place to be. In short, the first three dimensions aim to measure the quantity of parental involvement in both home and school settings, whereas the last three dimensions measure the quality of parent-school relationships (Kohl et al., 2000).

Kohl and colleagues (2000) have asserted that the amount of school-based involvement (i.e., parent-teacher contact and parents' school-based participation) is important because it allows parents to monitor their children's educational progress, as well as model the importance and value of school. Moreover, the amount of home-based involvement parents engage in can further develop the types of skills children learn in the classroom (Kohl et al., 2000; Swick, 2007). Regarding quality, creating a close, reciprocal and positive relationship in which parents and teachers are working toward common goals is thought to also foster both children's academic and social skills (Powell et al., 2010). In sum, in addition to exemplifying the importance of quality, Kohl and colleagues (2000) highlight parental involvement as a dynamic and interactional process and include both home and school involvement activities.

All of the highlighted conceptual models demonstrate merit and are ideal for different research interests in Western culture. For instance, Epstein's (1995) model may be most applicable to guide program evaluation research on school-initiated involvement efforts. Grolnick and Slowiaczek's (1994) model may be most useful to examine the quantity of parent-initiated involvement in relation to

child academic outcomes. Given the uniqueness of Kohl and colleagues' (2000) model for including the quality of the parent-school relationship in addition to educational involvement across settings (i.e., home and school), it was thought to be especially useful as a starting point for conceptualizing the present study.

The present study, however, seeks to extend the quality of parent-school relationship components of Kohl and colleagues' (2000) model to include the quality of home-based involvement (i.e., parent-child interactional quality) as well. This extension parallels Pomerantz and colleagues' (2007) proposal to broaden the current conceptualization of parent educational involvement to incorporate the role that emotional context plays in educational involvement activities. From an ecological systems perspective, this suggests prompt consideration of examining additional aspects at the microsystem and mesosystem level. The inclusion of more comprehensive aspects of parent involvement in empirical examinations may help to clarify some of the inconsistencies found in parent-school partnership research to date (McWayne et al., 2004; Pomerantz et al., 2007). Through expanding current conceptualizations of parental involvement in such a manner, researchers and practitioners alike can help encourage parents' behaviours in a way that makes their educational involvement most successful. Likewise, examining the influence of both quality and quantity of parental involvement may better inform home-school partnership initiatives in a way that maximizes children's learning and development in multiple contexts and domains.

## **The Importance of School Adjustment in Early Elementary Grades**

The influence of parent educational involvement on children's outcomes may differ depending on children's stage of development. That is, parental involvement is a dynamic process that changes as children grow and may also vary according to individual children's needs. The transition to elementary school is one major milestone for children, setting the foundation for future social and learning experiences inside and outside the classroom (Hausken & Rathbunm, 2002; Margetts, 2005). Some researchers have conceptualized this period as encompassing ages 5 to 7 (e.g., Sameroff & Haith, 1996 as cited by Perry & Weinstein, 1998). Children inevitably enter these early elementary grades (e.g., K-2) with differing levels of competences, such as following directions, participating cooperatively, and regulating emotions. All children, however, are expected to adjust to new interactions, teachers, and routines, and to approach new social and learning tasks in a competent and engaged manner.

Early school adjustment and maladjustment are well-established predictors of later school success and difficulties (Downer & Myers, 2010; Hamre & Pianta, 2001; Ladd, Buhs, & Troop, 2002). Thus, making a smooth transition and adjusting well to the early elementary environment is important as it is in this context that children make conclusions about school that are often carried into subsequent grades (Ladd, Buhs, & Seid, 2000; Rimm-Kaufman & Pianta, 1999).

## **A Neglected Component of School Adjustment: Social-Emotional Functioning**

Of particular interest in this study is one major, yet often neglected aspect of school adjustment, and that is children's social-emotional functioning. Social-emotional aspects of school adjustment are critical because a significant number (10-20%) of children exhibit early social-emotional difficulties and are not able to master the related skills needed to do well in school (McCelland, Acock, & Morrison, 2006; Pianta & Walsh, 1996).

Social-emotional functioning is a broad and multi-faceted construct with no singular definition. It may be best conceptualized as children's performance on developmentally appropriate social tasks, and has been posited to exist along a continuum from adaptive to maladaptive (Cavell, 1990; Rose-Krasnor, 1997). In the classroom, social-emotional functioning may include children's ability to effectively communicate and regulate their emotions, manage their behaviour and maintain good conduct, demonstrate assertiveness and self-directedness, effectively problem solve (e.g., conflict resolution skills), and engage in cooperative interactions with teachers and peers (Berk, 2000; Cavell, 1990; Fantuzzo, Bulotsky-Shearer, Fusco, & McWayne, 2007; Whittaker, Harden, See, Meisch, & Westbrook, 2011). Social-emotional functioning may also include children's responses to their social environment, and aspects of emotional well-being which are important in the development of adequate interpersonal relations (Cavell, 1990; Merrell, 2009; Perry & Weinstein, 1998). Of interest in the present study are social-emotional skills related to peer-relations and self-management

(i.e., pro-social skills and emotional regulation) in addition to aspects of emotional and behavioural engagement in the classroom (i.e., school liking, cooperative participation, and autonomous participation; Merrell, 2009). Although these areas are often discussed in different lines of research (e.g., school engagement; school adjustment; social-emotional development), they are all seen as components of children's social-emotional functioning and comprise key conceptual domains of children's school adjustment in early elementary and throughout grade school (Fantuzzo et al., 2007; Hymel, Schonert-Reichl, & Miller, 2007; Perry & Weinstein, 1998). The following section discusses these social-emotional facets in greater detail.

**Social-emotional skills.** Although there are various definitions of social-emotional skills, they are broadly defined in this study as overt behaviours that enable children to interact effectively with others in social and learning contexts (Merrell, 2009). Key social-emotional skills such as pro-social behaviours, empathy, and cooperation are developing faster in the first years of schooling than any other time in development (Webster-Stratton & Reid, 2010). Teaching and learning these skills is crucial because it sets the foundation for social-emotional competence, later relationships, learning, and attitudes towards school (Briggs-Gowan & Carter, 2008; Webster-Stratton & Reid, 2010). In particular, children with higher social-emotional skills have been shown to have better school readiness, are more engaged with peers and teachers, participate in classroom activities, and enjoy school more than children with lower social-emotional skills (Albright & Weissberg, 2010; Ladd, 1999; Raver & Knitzer, 2002; Waltz, 2006).

Additionally, research has noted that children's social-emotional skills are a strong predictor of early academic achievement, even after controlling for children's cognitive abilities and socio-economic status (Grolnick & Slowiaczek, 1994; Webster-Stratton & Reid, 2010). Alternatively, studies have noted that without intervention, early social-emotional difficulties are resistant to change, tend to intensify over time, and can lead to difficulties in other domains (Birch & Ladd, 1997; NICHD, 2004; O'Neil, Welsh, Parke, Wang, & Strand, 1997).

For instance, children lacking these early skills are at significantly greater risk for peer rejection, low levels of academic achievement, poor overall adjustment, school absences, and eventual school drop-out (Booth, Rose-Krasnor, McKinnon, & Rubin, 1994; McClelland, Morrison, & Holmes, 2000; Pianta & Cox, 1999; Webster-Stratton, 1998; Webster-Stratton & Reid, 2010). Social-emotional difficulties can also create a negative pattern of teacher reactivity, parent frustration and withdrawal, and a subsequent lack of consistency and collaboration between home and school (Webster-Stratton, 1998; Webster-Stratton & Reid, 2010). In the present study, two key social-emotional skills were of particular interest: Pro-social skills and emotional regulation.

Children's pro-social skills (e.g., cooperating, sharing, helping others) are a central aspect of social-emotional functioning, as they enable children to interact effectively with others in contexts such as the classroom. Strong pro-social skills in children have been shown to facilitate positive peer relations and acceptance (Ladd, 1999), and to predict later academic engagement and achievement (Caprara, Bararcelli, Pastorelli, & Bandura, 2000; Maleki & Elliott,

2002). Children who are more pro-socially skilled may spend more time engaged and on-task, spend more time helping others, and are more likely to gain support from teachers and peers; therefore creating an environment for them that is conducive to learning and adjustment (Caprara et al., 2000). Pro-social behaviours can also enhance children's ability to cope with changes and demands in the school environment by facilitating connectedness with teachers and classmates (i.e., play and work partners), and by contributing to feelings of inclusion and competence in the classroom setting (Ladd, 1990; Vandell & Hembree, 1994).

Children must deal with many interpersonal and academic stressors in the classroom, and their functioning also depends on their ability to monitor and manage their emotions in response to frustration and challenge (Macklem, 2008). Thus, children's ability to express and manage emotional responses in a constructive manner (i.e., emotional regulation) is another social-emotional skill that has been noted to be a key indicator of children's school readiness and later functioning (Fantuzzo et al., 2005; Macklem, 2008). In particular, appropriate emotional regulation in children facilitates positive peer relations, whereas difficulties managing negative emotions may lead to peer rejection (Denham & Weissberg, 2004; Eisenberg et al., 1993). Emotional regulation also provides the foundation of adaptive behavioural functioning, whereas emotional deregulation is a core difficulty in both internalizing (e.g., anxiety) and externalizing (e.g., aggression) childhood disorders (Calkins & Howse, 2004; Macklem, 2008). Poor emotional regulation can also hinder children's thinking, attention, and

judgement, and in turn compromise learning, problem solving, and ultimately school adjustment and success (National Scientific Council on the Developing Child, 2004). As such, examining factors that facilitate this important social-emotional skill during early elementary grades is warranted.

**School liking.** School liking has been defined as the affective experience and responses children have towards teachers, peers and learning, and ultimately the positive and negative sentiments children develop towards school (Mathur, 1999). School liking is often linked to feeling connected to classroom social and learning contexts. It has been conceptualized as an important indicator of children's social functioning and emotional engagement (Fredericks, Blumenfeld, & Paris, 2004; Merrell, 2009); and has implications for school adjustment in multiple domains (Birch & Ladd, 1999). For instance, children who enjoy and feel connected in the classroom environment have been noted to be more likely to profit from educational experiences, whereas reactions such as anxiety, avoidance, or negative feelings towards their classroom experiences may reflect adjustment difficulties that can cascade in later grades (Ladd & Price, 1997; Valeski & Stipek, 2001).

Furthermore, children's sense of school liking has been found to be a key construct of academic motivation and classroom participation (Ladd et al., 2000; Stipek, 2002) as well as a link between parent educational involvement and achievement (Hughes & Kwok, 2007). Hughes and Kwok (2007) noted, however, that the majority of studies that have examined key aspects of emotional engagement such as school liking focus on later elementary years. Additional

research that examines school liking in early elementary grades is needed, given that negative feelings of school have been noted to be increasingly difficult to remediate as children get older (Valeski & Stipek, 2001).

As mentioned, the transitional years of formal school entry are a critical period for children and parents. One national study reported that 8-21% of children at this age experience some distress such as complaining about school, being upset or reluctant about having to go to school, or pretending to be sick in order to be allowed to stay home (Hausken & Rathbun, 2002). Furthermore, Ramey and colleagues (1998) found that 12% of children in kindergarten reported negative perceptions of school (e.g., low school liking, motivation, and negative relations with peers). In addition, children with more negative feelings towards school were rated by kindergarten, first grade, and second grade teachers as having significantly lower school adjustment in academic realms compared to children with more positive school perceptions. Valeski and Stipek (2001) further noted that kindergarten children who enjoy and feel connected to school are more engaged in classroom activities than children who have negative attitudes about school and feel disengaged from their teacher and peers. Ladd and colleagues (2000) also found that children's school liking, as rated by parents and children, predicted classroom participation, achievement, and greater school liking over time, rather than the reverse (i.e., classroom participation and academic achievement did not predict increased school liking).

Together, this limited body of research suggests that children's affective experiences and sentiments developed in early elementary may establish

subsequent patterns of school engagement, social-emotional adjustment, and academic achievement in later grades. Thus, examining key factors that facilitate school liking may serve as an important target for early intervention efforts, given that early school perceptions may become the lens through which children view subsequent school experiences (Murray & Greenberg, 2005; Valeski & Stipek, 2001).

**Behavioural engagement.** Behavioural engagement has been defined in various ways by different researchers, though Downer, Rimm-Kaufman, and Pianta (2007) broadly defined this construct as “moments when children are interacting with their environment in ways that facilitate learning” (p. 414). Behavioural engagement includes various dimensions of social-emotional functioning, such as children’s cooperative participation, positive conduct, compliance, and self-directedness in activities and routines (Downer et al., 2007; Fredricks et al., 2004; Royer et al., 2008).

In general, the link between children’s behavioural engagement and later school success is better established than areas of emotional engagement such as school liking. For instance, the Beginning School Study found that teacher ratings of children’s behavioural engagement in grade one predicted academic achievement four years later (Alexander, Entwisle, & Horsey, 1997). Moreover, Ladd and colleagues (2002) found that children’s autonomous and cooperative participation in the classroom was highly predictive of academic achievement in kindergarten, after controlling for family socio-demographic risk. Behaviours such as taking initiative and classroom participation have also been noted to be

more predictive of achievement outcomes than ratings of cognitive abilities during early elementary grades (Wentzel, 1991). Likewise, Ladd and colleagues (1999) found that cooperative engagement in kindergarten positively predicted children's end-of-year achievement, above children's cognitive development and family background. In general, children who are actively engaged in classroom activities are likely to have experiences that facilitate learning, whereas children with low engagement in the classroom spend more time off-task, which may lead to further disengagement and disruptive classroom behaviours, and place them at-risk for school failure (Hill & Craft, 2003; Royer et al., 2008; Wentzel, 1999).

Behavioural engagement is also integral to children's social-emotional functioning and school adjustment because being engaged in classroom activities provides children access to social and emotional resources that may prevent loneliness (Buhs & Ladd, 2001). In contrast, when children are disengaged from classroom activities, they may limit opportunity to participate in relationships that provide a sense of social connectedness, and in turn they may become disengaged from peers (Buhs & Ladd, 2001; Royer et al., 2008). In a sample of academically at-risk first graders, Hughes and colleagues (2008) found that children characterized as "cooperatively" engaged were most popular among peers and outperformed the lower engaged child groups academically. In contrast, behaviourally "disengaged" children demonstrated more emotional difficulties and lower academic trajectories compared to the more engaged group. This body of research exemplifies the importance of examining indicators of behavioural engagement in early elementary grades, as it is precursory to later school

experiences in both social and academic realms. The present study focuses on children's autonomous and cooperative participation in the classroom, which are conceptualized in this study as behavioural indicators of social-emotional functioning in the classroom setting.

### **Linking Parent Educational Involvement and Social-Emotional Development**

Given the importance of social-emotional functioning (e.g., skills and engagement) in long-term school success, it is important to examine how parents and schools can best foster this domain early in children's formal educational years. Thus, clarifying factors such as the role that parent educational involvement plays in facilitating social-emotional domains of school adjustment warrants attention. Despite the widely accepted belief in the positive impact of parent educational involvement in children's early school adjustment, empirical research examining the interrelationship between the aforementioned constructs is extremely limited. Many studies have reported the specific links between classroom quality (e.g., emotional and instructional support) and children's social-emotional outcomes (e.g., Downer et al., 2007; Furrer & Skinner, 2003; Hamre & Pianta, 2005; Royer et al., 2008), or focus on child attributes that put children at-risk for disengagement and school problems (e.g., conflict with teachers; disruptive or withdrawn behaviours; Rimm-Kaufman et al., 2000; 2002). Consequently, a scarcity of research to date has examined the multifaceted domains of parent educational involvement and its direct and indirect contributions to these social-emotional outcomes during early elementary. Examining parent involvement facets during these early school years may be

particularly valuable given that research has found that parent-teacher contact occurs significantly less frequently in early elementary grades compared to preschool (Izzo et al., 1999; Rimm-Kaufman & Pianta, 1999). Furthermore, contact that does occur starting in kindergarten is more note-related (versus in person), pertains to more negative news (i.e., regarding child difficulties in the classroom), and is more school-initiated rather than parent-initiated (Rimm-Kaufman & Pianta, 1999). Likewise, throughout the early elementary grades, parents report less connection to their child's school, more formal and more negative parent-school contact, and less useful information provided for facilitating their children's functioning within and outside the classroom (Downer & Myers, 2010; Pianta & Cox, 2000).

This shift may be particularly detrimental for children at-risk for school difficulties because they have fewer resources for developing social-emotional skills and connecting to the school environment (Raver & Knitzer, 2002). Thus, efforts to promote positive and active parental involvement and supportive parent-school relationships may be beneficial for setting the stage for positive school development, particularly at a time when such developmental trajectories are still malleable and very much influenced by their primary socializing agents across school and home contexts (Cooper, 2006).

Among the limited studies that have examined parent educational involvement, results have been equivocal and seem to depend on which facet of educational involvement and which social-emotional outcomes are considered (Booth et al., 1994; Domina, 2005). Part of this inconsistency may also be due to

the fact that many studies do not comprehensively consider both quantity and quality of parents' educational involvement at home and school. Furthermore, each involvement facet may reflect distinct ways that parents are involved, which in turn may have unique implications on children's developing skills and competences across home and school settings.

The following section briefly reviews existing research on parent involvement dimensions (i.e., the quantity and quality of school-based and home-based involvement) in early and middle childhood. Given that very few studies have examined these facets of educational involvement in relation to social-emotional areas of school adjustment (e.g., school liking and cooperative participation), literature on related outcomes (i.e., broader aspects of social-emotional development) is discussed and used as a basis for the study's hypotheses. Theoretical mechanisms (e.g., socialization theories) are also incorporated to explain these associations.

### **Parents' school-based involvement.**

*Quantity of school-based involvement.* The frequency of parents' involvement in school-based activities has been focused on most extensively in parent-school partnership literature. Quantity of school-based involvement most often includes the frequency of school-based participation and quantity of parent-school contact.

*School-based participation.* School-based participation has been defined as activities and behaviours that parents engage in at school with (or on behalf of) their child (Fantuzzo et al., 2000). These may include participation in school

activities such as volunteering or observing in the classroom, being part of advisory committees, and participating in school social events and field trips (Fantuzzo et al., 2000; Hill & Taylor, 2004; Powell et al., 2010).

Izzo and colleagues (1999) found that parents' participation in school activities, as rated by teachers, was positively associated with children's task orientation and frustration tolerance in early elementary grades (i.e., 1-3). Fantuzzo, Tighe, and Perry (1999) further found that parent participation in school functions (e.g., volunteering in the classroom, going on class trips, meeting other parents to plan events) was associated with lower levels of disruptive peer play and higher levels of self-regulation in peer interactions in preschool. These associations were demonstrated across home and school contexts (i.e., parent and teacher reports). Marcon (1999) additionally found that increased school-based involvement and active types of involvement (e.g., volunteering) in low-income families (as rated by teachers) were associated with positive school readiness skills (i.e., social and learning behaviours) for preschool-aged children. Finally, Powell and colleagues (2010) found that the quantity of school involvement (e.g., volunteering and observing in the classroom) as rated by parents, positively predicted preschoolers' pro-social skills and negatively predicted problem behaviours, as rated by teachers. These associations remained significant after controlling for the observed quality of teacher interactions with children in the classroom, home-based involvement, parental education level, and child ethnicity.

To date, interpretation of such findings can be categorized into social-learning theory and social-control perspectives. Regarding social-learning theory

(Bandura, 1989), these studies suggest that if children see their parents model the importance of school by being involved in school activities themselves, children may be more likely to view their school experiences in a positive light, and be more receptive to learning the many skills taught in the classroom (Feiler et al., 2008). Alternatively, a social-control perspective suggests that parents being visibly present in the classroom may create a concrete connection between home and school behavioural and social expectations, and thus help support children's transition to the formal school environment. In turn, social support and authority may be transferred between contexts (Fantuzzo et al., 2004), with children receiving consistent messages about what is expected and taught across environments from different socialization agents (Hill & Taylor, 2004). This may lead to improved social-emotional functioning in the classroom setting.

Although the aforementioned studies demonstrated the benefits of parent participation in school activities, other studies have found little influence of this type of involvement on children's social-emotional development. For instance, Swick (2007) found a non-significant association between the quantity of parental involvement in school-based activities and kindergarten children's social-emotional functioning (i.e., assertiveness, frustration tolerance, and peer social skills). As well, Fantuzzo and colleagues (2004) found that school-based involvement significantly predicted children's end-of-year behavioural engagement skills (e.g., attention, persistence, attitude towards learning, conduct difficulties), but only when considered simultaneously with home-based involvement activities; not when home-based activities were statistically

controlled for. Moreover, in an exploratory analysis of elementary school children's adjustment, Tan and Goldberg (2009) found that when parents were more directly involved with schools, children tended to have *lower* levels of school enjoyment and achievement. These unexpected findings were thought to either reflect the mixed content of the direct school involvement scale used, or that parents may have responded to children's school difficulties by getting more involved. In short, more research is needed to clarify the relationship between the quantity of school-based involvement and children's social-emotional functioning, as well as to operationalize unique dimensions of parental involvement to more accurately decipher exactly which facets have implications on children's school outcomes.

*Parent-school contact.* Frequency of parent-school contact is also generally subsumed under quantity of school-based involvement. This refers to the amount of communication between parents and schools with regards to children's educational progress, difficulties, and accomplishments exhibited in the home and school setting (Fantuzzo et al., 2000). This contact may be informal (e.g., chatting at the end of the school day) or formal (e.g., parent-teacher conferences); direct (e.g., in person) or indirect (e.g., through email, phone, memos); active (e.g., parent-initiated) or passive (e.g., signing consent forms and teacher-initiated), though few studies empirically differentiate among these different forms (Davis, 2000; Marcon, 1999).

Roopnarine and colleagues (2006) found that the frequency of mothers' home-school contact (e.g., met with teacher to discuss behavioural issues,

education, and performance) predicted children's persistence, self-confidence, and sociability in kindergarten. In a low-income sample, McWayne and colleagues (2004) also found that parents who had regular school discussions had children with greater cooperation in peer play interactions at home, whereas parents with low school contact had children who demonstrated greater externalizing difficulties (i.e., hyperactivity).

Similar to school-based participation, parent-school contact may promote children's early school adjustment through the development of similar expectations and congruence between the home and school setting (El Nokali et al., 2010; Swick, 2007). For instance, parents see their child in a variety of social and learning situations beyond the school context. As a result, they can often provide unique insights and perspectives about their child's strengths and needs, and can inform teachers about any family or educational history that may impact their transition and adjustment in the classroom (Alberta Education, 2008). Moreover, parents who monitor their child's school progress and spend time discussing with teachers are more likely to know that their child is having difficulty at school and to intervene before problems escalate (Domina, 2005; Miedel & Reynolds, 1999). Likewise, effective parent-teacher contact is associated with children's general success in school (e.g., Epstein, 1996; Rimm-Kaufman et al., 2003). Conversely, if parents only contact schools once or twice a year, this may not be enough time to achieve congruence in expectations and goals, or to know that child difficulties are occurring and being addressed (Swick, 2007). Congruence between home and school may be particularly crucial for

children entering elementary grades at-risk for school difficulties (e.g., social-emotional, behavioural, or learning difficulties), where the level of parent-school communication may be a significant factor in closing the gap in school difficulties for low and high-risk children.

It is important to note that the positive influence of parent-school contact on children's school-related development is also far from consistent, particularly when analyses statistically control for other salient parent involvement dimensions. For instance, Fantuzzo et al. (2004) found that the frequency of parent-teacher conferencing only weakly predicted less conduct problems and did not predict children's persistence and attitude towards learning once home-based involvement activities were controlled for. McWayne and colleagues (2004) found that the amount of parent-school contact positively predicted children's cooperation and negatively predicted hyperactivity, but did not predict other key social-emotional outcomes investigated in the study (e.g., assertiveness, self-control, and peer play interactions). In an earlier study, Fantuzzo and colleagues (1999) also found that the frequency of parent-school communication (e.g., discussing children's educational experiences and progress) did not directly predict child outcomes, including teacher-rated social competence. Interestingly, Izzo et al. (1999) found that the mere frequency of parent-teacher contact in kindergarten negatively predicted both school behaviours and adjustment in early elementary years. That is, the quantity of parent-teacher interactions actually predicted less improvement in children's social-emotional and learning behaviours over time.

In short, some researchers (e.g., Fantuzzo et al., 2004) have suggested that parent-school contact may be less visible to children and therefore have a less direct influence on child behaviour and adjustment at home and school. Additionally, mixed findings may reflect methodological differences across this limited number of studies. Specifically, many educational involvement studies do not differentiate between school-initiated contact and parent-initiated contact, active versus passive forms of involvement, or the emotional context in which contact occurs (Hill, 2001; Pomerantz et al., 2007).

Specifically, Hill (2001) noted that whether parent-school contact occurs reactively for a child who is having school difficulties or occurs actively to maintain an ongoing positive dialogue between parents and schools may make a difference in how parent-school contact influences child outcomes. Parents with children who exhibit emotional or behavioural difficulties are more likely to have high frequency communication with school staff about their children's difficulties (Davis, 2000; Deslandes & Bertrand, 2005; Downer & Myers, 2010).

Alternatively, when parents initiate and maintain positive communication; share information, feedback, and questions with teachers; and seek guidance on strategies to facilitate children's skills and learning, they may facilitate better social-emotional functioning across home and school contexts. This conflicting body of research also exemplifies the importance of considering the emotional context and tone in which parents' school-based involvement takes place (i.e., considering the quality of parents' school-based involvement such as parent-school relationship quality).

*Quality of school-based involvement.* As mentioned, research has demonstrated that parent-teacher interactions occurs significantly less frequently in kindergarten than in preschool (Rimm- Kaufman & Pianta, 1999) and tends to decrease further as children proceed through elementary grades (Hornby & Lafaele, 2011; Izzo et al., 1999). Thus, during early elementary, the *quality* of interactions between home and school may assume particular importance in facilitating children's school-related adjustment.

The relationship between parents and teachers (and schools more broadly) characterizes school-based involvement quality. The parent-school relationship refers to the affective quality of the home-school link, which may be indexed by the level of trust, mutual respect, reciprocity, support, positive tone, and shared beliefs regarding each other's capabilities, practices, expectations, and goals (Comer & Haynes, 1991; Hughes & Kwok, 2007; Swick, 2007; Vickers & Minke, 1995). Researchers have highlighted an ecological perspective on the quality of school-based involvement by emphasizing the multi-directionality of parent-school relationships. That is, parent-school relationships are more than just parental involvement that is one-way; they are bidirectional partnerships that involve two-way exchanges of communication, with both schools and parents working together to foster children's learning and development (Baker et al., 1999; Lyod, 2002; Vickers & Minke, 1995). This may develop informally when parents and teachers have discussions about child progress during and after school (Davis, 2000). Such interactions may then be built upon during more formal meetings and school conferences.

Unfortunately, some researchers have noted that many parents feel that the home-school relationship is not fostered or nurtured (Hill, 2009), and that teachers have limited opportunity for individualized interactions with parents (Baker et al., 1999). Furthermore, school personnel often view parents of children with behavioural difficulties as part of the problem (i.e., they may blame the parents for child difficulties; Jackson, 2009; Mapp & Hong, 2010). This deficit perspective does not promote parents as partners in their children's educational experiences, neglects the unique information that parents may provide to schools to better assist their children's developmental outcomes, and can facilitate cascading, negative parent-school relationships (Jackson, 2009). That is, when parents and teachers disagree and are unsuccessful in their collaboration attempts, they may both be less likely to interact in positive ways and may become resistant towards becoming further involved with each other in the future. In contrast, when parents feel as though their thoughts and opinions are appreciated, they are likely to become more engaged in school activities (Downer & Myers, 2010). Furthermore, when parents feel that they are mutual partners and supported in their children's learning and development, they may be better able to assist their children's learning and development at home (Baker et al., 1999; Fantuzzo et al., 2004; Hoover-Dempsey et al., 1995).

Creating a relationship in which both parents and teachers feel they are working toward the same goals and can openly discuss accomplishments and difficulties may in turn benefit children's progress in the classroom (Henderson & Mapp, 2002; Kohl et al., 2000; Sheridan et al., 2010). As well, the quality of

early parent-teacher relationships has been noted to determine the course of future parent-school collaboration in later grades (Izzo et al., 1999; Mapp & Hong, 2010). Thus, building communication, trust, and reciprocity between home and school seems particularly important during early elementary, as it may set the stage for positive partnerships and continued child development throughout grade school.

Although several recent studies with older elementary and high school students have indicated that positive parent-school relationships facilitate student outcomes (Lohman & Matjasko, 2010), there is little research that has examined the nature of this relationship in relation to social-emotional functioning in early elementary. Among this limited body of research, Izzo and colleagues (1999) found that the quality of the parent-teacher relationships as rated by teachers was positively associated with children's social skills (e.g., assertiveness, peer interactions) and engagement (e.g., acting out, frustration tolerance, task orientation) in elementary grades (i.e., K-3), after adjusting for social skills and engagement upon school entry.

In younger children (i.e., preschool age), Swick (2007) also found that teacher ratings of parent-teacher relationships, as characterized by the overall relationship, emotional tone, trust, communication, agreement, appreciation, and cooperation, predicted children's social competence in the classroom. Moreover, Powell and colleagues (2010) examined parents' perceptions of teacher responsiveness, an integral component of parent-teacher relationship quality. This construct included parents' perceptions of teacher warmth, affection, and

interest in their child, as well as feelings of respect and acceptance towards them as parents. These authors found that teacher responsiveness predicted better social-emotional skills (i.e., cooperation, assertion, and self-control) and less problem behaviours (externalizing and internalizing behaviours) in preschool children, even after controlling for parents' home-based involvement and observed classroom quality.

In another study, Rimm-Kaufman and colleagues (2003) found that teacher reports of parents' attitudes towards their child's education (a proxy for parent-school relationship quality; Kohl et al., 2000) predicted kindergarten children's classroom participation and engagement, after accounting for socio-economic status (SES) and observed maternal sensitivity. Finally, Kohl and colleagues (1994, as cited in Kohl et al., 2000) and Hill (2001) examined the quality of the parent-teacher relationships from both parent and teacher perspectives, and found that for both, this facet of involvement was more strongly associated with children's positive school adjustment than was the amount or quantity of parents' school-based involvement.

Positive parent-school relationships may be especially important when there are cultural or environmental disparities between the home setting and the norms and expectations of the classroom (Lahaie, 2008; Rimm-Kaufman et al., 2003). Specifically, high-quality parent-teacher relationships can create a bridge for minority parents, parents with less formal education, single parents, and families with multiple life stressors, by reducing isolation and stress, increasing social capital, and facilitating involvement and reinforcement of their child's

learning at home and in school (Anthony, 2008; Epstein, 1995; Nzinga-Johnson, 2009; Terrion, 2006). In one notable study, Hughes and Kwok (2007) found that the quality of parent-teacher relationships mediated the association between children's background characteristics (i.e., SES, ethnicity) and teacher-rated school engagement (i.e., effort, persistence, and cooperative participation) in grade one. In turn, children's classroom engagement mediated the association between parent-teacher relationships and child achievement one year later.

Together, these limited studies suggest that parent-school relationship quality may directly influence children's early school outcomes. That is, children may demonstrate higher levels of social-emotional and behavioural functioning when parents experience positive relationships with teachers. This may be because parents and teachers who can foster a high quality relationship are better able to work together to provide more consistency of goals and expectations between home and school environments (Baker et al., 1999; Hill & Taylor, 2004). Those parents that have a positive relationship with their child's school may also be more likely to reiterate the importance of listening and behaving in the classroom and reinforce the authority of the teacher (Fantuzzo et al., 2004). This in turn may foster greater behavioural engagement in the classroom.

These studies also suggest that when involved in school in a positive way, parents may highlight and model the value of school and positive relationships with others (e.g., teachers), which may in turn facilitate children's social-emotional skills and cooperative engagement with teachers and peers (i.e., social-learning perspective). In the same vein, parents who are uninvolved in school-

related endeavours, or who have ineffective and negative relationships with their child's school, may model problematic ways to deal with conflict, ineffective strategies for interacting with others, and an unengaged attitude towards learning. In sum, it is important for researchers, educators, school psychologists, and other professionals working with families and children to better understand the importance of reciprocal and collaborative connections between home and school to maximize positive child outcomes.

**Parents' home-based involvement.** By the time children reach elementary school, most have spent approximately one-quarter of their time at school and three-quarters of their time at home (Reynolds & Shlafer, 2010). This exemplifies the importance of parent involvement in home-based learning (e.g., intentional teaching) and socialization activities with their children. Research, however, has tended to conceptualize parent educational involvement too narrowly by neglecting to include involvement in the home setting (Lahaie, 2008; Sheridan et al., 2010). Thus, studies that solely examine educational involvement may not be encompassing the full range of involvement that parents can provide to their children's school related development. This may be particularly important for parents who may be unable to participate in school-based activities (e.g., single parents; families in poverty), but are nonetheless actively involved in educational activities in the home setting (Davis, 2000; Fantuzzo et al., 2000; McWayne et al., 2004; Pomerantz et al., 2007). Furthermore, schools tend to evaluate parents' educational involvement based on their level of contact with schools or by their involvement in school events and activities, which does little

to accurately describe the degree to which parents are actually involved in their children's learning and development (Downer & Myers, 2010; Fantuzzo et al., 2000; Flessa, 2008).

Parents are critical agents in teaching their children new skills. Yet there is considerable variation in the quality and quantity of learning that takes place in the home setting. These differences may have implications on not just achievement but on additional realms of child development (i.e., social-emotional; Dearing & Tang, 2010). Home-based educational involvement has been defined as "parent behaviours describing the active promotion of a learning environment at home for children" (Fantuzzo et al., 2000, p. 317). Home-based involvement focuses on facilitating the development of children's skills and competences that help support school adjustment as well as learning that extend beyond the classroom (Hill, 2009).

The most effective types of parental involvement activities may be those that engage parents in directly working and interacting with their child (Cotton & Wiklund, 2001; Stevens, 2009). For example, this may involve establishing daily routines, encouraging progress and development in learning-related activities, talking with children about school activities and issues, setting appropriate expectations for learning and behaviour, and helping children practice what they are being taught in the classroom (McWayne et al., 2004). Parents in early grades also spend much time learning in play and academic activities such as joint reading, telling stories, creating art, building projects, and teaching new knowledge and skills in both formal and informal ways (Anthony, 2008; Lahaie,

2008; Swick, 2007). During children's first school years, home-based involvement is less homework related and more parent-initiated. Although specific involvement tasks and activities may change, parents' home-based involvement appears to be relatively stable across these elementary years (Downer & Myers, 2010; Eccles & Harold, 1996; Manz, Fantuzzo & Power, 2004). Certainly then, such relative persistence in parental home involvement may have both immediate and lasting effects on children's developmental outcomes. The following two sections focus on two important aspects of home-based involvement: (a) the quantity of educational activities with children at home, and (b) the general quality of interactions between parents and children.

*Quantity of home-based involvement.* Of the limited parent educational involvement studies that have included home-based involvement, the vast majority focus on the frequency of learning activities engaged in with parents and children. This line of research has found that the stimulation and routines parents provide in the home environment support the social-emotional skills (e.g., self-regulation) and motivation necessary for successful school experiences (Belsky & MacKinnon, 1994; McWayne et al., 2004; Pianta & Walsh, 1996).

For instance, McWayne and colleagues (2004) found that the home learning environment (e.g., talking to their child about school experiences) in kindergarten positively predicted parent and teacher reports of children's cooperation, assertiveness, self-control, and positive engagement with peers. Fantuzzo and colleagues (1999) found that the quantity of home-based involvement activities (e.g., learning activities at home) was positively related to

preschoolers' pro-social interactions both at home and at school. Melhuish and colleagues' (2001) study also concluded that the amount of home learning activities that parents engaged in was associated with increased levels of cooperation, peer sociability and confidence, as well as lower levels of anxious/upset behaviours in children. Finally, Tan and Goldberg (2009) found that mothers' and fathers' interpersonal involvement (e.g., spending time with their child in activities such as reading, playing games, and talking about school problems) predicted elementary children's school enjoyment, as rated by parents. Moreover, children in families with at least one highly involved parent reportedly had lower levels of anxiety than did children with two low-involved parents. Results from this study support the view that higher levels of home involvement by at least one parent during this developmental stage are positively related to children's adjustment to school.

Home-based involvement has also been found to have more of an impact on child outcomes than school-based involvement (Fantuzzo et al., 2004; Jeynes, 2005; Rogers et al., 2009). Fantuzzo and colleagues (2004) found that the frequency of home-based involvement activities (e.g., reading at home; asking about school) emerged as the strongest educational involvement predictor for children's school efficacy (i.e., feelings of competence), task persistence, and pro-social behaviours in a sample of head start kindergarten children. Additionally, Izzo and colleagues (1999) longitudinally examined ways in which parent educational involvement related to children's social-emotional and academic adjustment in early elementary. These authors found that relative to school-based

involvement dimensions (e.g., quantity and quality of parent-teacher contact), the amount of involvement in educational activities at home predicted the widest range of child outcome variables over time, as rated by teachers.

Foster and colleagues (2005) found that a stimulating home learning environment mediated the relationship between family socio-economic status and children's social functioning. Other aforementioned studies have underscored that it is what parents do with their children that is more important to school success than family income or parents' educational level (Davis, 2000; Henderson & Berla, 1994; Rimm-Kaufman et al., 2003; Zellman & Waterman, 1998). Specifically, home-based involvement has been found to be less affected by socio-economic status, family size, and marital status than school-based involvement (Dauber & Epstein, 1993; Fantuzzo et al., 2000; Hoover-Dempsey et al., 1992), and is found to be more stable across early elementary grades than school-based involvement activities (Izzo et al., 1999). Likewise, parent-child interactions around schooling (e.g., educational activities and homework) have been found to be positively associated with children's school compliance and sociability for both middle-class (Adams, Ryan, Ketsetzis, & Keating, 2000) and low-income families (Fantuzzo et al., 2004; McWayne et al., 2004). Thus, parents who experience factors that may hinder adequate school-based involvement may still engage in practices at home that facilitate children's positive development (Izzo et al., 1999).

Aside from these noted studies, Pomerantz and colleagues' (2007) meta review underscored that the demonstrated benefits of home-based involvement on

children's school outcomes is far from consistent, and that more research is needed prior to drawing conclusions. One reason asserted by these authors is that most studies fail to consider the quality of home-based involvement (e.g., parent-child interactional quality), and rather focus exclusively on the quantity or range of home activities that parents are engaged in. Accordingly, considering how parents are involved in their child's learning and development and the relational context they create with their child may be the critical factor to better understand the link between parents' home-based involvement activities and children's positive school adjustment across domains.

*Quality of home-based involvement.* Parent involvement is not merely about the different ways that parents can be involved in their children's school-related experiences (e.g., literacy activities), but also how their involvement is conveyed to their child (Darling & Steinberg, 1993; Pomerantz et al., 2007). Although most educational involvement literature fails to consider the quality of home-based involvement (i.e., affective dimensions of involvement) in conjunction with other (e.g., behavioural) involvement dimensions (Dearing & Tang, 2010; Pomerantz et al., 2005), broad constructs of parenting and parent-child interactions have been studied extensively in child development literature. This area of research recognizes the quality of the home environment as a major contributor to children's social-emotional and behavioural functioning (Edwards, Sheridan, & Knoch, 2008; Foster et al., 2005). In fact, Pianta and Walsh (1996) posited that the quality of parenting is the "strongest potentially modifiable risk factor" contributing to the development of competences and difficulties in

children (p. 14). Pomerantz and colleagues' (2007) review further discusses the various qualities of parents' home-based involvement. For the scope of the present study, two broad dimensions of parent-child interactional quality (i.e., positive versus negative) are briefly highlighted.

*Positive parent-child interactions.* Parents need to be supportive and encouraging for their involvement to be effective in facilitating children's skills and engagement in learning and interactional tasks within and outside the family (Dearing & Tang, 2010; Hill, 2001; Rogers et al., 2009; Simpkins et al., 2006). Positive parent involvement may include being child-centered (e.g., accommodating child interests and perspective), offering guidance when needed, and exhibiting open, responsive communication with their child (Black & Logan, 1995; Grolnick, 2003; Mattanah, 2005; Pomerantz & Eaton, 2001; Pomerantz et al., 2007; Sheridan et al., 2010). Similarly, fundamental dynamics of the parent-child relationship have been characterized by high levels of warmth (e.g., emotionally available, responsive to child's cues), positive affect and support, and with low levels of negativity and conflict (Clark & Ladd, 2000; Driscoll & Pianta, 2006; Edwards et al., 2008).

Caspe and colleagues (2006; 2007) asserted that when parents take the time to offer encouragement and support, and develop close, reciprocal parent-child relationships, children are less likely to require discipline at school or be referred for assessment for social-emotional and behavioural difficulties. Similarly, Pianta and colleagues (1997) found that the overall quality of mother-child interactions (i.e., high closeness and low conflict) predicted teacher-reported

social adjustment in kindergarten, which was a stronger predictor than the quality of teacher-child relationships. Children in more emotionally connected parent-child relationships have also been found to display more positive social-emotional outcomes, such as stronger pro-social orientations, higher quality friendships, and higher levels of peer acceptance in kindergarten (Clark & Ladd, 2000; Cohn, 1990; Collins, Harrist & Susman, 1995; Edwards et al., 2008).

Shared positive affect, connectedness, and warmth in parent-child interactions have also been shown to predict better social skills, school adjustment and engagement, and lower behavioural and emotional difficulties (e.g., frustration tolerance) across elementary grades (Booth et al., 1994; Furrer & Skinner, 2003; Grolnick et al., 1999; NICHD, 2003; Pianta et al., 1997; Steelman et al., 2002). As well, Morrison and colleagues (2003) found that positive mother-child interactions in early elementary accounted for unique variance in social functioning in middle school, over and above the contribution of demographic variables. Certainly then, the quality of home-based involvement during early school years can have enduring effects on children's functioning in subsequent grades. Studies with at-risk children (e.g., low SES; difficult temperament) parallel these findings, with some researchers noting that warm and supportive parent-child interactions are more strongly predictive of positive adjustment for children at-risk for school difficulties (Pianta & Ball, 1993; Pianta & Walsh, 1996; Straight, Gallagher, & Kelley, 2008).

Collectively, these studies suggest that when parents involved in educational activities attempt to make such interactions supportive, warm, and

enjoyable, they foster harmonious interactions with their child. This enables the parent-child relationship to function cooperatively and effectively through facilitating children's feelings of connectedness and relatedness with parents (Dix & Branca, 2003). Children with mutually responsive and emotionally supportive parents in turn have been shown to be more likely to internalize parents' teaching and socialization attempts (e.g., compliance, sharing, cooperation), which may result in better social-emotional skills across home and school contexts (Dearing & Tang, 2010; Joussemet, Landry, & Koestner, 2008; Kochanska & Aksan, 1995; Kochanska, Coy, & Murray, 2001). Furthermore, positive and supportive interactions when engaging in parent-child educational activities may facilitate feelings of mastery and competence, leading to children's engagement when such activities are attempted on their own (Pomerantz et al., 2007; Reay, 2000). This aligns with socialization theories (e.g., attachment and self-determination theory), which assert that parents who are able to provide support for their children's efforts while remaining available for assistance and comfort promote the social-emotional skills necessary for successful interactions and relationships within and outside the family (Grolnick, 2003; Joussemet et al., 2008; Kim & Kim, 2008; Scaramella & Leve, 2004). As well, from a social-learning perspective, supportive parents may model positive behaviours and interactional styles for their child to emulate in interactions with others (e.g., teachers and peers), as well as model and reinforce positive engagement towards learning activities. Thus, skills developed within early parent-child interactions inform children's socialization as they enter elementary school, where they utilize these skills to

adjust to school demands and to establish new relationships with others (Morrison et al., 2003).

*Negative parent-child interactions.* At times, parents may become critical and frustrated and resort to imperatives and demands during attempts to teach their children new skills (Grolnick, 2003; Grolnick & Farkas, 2002). When parents frequently engage in negative, parent-centered behaviours, they create less opportunity for children's learning and engagement, affect children's perceptions of competence in their environment, and invalidate their feelings (Ballash, Leyfer, Buckley, & Woodruff-Borden, 2006; Grolnick, 2003; Joussemet et al., 2008; Pomerantz & Eaton, 2001). When negative interactions are frequent and occur over time, children may begin to reject parental attempts at involvement, creating conflictual parent-child relationships and enduring negative effects on child development (Grolnick, 2003). An extensive amount of empirical research has demonstrated the link between negative parent-child interactions and various child outcomes (e.g., aggression and defiance, low social competence, low intrinsic motivation, and internalizing behaviours; Campbell, Pierce, March, Ewing, & Szumowski, 1994; Carson & Parke, 1996; Denham, Renwick & Holt., 1991; Hart, DeWolf, Wozniak, & Burts, 1992; Nolen-Hoeksema, Wolfson, Mumme, & Guskin, 1995; Pettit, Bates, & Dodge, 1993; Stormshak, Bierman, McMahon & Lengua, 2000).

Notably, Stormshak and colleagues (2000) examined parent-child interactions in a sample of parents with behaviourally disruptive first graders and found that parent's punitive interactions and low levels of warmth were associated

with elevated rates of child disruptive behaviour problems. Similarly, Collins et al. (1995) found that mother-child interactions characterized by negative synchrony (i.e., low engagement and connectedness; negative affect and tone) predicted social and behavioural difficulties (i.e., withdrawal and aggression) across a variety of measures (i.e., parent, teacher, peer reports and observations) in kindergarten. Hart and colleagues (1992) found that parents' who used more negative control strategies, as measured via parent interviews and parent-child play interactions, were more likely to have children who were disruptive and less socially competent during peer play interactions.

In addition, Pianta and colleagues (1997) found that parent-child interactions characterized by negative affect, predicted lower social and behavioural adjustment in kindergarten. Isely, O'Neil, Clatfleter, and Parke (1999) also found that negative affect in parent-child play interactions predicted negative social-emotional outcomes (i.e., disruptive behaviours, aggression, and lower pro-social behaviours) in kindergarten. This was particularly the case for same-sex dyads (i.e., mother-daughter; father-son interactions).

Regarding school engagement, Nolen-Hoeksema and colleagues (1995) found that mothers who expressed negative affect toward their grade one children in an unsolvable laboratory task, children demonstrated significantly less persistence at school. As well, Grolnick and colleagues (2002) demonstrated that the less supportive interactions that parents exhibited on dyadic problem-solving tasks, the worse their elementary school children's performance was (i.e., less engagement and more negative affect) on tasks completed alone. Taken together,

the quality of parent-child interactions appear to determine the extent to which children acquire the capacity to approach tasks and interactions in a competent and confident manner; skills which seem to carry over into the classroom context (Morrison et al., 2003).

### **Child Gender Differences**

Research on gender differences has suggested that gender plays an important role in children's social-emotional development (Birch & Ladd, 1997; Hausken & Rathbun, 2002; Ladd & Burgess, 2001; Pianta & Walsh, 1996). In early elementary grades, girls tend to exhibit more pro-social behaviours in peer interactions, show greater increases in social-emotional adjustment, and demonstrate greater declines in behavioural problems relative to boys (Izzo et al., 1999; Ladd & Burgess, 2001; Maccoby & Martin, 1993; Merrell, 2009). Moreover, boys have been shown to report lower levels of school liking and greater school avoidance, and have greater declines in their level of behavioural engagement (e.g., cooperative and autonomous participation) across the early elementary years (Birch & Ladd, 1997; Izzo et al., 1999; Ladd & Burgess, 2001; Ramey et al., 1998). Regarding facets of parent educational involvement, parents of boys have also been found to report less positive interactions with their child's teacher (e.g., Izzo et al., 1999; Powell et al., 2010), and less frequent and supportive involvement in home-based activities (Izzo et al., 1999; Pianta & Walsh, 1996) compared to parents of girls.

In addition to boys being identified as having greater risk for early school difficulties and having lower quality involvement than girls, some research has

indicated that boys' school-related development may be more influenced by parent involvement than girls (Jeynes, 2005; Marcon, 1999; Tan & Goldberg, 2009). For instance, Marcon (1999) found that parents' school-based involvement was a more salient predictor of school readiness skills (e.g., social and learning-related skills) for preschool boys than girls. Moreover, Tan and Goldberg (2009) found that mothers' interactional involvement at home (e.g., reading to their child) was a salient, positive predictor of boys' school enjoyment but not girls. Some researchers have more generally reported that boys' social functioning is more susceptible to the influence of parenting behaviours than girls' social functioning (e.g., Barth & Parke, 1993). This limited research suggests that the costs of lower parent involvement and the benefits of higher involvement may be more important for boys' social-emotional outcomes. This area of inquiry has not been consistent however (e.g., Simpkins et al., 2006; Swick, 2007), and no studies found in this review have examined the differential influence that both the quality and quantity of home-based and school-based involvement have on boys' and girls' social-emotional functioning in early elementary. Accordingly, the present study aimed to investigate this research question.

### **Indirect Relationships among Parent Involvement and Children's Social-Emotional Functioning**

In addition to the limited research on educational involvement and social-emotional functioning in early elementary for boys and girls, previous research has not adequately addressed the potential indirect pathways that parents' school-

based involvement may have on children's early school functioning. Of particular interest in the present study is to examine the importance of parents' school-based involvement in directly predicting children's social-emotional functioning, while also examining whether parents' school-based involvement partly contributes to children's functioning through its influence on parents' home-based involvement activities. Parents' home involvement has been found to co-vary with dimensions of school-based involvement (Powell et al., 2010; Wanders et al., 2007). Similarly, parents who feel that their school does little to involve them have been found to be less involved in educational activities at home; whereas when teachers make parent involvement a part of their regular practice, parents increase their home interactions with children (Epstein & Dauber, 1991; Hill et al., 2004; Powell et al., 2010). Thus, schools may provide a network through which parents gain support and information, which in turn may enable them to contribute more effectively to their children's learning and development at home (Chang et al., 2009; Hill & Taylor, 2004; Marcon, 1999). Ecological systems theory further asserts that mesosystem level variables (e.g., the parent-school link) may have an indirect (or at least a more distal) influence on child development through more proximal microsystem level variables (i.e., home involvement). No studies found in this review have explicitly examined whether parents' school-based involvement directly contributes to children's social-emotional outcomes or indirectly contributes through the mediating influence of home-based involvement activities during early elementary.

## **Contextual Variables of Parent Educational Involvement**

Parent educational involvement exists in family and school contexts that may contribute to the associations between parents' involvement at home and school and children's outcomes. Family SES and parent marital status are two potentially influential elements of family contexts. In particular, some studies have found higher levels of school-based involvement (e.g., Castro, Bryant, Peisner-Feinberg, & Skinner, 2004; Fantuzzo et al., 2000) and home-based involvement (e.g., Magnuson, Sexton, Davis-Kean, & Huston, 2009) among parents with higher education levels. Single parents have also been found to be less involved in school-based activities compared to two-parent families (Fantuzzo et al., 2000; Grolnick & Slowiaczek, 2004; Kohl et al., 2000; Reynolds et al., 1992). Family SES has also been repeatedly linked to early school outcomes, across learning and social-emotional domains (Rimm-Kaufman et al., 2003; Rimm-Kaufman & Pianta, 2000).

Moreover, child-school variables such as grade, children's special education status, and teacher-child relationship quality may confound the influence of parent involvement on children's social-emotional functioning. Specifically, some studies have found that parents of children with functional difficulties (e.g., behavioural and attentional disorders) have poorer relationships with their child and child's teacher, and that children with learning and behavioural difficulties have lower social-emotional functioning than children without such difficulties (Merrell et al., 1992; Roger et al., 2009). As well, parents tend to be more involved and have higher quality relationships with

schools in earlier elementary grades (Rimm-Kaufman & Pianta, 1999), where children also tend to have higher engagement (e.g., school liking) but have yet to master social-emotional skills. Finally, the quality of teacher-child relationships may influence both how parents are involved in their child's education, as well as children's social-emotional functioning. Previous literature has established that teacher-child relationships play a key role in facilitating children's social adjustment and emotional competence (e.g., Howes et al., 1994), and serves as a key factor linked to later trajectories of school success or difficulties (Birch & Ladd, 1997; Pianta et al., 1997). Most studies to date however have not adequately addressed and statistically controlled for these contextual variables when examining the relationship between parent involvement and children's social-emotional outcomes (one noted: Powell et al., 2010).

### **Purpose of the Present Study**

A main goal of the present study was to expand existing literature by examining the direct and indirect contributions of parent educational involvement (at home and school) in children's social-emotional functioning during early elementary grades (K-2). A quantitative survey design was utilized for the purpose of description, prediction, and theory testing. Facets of parent involvement included: (a) the quantity of school-based involvement (i.e., frequency of parent-teacher contact and participation in school-based activities); (b) the quality of school-based involvement (i.e., parent-school relationship quality); (c) the quantity of home-based involvement (i.e., frequency of

engagement in home educational activities); and (d) the quality of home-based involvement (i.e., parent-child relationship quality).

Children's social-emotional functioning outcomes included pro-social skills, emotional regulation, and school liking as rated by parents and teachers, and autonomous and cooperative participation in the classroom, as rated by teachers. In addition, this study examined whether facets of parent involvement differentially predicted social-emotional functioning outcomes for boys and girls. Such analyses aim to provide insight into parent involvement for this age group, and to further elucidate the role that parents and parent-school relationships play in helping boys and girls meet the social and emotional challenges of their early school years.

### **Research Questions**

- (1a) How are primary caregivers involved at home and at school during early elementary grades (K-2)?
- (1b) Does the level of home-based and school-based involvement differ as a function of child gender and grade?
- (2) What additional family members are involved in children's learning and development during these years, and what activities are they most typically involved in?
- (3a) What is the relative importance of parents' school-based and home-based involvement (quality and quantity) in predicting children's social-emotional functioning, as rated by parents and teachers?
- (3b) Do these associations differ between boys and girls?

- (4) Does parents' school-based involvement predict children's social-emotional functioning indirectly through parents' quantity of home-based involvement, as suggested by developmental-ecological theory?

Recognizing that many contextual variables may be associated with parental involvement and children's social-emotional outcomes, salient child characteristics (i.e., grade, initial functioning), family background variables (e.g., parent education and marital status), and teacher characteristics (e.g., teacher-child relationships) were considered and statistically controlled for, to protect against spurious findings.

In order to answer these research questions, the following hypotheses were made based on theory and previous research in the areas of parent-school partnerships, parenting, and social-emotional development.

### **Hypotheses**

- (1) Parents' quantity and quality of home-based involvement were not expected to differ significantly among early elementary grades (i.e., K-2), whereas parents' quantity and quality of school-based involvement were hypothesized to decrease across early elementary grades. As well, parents' home-based involvement and quality of school-based involvement were expected to be significantly lower for parents of boys compared to parents of girls.
- (2) Which other family members are most typically involved during early elementary grades, and what activities they are involved in was exploratory, and thus no hypotheses were made.

- (3a) Parents' quantity and quality of home-based involvement, and quality of school-based involvement (i.e., parent-school relationships) were expected to uniquely predict children's social-emotional functioning outcomes, as rated by parents and teachers. Given the lack of consistent empirical evidence on the role that parents' quantity of school-based involvement plays in children's social-emotional functioning, no directional hypotheses were made.
- (3b) Although boys were expected to have significantly lower social-emotional functioning ratings compared to girls, the contributions of parents' home-based and school-based involvement were expected to be more salient for boys' social-emotional functioning outcomes, relative to girls.
- (4) Finally, it was hypothesized that the relationship between parents' school-based involvement and children's social-emotional functioning would be at least partly explained (i.e., mediated) through parents' quantity of involvement in home-based activities.

## Methods

### Participants

The participants for this study included 286 primary caregivers and 237 teachers of children in early elementary grades (K-2). Parents were recruited from 47 early elementary classrooms in 18 schools, across five Edmonton area school districts (see Appendix A for parent information and consent forms).

The sample was predominately Caucasian (73.4%), and middle (33.6%) to upper (49.6%) socioeconomic status (i.e., \$45,000 -\$69,000, and \$70,000 + for total family income, respectively; Statistics Canada, 2010). Participating parents were almost all mothers (94.4%) with a mean age range of 30-34 years old. At the time of the study, 76.9% of participating parents were living in a two-parent family (i.e., either married or common law), whereas 17.1% were separated/divorced, and 4.5% were single. The majority of participating parents had completed a university degree (68.8%), whereas 9.4% had graduate-level training, and 9.7% received high school diplomacy. Finally, 67.1% of participating parents worked either part or full-time, whereas 21.2% indicated that they were full-time stay-at-home parents, and only 1.0% indicated they were unemployed at the time of the study.

Of the participating children (137 boys and 149 girls), 81 were in kindergarten, 108 were in grade one, and 97 were in grade two. Mean age of participating children was 6.1 years ( $SD = .85$ ). Approximately 11% ( $n = 32$ ) of the child sample was reported by parents to be receiving some specialized

supports for functional difficulties (e.g., learning, attentional, behavioural difficulties) at school.

Participating teachers' years of experience ranged from 1 to 31 years ( $M = 11.8$ ). All consenting teachers were female, with 93.8% having obtained a bachelor degree and 6.3% having received Master's level training. Mean class size was 19 students (range = 14 to 26).

### **Procedures**

Ethics was obtained from the University of Alberta Research Ethics Board. Subsequently, approval for conducting school-based research in five of the main school districts in the greater Edmonton area was obtained through the University of Alberta Cooperative Activities Program (CAP) process. A list of elementary schools in larger school districts (i.e., Edmonton Public and Edmonton Catholic) was used as the sampling frame to randomly select 10-15 schools per district. For smaller districts (i.e., Blackgold, St. Albert Protestant, and two areas in Elk Island), all elementary schools were invited to participate. Principals from these schools were contacted and informed about the details of the project (see Appendix B). Among these, 18 principals (31% of invited schools) gave consent to contact their K-2 teachers to invite them to participate. Interested teachers ( $n = 47$ ) were then met in person at their school during the beginning of the year to discuss study details and to obtain written consent (Appendix C).

Parents were invited to participate through participating classrooms ( $n = 47$ ) and some after-school care programs in consenting schools ( $n = 5$ ) during the fall of the 2011 school year. This occurred by sending information letters and

consent forms home with children and by posting information letters on school websites. Interested parents returned signed consent forms either to their child's school or directly to the primary researcher. Parents were defined as a primary caregiver or adult with whom the child lives with and who is involved in their child's learning at home and school. Due to time constraints, only one parent (i.e., the caregiver most involved in their child's educational experiences) was recruited per family.

Parents who returned written consent forms ( $n = 308$ ; 30.2% of parents from consenting classrooms; 26% of parents from consenting after-school care programs) were then emailed the link to an online *Parent Educational Involvement Questionnaire* mid-school year (February, 2012). This questionnaire was published on Psychdata.com, a secure, online database where parents could access the questionnaire at their convenience and submit their responses directly to the primary researcher. Parents who alternatively indicated a preference for a hard copy questionnaire ( $n = 52$ ; 18.2%) had packages sent home with their child, which were then sealed and returned either to their child's school or mailed directly to the primary researcher. In total, 286 parents completed this questionnaire.

Questionnaire measures were chosen because they provide a feasible and cost efficient way to obtain behavioural ratings from a large sample. It was decided that parents would self-report because, although understanding the potential for socially desirable response biases, parents know their own involvement practices better than others (e.g., teachers), particularly when it

comes to home-based activities and perceptions of the quality of their relationship with child and their child's school (Baker et al., 1999; Henderson & Berla, 1994; Marcon, 1999). This parent questionnaire also had items pertaining to their child's social-emotional functioning across social and learning contexts. Participating parents had their name entered into a draw for a chance to win a \$50 gift card upon questionnaire completion.

Teachers also received a brief questionnaire to complete about participating children towards the end of the school year (April-May, 2012). Items measured children's social-emotional functioning specifically in the classroom setting. Measuring child functioning via teacher reports in addition to parent reports was chosen to address the issue of shared method variance and differences in parent and teacher perspectives, which have been found to have low-moderate concordance (Murray et al., 2007; Rose-Krasnor, 1997). Teachers completed questionnaires on 237 participating children (82.9% of the parent sample). Participating teachers received a \$20 gift card upon completion of the study.

## **Measures**

The majority of items used for the present study were drawn from previous scales and selected based on a review of the literature. Specifically, items were chosen based on their appropriateness with younger elementary grades, questionnaire length (i.e., considering parent and teacher time constraints), and relevance in addressing the constructs of interest. All items were reviewed by a small group of parents ( $n = 8$ ) and teachers ( $n = 6$ ) who were

independent of the research study, in order to obtain feedback on wording, relevance, appropriateness, range of responses, and length of time to complete.

Chronbach's alpha estimates were completed to provide an index of the scales internal consistency. As well, exploratory factor analyses (principal components) using oblique (oblimin) rotations were performed in SPSS to determine whether items loaded onto conceptually relevant factors. Scree plots (i.e., line graphs depicting the amount of variance explained by each factor), eigenvalue values greater than one (i.e., Kaiser's criterion), and theory (i.e., whether solutions were conceptually meaningful) were considered to assist with the determination of factor number. Items with factor loadings of .30 and above were retained for each factor (Field, 2005). With regard to decision making around whether to create composite scores, methodological reasons (e.g., factor correlations) in addition to theoretical and conceptual reasons (e.g., previous research and theory) were considered. Results are discussed in detail for each measure below.

**Demographic questionnaires.** Parents completed a demographic questionnaire to provide descriptive data on their child and family (Appendix D). Parent characteristics included their level of education, family income, marital status, and employment status. Child characteristics included age, grade, gender, ethnicity, and "functional status" (i.e., initial functioning) at the beginning of the school year. Following Hamre and Pianta (2005), children's functioning at school entry was used as an indicator of whether children were at-risk for school difficulties. This was measured based on whether participating children required

specialized support for attentional, learning, behavioural, and/or social-emotional difficulties, as rated by parents at the start of the study. Participating children were then dummy-coded based on their functional status (“0” if parents indicated difficulties in at least one of these areas, and “1” if parents did not). Participating teachers in K-2 classrooms also completed a brief demographic form, which provided information on their years of teaching experience, educational background, and number of children in their class (see Appendix E). In addition to providing descriptive information, these variables were used to identify and statistically control for potential confounding factors in the main analyses.

**Parent involvement dimensions.**

*Quantity of school-based involvement.* Six items were drawn from the parent interview schedule on the FACES measure (O'Brien et al., 2002) and were used to assess the nature and frequency of involvement based on the following school-based activities: Volunteering in their child's classroom, observing in their child's classroom, helping with classroom field trips, preparing or delivering materials to the classroom, attending school meetings/workshops, and attending school events such as assemblies (see Appendix F). Parents reported their frequency of participation in each activity since the beginning of the school year, using an amended five-point Likert scale (1 = *not yet* to 5 = *at least once per week*). This scale has been used in various studies and has demonstrated good internal consistency ( $\alpha = .76$ ) and construct validity (Powell et al., 2010).

For the present sample, this scale's Chronbach's alpha was .77.

Additionally, 7 items were created by the primary researcher to gauge parent's communication with their child's teacher. These items were based on a review of the literature and were adapted from previous parent-school contact scales (e.g., Fantuzzo et al., 2004; NCEDL, 2001) in order to reflect more active, parent-initiated contact (e.g., "you ask your child's teacher questions or make suggestions about your child"; "you ask your child's teacher about how your child is doing socially"). Chronbach's alpha for this scale was .89. Furthermore, exploratory factor analysis supported an oblique two-factor solution (following previous research), with items loading appropriately on parent-teacher contact and school-based participation scales. One exception was the item, "you talk to your child's teacher about your child or school activities" which cross-loaded on both factors. Nonetheless, this item loaded more strongly on the Parent-School Contact scale and thus was retained. Table 1 presents the item content and factor loadings for each of these dimensions. Although there was a moderate correlation between these two factors ( $r = .45$ ), they were examined separately given that some research has posited each to have differential influences on child school outcomes (Izzo et al., 1999; Kohl et al., 2000). A total composite score for each factor was computed by summing parents' responses across corresponding school-based involvement items.

Table 1

*Factor Loadings for Exploratory Factor Analysis of School-Based Involvement Quantity Items*

Component	Item	Loading
Parent-Teacher Contact ( $\alpha = .89$ )	Ask child's teacher about how child is doing socially	.76
	Talk to child's teacher about child's difficulties	.84
	Ask child's teacher about child's strengths	.88
	Ask child's teacher about skills to practice at home	.74
	Email or write notes to child's teacher	.42
	Talk to child's teacher on phone or in-person	.66
	Ask child's teacher questions or make suggestions about child	.80
School-based Participation ( $\alpha = .77$ )	Volunteer in child's classroom or school	.73
	Help with child's classroom field trips	.50
	Observe in child's classroom (at least 30 minutes)	.61
	Prepare and deliver materials to child's classroom or school	.58
	Attend workshops or school meetings	.38
	Visit child's school for special events (e.g., assemblies)	.45

***Quality of school-based involvement.*** Seven items from the parent-teacher relationship subscale and 4 items from the parent's endorsement of child's school subscale were drawn from *The Parent-Teacher Involvement Questionnaire* (Conduct Problems Prevention Research Group, 1995a) and used to measure the quality of parents' school-based involvement (Appendix F). Parents rated these

items on a 5-point Likert scale (1 = *not at all* and *strongly disagree* to 5 = *a great deal* and *strongly agree*), where higher scores indicated higher parental interest and comfort in talking with their child's teacher as well as greater satisfaction with their child's school. Previous utility of this questionnaire has demonstrated good reliability (e.g., internal consistency coefficients ranging from .76 -.89) and validity estimates on a sample of parents with children in kindergarten to grade two (Kohl et al., 2000). Five additional items were adapted from the *Parent-Teacher Relationship Questionnaire* (Irvine School of Education, 2011) to capture more comprehensive aspects of the parent-teacher relationship (i.e., trust, respect, similarity of expectations and view of the child). An exploratory factor analysis suggested two highly correlated factors ( $r = .68$ ): Parent-teacher relationship quality (9 items) and parent perceptions of their child's school (6 items), with the item "I feel welcome to visit at my child's school" cross-loading on both factors. The item, "my child's teacher and I view my child differently" did not load on either factor and thus was removed. Chronbach's alpha for these two scales in the present study was .91 and .89, respectively. Given the high correlation and cross-loadings between these factors, and that an overall index of parent-school relationship quality was of conceptual interest in the present study, items were summed (after negatively worded items were reversed scored) to compute a total score ( $\alpha = .93$ ; Table 2). This decision also follows Kohl and colleagues' (2000) model, which posits that both factors are dimensions of parent-school relationship quality.

Table 2

*Factor Loadings for Exploratory Factor Analysis of School-based Involvement Quality (Parent-School Relationship) Items*

Component	Item	Loading
Parent-teacher Relationship ( $\alpha = .91$ )	Enjoys talking to child's teacher	.90
	Feels comfortable talking with teacher about child	.83
	It is difficult for parent and teacher to work together	.57
	Feels teacher cares/ takes an interest in child	.90
	Teacher is interested in getting to know parent	.84
	Parent and teacher have similar expectations for child	.68
	Feels that teacher pays attention to parent suggestions	.39
	Parent and teacher trust each other	.77
	Parent and teacher respect each other	.76
	Perceptions of School ( $\alpha = .89$ )	Child's school is a good place for child to be
Child's school is doing a good job preparing child for future		.97
Child's school does a good job letting parent know how child is doing at school		.62
Feels welcome to visit at child's school		.51
School staff is doing good things for child		.90
Have confidence in child's school		.96
School-based Quality Score ( $\alpha = .93$ )		

**Quantity of home-based involvement.** A 13-item scale was created from a variety of existing measures (e.g., NCEDL, 2001; O'Brien et al., 2002; Roopnarine et al., 2006; Tan & Goldberg, 2009) to assess the frequency of parents' home-based educational involvement. This scale was created because existing scales tend to include a mixed content of items (e.g., home and school-

based involvement items; and broader parenting behaviours) or include only a limited range of home activities (e.g., literacy activities).

The academic activities subscale included eight items, adapted from the *Parent-Child Academic Home Interactions Scale* (Roopnarine et al., 2006), the parent interview schedule on the FACES measure (O'Brien et al., 2002), and the *Home Life Scale Academic Scale* (NCEDL, 2001). The school-focused discussion subscale included five items drawn from *The Parent Involvement Questionnaire* (Tan & Goldberg, 2009) and created by the primary researcher and supervisor. On this adapted scale, parents reported the frequency of participation in each home activity within the last month on a 5-point Likert scale (1 = *not yet* to 5 = *everyday*). Reliability (alpha) estimates for these two scales were .79 and .82. Exploratory factor analysis further suggested an oblique two-factor solution with items loading appropriately onto academic and discussion-based subscales ( $r = .55$ ). Given the high correlation between factors, and that an overall index of parents' quantity of home-based involvement was of interest in the present study, items were summed to compute a total quantity score ( $\alpha = .85$ ). Higher scores are indicative of more frequent parent involvement in home-based educational activities (academic activities in addition to school discussions) with children (Table 3).

Table 3

*Factor Loadings for Exploratory Factor Analysis of Home-Based Involvement Quantity Items*

Component	Item	Loading
Academic-related Activities ( $\alpha = .79$ )	Reads books together with child	.50
	Explain/teach things child doesn't understand	.48
	Practice math skills with child	.58
	Help child with school projects/activities	.48
	Engage in science activities with child	.53
	Play educational games together with child	.61
	Help child practice letters and sounds	.68
	Explain to child meaning of unfamiliar words	.70
School-focused Discussions ( $\alpha = .82$ )	Discuss school day with child	.53
	Talk to child about friendships at school	.81
	Talk to child about how he/she is feeling about school activities	.82
	Ask child about their classmates	.76
	Talk with child about interactions with their teacher	.61
Home-based Quantity Score ( $\alpha = .85$ )		

Parents additionally completed an open-ended question as a means to report descriptive information about home involvement during early elementary grades. In particular, parents were asked which other family members engage in home-based educational activities with their participating child and the types of activities engaged in. All parent responses were first reviewed and then categories for family members and educational activities were created. Major groups of responses were then aggregated under variable names, which were informed by the home-based involvement questionnaire items. Numerical data (i.e., frequency counts) was then entered for each parent.

*Quality of home-based involvement.* The *Child-Parent Relationship Scale-Short Form* (CPRS-SF; Pianta, 1992) was used to assess parents' perceptions of the dynamic qualities of their interactions with their child (see Appendix F). This scale consisted of 15 items, rated on a 5-point Likert scale (1 = *definitely does not apply* to 5 = *definitely applies*), which can be further broken down into two dimensions: Parent-child conflict and parent-child closeness. The conflict subscale measures the degree to which parents feel that their interactions with their child is characterized by negativity, hostility, and difficulty in managing their child's behaviour, whereas the closeness subscale assesses the extent to which parents feel that their interactions with their child is characterized by warmth, affection (positive affect), and open communication.

This scale was chosen to capture fundamental dyadic properties of parent-child interactions, rather than specific parenting behaviours, which does not take child responses to parent behaviours into account (Clark & Ladd, 2000). There is some debate as to whether warmth and affect are characteristics of the parent alone; some researchers posit that such dimensions are best measured by capturing the patterns of behaviours that occur between parent and child when they are interacting with each other (Gregory & Rimm-Kaufman, 2008; Pianta, 1997). It was further thought that parents would be more willing to disclose negative relationship dynamics (e.g., "my child and I are always struggling with each other") than disclose specific hostile and negative parenting behaviours engaged in (e.g., "how often do you get angry when you punish your child"). This assumption is based on the reported low reliability for many negative parent

behaviour scales (e.g., *The Parent Questionnaire*, Fast Track Group, 2002). In the present study, Chronbach's alpha for parent-child closeness and conflict scales was .86 and .72, respectively. This approximates the reliability estimates found for early elementary children and their parents in previous literature (Driscoll & Pianta, 2006).

An exploratory factor analysis suggested two oblique factors, which were strongly and negatively correlated ( $r = -.52$ ). A global index of parent-child relationship quality was of interest in the present study. Accordingly, items reflecting parent-child conflict was reverse coded and all items were summed to compute a total home involvement quality score. Higher scores are indicative of parent-child relationships that are characterized by greater levels of warmth, closeness, and open communication, and with lower levels of conflict and negativity. Chronbach's alpha for the composite scale was .81 (Table 4).

Table 4

*Factor Loadings for Exploratory Factor Analysis of Home-based Involvement Quality (Parent-Child Relationship) Items*

Component	Item	Loading
Parent-child Closeness ( $\alpha = .86$ )	Parent shares an affectionate, warm relationship with child	.33
	It is easy to be in tune with what child is feeling	.54
	Child will seek comfort from parent	.34
	Child openly shares feelings and experiences with parent	.59
	Child values relationship with parent	.51
	When parent praises child, he/she beams with pride	.50
	Child spontaneously shares information with parent	.65
	Parent-child Conflict ( $\alpha = .72$ )	Child easily becomes angry at parent
Parent and child are always struggling with each other	.62	
	Child remains resistant after being disciplined	.66
	Child is uncomfortable with physical affection	.30
	Child is sneaky or manipulative with parent	.59
	Dealing with child drains parent's energy	.71
	When child is in a bad mood, parent knows they're in for a long, difficult day	.71
	Child's feelings towards parent is unpredictable and can change suddenly	.66
Home-based Quality Score ( $\alpha = .81$ )		

**Social-emotional functioning measures.**

Teacher and parent reports were used to assess various aspects of children's social-emotional functioning that are foundational to school adjustment in early elementary (see Appendices G and H for parent and teacher measures).

***Social-emotional skills.*** The pro-social skills (5 items) and emotional regulation (6 items) subscales from *The Social Competence Questionnaire*

(Conduct Problems Prevention Research Group, 1990; 1995b) were used to measure children's social-emotional skills, as rated by teachers. These scales have demonstrated utility for children in kindergarten to grade three. For each item, teachers rated the frequency of participating children's behaviours on a 5-point Likert scale (1 = *almost never* to 5 = *almost always*). Chronbach's alpha was .95 for the pro-social skills subscale and .89 for the emotional regulation subscale, which approximates reliability estimates reported in previous research (e.g., .93 and .88; Gillford-Smith, 2000). Factor analysis further suggested an oblique, two-factor structure ( $r = .62$ ), with items loading appropriately onto previously validated pro-social and emotional regulation subscales (Gillford-Smith, 2000). One exception was the item "child can recognize and label own feelings and those of others appropriately", which loaded onto the pro-social factor rather than the emotional regulation factor. Given that this item has also been found to load onto pro-social skill factor in previous research (Gifford-Smith, 2000), it was moved accordingly.

Although the correlation between these two factors is higher than some of the aforementioned parent involvement scales, emotional regulation and pro-social skills were analyzed separately in order to clarify which indicators of social-emotional functioning was specifically influenced by parent involvement predictors.

Table 5

*Factor Loadings for Exploratory Factor Analysis of Social-Emotional Skill Items as Rated by Teachers*

Component	Item	Loading
Pro-social Skills ( $\alpha = .95$ )	Shows empathy and compassion for others feelings	.81
	Provides help, shares materials and acts cooperatively with others	.87
	Listens carefully to others	.64
	Initiates interactions and joins in with others in an appropriate and positive manner	.96
	Recognizes and labels his/her feelings and those of others	.44
	Takes turns, plays fair and follows rules in games	.74
	Emotional Regulation ( $\alpha = .89$ )	Can stop and calm down when excited or upset
Handles disagreements in a positive way	.97	
Gets angry when provoked by other children	.98	
Easily irritated when he/she has trouble with a task	.71	
Shows verbal or physical aggression to others	.69	

Items from the *Social Competence Questionnaire- Parent Version* were additionally used to assess parent's perceptions of their child's pro-social skills (5 items) and emotional regulation (4 items; Conduct Problems Prevention Research Group, 1995c). For each item, parents rated the frequency of their participating child's behaviours on an adapted 5-point Likert scale (1 = *definitely does not apply* to 5 = *definitely applies*). Previous research has found good internal consistency estimates ( $\alpha = .80$ ) for these parent scales (Corrigan, 2002). Two additional items were added from the teacher version (i.e., "child takes turns,

plays fair, and follows rules in games”; and “child is easily irritated when he/she has trouble with a task”) so that parents and teachers were rating more similar behaviours across contexts. For the present sample, Chronbach’s alpha was .84 for pro-social skills and .73 for emotional regulation items. An exploratory factor analysis further suggested a two-factor structure ( $r = .57$ ) with items loading consistently with the pro-social and emotional subscales.

Table 6

*Factor Loadings for Exploratory Factor Analysis of Social-Emotional Skill Items as Rated by Parents*

Component	Item	Loading
Pro-social Skills ( $\alpha = .84$ )	Shares things and acts cooperatively with others	.88
	Listens to others point of view	.65
	Helpful to others	.79
	Good at understanding others feelings	.72
	Can resolve problems with peers alone	.53
	Takes turns, plays fair and follows rules in games	.65
Emotional Regulation ( $\alpha = .73$ )	Copes well with failure	.72
	Can calm down when excited or upset	.40
	Controls temper when in a disagreement	.52
	Accepts things not going his/her way	.73
	Is easily frustrated when he/she has trouble with a task	.38

**School liking.** Items from the school liking and school avoidance subscales (6 items) on the *Teacher Rating Scale of School Adjustment* (TRSSA; Birch & Ladd, 1997) were used to measure children’s school liking. An amended version of this scale was used in the present study, where teachers rated each item

on a 5-point Likert scale (1 = *never* to 5 = *almost always*), rather than the original 3-point scale. This amendment was completed to increase the variability of parent responses. Negatively worded items were reverse scored and summed to create a total score, with higher scores reflecting greater school liking and lower disaffection for children.

The *Parent Report of School Liking Scale* (5 items; Ladd, 2003) was also used to capture children's level of school liking from parents' perspectives. Items were also rated on a 5-point Likert scale, based on how characteristic each statement was of their child (1 = *definitely does not apply* to 5 = *definitely applies*). Chronbach's alpha was .84 for the parent scale and .92 for the teacher scale. Moreover, factor analysis suggested that these items loaded onto a single factor for parent and teacher reports (Table 7).

Table 7

*Factor Loadings for Exploratory Factor Analysis of School Liking Items as Rated by Parents and Teachers*

Component	Item	Loading
School liking: Parent ( $\alpha = .84$ )	Enjoys classroom activities	.75
	Looks forward to going to school	.86
	Tells parent good things about school	.67
	Talks about school in a negative way	.78
	Complains about going to school	.61
School Liking: Teacher ( $\alpha = .92$ )	Likes being in school	.67
	Complains about school activities	.67
	Dislikes school	.81
	Likes to come to school	.92
	Has fun at school	.63
	Enjoys most classroom activities	.94

***Behavioural engagement.*** The cooperative participation (7 items) and autonomous participation (4 items) subscales on *The Teacher Rating Scale of School Adjustment* (TRSSA; Birch & Ladd, 1997) were used to measure aspects of children's behavioural engagement in the classroom context. Cooperative participation measured the extent to which children are willing to engage in classroom activities and respond to teacher requests in a cooperative, compliant and responsible manner. Autonomous participation measured the degree to which children display independent, self-reliant behaviour, as well as initiative in classroom activities (Birch & Ladd, 1997).

For the present study, items were rated on a 5-point Likert scale (1 = *never* to 5 = *almost always*), rather than the original 3-point Likert scale used in previous research. Chronbach's alpha was .94 for cooperative participation and .84 for autonomous participation items, which is higher than the reliability estimates reported in past studies (e.g., .70 and .75 in Ladd et al., 1999). An exploratory factor analysis suggested an oblique two-factor structure ( $r = .58$ ) with items loading appropriately on cooperative and autonomous participation scales. Given that these two components are highly related though capture conceptually different indicators of social-emotional functioning, they were also analyzed separately in the main analyses. This decision was further made because it was of interest to clarify which indicators of social-emotional functioning were influenced by parent's home-based and school-based involvement (Table 8).

Table 8

*Factor Loadings for Exploratory Factor Analysis of Cooperative and Autonomous Participation Items as Rated by Teachers*

Component	Item	Loading
Cooperative Participation ( $\alpha = .94$ )	Follows classroom directions	.70
	Is easy for teacher to manage	.96
	Uses classroom materials responsibly	.52
	Accepts responsibility for a given task	.71
	Accepts teacher's authority	.91
	Responds promptly to teacher's requests	.89
	Listens to classroom rules and instructions	.73
Autonomous Participation ( $\alpha = .84$ )	Is a self-directed child	.95
	Works autonomously and independently	.79
	Needs a lot of help and guidance	.61
	Seeks challenge in the classroom	.58

**Teacher-child relationship quality.** Finally, a Likert item was used to capture teachers' overall relationship quality with each participating child. Stems for this item were created based on prominent items from the *Child-Teacher Relationship Scale-Short Form* (CTRS-SF; Pianta, 1992). Specifically, teachers were asked to reflect on their interactions with each participating child over the course of the school year, using a 5-point rating scale (1 = "*this child and I constantly struggle with each other*" to 5 = "*I share a very warm and affectionate relationship with this child*"). This scale was used as a control variable in the main analyses.

## **Results**

### **Preliminary Analyses**

Several steps were included in the preliminary analyses. First, descriptive statistics (i.e., frequencies) were analyzed to determine whether all values were within range, and random data entry checks were conducted. Variables were then examined to determine if they were normally distributed. Based on criteria set out by many researchers (e.g., Morgan, Griego, & Gloeckner, 2001), normality is met when skewness (i.e. a measure of the asymmetry of the distribution) and kurtosis values (i.e. a measure of whether the data are peaked or flat relative to a normal distribution) fall between -1 and +1.

Based on these criteria, the quantity of school-based involvement was positively skewed and peaked, suggesting that few parents reported high levels of participation in school-based activities and parent-teacher contact, and that most parents' level of involvement fell near the mean. Furthermore, children's pro-social skills, emotional regulation, and cooperative participation as rated by teachers, and school liking as rated by parents were moderately, negatively skewed. This suggests that parents and teachers rated participating children as having low levels of difficulty in these areas. These moderately skewed distributions parallel those found in previous educational research (e.g., Simpkins et al., 2006), and likely reflect the non-clinical and voluntary nature of the parent and child sample. Thus, these violations of normality are not seen as being due to a problem with the measures, rather the underlying nature of the constructs and sample. Moreover, although skewed distributions can result in an underestimate

of variance, this risk is also reduced with a large sample size (i.e., 200 and greater; Tabachnick & Fidell, 2001).

Table 9

*Skewness and Kurtosis for Parent and Child Variables*

Scales	Skew	SE	Kurtosis	SE
<b>Parent Involvement Facets</b>				
Home-based quantity	.37	.14	.01	.29
Home-based quality (parent-child relationships)	.74	.14	.60	.29
<b>School-based quantity</b>				
Parent-teacher contact	1.56	.14	2.89	.29
School-based participation	2.15	.14	7.38	.29
School-based quality (parent-school relationships)	-.97	.14	.86	.29
<b>Child Variables</b>				
<b>Parent ratings</b>				
Pro-social skills	-.58	.14	-.36	.29
Emotional regulation	.80	.14	-.25	.29
School liking	-1.30	.14	2.00	.29
<b>Teacher ratings</b>				
Pro-social skills	-1.34	.16	3.72	.32
Emotional regulation	-1.81	.16	5.13	.32
School liking	-.82	.16	-.16	.32
Cooperative participation	-1.09	.16	.26	.32
Autonomous participation	-.58	.16	-.30	.32

Data were also screened for linearity, missing data and outliers. Linearity was assumed after visually examining scatterplots of the standardized residuals for main variables. Regarding missing values, parent involvement data were complete for all cases, and six cases (2.1%) were missing some child social-emotional functioning data. Tabachnick and Fidell (2001) suggest that if 5% or

less of the data points are missing, then any procedure for handling missing values will produce similar results. Pairwise deletion was used to address this missing data. More notably, 13.6% ( $n = 39$ ) of cases were missing some parent demographic data (i.e., parent employment and family income). This likely reflects the optional nature of these two items on the parent survey, as per some school district requests. Independent t-tests revealed few significant differences on parent involvement and child variables for those parents who completed all demographic data versus those parents who did not. One exception was quantity of parent-teacher contact, where parents who had less contact with their child's school were more likely to omit demographic information,  $t(284) = 2.19, p = .03$ . Given that parent demographic variables were not part of the study's main research questions, parents with missing information were still included in main analyses.

For teacher reports on child functioning variables, data were complete on 82.9% of cases ( $n = 237$ ). The additional 17.1% of parents did not have a child survey completed by their child's teacher either because parents declined to participate in this portion of the study, or because their child's teacher was unable to complete the survey. Independent t-tests revealed no statistically significant differences among parents or children who had teachers complete the child survey versus those who did not have teachers complete the survey. Thus, this type of missing data can be classified as missing completely at random (MCAR; Tabachnick & Fidell, 2001), and thus no additional statistical analyses to account for the missing data was required.

Univariate outliers (i.e., extreme scores that occur on a single variable) were analyzed by: 1) comparing score means with 5% trimmed means, 2) visually examining histograms, and 3) by converting scores into standardized ( $z$ ) scores. Six cases had a large standardized score (i.e.,  $z$  scores greater than 3; Tabachnick & Fidell, 2001) on a child social-emotional functioning variable, and 12 cases had a large standardized score on one or more facets of parent involvement. Upon inspection, these scores did not appear to be the result of error in data entry or due to missing data. Moreover, these scores were not disconnected from the rest of the distribution and were seen as legitimate sample variation, and thus were retained. To check for multivariate outliers (i.e., outliers occurring on bivariate variables), Mahalanobis' distance and Cook's distance estimates were also performed for each case and compared to critical values (i.e., Chi-square values and  $k/n$ ) as suggested by Tabachnick and Fidell (2001). Four bivariate outliers were found, with three cases having potentially high influence on the data. Main regression analyses were conducted with and without these outliers, with similar results obtained. Subsequent results are reported with these cases included. Descriptive statistics for parent involvement and child social-emotional functioning variables are in Table 10. Following previous research in this area, the level of significance for analyses was set a-priori at .05.

Table 10

*Descriptive Statistics for Parent Predictor Variables and Child Outcome Variables*

Variables	<i>M</i>	<i>SD</i>	Range
Parent Involvement Facets			
Home-based quantity	3.88	.56	2-5
Home-based quality	4.24	.49	3-5
School-based quantity			
Parent-teacher contact	2.55	.91	2-5
School-based participation	1.89	.76	2-5
School-based quality	4.25	.61	3-5
Social-emotional functioning			
Parent ratings			
Pro-social skills	4.22	.61	2-5
Emotional regulation	4.38	.61	2-5
School liking	3.33	.73	2-5
Teacher ratings			
Pro-social skills	3.65	.91	2-5
Emotional regulation	2.89	.69	2-5
School liking	4.17	.79	3-5
Cooperative participation	4.10	.97	2-5
Autonomous participation	3.25	1.01	1-5

**Frequency of Parent Educational Involvement Activities**

To investigate the study's first research question, the frequency of parents' school-based and home-based involvement was examined. On average, parent-school contact occurred between "1-2 times" and "once per month" in the first half of the school year, while school-based participation occurred approximately "1-2 times". Emailing and writing notes to teachers were the most frequent school-based activities, as reported by parents ( $M = 2.94$ ;  $Mdn =$  "once per month"). Least frequent school-involvement activities among participating parents were helping prepare materials for their child's classroom ( $M = 1.66$ ), attending workshops/school meetings ( $M = 1.63$ ), and going on field trips ( $M =$

1.64; *Mdn* = “1-2 times” since the start of the school year). Regarding home-based involvement, parents in this sample typically engaged in home-based activities with their child multiple times per week ( $M = 3.88$ ). Reading to their child and asking about their child’s school day were the most frequent home-based involvement activities reported by parents ( $M = 4.56$  and  $4.80$ ; *Mdn* = “multiple times per week”). Least frequent activities reported by parents were engaging in science activities with their child ( $M = 2.35$ ; *Mdn* = “once or twice” in the past month).

### **Child Gender and Grade Differences**

No significant differences were found between parent reports of involvement for boys and girls at home or at school. Regarding child grade, significant differences were found for parent’s school-based participation,  $F(2, 283) = 5.66, p = .00$ , frequency of parent-teacher contact,  $F(2, 283) = 6.78, p = .00$ , and parent-school relationship quality,  $F(2, 283) = 3.90, p = .02$ . In particular, parent-teacher contact ( $M = 19.84$ ) was significantly higher for parents of kindergarten children than parents of grade one ( $M = 16.49, p = .00$ ) and grade two children ( $M = 17.65, p = .05$ ); parents’ school-based participation was significantly higher in kindergarten ( $M = 12.65$ ) than in grade one ( $M = 10.61, p = .00$ ) and grade two ( $M = 10.94, p = .02$ ); and parent-school relationship quality was significantly higher in kindergarten ( $M = 64.33$ ) than in grade one ( $M = 61.81, p = .02$ ). In contrast, parents’ home-based involvement (i.e., quantity and quality) did not significantly differ based on child grade.

## **The Educational Involvement of Other Family Members**

With regard to this study's second research question (i.e., which additional family members are involved in children's home-based educational activities), 78% of participating parents responded. After reviewing parent responses, the following family member categories were created: (a) No other family members noted, (b) father, (c) mother, (d) grandparent(s), and (e) siblings. Regarding educational activities, the following codes were created: (a) Literacy activities (e.g., reading and spelling), (b) school-focused discussions, (c) educational games (e.g., puzzles and cards), and (d) math/science activities.

Approximately 65% of participating mothers reported that their child's father was also involved in home educational activities during these early elementary grades. The most frequently noted activities that fathers were reported to be involved in were literacy activities (72%), having school-based discussions (63%), playing educational games with their child (60%), and engaging in math and science activities (56%). Many mothers additionally noted that fathers were just as involved as themselves, taking turns being responsible for educational activities (e.g., reading) or engaging in activities together (e.g., school-based discussions during family dinner). Other mothers noted that their child's fathers were engaged less frequently (e.g., when mothers were unavailable to do so) or were responsible for specific types of activities (e.g., math). In contrast, all fathers in the study (3.8%) noted that their child's mother was as equally involved in educational activities as themselves.

Many participating parents also noted grandparents (14.6%) and siblings (22.7%) to be involved in educational activities with participating children. For grandparents, most frequent activities included literacy activities (68%), having school-based discussions (57%), and playing educational games (51%). For siblings, the most frequent activities noted were literacy activities (70%) and playing educational games (68%) with participating children. Literacy activities included older siblings reading to participating children, as well as younger siblings being read to by participating children.

Finally, 24.4% of parents who responded indicated that no other family members were involved in their child's educational activities. Some of these parents (7%) noted reasons such as having no extended family living in the city, and being a single or stay-at-home parent.

### **Bivariate Correlations**

As a preliminary analysis for research questions 3-5, bivariate correlations were computed to assess multicollinearity and to provide a simple description of the relationships among parent involvement facets, as well as parent involvement facets in relation to child social-emotional variables (see Table 11).

Multicollinearity occurs when predictor variables used in regression analyses are highly intercorrelated (above .80), which makes it difficult to determine the importance of certain predictors (Mertler & Vannatta, 2002). Based on Cohen (1988),  $r \leq .10$  is indicative of a small relationship,  $r = .30$  is indicative of a moderate relationship, and  $r \geq .50$  is indicative of a large relationship among variables.

**Correlations among facets of parent involvement.** Parents' quantity of school-based involvement (i.e., parent-teacher contact and school-based participation) was significantly and positively correlated with school-based involvement quality (i.e., parent-school relationships) and quantity of home-based involvement. Parents' quality of home-based involvement (i.e., parent-child relationships) was positively correlated with parents' quantity of home-based involvement as well as parent-school relationship quality. Overall, the range of significant correlation coefficients among these predictor variables were small to moderate ( $r = .06$  to  $.45$ ; see Table 11). Thus, multicollinearity was not an issue.

**Correlations among parent involvement and social-emotional functioning.**

*Parent ratings.* Regarding quantity of school-based involvement, the frequency of parent-teacher contact and parents' school-based participation was not significantly correlated to children's social-emotional functioning variables, as rated by parents. However, parent-school relationship quality was significantly and positively associated with children's social-emotional functioning (i.e., pro-social skills, emotional regulation, and school liking), as rated by parents. Regarding home-based involvement, the overall quantity of activities that parents were engaged in with their child at home was significantly and positively associated with children's pro-social skills and school liking. Furthermore, parent-child relationship quality (i.e., home-based involvement quality) was significantly and positively correlated with all children's social-emotional functioning outcomes, as rated by parents (see Table 11).

***Teacher ratings.*** Regarding quantity of school-based involvement, the frequency of parent-teacher contact was significantly and negatively correlated with children's emotional regulation and autonomous participation in the classroom, but was not significantly associated with children's school liking, pro-social skills or cooperative participation, as rated by teachers. In contrast, parents' frequency of school-based participation was positively correlated with all social-emotional functioning variables, as rated by teachers. Parent-school relationship quality was positively correlated with children's pro-social skills, school-liking, and cooperative participation. Regarding home-based involvement, parents' quality of involvement (parent-child relationship quality) was also positively correlated with children's pro-social skills, school liking, and cooperative participation, as rated by teachers. Parents' quantity of home-based involvement was not significantly correlated with social-emotional functioning in the classroom, as rated by teachers.

Table 11

*Bivariate Correlations among Predictor and Child Social-Emotional Outcome Variables*

Parent Involvement Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Home-based quantity	—	.18**	.31**	.18**	.06	.20**	.11	.16*	-.03	.03	.00	-.02	-.07	.05	.08	.02
2. Home-based quality		—	-.02	.11	.21**	.52**	.60**	.40**	.22**	.12	.25**	.14*	.05	.07	.09	.07
3. Parent-teacher contact			—	.45**	.16**	.00	.02	-.03	-.10	-.15*	-.08	-.11	-.19**	-.31*	.07	-.04
4. School-based participation				—	.16**	.07	.07	.03	.21**	.13*	.26**	.24**	.16*	-.11	.20**	.03
5. School-based quality					—	.35**	.13*	.32**	.23**	.10	.19**	.17**	.07	-.09	.12	-.08
Parent Ratings																
6. Pro-social skills						—	.57**	.48**	.38*	.38**	.35**	.30**	.20**	.19**	.16*	.13*
7. Emotional regulation							—	.28**	.16*	.16*	.13*	.13*	.10	.19**	.16*	.07
8. School liking								—	.13*	.14*	.16*	.14*	.11	.15*	.10	.18**
Teacher Ratings																
9. Pro-social skills									—	.66**	.74**	.75**	.64**	.01	.48**	.07
10. Emotional regulation										—	.65**	.73**	.58**	.10	.34**	.23**
11. School liking											—	.57**	.60**	.03	.49**	.15*
12. Cooperative participation												—	.71**	.09	.50**	.25**
13. Autonomous participation													—	.04	.36**	.26**
14. Initial child functioning														—	.01	.09
15. Teacher-child relationship															—	.11
16. Child gender																—

\*  $p < .05$ . \*\*  $p < .01$ .

**Correlations between parent and teacher ratings of social-emotional functioning.** Parent and teacher ratings of school liking, pro-social skills, and emotional regulation were weakly to moderately correlated ( $r = .16$  to  $.38$ ), which parallels previous research on child functioning (e.g., Achenbach, McConaughty, & Howell, 1987; Murray et al., 2007; Rose-Krasnor, 2007). As such, main analyses were run separately for parent and teacher reports.

### **Examining Contextual Variables in Relation to Parent Involvement and Children's Social-Emotional Functioning**

**Parent variables.** A one-way ANOVA revealed that parents in this study significantly differed in their mean level of school-based involvement as a function of their employment status,  $F(4, 242) = 3.31, p = .01$ , and marital status,  $F(3, 280) = 3.16, p = .03$ . Post hoc comparisons using a Tukey test revealed that full-time working parents reported that they participate in school-based activities significantly less frequently than stay-at-home parents ( $M = 14.63$  versus  $18.04, p = .04$ ). As well, single parents rated themselves as being significantly lower in their school-based participation than two-parent families ( $M = 8.75$  versus  $11.16, p = .04$ ). In contrast, no mean differences were found in the quantity of home-based involvement or the quality of school-based involvement, based on parents' marital and employment status. However, parents' marital status also predicted differences in the quality of home-based involvement,  $F(3, 280) = 5.24, p = .00$ . Post hoc analyses using a Tukey test revealed that two-parent families (i.e., married and common-law parents) reported significantly higher quality relationships (i.e., greater warmth and less conflict) with their participating child

compared to parents of children who were separated and divorced ( $M = 64.46$  versus  $59.91$ ,  $p = .01$ ).

No significant differences were found between parents' quantity and quality of home-based and school-based involvement and the other parent demographic variables considered in this study (i.e., family ethnicity, income level, parent education, and parent relationship to the child). These non-significant findings could in part reflect the restricted range of demographic data in the present sample.

A one-way ANOVA revealed no significant differences among child social-emotional functioning ratings based on parent demographic variables (i.e., ethnicity, education, income, and employment status). However, parent ratings of children's pro-social skills and emotional regulation did significantly vary based on parents' marital status [ $F(3, 280) = 3.33$ ,  $p = .02$  and  $F(3, 280) = 3.07$ ,  $p = .03$ , respectively]. A post hoc Tukey test revealed that children of separated and divorced parents were rated as having significantly less pro-social skills ( $M = 19.96$ ) and more emotional regulation difficulties ( $M = 12.21$ ) than common-law and married parents ( $M = 21.64$ ,  $p = .03$ ; and  $M = 13.58$ ,  $p = .02$ , respectively). Given that parents' marital status was significantly related to facets of educational involvement and children's social-emotional skills, marital status was controlled for in these main analyses to protect against confound findings.

#### **Child variables.**

**Child grade.** A one-way ANOVA was conducted to determine whether children across early elementary grades (K-2) significantly differed in their mean

level of social-emotional functioning. No significant differences between child grade and social-emotional functioning indices were found for parent ratings. For teacher ratings, significant grade differences were found for children's level of cooperative participation,  $F(2, 230) = 5.41, p = .01$ , and school liking,  $F(2, 229) = 3.87, p = .02$ . Specifically, grade one children were reported as having significantly lower levels of cooperative participation ( $M = 28.99$ ) than kindergarten children ( $M = 32.00, p = .01$ ), and kindergarten children were reported as having significantly higher levels of school liking ( $M = 32.44$ ) compared to grade one ( $M = 30.56, p = .04$ ) and grade two children ( $M = 30.46, p = .03$ ). Given these findings, grade was dummy-coded and entered as a control variable in the main analyses.

***Child gender.*** For children's social-emotional functioning, boys were rated by parents as being significantly lower than girls in their level of pro-social skills,  $t(287) = -2.22, p = .03$ , and school liking,  $t(286) = -3.14, p = .00$ . Furthermore, boys were rated by teachers as having significantly lower emotional regulation skills,  $t(232) = -3.59, p = .00$ , cooperative participation,  $t(232) = -3.82, p = .00$ , autonomous participation,  $t(231) = -4.03, p = .00$ , and school liking,  $t(230) = -2.22, p = .03$ , relative to girls. The size of these gender differences was small to moderate ( $d = .29$  to  $.53$ ; Cohen, 1988). Given these findings, child gender was controlled for in all regression models examining the relative influence of parent involvement facets on children's social-emotional outcomes. The differential influence of parent involvement on boys' and girls' functioning was then explicitly examined via interaction terms in main regression analyses.

**Initial child functioning.** Parents of children requiring support for functional difficulties (e.g., behavioural, attentional, learning difficulties) in the fall of the school year reported having significantly more frequent parent-teacher contact ( $M = 23.38$ ) compared to parents of children without functional difficulties ( $M = 17.15$ ),  $t(283) = 4.51, p = .00$ . Moreover, children with initial functional difficulties were rated as having significantly more difficulties across social-emotional functioning outcomes (both parent and teacher reports) later in the school year. As such, children's functional status was dummy coded (i.e., functional difficulties versus no difficulties) and entered as a control variable in the main analyses.

**Classroom variables.** Class size and years of teaching experience was not found to be significantly related to parent involvement or children's social-emotional functioning, as rated by parents and teachers. Accordingly, these variables were not included in the study's main analyses. Furthermore, teacher-child relationship quality was weakly, though significantly correlated with parents' school-based participation ( $r = .20, p = .00$ ), and significantly correlated with all social-emotional functioning outcomes ( $r = .34$  to  $.50, p = .00$ ) as rated by teachers. The quality of teachers' relationships with boys and girls did not significantly differ,  $t(229) = -1.60, ns$ . Based on these findings, teacher-child relationship quality was also included and controlled for in relevant regression models.

## **The Relative Importance of Parent Involvement Facets on Children's Social-Emotional Functioning**

Pertaining to the study's third research question, a series of hierarchical regressions were conducted to investigate the relative contributions of four facets of parent involvement in children's social-emotional functioning, over and above the variability accounted for by relevant background variables. Thus, the aforementioned control variables were entered first, followed by facets of parent involvement, which were entered together as a second, simultaneous block. Separate models were run for parent and teacher reports of child social-emotional functioning, which served as criterion variables. That is, regression models were completed for children's pro-social skills, emotional regulation, and school liking, as rated by parents and teachers, and cooperative and autonomous participation, as rated by teachers.

Subsequently, to determine whether facets of parent involvement differentially predicted social-emotional outcomes for boys and girls (i.e., research question 3b), the continuous parent involvement variables were centered in order to eliminate multicollinearity effects (Aiken & West, 1991), and terms reflecting the interaction between child gender and each parent involvement facet were entered as a third, sequential step in the regression models just described. Results reflect the extent to which parent involvement facets and gender-involvement interactions contributed to children's social-emotional outcomes, beyond the variance explained by other variables in the model. To aid interpretation of significant gender-involvement interaction terms, regressions

were run separately for boys and girls.  $\Delta R^2$  estimates (i.e., the amount of variance explained) were used as indicators of effect size for the combined set of parent involvement predictors in each model (where .02 is suggestive of a small effect, .13 is suggestive of a moderate effect, and .26 is suggestive of a large effect; Keith, 2006). Standardized beta coefficients and estimates of  $r$  were also used to estimate the size of influence for each parent involvement predictor (Cohen, 1988; Keith, 2006).

**Pro-social skills.** After accounting for parents' marital status, child gender, and initial child functioning, parents' overall involvement across home and school contexts accounted for a significant and large increase in variance predicting children's pro-social skills, as rated by parents,  $F(8, 274) = 18.29, p = .00; \Delta R^2 = .27$ . In particular, the quality of school-based involvement (i.e., parent-school relationship quality) and home-based involvement (i.e., frequency of engagement in home educational activities and parent-child relationship quality) uniquely and positively predicted children's pro-social skills, as rated by parents (see Table 12). With the inclusion of gender-involvement interaction terms in step 3 of the model, these parent involvement facets remained significant, though none of the interaction terms were significant. The size of effect for parents' home-based involvement quantity was small ( $r = .20$ ), with a larger effects found for school-based involvement quality ( $r = .34$ ) and home-based involvement quality ( $r = .51$ ).

For teacher ratings, parents' educational involvement across home and school contexts also accounted for a significant, though smaller increase in

variance in children's pro-social skills,  $F(8, 228) = 13.24, p = .00; \Delta R^2 = .10$ , after controlling for teacher-child relationship quality and initial child functioning. In particular, parents' quantity of school-based involvement (school-based participation and parent-teacher contact), quality of school-based involvement, and quality of home-based involvement were unique predictors of children's classroom pro-social skills. That is, parent-school and parent-child relationship quality, and parents' school-based participation positively predicted children's pro-social skills, whereas parent-teacher contact negatively predicted children's pro-social skills, as rated by teachers. With the inclusion of the gender-involvement interaction terms in the model, the influence of parent involvement facets were similar, and none of the gender interaction terms were significant. Values of  $r$  indicated small but meaningful effect sizes for these predictors ( $r = -.10$  to  $.23$ ; Keith, 2006).

Table 12

*Summary of Hierarchical Regression Analysis for Variables predicting Parent and Teacher Pro-Social Ratings*

Variables	Step 1		Step 2		Step 3	
	B (SE)	$\beta$	B (SE)	$\beta$	B (SE)	$\beta$
<i>Parent Ratings</i>						
Marital status	-1.35 (.47)	-.17 **	-.42 (.41)	-.05	-.42 (.42)	-.05
Child gender	.72 (.35)	.12*	.65 (.30)	.11*	.65 (.30)	.11*
Child initial functioning	1.76 (.56)	.18**	1.68 (.50)	.17***	1.76 (.51)	.18***
Home-based quantity			.04 (.02)	.11*	.04 (.02)	.11*
Home-based quality			.18 (.02)	.44***	.18 (.02)	.43***
Parent-teacher contact			.01 (.03)	.02	.01 (.03)	.02
School-based participation			-.01 (.04)	-.01	-.01 (.04)	-.01
School-based quality			.06 (.02)	.19***	.06 (.02)	.18***
Gender x home-based quantity					-.01 (.16)	-.00
Gender x home-based quality					-.12 (.17)	-.04
Gender x parent-teacher contact					-.02 (.05)	-.06
Gender x school-based participation					-.00 (.18)	-.00
Gender x school-based quality					.03 (.17)	.01
<i>Adjusted R<sup>2</sup></i>		.07		.33		.32
<i>F (change)</i>		7.94**		22.66**		.40
<i>Teacher Ratings</i>						
Child initial functioning	.01 (.05)	.01	.01 (.05)	.01	.00 (.50)	.00
Teacher-child relationship	5.01 (.62)	.48**	4.60 (.60)	.44**	4.49 (.60)	.43**

Home-based quantity		-0.07 (.06)	-0.06	-0.09 (.07)	-0.08
Home-based quality		.15 (.07)	.13*	.14 (.06)	.13*
Parent-teacher contact		-.25 (.09)	-.19**	-.24 (.09)	-.18**
School-based participation		.30 (.12)	.15*	.33 (.12)	.17**
School-based quality		.14 (.05)	.16**	.16 (.05)	.18**
Gender x home-based quantity				.29 (.49)	.04
Gender x home-based quality				.41 (.48)	.05
Gender x parent-teacher contact				-.83 (.52)	-.10
Gender x school-based participation				-.13 (.52)	-.02
Gender x school-based quality				-.78 (.49)	-.10
<i>Adjusted R</i> <sup>2</sup>		.22	.30		.31
<i>F</i> (change)		22.34**	6.20**		1.51

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

**Emotional regulation.** After controlling for initial child functioning and marital status, parents' educational involvement across home and school contexts accounted for a significant, and large increase in the variance predicting children's emotional regulation, as rated by parents,  $F(9, 273) = 19.04, p = .00; \Delta R^2 = .32$ . When examining the individual contributions of each facet of parent involvement, only quality of home-based involvement (parent-child relationship quality) was a unique, positive predictor of children's emotional regulation skills (see Table 13). Interaction terms for child gender and parent involvement facets were not significant when added to the regression model, and the effect of parents' quality of home-based involvement did not change in magnitude with the inclusion of these interaction terms. The  $r$  value for this predictor indicated a large effect size (.57).

With regard to teacher ratings, parents' educational involvement across home and school contexts accounted for a significant, though small increase in the variance predicting children's emotional regulation skills,  $F(8, 228) = 7.56, p = .00; \Delta R^2 = .05$ , after controlling for initial child functioning, teacher-child relationships, and child gender. When examining the individual contributions of each facet of parent involvement, only quantity of parent-teacher contact significantly and negatively predicted children's emotional regulation skills. Child gender interaction terms were not significant when added to the model, and the influence of parent involvement facets remained similar to step 2 in the model. The  $r$  value for parent-teacher contact indicated a small effect size (-.15).

Table 13

*Summary of Hierarchical Regression Analysis for Variables predicting Parent and Teacher Emotional Regulation Ratings*

Variables	Step 1		Step 2		Step 3	
	B (SE)	$\beta$	B (SE)	$\beta$	B (SE)	$\beta$
<i>Parent Ratings</i>						
Marital status	-1.39 (.46)	-.18**	-.34 (.38)	-.04	-.38 (.39)	-.05
Child initial functioning	1.41 (.54)	.15**	1.22 (.46)	.13**	1.34 (.47)	.15**
Gender			.32 (.34)	.06	.12 (.28)	.02
Home-based quantity			-.01 (.02)	-.02	-.01 (.02)	-.02
Home-based quality			.23 (.02)	.59***	.24 (.02)	.60***
Parent-teacher contact			.04 (.03)	.09	.04 (.03)	.08
School-based participation			-.01 (.04)	-.02	-.01 (.04)	-.02
School-based quality			.01 (.02)	.02	.01 (.02)	.01
Gender x home-based quantity					-.16 (.15)	-.05
Gender x home-based quality					.07 (.15)	.02
Gender x parent-teacher contact					-.01 (.17)	-.00
Gender x school-based participation					-.09 (.17)	-.03
Gender x school-based quality					.15 (.16)	.05
<i>Adjusted R</i> <sup>2</sup>		.05		.37		.36
<i>F</i> (change)		4.40**		28.99**		.55
<i>Teacher Ratings</i>						
Child initial functioning	2.01 (.66)	.18**	1.60 (.70)	.15*	1.59 (.71)	.14*
Teacher-child relationship	1.46 (.28)	.32**	1.38 (.28)	.31**	1.38 (.28)	.31***

Child gender	1.30 (.43)	.19**	1.23 (.42)	.18**	1.27 (.43)	.19**
Home-based quantity			-.01 (.03)	-.03	-.02 (.03)	-.04
Home-based quality			.02 (.03)	.04	.01 (.03)	.01
Parent-teacher contact			-.12 (.04)	-.21**	-.12 (.04)	-.20**
School-based participation			.10 (.06)	.12	.11 (.06)	.13
School-based quality			.04 (.02)	.10	.05 (.03)	.11
Gender x home-based quantity					.22 (.22)	.06
Gender x home-based quality					-.02 (.23)	-.00
Gender x parent-teacher contact					-.09 (.24)	-.03
Gender x school-based participation					-.11 (.24)	-.03
Gender x school-based quality					-.41 (.23)	-.12
<i>Adjusted R</i> <sup>2</sup>		.15		.19		.19
<i>F</i> (change)		14.58**		2.30**		1.07

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

**School liking.** After controlling for initial child functioning and child gender, parents' involvement across home and school contexts accounted for a significant and moderate increase in variance in school liking, as rated by parents  $F(7, 277) = 15.92, p = .00; \Delta R^2 = .22$ . In particular, it was parents' quality of school-based and home-based involvement, and quantity of home-based activities that were unique, positive predictors of children's school liking, as rated by parents (see Table 14). Interactions terms for child gender and parent involvement facets were not significant when added to the model, and parents' quality of school-based and home-based involvement remained significant predictors, whereas quantity of home-based involvement approached significance.  $R$  values indicated moderate effect sizes for parents' quality of school-based and home-based involvement ( $r = .32$  and  $.40$ , respectively), and a small effect for the quantity of home-based activities ( $r = .15$ ).

For teacher reports, parent involvement across home and school contexts accounted for a significant, though smaller increase in variance in children's school liking, after controlling for initial child functioning, gender, grade, and teacher-child relationship quality,  $F(10, 227) = 12.98, p = .00; \Delta R^2 = .09$ . Upon examining the individual contributions of each facet of parent involvement, parents' quality of home-based and school-based involvement, and parents' quantity of school-based participation were unique, positive predictors of children's school liking. In contrast, parent-teacher contact significantly and negatively predicted children's school liking.  $R$  values indicated small effect sizes for these facets of parent involvement ( $r = -.09$  to  $.26$ ). Moreover, the

interaction between child gender and school-based involvement quality accounted for a significant increase in variance for children's school liking, as rated by teachers. The direct influence of parent involvement facets remained significant when interaction terms were included in the model. When examining boys and girls separately, quality of school-based involvement predicted school liking for boys ( $\beta = .24, p = .00$ ) but not girls ( $\beta = .03, p = .71$ ), as rated by teachers (see Figure 1). The effect size for parent-school relationship quality and boys' school liking was moderate ( $r = .30$ ).

Table 14

*Summary of Hierarchical Regression Analysis for Variables predicting Parent and Teacher School-Liking Ratings*

Variables	<u>Step 1</u>		<u>Step 2</u>		<u>Step 3</u>	
	B (SE)	$\beta$	B (SE)	$\beta$	B (SE)	$\beta$
<i>Parent Ratings</i>						
Child initial functioning	1.71 (.55)	.18**	1.71 (.52)	.18**	1.70 (.53)	.18**
Child gender	1.03 (.35)	.17**	1.03 (.31)	.17**	1.04 (.31)	.17**
Home-based quantity			.04 (.02)	.11*	.04 (.03)	.11*
Home-based quality			.13 (.02)	.32**	.12 (.02)	.30***
Parent-teacher contact			-.00 (.03)	-.01	.00 (.03)	.00
School-based participation			-.03 (.04)	-.04	-.03 (.04)	-.04
School-based quality			.10 (.02)	.29**	.09 (.02)	.27***
Gender x home-based quantity					.02 (.17)	.01
Gender x home-based quality					-.22 (.17)	-.07
Gender x parent-teacher contact					.31 (.19)	.10
Gender x school participation					-.10 (.18)	-.03
Gender x school-based quality					-.09 (.17)	-.03
<i>Adjusted R<sup>2</sup></i>		.06		.27		.27
<i>F (change)</i>		9.79**		17.24**		1.12
<i>Teacher Ratings</i>						
Child initial functioning	2.27 (.86)	.15**	1.81 (.87)	.12*	1.84 (.89)	.12*

Child gender	.95 (.54)	.10	.73 (.52)	.08	.77 (.52)	.08
Teacher-child relationship	2.93 (.35)	.48**	2.65 (.34)	.43***	2.70 (.34)	.44***
Child grade	2.02 (.69)	.21**	1.99 (.65)	.20**	1.90 (.66)	.19**
Home-based quantity			-.05 (.04)	-.07	-.05 (.04)	-.08
Home-based quality			.10 (.04)	.15**	.08 (.03)	.12*
Parent-teacher contact			-.14 (.05)	-.18**	-.14 (.05)	-.18**
School-based participation			.23 (.07)	.20**	.23 (.07)	.21*
School-based quality			.06 (.03)	.12*	.08 (.03)	.14*
Gender x home-based quantity					.11 (.28)	.02
Gender x home-based quality					.13 (.28)	.03
Gender x parent-teacher contact					.30 (.30)	.06
Gender x school participation					-.18 (.30)	-.04
Gender x school-based quality					-.63 (.28)	-.13*
<i>Adjusted R</i> <sup>2</sup>		.24		.32		.33
<i>F (change)</i>		16.76**		6.95**		4.81*

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

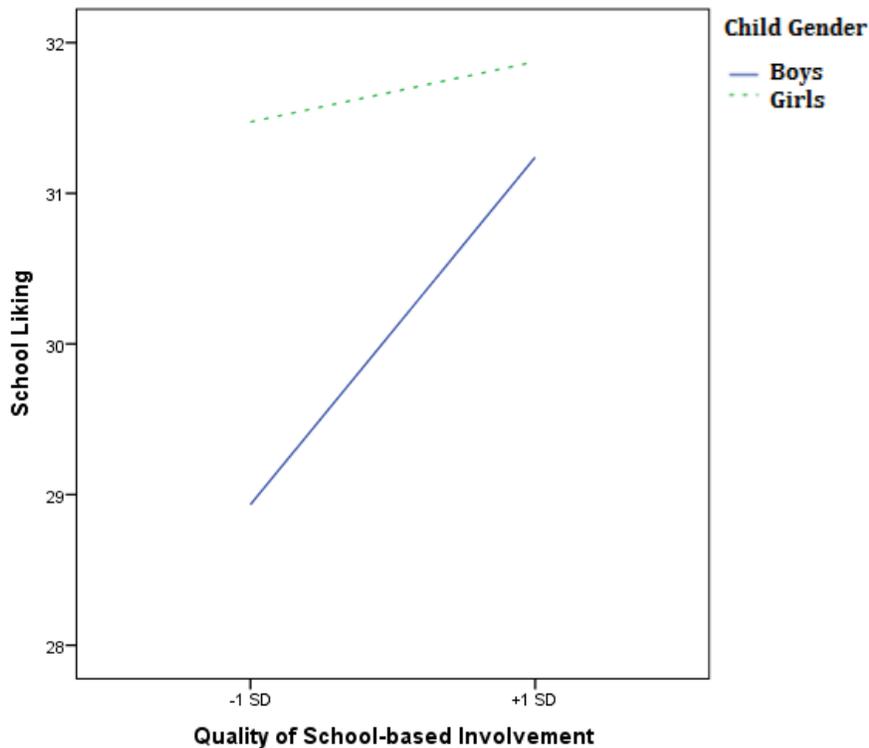


Figure 1. Teacher ratings of school liking: The interaction between child gender and quality of school-based involvement.

**Cooperative participation.** After controlling for initial child functioning, gender, grade, and teacher-child relationship quality, parent educational involvement across home and school contexts accounted for a significant, though small increase in variance in children’s cooperative participation, as rated by teachers,  $F(10, 227) = 12.88, p = .00; \Delta R^2 = .08$ . When examining the unique contributions of parent involvement variables, both parents’ quantity and quality of school-based involvement were unique predictors of children’s classroom cooperative participation (see Table 15). Specifically, parent-school relationship

quality and parents' quantity of school-based participation positively predicted children's level of cooperative participation, whereas parent-teacher contact negatively predicted cooperative participation in the classroom. These predictors remained significant once interaction terms were included into the regression model. *R* values indicated small but meaningful effect sizes for these parent involvement facets ( $r = -.11$  to  $.24$ ). Moreover, the interaction term between child gender and parents' quality of school-based involvement significantly predicted children's cooperative participation, as rated by teachers. In particular, parent-school relationship quality significantly and positively predicted boys' cooperative participation in the classroom ( $\beta = .28, p = .00$ ), and not girls ( $\beta = .07, p = .45$ ; see Figure 2). The effect size for parent-school relationship quality and boys' school liking was moderate ( $r = .31$ ).

Table 15

*Summary of Hierarchical Regression Analysis for Variables predicting Teacher Cooperative Participation Ratings*

Variables	Step 1		Step 2		Step 3	
	B (SE)	$\beta$	B (SE)	$\beta$	B (SE)	$\beta$
Teacher-child relationship	3.64 (.43)	.48***	3.38 (.42)	.45***	3.37 (.42)	.44***
Child initial functioning	2.70 (1.04)	.15**	1.99 (1.07)	.11	2.05 (1.08)	.11
Child gender	2.23 (.66)	.19***	2.17 (.64)	.19**	2.22 (.64)	.19**
Child grade	.90 (.84)	.08	1.00 (.81)	.08	.97 (.80)	.08
Home-based quantity			-.02 (.05)	.03	-.04 (.05)	-.05
Home-based quality			.00 (.05)	.01	-.02 (.05)	-.02
Parent-teacher contact			-.22 (.06)	-.22***	-.21 (.06)	-.22***
School-based participation			.25 (.08)	.18**	.29 (.09)	.21***
School-based quality			.10 (.04)	.15**	.12 (.04)	.18**
Gender x home-based quantity					.23 (.34)	.04
Gender x home-based quality					.21 (.34)	.04
Gender x parent-teacher contact					-.02 (.36)	-.00
Gender x school participation					-.47 (.37)	-.08
Gender x school-based quality					-.90 (.34)	-.15**
<i>Adjusted R</i> <sup>2</sup>		.28		.34		.36
<i>F</i> (change)		18.74**		5.24**		2.18*

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .

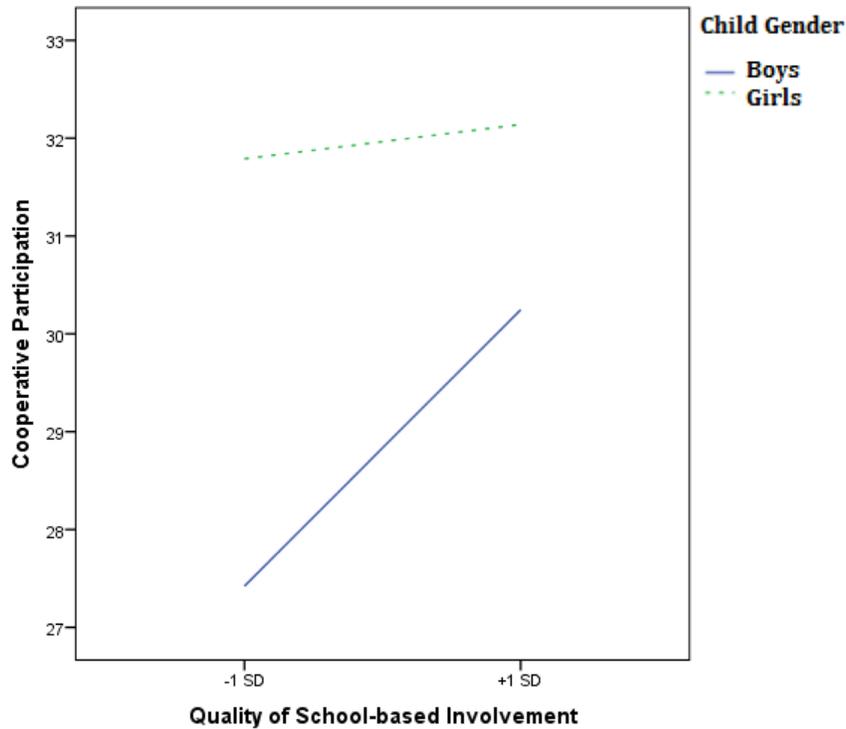


Figure 2. Teacher ratings of cooperative participation: The interaction between child gender and quality of school-based involvement.

**Autonomous participation.** After controlling for initial child functioning, gender, and teacher-child relationship quality, parent involvement across home and school contexts accounted for a significant, though small increase in variance in children’s autonomous participation, as rated by teachers,  $F(8, 226) = 9.60, p = .00; \Delta R^2 = .08$ . When examining the unique contributions of parent involvement variables, parents’ quantity of school-based involvement (i.e., parent-teacher contact and school-based participation) significantly though differentially predicted children’s autonomous participation in the classroom. That is, parent-teacher contact negatively predicted children’s autonomous participation, whereas

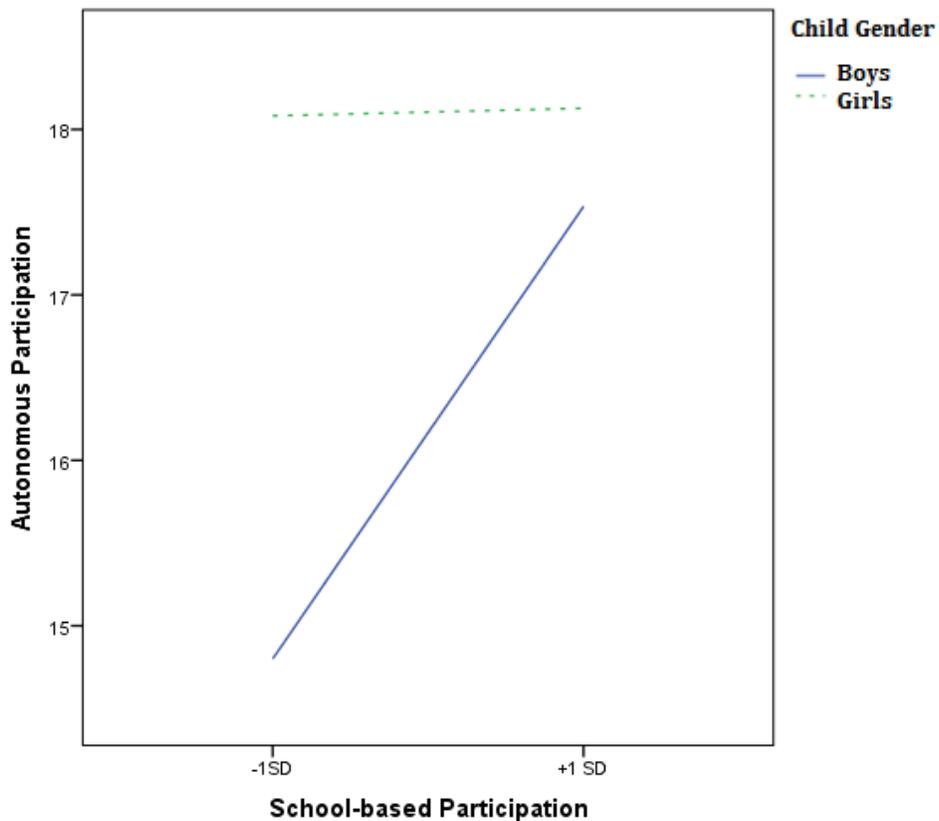
parents' school-based participation positively predicted children's autonomous participation, as rated by teachers (see Table 16). These facets of parent involvement remained significant when gender interaction terms were entered into the model. *R* values indicated small though meaningful effect sizes for these parent involvement variables ( $r = .16$  and  $-.20$ ). Moreover, the interaction between child gender and parents' school-based participation was significant when entered into the model. When examining boys and girls separately, parents' school-based participation was found to be a significant predictor of boys' autonomous participation ( $\beta = .26, p = .00$ ) and not girls ( $\beta = .09, p = .34$ ; see Figure 3). The effect size for school-based participation and boys' autonomous participation was moderate ( $r = .28$ ).

Table 16

*Summary of Hierarchical Regression Analysis for Variables predicting Teacher Autonomous Participation Ratings*

Variables	<u>Step 1</u>		<u>Step 2</u>		<u>Step 3</u>	
	B (SE)	$\beta$	B (SE)	$\beta$	B (SE)	$\beta$
Teacher-child relationship	1.92 (.34)	.33**	1.82 (.34)	.32**	1.75 (.33)	.31**
Child initial functioning	3.39 (.82)	.24**	2.76 (.85)	.20**	2.85 (.85)	.20**
Child gender	1.86 (.52)	.21**	1.82 (.51)	.21**	1.81 (.51)	.21**
Home-based quantity			-.03 (.04)	-.05	-.04 (.04)	-.06
Home-based quality			-.02 (.04)	-.04	-.03 (.04)	-.05
Parent-teacher contact			-.20 (.05)	-.27***	-.21 (.05)	-.28***
School-based participation			.18 (.07)	.17**	.24 (.07)	.23***
School-based quality			.04 (.03)	.08	.05 (.03)	.11
Gender x home-based quantity					.14 (.27)	.03
Gender x home-based quality					.46 (.27)	.10
Gender x parent-teacher contact					-.03 (.29)	-.01
Gender x school participation					-.68 (.30)	-.15*
Gender x school-based quality					-.46 (.28)	-.10
<i>Adjusted R<sup>2</sup></i>		.17		.23		.26
<i>F (change)</i>		16.53**		4.64**		2.42*

\*  $p < .05$ . \*\*  $p < .01$ . \*\*\*  $p < .001$ .



*Figure 3.* Teacher ratings of autonomous participation: The interaction between child gender and parents' school-based participation.

### **The Indirect Relationship Between Parent's School-Based Involvement and Children's Social-Emotional Functioning**

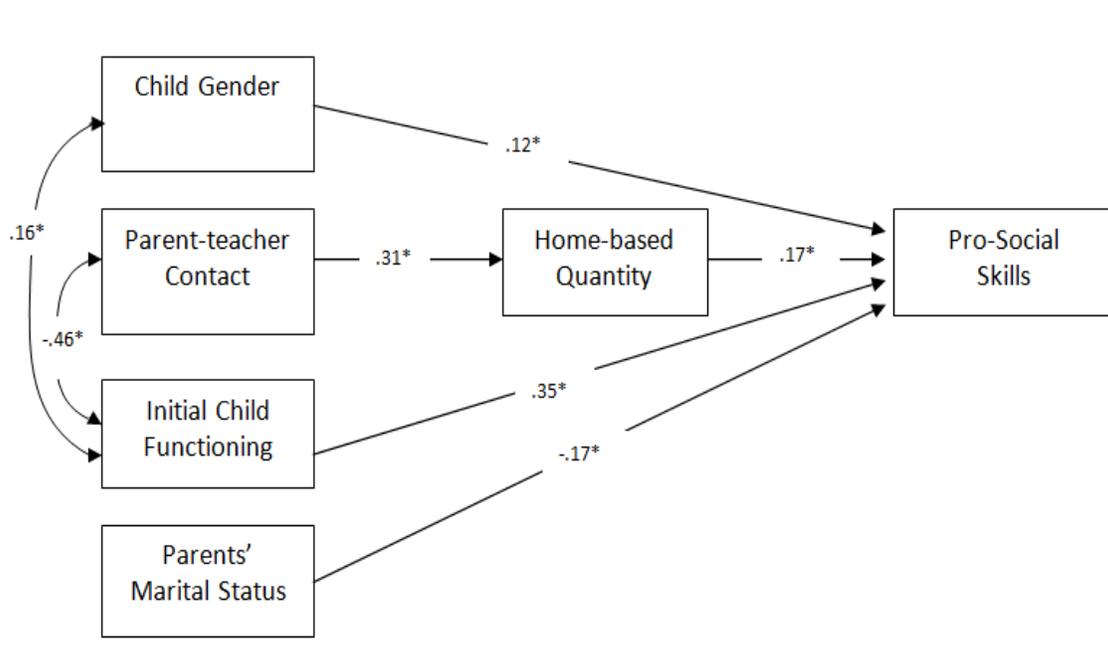
The present study's final research question was investigated using path analysis in LISREL. These analyses were completed to examine whether school-based involvement predicted social-emotional functioning indirectly through parents' quantity of home-based involvement, as suggested by ecological models of child development (Bronfenbrenner, 1986). Path analyses were computed to analyze this research question because this type of analysis provides researchers

flexibility in tracing more complex and indirect paths among variables simultaneously. Error disturbances were fixed to 0 for all endogenous variables in the model; single indicators for each measured variable were fixed to 1; and direct and indirect paths of interest were left free and thus estimated from the data. Model fit was then examined via indices and cut-off criteria as established by previous researchers. In particular, chi-square statistic ( $\chi^2$ ), Comparative Fit Index (CFI), and Root Mean Square of Approximation (RMSEA) were considered. Small  $\chi^2$  estimates (i.e., closer to 0 with a probability level greater than .05), a CFI greater than .90, and a RMSEA less than .06 are suggestive of acceptable model fit (Hu & Bentler, 1999; Schermelleh-Engel, Helfried, & Muller, 2003). These estimates in addition to the standardized coefficients for paths are reported. Path diagrams include significant variables only.

Results revealed that parents' quantity of home-based involvement mediated the relationship between parents' quantity of school-based involvement (both parent-teacher contact and school-based participation) and children's pro-social skills, as rated by parents (see Figures 4 and 5). Specifically, after control variables were considered (i.e., child gender, initial child functioning and parents' marital status), parent-teacher contact directly and positively predicted parents' quantity of home-based involvement ( $\beta = .31$ ), which in turn, positively predicted children's pro-social skills ( $\beta = .17$ ). The indirect path via home-based involvement was small, but significant ( $\beta = .05$ ), and the overall model indicated good fit,  $\chi^2(3) = 2.87, p = 0.4, CFI = 1.00, RMSEA = 0.00$ . Similarly, parents' school-based participation directly and positively predicted parents' quantity of

home-based involvement ( $\beta = .17$ ), which in turn positively predicted children's pro-social skills, as rated by parents ( $\beta = .19$ ). The indirect path through home-based involvement was also small though significant ( $\beta = .03$ ), and the model indicated good fit,  $\chi^2(3) = 2.25$ ,  $p = 0.52$ , CFI = 1.00, RMSEA = 0.00. Parents' quantity of home-based involvement also mediated the link between parent-teacher contact and children's school liking, as rated by parents (see Figure 6). That is, parents' school-based contact positively predicted greater involvement in home-based activities ( $\beta = .31$ ), which in turn predicted greater school liking ( $\beta = .13$ ). The indirect path via home-based involvement was also significant ( $\beta = .04$ ), and the model indicated good fit,  $\chi^2(2) = 1.35$ ,  $p = 0.51$ , CFI = 1.00, RMSEA = 0.00.

Mediation models with parent-school relationship quality and parents' quantity of home-based involvement were not supported for social-emotional functioning outcomes, as rated by teacher and parents. That is, parent-school relationship quality did not predict children's social-emotional functioning indirectly through parents' quantity of home-based involvement. Rather, as displayed in the aforementioned regression models, parent-school relationship quality was a direct and positive predictor of children's pro-social skills and school liking as rated by parents, and boys' school liking and cooperative participation, as rated by teachers.



*Figure 4.* Path model of parent-teacher contact and parent ratings of children's pro-social skills.

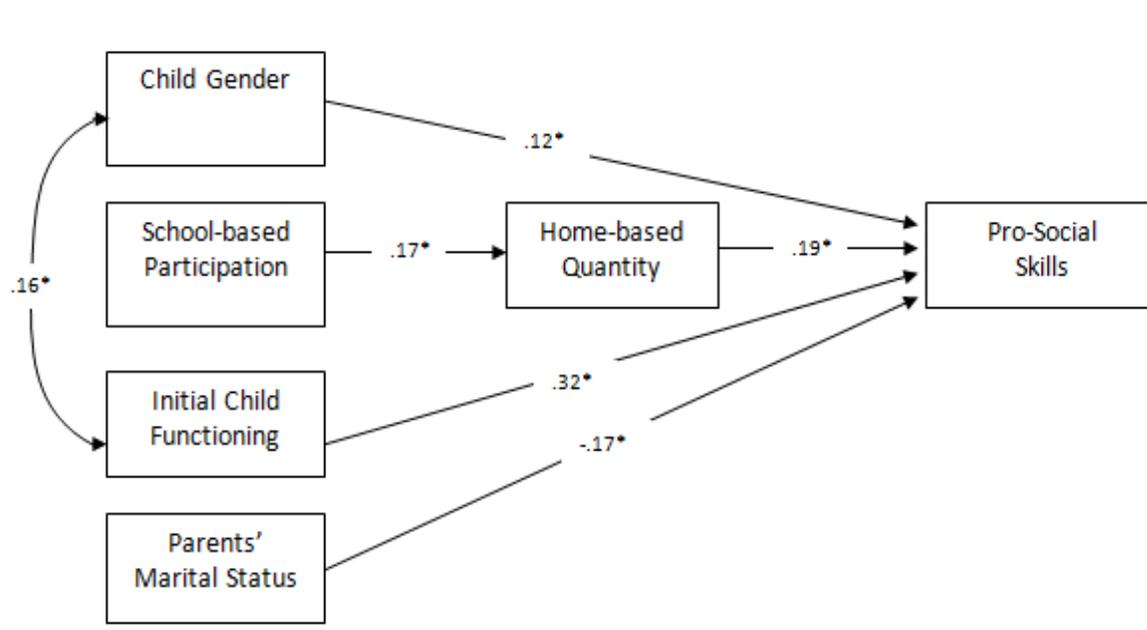


Figure 5. Path model of parents' school-based participation and parent ratings of children's pro-social skills.

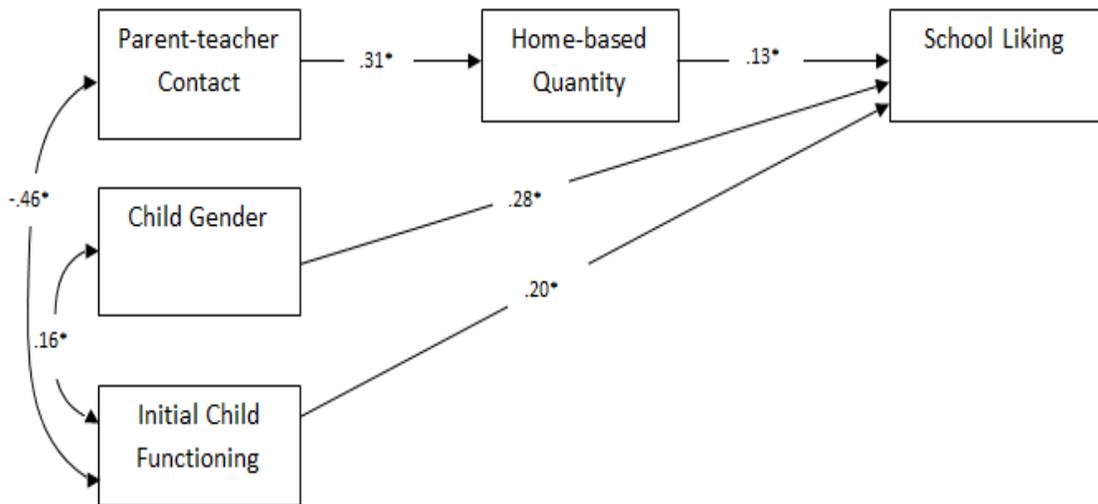


Figure 6. Path model of parent-teacher contact and parent ratings of children's school liking.

## **Discussion**

The present study was guided by an ecological theoretical perspective (Bronfenbrenner, 1986), where child development results from the interactions of individuals and their environmental contexts. The focus of this study was on the quality and quantity of parent involvement in two settings (i.e., home and school) and the association between them in facilitating children's social-emotional functioning in early elementary grades (K-2). In particular, this study investigated the direct and indirect effects of four facets of educational involvement (i.e., the quality and quantity of school-based and home-based involvement) in contributing to children's social-emotional functioning (i.e., pro-social skills, emotional regulation, school liking, cooperative and autonomous participation). Furthermore, the study examined whether these predictive relationships differed for boys and girls. In this last chapter, the results from the analyses are interpreted and discussed in relation to past research and theory. As well, limitations, directions for future research, and implications of the present study are highlighted.

### **Parent Involvement in Early Elementary Grades**

Parents in the present study reported more frequent home-based involvement than school-based involvement across early elementary grades. On average, parent-school contact and school-based participation occurred relatively infrequently (1-2 times) in the first half of the school year. Given that participating children were reported by parents and teachers to have few difficulties in their social-emotional functioning, it is likely that parents feel less

of a need to frequently discuss their child's progress in the classroom with teachers when children are doing well. Additionally, the majority of parents in this study (67%) worked either part or full-time, which reflects the type of school-based activities that parents reported being most engaged in (i.e., emails and written notes to teachers rather than direct contact at school). Similarly, Rimm-Kaufman and Pianta (1999) noted that starting in kindergarten (relative to preschool), parents' involvement with schools tends to be more note-related (versus in person), and tends to pertain more to negative news such as when children are having difficulties in the classroom. Despite infrequent school-based involvement, parent-school relationship ratings were relatively high, which is consistent with other research indicating a positive bias in parent ratings of their child's school (e.g., Powell et al., 2010; Zellman & Waterman, 1998). This suggests that factors other than direct school involvement (e.g., what children say to parents or the general messages that schools convey about parents being welcome and valued) may influence parents' perception of their relationship with their child's school.

As well, participating parents were reported to be highly involved in home-based activities with their child (i.e., multiple times per week to everyday), which most typically involved literacy activities (e.g., reading) and having school-based discussions with their child. This has been similarly found in previous research and highlights the importance of including home-based learning and socialization activities in theoretical models of parent involvement, to ensure that researchers encompass the full range of involvement that parents provide during

these years. This may be particularly important for parents who may be unable to participate in school-based activities (e.g., full-time working or single parents), but are nonetheless evidently involved in educational activities in the home setting (Davis, 2000; Pomerantz et al., 2007).

**Child grade and gender differences.** Results of the present study found that parents reported no significant differences in their quantity or quality of school-based and home-based involvement as a function of child gender. That is, parents in this study were similarly involved at home and at school with both boys and girls. Such findings were also found in Marcon's (1999) study, but contrasts other researchers who have found that parents (mothers) of boys tend to be less involved in home-based activities and have lower quality parent-school interactions compared to parents of girls (e.g., Izzo et al., 1999; Powell et al., 2010, Tan & Goldberg, 2009). Additional research is needed to clarify these mixed findings.

Furthermore, partially consistent with the study's hypothesis, parents reported significantly more frequent school-based involvement (parent-teacher contact and participation in school activities) in kindergarten compared to grade one and two. Decreases in parents' school-based involvement across early elementary grades have been similarly found by Izzo and colleagues (1999) and has been widely acknowledged by other researchers in this area (e.g., Hornby & Lafaele, 2011). It is interesting that no significant differences in the present study were found between grades one and two, rather involvement decreased significantly from kindergarten to grade one only. One possible explanation may

be that there is less opportunity for parents to be involved during these latter (more academically focused) elementary grades. Other research has also asserted that teachers' efforts to include parents in school-based activities decline as children get older (e.g., less invitations to become involved; Dauber & Epstein, 1993; Hoover-Dempsey et al., 2010; Izzo et al., 1999), and that parent-teacher contact tends to become more formal and in response to child difficulties (Downer & Myers, 2010; Pianta & Cox, 2000).

As well, the tendency for greater levels of parent school-based involvement in younger grades (i.e., kindergarten) may be because younger children tend to be more positive about their parents going to school and participating in various activities with them (e.g., going on field trips); whereas, children in older grades may be less eager about their parents being highly involved in school-based activities (Eccles & Harold, 1996; Hornby & Lafele, 2011). Partially consistent with the study's expectations, parents of kindergarten children also reported significantly higher quality parent-school relationships than parents of grade one children. This may further reflect less opportunity to communicate with teachers and participate in the classroom (and thus more difficulties developing high quality relationships) after kindergarten.

Despite declines in all facets of school-based involvement, parents' home-based involvement (quantity and quality) showed no significant changes based on child grade. Stability in parents' home-based involvement across these early elementary grades was expected given that previous research has found similar findings (e.g., Dearing & Tang, 2010; Delaire & Weinraub, 2005; Izzo et al.,

1999; Manz et al., 2004). Taken together, these results suggest that activities involving parents attending school may be more challenging to maintain than home-based activities, and that schools need to actively promote positive and collaborative parent-school interactions as children get older. Promoting collaborative partnerships may be particularly important as children are transitioning to more formal elementary grades (i.e., grade one), where behavioural and academic expectations increase and less individualized support is provided, creating additional stress for both children and parents.

**The involvement of additional family members.** The vast majority of participating parents in the present study were mothers (94%). The fact that mostly mothers participated suggests that mothers are still the primary parent involved in children's educational activities during these early elementary years. This point is accentuated in the open-ended responses in this study, where some mothers noted that fathers were often involved in similar home-based activities, but often to a lesser extent than mothers (e.g., when mothers were unavailable to do so). Mothers' more frequent involvement in their children's educational lives (compared to fathers) has been similarly found by other researchers (e.g., McWayne et al., 2008; Peters et al., 2008; Tan & Goldberg, 2009). Nonetheless, many mothers in the current study reported that their child's father was equally involved in educational activities, though some noted that fathers tended to engage in somewhat different and more specific activities with participating children (e.g., math). It would be valuable to extend the present study to examine

the role that fathers' quantity and quality of involvement at home and school play in facilitating children's social-emotional functioning in early elementary grades.

Furthermore, open-ended responses revealed that siblings and grandparents were also frequently involved in educational activities during these early elementary grades (e.g., reading and playing educational games). These additional socializing agents are also central to children's microsystems, though are often neglected in educational involvement research. The present study examined the importance that at least one parent (i.e., the primary caregiver most involved in children's educational experiences) plays in facilitating children's social-emotional functioning during early elementary. Explicitly examining the involvement of additional family members and the extent that they too contribute to children's school-related development warrants attention in the future.

### **Contextual Variables, Parent Involvement and Children's Social-Emotional Functioning**

Most studies have not adequately addressed and controlled for various contextual variables (e.g., child, family and teacher background variables) when examining the relationship between parent educational involvement and children's social-emotional outcomes (one noted: Powell et al., 2010). In doing so allows for a more complete analysis of the ecological framework that guides much of our understanding of child development, and well as provides a more accurate picture of the role that parent involvement plays above and beyond these variables. In the present study, relevant family background factors (e.g., parent marital status), child factors (e.g., grade, initial functioning), and classroom

variables (e.g., teacher-child relationship quality) were controlled for in analyses to protect against spurious findings. A brief discussion of these relevant background variables follows below.

**Parent variables.** The present study found that full-time working parents and single parents rated themselves as being less frequently involved in school-based activities, compared to stay-at-home parents and parents in two-parent families. In contrast, no differences were found in parents' level of home-based involvement, or in parents' perceptions of the quality of their relationship with their child's school. These results parallel a body of existing literature which has also found that single and working parents tend to be less directly present and involved at school (e.g., Fantuzzo et al., 2000; Grolnick et al., 1994; Horby & Lafaele, 2011; Kohl et al., 1994; Reynolds et al., 1992; Tan & Goldberg, 2009). In general, these parents tend to have additional stressors such as limited time and resources which may make them less physically available to take part in direct school activities such as volunteering in the classroom or attending meetings during school hours (Eccles & Harold, 1996; Horby & Lafaele, 2011). In contrast, such barriers have been asserted to have less of an impact on parents' ability to be involved with their child at home.

Furthermore, parents in two-parent families reported having significantly more positive relationships (i.e., higher warmth/closeness and less conflict) with their participating child compared to parents of children who were separated and divorced. Separated and divorced parents also reported having children with less pro-social skills and greater emotional regulation difficulties compared to intact

two-parent families. Again, these differences likely reflect the added psychological barriers (e.g., lower social support) and increased levels of stress (e.g., family dysfunction) that are more often faced in families who have experienced divorce and separation (Adams, Ryan, Ketschis, & Keating, 2000). Although this does not seem to affect parents' frequency of educational involvement, it may cause strain on the parent-child relationship and, in turn facilitate greater social-emotional difficulties in children. Likewise, previous research has supported the premise that the social support associated with having a supportive co-parent is positively associated with the provision of a nurturing and warm home environment (Adams et al., 2000). As well, these findings are congruent with extant studies that have recognized distal predictors such as parent marital status in influencing children's development through more proximal social processes such as parent-child interactions (NICHD, 2003).

In the present study, parents' quantity and quality of educational involvement and children's social-emotional functioning did not significantly differ according to family ethnicity, income level, and parent education. These findings are somewhat inconsistent with a body of research that has reported lower levels of involvement among parents with lower education and income levels, due to the high stress they may experience given the realities of contemporary life (e.g., Castro et al., 2004; Domina, 2005; Fantuzzo et al., 2000; Smith et al., 1997). Furthermore, parents with low-income, less education, and are of ethnic minority have been reported to feel more unwelcome, uncomfortable, and intimidated when working with schools (Eccles & Harold,

1996; Hill & Craft, 2003; Pomerantz et al., 2007), and may feel less confident and capable in aiding their children's educational experiences at home (Hoover-Dempsey & Sadler, 1997; Hornby & Lafaele, 2011). As well, parents from culturally diverse families may have language barriers or a disparity in beliefs about parent involvement (e.g., home and school as separate versus interconnected; Hornby & Lafaele, 2011; Hong & Ho, 2005), which can hinder their level of involvement at home or school. The non-significant findings in the present study may in part reflect the restricted range and missing demographic data (e.g., family income) in this sample. Alternatively, school characteristics may in fact be more important than family characteristics (e.g., SES and ethnicity) in getting parents' involved with their child in educational activities at home and school (Hoover-Dempsey & Sadler, 2005). Research has demonstrated that school initiatives and parents' perceptions of schools (e.g., providing activities that make parents feel welcome) play a key role in facilitating home-school relationships and parent involvement, and ultimately enhance the school-related development of children (Anthony, 2008; Nzinga-Johnson, 2009). The current study did not investigate these additional school factors and future research would be valuable to clarify these relationships.

**Child variables.**

*Child grade.* In addition to the previously discussed differences in parent educational involvement across early elementary grades, teachers reported grade one children to have significantly lower levels of cooperative participation than teachers of kindergarten children. As well, school liking appears to be highest in

kindergarten, with significantly lower levels of school liking reported by grade one and two teachers. These findings likely reflect the increase in expectations during more formal elementary grades. For instance, in grade one, children are expected to negotiate the transition to a longer school day, and may have some transient difficulties adjusting to a more academically demanding environment, in which they are expected to approach new social and learning tasks in a competent and engaged manner. These increased expectations in grade one and two may also parallel greater levels of school avoidance, dislike and anxiety among children, relative to earlier grades (i.e., kindergarten).

It is interesting that parents reported no significant differences in children's social-emotional functioning across early elementary grades. Together, this may reflect findings of low correspondence between parent and teacher reports of social-emotional outcomes, presumably because parents and teachers have varying opportunities to observe child interactions and have unique perceptions (e.g., different points of reference) of child behaviours (Rose-Krasnor, 1997). Here, parent ratings may reflect more directly on children's functioning that transpires and develops within parent-child interactions specifically, rather than in relation to broader contexts (e.g., with teachers and peers). In contrast, teachers frequently have a broader point of reference when rating children, and may be in a position to see more subtle differences in children's social-emotional functioning relative to peers, and specific classroom and grade expectations.

*Child gender.* Despite the non-significant differences in parent involvement for boys and girls, the present study found that boys were rated by teachers as having significantly lower cooperative participation, autonomous participation, emotional regulation, and school liking across early elementary grades. As well, boys were rated by parents as being significantly lower than girls in their mean level of pro-social skills and school liking. This is consistent with a large body of literature which has asserted that girls are more likely to exhibit greater pro-social behaviours, social-emotional competence, school liking and less problem behaviours relative to boys in early elementary grades (e.g., Elliot, Barnard, & Gresham, 1989; Izzo et al., 1999; Ladd & Burgess, 2001; Merrell, 2009; NICHD, 2003). In contrast, boys are reported to lag behind in social-emotional areas and have been found to exhibit greater disengagement from school during these years (Birch & Ladd, 1997; NICHD, 2003; Ramey et al., 1998). Biological or maturational differences, teacher gender and instructional methods (Martino & Berrill, 2003), peer influences (e.g., boys modelling other boys; Marcon, 1999), and gender socialization perspectives (e.g., girls receiving more positive reinforcement for pro-social behaviours; Beall, 1993) have all been proposed in an attempt to clarify the perceived differences in boys' and girls' early social-emotional functioning.

Interestingly, in contrast to much research, teachers in the present study rated boys and girls as displaying similar levels of pro-social skills in the classroom setting. This may be because the present study included positive, pro-social skills only, whereas previous studies have tended to include both pro-social

and problem (e.g., externalizing) behaviours as an index of children's social skills (e.g., NICHD, 2003; Swick, 2007). It is possible that in the context of the classroom, boys and girls exhibit similar levels of pro-social behaviours with teachers and peers, even though boys may further engage in more problem behaviours (e.g., aggression and hyperactivity). Accordingly, boys were rated in the present study as having significantly more difficulties in the area of emotional regulation (e.g., regulation of frustration, aggression and anger) in the classroom relative to girls. In contrast, parents rated boys and girls as having similar levels of emotional regulation skills but rated boys as having significantly lower pro-social skills than girls. These differences exemplify the importance of including ratings from both informants in order to obtain a comprehensive picture of children's social-emotional functioning.

*Initial child functioning.* Next, it would be found that parents of children requiring support for functional difficulties (11%) in the fall of the school year were engaged in significantly more parent-teacher contact compared to parents of children without functional difficulties. These significant relations may highlight the fact that children play an active role in their own development, and depending on their characteristics, may “pull” varying levels of involvement from their parents. Thus, parents of children who have difficulties functioning in the classroom may initiate more school contact in an attempt to facilitate their child's classroom development (Eccles & Harold, 1996; Hornby & Lafaele, 2011). Likewise, parents who monitor their child's school progress and spend time discussing with teachers are more likely to know that their child is having

difficulty at school and to intervene accordingly (Miedel & Reynolds, 1999). In addition, parents may be responding to teacher-initiated contact via Individualized Program Plan (IPP) meetings and phone calls to discuss progress and concerns.

In contrast, parents' perceived quality of their relationship with their child's school as well as home-based involvement did not differ based on children's initial functioning at the beginning of the school year. That is, parents of children with functional difficulties (e.g., learning, behavioural, attentional) reported equally positive relationships with their child and child's school, in addition to similar levels of engagement in home-based activities compared to parents of children with no functional difficulties. This is inconsistent with some previous research (e.g., Rogers et al., 2009), which has found parents of children with attentional and behavioural difficulties to feel less welcome and supported by their child's school, and to perceive less time and energy for involvement compared to parents of children without difficulties. It is likely that varied perceptions and barriers to involvement (e.g., stress) depend on the specific child difficulty in question, and whether children are receiving support from schools.

**Teacher-child relationship quality.** Teacher-child relationships (as rated by teachers) were positively and significantly associated with parents' level of school-based participation, in addition to all teacher-rated social-emotional functioning outcomes. Thus, teachers who take the time to develop positive relationships with their students may also promote increased parent participation in school-based activities. Moreover, parents who are frequently involved in activities at school may have more opportunity to model cooperative interactions

with their child's teacher and to reinforce teacher's authority in the classroom. In turn, children who are cooperative and compliant in the classroom may facilitate more positive relationships with teachers.

Teacher-child relationships have also been highlighted in existing literature to play a proximal role in children's classroom-related competences (e.g., how they fit in socially and learn expected classroom behaviours), and to serve as a buffer for children who enter the classroom at-risk for functional difficulties (Hamre & Pianta, 2001; Pianta, 1999; Pianta et al., 1997). Specifically, teachers' emotional support and positive teacher-child relationships have been found to directly contribute to children's social-emotional competence and school liking, whereas conflict in teacher-child relationships have been related to lower cooperative engagement, and more acting out behaviours in the classroom (Birch & Ladd, 1997; Gest, Welsh, & Domitrovich, 2005; Hughes et al., 2008; Ladd et al., 1999). In turn, children with high levels of school liking and social-emotional skills may "pull" higher levels of school-based involvement from their parents (e.g., by asking their parents to get involved).

In the current study, teacher-child relationship ratings did not differ as a function of child gender. This finding is inconsistent with a body of research that has found boys to have more conflictual relationships with teachers, and girls to have greater levels of teacher-child closeness (e.g., Hamre & Pianta, 2001; Rudasill & Rimm-Kaufman, 2009; Silver, Measelle, Armstrong & Essex, 2005). Discrepancy in findings may depend on sample characteristics, and the unique relational qualities measured (versus global scales).

## **The Relative Importance of Parent Involvement in Children's Social-Emotional Functioning**

One of the main research questions that this study was designed to investigate was to determine the relative influence of four facets of parent involvement in children's social-emotional functioning, as rated by parents and teachers (research question 3). In addition, it was of interest to determine whether facets of parent involvement differentially predicted social-emotional functioning outcomes for boys and girls.

### **School-based involvement.**

*School-based participation.* The present study found that parents' participation in activities at school uniquely and positively predicted boys' and girls' level of pro-social skills, school liking, and cooperative participation in the classroom, as rated by teachers. These results are consistent with existing research that has also found parents' school-based involvement to contribute to social-emotional outcomes such as greater social skills, less problem behaviours, better school adjustment, and lower disruptive peer play in the classroom (Izzo et al., 1999; Fantuzzo et al., 1999; Mantzicopoulos, 1997; Powell et al., 2010). In contrast to other studies (Fantuzzo et al., 2004; McWayne et al., 2004), the present findings suggest that parents' school-based participation is directly linked to these child outcomes, even after controlling for parents' home-based involvement and relevant contextual variables (e.g., teacher-child relationship quality). One possibility is that parents who are visibly engaged in school-based activities themselves (e.g., helping in the classroom) may lead children to receive

consistent messages from home and school about the importance of school (Fantuzzo et al., 1999), which in turn may positively influence school liking, cooperative engagement, and pro-social interactions in classroom social and learning tasks.

As well, when parents participate in school activities, they may gain a clearer understanding of what is expected of their child at school and they may learn from teachers regarding how to work at home to enhance their children's skills and competences (Izzo et al., 1999). Fantuzzo and colleagues (2004) further suggested that this link might be associated with the transfer of both parental authority and social support to the school context, which may facilitate children's pro-social and learning behaviours in the classroom. Given that previous research in this area has been inconsistent, studies that have not found a significant relationship between parent's school-based participation and child social-emotional outcomes may be partly explained by data constraints. For instance, Fantuzzo and colleagues (2004) measured parents' school-based involvement in the fall of the school year, likely before parents had adequate opportunity to get involved in school activities. Alternatively, parent involvement measured mid-school year or later may lead to a more valid differentiation in levels of involvement among parents, and in turn reveal more meaningful associations with child outcome variables (e.g., Powell et al., 2010). One hypothesis for the predictive effect of parents' school-based participation on social-emotional outcomes as rated by teachers (but not parents) is that this facet of parent involvement may directly relate to how children engage and apply their

skills specifically in the classroom setting; that is, the same context that they see their parents engaging in.

Interestingly, parents' school-based participation was further found to be a significant predictor of boys' autonomous participation in the classroom (but not girls). Thus, the importance of parents' school-based participation in facilitating autonomous engagement in the classroom depends on child gender. It is plausible that, given boys have significantly greater difficulties in this area (as rated by teachers), parents' visible presence in the classroom and modelling positive behavioural engagement in school activities may be particularly important for boys to feel motivated and secure in seeking challenge and independence in their own classroom activities. In the same vein, it is possible that girls, who are reported to have less difficulty with self-directedness in the classroom, may not respond to higher levels of participation at school from their parents simply because they may not need the extra support from them.

***Parent-teacher contact.*** Parents' frequency of contact with their child's teacher was found to negatively predict both boys' and girls' social-emotional outcomes as rated by teachers (i.e., pro-social skills, emotional regulation, school liking, cooperative and autonomous participation), after controlling for other parent involvement and background variables (e.g., initial child functioning). The size of these main effects was small but meaningful, which has been similarly found by other researchers (e.g., Izzo et al., 1999; Tan & Goldberg, 2009), and is in accord with the argument that the mere frequency of parent-teacher communication tends to increase when children are having school difficulties

(Hornby & Lafaele, 2011; Izzo et al., 1999; Marcon, 1999). Whereas, when children are doing well in school, parents may relax their efforts to communicate frequently with teachers.

This finding is in contrast to a body of research that has found parent-school contact (e.g., parent-teacher discussions) to be positively associated with children's social outcomes, as rated by parents (e.g., McWayne et al., 2004; Roopnarine et al., 2006). However, these studies have not considered the unique contribution of parent-teacher contact while controlling for parent-school relationship quality. Hill and colleagues (2004) noted that whether parent-school contact occurs in response to a child who is having school difficulties or occurs as part of an ongoing, positive, collaborative dialogue may make a difference in how school-based involvement influences child outcomes. In the present study, parents with children who exhibit more social-emotional difficulties in the classroom specifically may be more likely to initiate contact with school staff about concerns, independent of the quality of those parent-school interactions.

Moreover, differences in findings between the present study and some previous studies reviewed may reflect the parent and child samples examined. For instance, McWayne and colleagues (2004) found that parent-teacher contact contributed to children's social skills in a kindergarten, low-income, ethnic minority sample, and Roopnarine and colleagues (2006) found similar findings in a kindergarten, Caribbean immigrant sample. Thus, it is possible that the importance of parent-teacher contact may also depend on broader (macrosystem level) variables such as SES and culture (Bronfenbrenner, 1986).

An interesting area of future research would be to help clarify these speculations and direction of effects for these variables. Specifically, longitudinal studies are needed to test whether parent-teacher contact precedes or follows children's classroom social-emotional functioning. Furthermore, the contrasting predictions found for parent-teacher contact (which negatively predicted outcomes) and school-based participation (which positively predicted outcomes) in the present study exemplify the importance of separating these aspects of school-based involvement in further investigations. As well, these present findings may decrease the credence of previous literature that has summed these two facets of school-based involvement into a single composite score, and in turn, found null associations between parents' level of school-based involvement and child developmental outcomes (e.g., Swick, 2007).

***Quality of school-based involvement.*** In line with expectations, the present study found that parent-school relationship quality characterized by higher levels of trust, mutual respect, reciprocity, and shared expectations independently predicted greater pro-social skills, school liking, and cooperative participation, as rated by parent and teachers. The size of these main effects was generally small, with parent-school relationship quality having a more salient influence (i.e., moderate effect) on children's level of school liking. Furthermore, the finding that parent-school relationship quality predicted greater pro-social skills and school liking in children is particularly convincing, given that these associations were significant for both parent and teacher reports. Together, these findings parallel Kohl and colleagues' (1994) assertion that parent-school relationship

quality may be a more important aspect in children's school-related outcomes (as rated by parents) than is parents' mere frequency of school-based involvement.

That is, it is not just what parents do at school, but the bi-directional partnership that involves two-way exchange of communication, and both parents and schools working together to facilitate children's social-emotional outcomes.

When considering child gender, it is important to note that parent-school relationship quality was found to be a salient predictor of boys' school liking and cooperative participation in the classroom (but not girls) for teacher ratings of child functioning.

With regard to parent ratings of child functioning, the present findings suggest that creating a relationship where parents and teachers feel that they are working toward similar goals and can openly discuss child progress in the context of trust and respect may directly benefit both boys' and girls' pro-social skills and school liking. It is possible that positive and collaborative parent-school relationships may help to facilitate these child outcomes through mechanisms such as parent modelling (e.g., children observing pro-social parent-teacher interactions) or parents simply conveying a positive message about their child's school, which children internalize. Furthermore, not to neglect the potential bi-directionality of effects, it is also possible that children who exhibit higher pro-social behaviours as well as enjoyment in classroom activities may simply have parents who perceive more positive, supportive relationships (or at least less conflict) with their child's teacher and school. In a similar vein, social-emotional

difficulties in children may create greater strain in parent-teacher relationships compared to children who are functioning well in these areas (Swick, 2007).

With regard to teacher ratings of child functioning, positive and collaborative parent-school relationships appear to serve as an important factor in boys' enjoyment and cooperative engagement in classroom learning and social tasks; whereas conflicting goals and agendas among parents and teachers may be particularly detrimental to boys, who appear to need greater social-emotional support in the classroom relative to girls. As such, positive parent-school relationships may be a particularly important protective factor in facilitating boys' school liking and cooperative participation in classroom activities during early elementary, and may also buffer boys from further difficulties in these areas in subsequent grades. This premise extends differential susceptibility hypothesis (Pluess & Belsky, 2010), suggesting that if boys are more at-risk for social-emotional difficulties, they may be more susceptible to the presence of protective factors (i.e., parent-school relationships), compared to children who have fewer difficulties (i.e., girls as rated by parents and teachers). In contrast, parents who perceive communication with their child's teacher as uncooperative, or view their child's school negatively, may be sending a particularly strong message to boys, who may be more likely to model these uncooperative and disengaged behaviours specifically in the classroom setting. Similarly, if girls are faring better in the classroom, positive parent-school relationships may be less essential to facilitate their positive engagement and enjoyment in classroom social and learning tasks.

### **Home-based involvement.**

*Quantity of home-based involvement.* Partially consistent with the study's hypothesis, the quantity of parents' home-based involvement positively predicted children's pro-social skills and school liking, as rated by parents. These predictive associations did not significantly differ for boys and girls. These limited main effects support the role of parent involvement in home-based learning (e.g., intentional teaching) and socialization activities, where the frequency of activities and school-based discussions appear to facilitate children's pro-social skills and level of enjoyment in school-related activities with their parents (Melhuish et al., 2001). Tan and Goldberg (2009) also found that parents' interpersonal involvement (e.g., reading to their child) predicted children's school enjoyment, underscoring that the frequency of activities completed with children at home is associated with how children feel about school. As well, Wentzel (1999) asserted that through ongoing interactions (e.g., engaging in learning activities and school-based discussions), parents may socialize children in ways that promote the internalization of specific social and learning goals, such as being cooperative, sharing, taking turns, and listening to others (Dix & Branca, 2003).

In contrast to the aforementioned findings, what parents do at home in terms of their quantity of involvement in educational and discussion-based activities was not predictive of boys' and girls' social-emotional functioning in the classroom (i.e., as rated by teachers), or emotional regulation as rated by parents. These findings are in contrast to research that has found this facet of

parent involvement to promote children's self-regulation, motivation, and skills necessary for successful school experiences (Belsky & MacKinnon, 1994; Izzo et al., 1999; McWayne et al., 2004; Pianta & Walsh, 1996). It is uncertain as to why home-based involvement quantity did not significantly contribute to these social-emotional outcomes. Perhaps one plausible hypothesis is that parents' home-based activities (e.g., school-focused discussions) may gain greater importance in later elementary grades, when learning and social expectations increase and when children's school engagement starts to dwindle. As well, inconsistencies among previous literature may in part reflect the items that captured home-based involvement constructs. Specifically, scales used in extant research studies frequently combined quantity and quality of home-involvement items onto a single scale (e.g., Fantuzzo et al., 2004; McWayne et al., 2004). As such, part of these past findings may be more reflective of the quality of home-based interactions than the unique importance of home-based involvement quantity in children's social-emotional classroom functioning.

It is important to note that the magnitude of influence found was marginal, and seemed to depend on the setting in which these skills were displayed, as well as who was rating these child behaviours (i.e., parent versus teacher). Specifically, the present findings suggest that home-based involvement may relate to children's school liking and pro-social skills that are specifically modelled in the context of educational activities at home, where parents engage in such activities with them (rather than in broader contexts such as with teachers and peers). Moreover, it is important not to neglect the possibility that these associations may reflect

bidirectional influences, such that children with strong pro-social orientations and school liking may simply elicit more engagement from parents in home-based activities, by initiating these activities themselves (e.g., talking about their school day or asking their parent to read a story with them).

*Quality of home-based involvement.* As anticipated, the present study found parent-child relationship quality to uniquely and positively predict children's social-emotional functioning outcomes as rated by parents, and children's pro-social skills and school liking, as rated by teachers. However, these predictive associations did not significantly differ for boys and girls. That is, parent-child relationships characterized by greater warmth and open communication, and lower negativity/conflict predicted both boys and girls with higher pro-social skills and school liking across home and school contexts, and higher emotional regulation in the context of parent interactions. This facet of parent involvement made the largest contribution (i.e., moderate to large effect) in children's social-emotional outcomes, as rated by parents, relative to other facets of parent involvement examined.

This aligns with past findings that parents' quality of interactions with their child shows relative stability across early childhood (Delaire & Weinraub, 2005; Morrison et al., 2003), whereas parents' school-based involvement is more dynamic and may change across elementary grades, thus serving as a less influential factor in children's development (Izzo et al., 1999). As well, these findings highlight that the quality of home-based involvement is more important than the mere frequency of involvement in home educational activities. This is

congruent with a substantial body of research that has found parents' supportive, responsive and warm interactional styles to be a powerful predictor of social-emotional and learning outcomes, and negative parenting behaviours to contribute to children's social-emotional difficulties (Morrison et al., 2003; NICHD, 2003).

Parental warmth is characterized by positive affect, expressing affection, showing positive regard, and communicating in ways that conveys acceptance of a child's feelings and perspectives (Driscoll & Pianta, 2006; Maccoby & Martin, 1983). Parents who are able to interact in this way consistently may promote social-emotional functioning by supporting their child's ability to moderate their own negative affect in the face of frustration and challenge (i.e., emotional regulation), as well as by modelling appropriate social skills (e.g., cooperation), and enjoyment in interactions with their child (i.e., social-learning perspective). In contrast, parent-child interactions laden with negativity and conflict may provide children less opportunity to model, practice, and master self-regulation and adaptive social behaviours, as well as may decrease children's motivation to engage in and internalize enjoyment in school-related activities. This further aligns with socialization theories (e.g., attachment and self-determination theory), which view that parents who are able to provide encouragement for their child's independent efforts and exploration while remaining available for assistance and support promote the social-emotional skills necessary for successful interactions within and outside the family (Grolnick et al., 2003; Joussemet et al., 2005; 2008; Kim & Kim, 2008; Scaramella & Leve, 2004).

Given the stronger predictions found for parent versus teacher reports, these associations may partly reflect reciprocal parent-child influences. For example, children with greater social-emotional functioning may elicit more supportive, positive interactional behaviours from parents, which in turn, may promote greater social-emotional functioning in children. Furthermore, parents and teachers have unique perceptions and experiences with a child. As found in the present study, parents' ratings of child social-emotional functioning may reflect on the relationship processes and social-emotional skills and engagement that develop within parent-child interactions more directly than in broader social and learning contexts (e.g., in the classroom). In other words, findings suggest that parents who report being warm and open in their communication with their child, in turn, have children that are more pro-social, engaged and regulated in interactions with them. This is consistent with domain-specific theory, which posits that when children's requests are accommodated by parents, children in turn engage in interactions that are mutually responsive to parents (Grusec & Davidov, 2010). That being said, parents' quality of home-based involvement further predicted children's pro-social skills and enjoyment in school-related activities outside of the family context (i.e., with teachers and peers); though with smaller effects found.

### **The Indirect Relationship between Parent's School-based Involvement and Children's Social-Emotional Functioning**

The present study found that parents' quantity of involvement in home-based activities fully mediated the relationship between parents' quantity of

school-based involvement and children's pro-social skills and school liking, as rated by parents. This suggests that parents who have frequent communication with, and participation at their child's school, in turn engage in more frequent activities with their child at home, and it is their home-based involvement that directly facilitates children's pro-social skills and school liking.

One possible interpretation for this indirect relationship is that when parents communicate frequently with teachers and participate in school activities, they may gain a clearer and more detailed understanding of their child's abilities as well as what is expected of their child at school. This insight may subsequently lead to more frequent home-based involvement, where parents spend more time in learning and discussion-based activities in ways that foster how children feel about school and how they interact with others (from parent's perspectives). These findings align with ecological theories of child development (Bronfenbrenner, 1986), which propose that home-based (i.e., microsystem) interactions have a more proximal influence on child development, whereas mesosystem level variables such as parents' school-based involvement may indirectly influence child development through more salient home interactions. Pending future research, the present findings underscore the importance of school personnel in continuing to connect with and engage parents in school activities, as parents may learn from teachers on how to work at home to enhance their children's social-emotional development and perceptions of school.

Parent-school relationship quality was not found to indirectly predict children's social-emotional outcomes through parents' quantity of home-based

involvement. Rather, parent-school relationships uniquely and directly predicted children's pro-social skills, and boys' school liking and cooperative participation in the classroom, after controlling for relevant background variables and other facets of parent involvement (e.g., home-based involvement). As noted, these direct findings are particularly convincing for children's pro-social skills and school liking, given that parent-school relationships not only predicted parent ratings, but teacher ratings as well. In addition, parents' home-based activities did not mediate the relationship between parents' quantity of school-based involvement and children's social-emotional functioning, as rated by teachers. Accordingly, parents' frequency of school contact and participation in school activities may be more directly associated with social-emotional functioning that occurs in the same context that children see parents engaging in (i.e., the classroom), or may be attributed to other mechanisms not explicitly examined in the present study.

### **Summary of Findings**

To summarize, the present findings suggest that facets of parent educational involvement reflect distinct ways that parents are involved, and in turn, have differential implications on children's social-emotional functioning outcomes during early elementary. Findings also varied based on parent and teacher reports of child functioning. After controlling for relevant background variables (e.g., teacher-child relationship quality, initial child functioning, and grade), the quality of parents' home-based involvement (i.e., parent-child relationships) was the strongest, relative predictor of children's social-emotional

functioning as rated by parents, whereas the mere quantity of home-based involvement had marginal to small contributions for two child social-emotional outcomes (i.e., school liking and pro-social skills). Regarding school-based involvement, parent-school relationship quality predicted the widest range of child outcome variables, and was found to be most important in promoting children's level of school liking, as rated by parents. The quantity of parents' school-based involvement (i.e., parent-teacher contact and school participation) had small and differential (i.e., negative versus positive) associations with child social-emotional functioning outcomes, as rated by teachers.

The influence of parents' school-based involvement seems to further depend on child gender. In particular, parent-school relationships and school-based participation was found to make a salient contribution to boys' (not girls) school liking, cooperative participation, and autonomous participation in the classroom. Finally, results revealed some indirect effects among parents' school-based involvement and children's social-emotional outcomes, as rated by parents. In particular, parents' frequency of school contact was found to influence children's pro-social skills and school liking indirectly through parents' quantity of involvement in home-based activities (i.e., learning activities and school-focused discussions). The relationship between parents' school-based participation and children's pro-social skills was also mediated by the quantity of parents' involvement at home.

In short, these findings underscore the importance of examining the complex relationships between parent involvement facets and children's social-

emotional functioning in early elementary grades. These findings reinforce the message that other researchers have conveyed (e.g., Pomerantz et al., 2007) in broadening the current conceptualization of parent educational involvement to incorporate aspects of home-involvement in addition to the quality of involvement. Gaining a better understanding of exactly which facets of involvement contribute to key child developmental outcomes is important given that parent involvement and parent-school partnerships are dynamic and can change to improve children's school success (Dearing & Tang, 2010). Through expanding current conceptualizations of parental involvement in such a manner, researchers and practitioners alike can help encourage parents in a way that makes their educational involvement most successful.

### **Limitations**

Although the present study extends past research by providing additional insight into the contributions that comprehensive aspects of parent involvement plays in children's social-emotional functioning, there are some notable limitations.

First, as with any study that employs non-experimental designs, is the issue of causality. Although theory in addition to past longitudinal and intervention research can help to imply directional relationships, causality cannot be confirmed from the analyses used in this study. In parenting research, it is always important to acknowledge the transactional nature of interactions, where children are active agents who influence and are influenced by their interactions with their parents (Bates & Pettit, 2007; Dix & Branca, 2003; Jia, Kotila, &

Schoppe-Sullivan, 2010; Pardini, 2008). It is plausible that children's social-emotional difficulties influence the relationship quality between parents and schools (positive versus dissonant and conflictual), in addition to parents' quality and quantity of involvement in the home setting. For instance, parents of children with higher social-emotional functioning may elicit more positive interactions with teachers and schools, and may be better able to cooperatively engage children in educational activities at home. This exemplifies the fact that the direction of association between facets of parental involvement and child outcomes is complex and difficult to establish, despite making causal assumptions in research. Future studies that are longitudinal in nature and include repeated measures over time (e.g., child reports at the beginning and end of the school year) would be helpful to further elucidate these developmental processes.

A second limitation of the present study was its full reliance on questionnaire data. Questionnaires are beneficial as parents and teachers can rate child behaviours and interactions with each other over time and across interactional contexts. However, self-report measures frequently maintain high face validity and are consequently subject to high rates of report bias. As such, utilizing observational measures in this study would have been valuable to provide a more objective view of the quality of parent-child and parent-teacher interactions. In particular, richer and more relevant insight may have been obtained if parents and children were observed interacting on an educational activity and rated on their level of support, warmth, communication, and connectedness. This may have better depicted the relationship climate that

parent-child learning activities are embedded within, and in doing so, different results may have emerged. As well, more direct measures of school-based involvement such as written logs throughout the school year (Castro et al., 2004) and parent-teacher observations may have yielded more reliable data. A direction of future studies should be to replicate these analyses with greater triangulation of methodologies.

A related limitation in the present study was that parent educational involvement was measured via parent reports only (and not teachers). Parents were chosen because parents presumably know of their own involvement practices better than teachers, particularly when it comes to home-based activities and perceptions of the quality of their relationship with their child's school (Baker et al., 1999; Henderson & Berla, 1994; Izzo et al., 1999). However, parents' perceptions of educational involvement have demonstrated low correspondence with teachers' perceptions of parental involvement (Epstein, 1996). Teacher reports were not included in this study due to teacher time constraints; however this additional measure would have been valuable to determine whether perceptions across informants similarly or differentially contribute to children's social-emotional functioning outcomes.

An additional limitation pertains to the limited diversity of the sample that comprised this study. Specifically, the data for this study were derived from a relatively homogeneous sample, consistently of mostly Caucasian mothers from middle-high SES families, who were willing to volunteer for this research. As well, the sample of schools in this study was randomly selected, though schools

and teachers who agreed to participate may have had a special interest in parent-school partnerships. As such, the generalizability of the present findings is limited. As well, these homogeneous parent characteristics may limit the range of the sample in ways that constrain the associations detected.

Researchers are just beginning to acknowledge that the conceptualization of parent involvement may differ based on culture (e.g., Bornstein & Bornstein, 2007; Hunsinger & Jose, 2009). It is important to note that conceptual models discussed in this study are culturally bound and that the majority of research reviewed is based on involvement activities in Western culture. Given the increasing diversity in Alberta schools, cultural factors need to be considered in efforts to increase the involvement of all parents. This may be particularly important given that some research has found parent-teacher communication to be a salient factor in minority children's school adjustment (MacWayne et al., 2004; Roopnarine et al., 2006). In addition, the number of children requiring supports for functional difficulties included in this study was low (11%). Thus, caution needs to be in place when generalizing findings to broader child populations. Together, it would be beneficial for future research to examine parent involvement as a protective factor for children with functional and demographic risks, to clarify which facets of parent involvement buffer these children from further difficulties in social-emotional realms.

The parent response rate of this study (26-31%) is another aspect of this study that warrants consideration, as it is somewhat lower than rates from previous parent involvement studies (e.g., 42%; Powell et al., 2010). In

particular, parents who participated in this study may have been systematically different than those who declined. It is likely that those parents who participated are precisely those who are involved and active in their child's educational life. In particular, parents who have barriers to involvement and have not developed a positive relationship with their child's teacher may have overlooked participation in this research, which was advertised through participating schools. Accordingly, the present study may have missed a very important group of parents- that is, those who may not feel comfortable engaging in the school system or have barriers (physical or psychological) to being involved in educational activities. Difficulties obtaining a diverse array of parents to participate in educational research studies proves challenging. Future research needs to focus on gaining the trust of "hard to reach" parents who have barriers to being involved in the school system, and to provide them with more adequate opportunity to be heard.

#### **Additional Directions for Future Research**

First, the variance accounted for by the predictors in the present study suggests that there are many other factors that account for children's social-emotional functioning in early elementary grades. For example, child factors such as temperament, classroom factors such as emotional support, and parent factors such as stress, have been shown to also influence young children's social-emotional development (Brophy-Herb, Lee, & Stollak, 2007; Howes, 2000; NICHD, 2003; Pluess & Belsky, 2010; Sanson, Hemphill, & Smart, 2004). Furthermore, it is important to remember that home and school systems are embedded within, and affected by, broader social and cultural influences, and by

variations in access to resources (Smith et al., 1997). Examining the interplay among these additional variables and how they carry implications for children's social-emotional development is an important area for future research. As well, this would help provide insight into contextual factors that make it difficult for parents to be meaningfully involved, which could improve future partnership initiatives in ways that facilitate children's functioning in their early school years.

Another important future direction is to include fathers as an integral part of educational involvement studies. Although recruitment efforts did not exclude fathers from the present study, low participation of fathers compared to mothers is noteworthy. The inclusion of fathers merits investigation given that they too play an important role in children's social-emotional development, and that most studies in this area continue to focus on mothers' involvement. Future research should more explicitly investigate whether there are differences in the amount and type of educational involvement between mothers and fathers and if these differences are associated with different patterns of child social-emotional functioning. This is particularly important given that previous research has suggested that fathers play a unique role in contributing to children's functioning in social contexts outside the home setting (e.g., in the classroom; Jia et al., 2010; Lamb, 2010), whereas mothers may contribute more so by facilitating children's connectedness and relatedness within the family context (Grossman, Fremmer-Bombik, Scheueer & Zimmerman, 2002; NICHD, 2008).

As well, given that boys were found to particularly benefit from parents' (majority mothers) school-based involvement relative to girls in the present study,

it would be interesting to see what differential role fathers play in facilitating social-emotional functioning for boys and girls during early elementary. A preliminary study by Tan and Goldberg (2009) found that father's involvement made independent contributions over and above mothers' school-based involvement for children's school liking, and that fathers' interpersonal involvement at home predicted lower school anxiety for girls, but not boys. In addition, Roopnarine and colleagues (2006) found that fathers' home-based academic involvement contributed to children's social skills after controlling for mothers' involvement (but not vice versa), suggesting that fathers may carry more of an influence in child social domains. Further research is needed to investigate the transactional (i.e., father-son and mother-daughter) versus interactional (i.e., father-daughter; mother-son) models of parent involvement in relation to children's functioning in social-emotional realms (Tan & Goldberg, 2009).

Additional research on other possible mechanisms through which comprehensive facets of parent involvement contribute to child outcomes may deepen our understanding of these complex relationships. For example, as mentioned by Powell and colleagues (2010), does the influence of parents' school-based involvement in children's functioning depend on the type of participation that parents engage in (e.g., activities that are highly visible to children such as volunteering in the classroom, or through specific information that enhances parents' efforts to promote children's skills)? As well, does the influence of parents' quantity of school involvement depend on parent-child relationship quality, as suggested by Simpkins and colleagues (2006)? Finally,

does parents' school-based involvement (i.e., parent-teacher contact and school-based participation) predict classroom social-emotional functioning outcomes indirectly through parent-school relationship quality, or vice versa (Nzinga-Johnson, 2009; Powell et al., 2010)? Answering such questions would further clarify the complex relationships between facets of parent involvement and child developmental outcomes.

Finally, future studies should investigate parent involvement dimensions across longer time periods to gain a better understanding of parent involvement constructs and their influence on children at multiple points in their development. It is particularly critical to examine comprehensive facets of parent involvement as children transition longitudinally across early elementary grades to determine how they change over time, and how change and stability in parent-school partnerships inform key aspects of children's adjustment to school.

### **Implications**

Notwithstanding these limitations and future considerations, the present study contributes to existing literature in many ways. Considering multiple background variables (family, teacher, child), which are often linked to children's functioning, in addition to comprehensive facets of parent involvement (i.e., quality and quantity; home and school) allows for a more complete analysis of the developmental-ecological framework that guides much of our understanding of child development. Utilizing both parents and teachers as independent raters of child behaviour also provides a more comprehensive picture of child functioning and minimizes the influence of shared informant effects. The fact that parent and

teacher reports on child functioning were not highly related in this study attests to differences in perception and experiences with children, and the importance of including both in empirical studies. Furthermore, this study included both mediator (i.e., home-based activities) and moderator variables (i.e., child gender) in order to help clarify the mechanisms and conditional effects that underlie the complex relationships between parent involvement and child outcomes.

Explicitly investigating these complex relationships and child gender differences has been largely neglected or equivocal in parent involvement research to date.

Results of this study strengthen the empirical basis for promoting parent-school relationships, school-based participation, and home-based involvement (i.e., quality over quantity) in early elementary grades. These results also underscore the importance of extending Kohl and colleagues (2000) multi-dimensional parent involvement framework to include the quality of home-based involvement (i.e., parent-child relationship quality) as well. This may be particularly important and relevant for parents who may be unable to engage in activities directly at school (e.g., single and full-time working parents). As well, this study helps to extend focus beyond academic realms, into social-emotional areas of functioning, which are also crucial for school adjustment and success. As Powell and colleagues (2010) noted, schools may wish to rethink the prevalent focus on academic outcomes in their efforts to connect with parents. That is, it may be beneficial for schools to help parents strengthen their child's social-emotional development through appropriate areas of parent involvement. Schools discussing specific involvement activities with parents within a collaborative

dialogue may play a prominent role in doing so. This may be particularly important during the early elementary years, as this is a central time during which a number of social-emotional skills and challenges emerge, and where early school experiences may become the lens through which children view subsequent school experiences.

The present findings, in conjunction with additional work in this area, may have implications for policy and early learning initiatives such as Alberta Education's Collaborative Practices (i.e., an approach to better the outcomes of children in Alberta schools), where parent involvement and partnerships with schools are a core component. More broadly, this research may be relevant for any school administrators and educational leaders who are faced with the task of determining which types of parent involvement should be actively encouraged and supported; a particularly important insight given that parents and schools have been noted to have more barriers to parent-school partnerships in recent years (Jeynes, 2012; Hornby & Lafaele, 2011). Findings of this study may provide principals with suggestions to actively plan and maintain parent engagement practices across early elementary grades, particularly during the transition from kindergarten to grade one, when school-based involvement significantly decreases and when children appear to experience some transient difficulties. Schools may wish to provide professional development and consultation with teachers and school personnel which focus on ways to develop trust, respect, and effective communication among all parents, in addition to creating a classroom climate that values parents as active and equal partners

(Albright & Weissberg, 2010). Inviting and encouraging parents to not only contact schools in response to classroom difficulties is also an important suggestion based on the present findings.

As well, this study's findings underscore the need for educators and parents to incorporate ways to stimulate higher quality involvement at home among parents and children. This could be accomplished by providing practical, specific strategies via parenting workshops, posting information on school websites and discussion boards, and sending home resources on how to support their child's emerging skills at home. Collaboration with community mental health agencies and school psychologists may further facilitate the implementation of these goals. This in turn, may help to better facilitate children's social-emotional functioning and more broadly, school adjustment during these formative years.

## **Conclusions**

In conclusion, the present study revealed some important and complex relationships between multidimensional constructs of parent involvement and social-emotional functioning in early elementary grades. In the context of the early elementary years being such a crucial foundation for later school adjustment, developing positive patterns of parent involvement during this time assumes particular importance. Results suggest that efforts to promote positive and active parental involvement and supportive parent-school relationships may be beneficial for setting the stage for positive social-emotional outcomes. Findings discussed however are preliminary to addressing these research

questions and more research is necessary prior to making recommendations for prevention and intervention efforts in schools. The present study identifies areas of future study in order to continue to clarify the contributions that parents and schools play in working together to promote healthy social-emotional development. Continuing this area of inquiry ultimately aims to provide all children with a solid foundation for school success in subsequent years.

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## APPENDIX A

### PARENT INFORMATION AND CONSENT

**Dear Parents/Guardians,**

You are invited to take part in a research study on Parental Educational Involvement. Being a parent, your perspective is valued to learn more about current home-school partnership practices. This information can be used to better support children in school, not just academically, but socially and emotionally as well. Please read this form and ask any questions you may have before agreeing to be part of this study.

I am a PhD student in the Department of Educational Psychology at the University of Alberta. I am currently looking for children (both boys and girls) in grades K-2 and their primary caregiver to participate. This research will be supervised by Dr. Christina Rinaldi, who has extensive experience working with children and their parents across a variety of educational and community settings.

#### **Background Information:**

The purpose of this study is to learn about parents' educational involvement activities at home and at school. In particular, I hope to find out which aspects of parent involvement are important in helping young children adjust socially and emotionally to the classroom environment (e.g., classroom engagement, school liking, and interactions with peers). These aspects of child development are particularly important to know about during early school years because they have been shown to predict school success in later school grades.

#### **Procedure:**

If you choose to participate in this study, you will be asked to complete a questionnaire asking about the types of involvement activities you do at home and school; your relationship with your child; and your relationship with your child's teacher and school. Questionnaires will take about 15 minutes to complete.

Parents are encouraged to complete this questionnaire conveniently and securely online, where your responses will be submitted directly to me once completed. If you prefer, you have the alternate option of picking this questionnaire up at your child's school, or we can send it home with your child. An envelope and stamp will be provided so you can mail your completed questionnaire directly to me. Your child's school **will not** see your answers to these questionnaires.

I would also like your child's teacher to fill out a brief questionnaire on your child's social-emotional functioning in the classroom (e.g., school liking, engagement in classroom activities, and interactions with peers). This information about your child will not be examined individually. Rather this study will use and report group data only. Your teachers' responses will be confidential and thus will not be shared with other school personnel.

### **Voluntary Nature and Confidentiality:**

Your participation in this research is **strictly voluntary**. This means that everyone will respect your decision of whether or not you want to be in the study. The information collected will not be analyzed by anyone aside from myself and my supervisor, Dr. Christina Rinaldi. The results of this study for the group as a whole will be presented as a written thesis paper and oral research defence, conducted as a requirement for my PhD in School Psychology. Your family and any information you provide will not be identifiable in these research activities.

Since participation is completely voluntary, you may also withdraw from the study at any time. The plan for this study has been reviewed for its adherence to ethical guidelines and approved by the University of Alberta. For questions regarding participants' rights and ethical conduct of research, you may contact the Research Ethics Office at 780-492-2615. This office has no affiliation with the study investigators.

### **Benefits of this Study:**

This experience can be very informative. It can provide parents the opportunity to (1) confidentially rate their relationship with their child's teacher and school, (2) provide information on the types of involvement activities that occur during this stage of child development; (3) help determine which areas of parental involvement best aid children's school-related school adjustment. Ultimately, by participating in this study, you can help inform future parent-school partnership initiatives in a way that better supports children during their elementary years and beyond. Once the study is completed you will receive a summary of the general findings.

### **Compensation:**

For participating in this study, your family will be entered into a draw for a chance to win a gift card (\$50 in value). The completion and submission of parent questionnaires are required for draw entry.

**Contacts and Questions:**

If you have any questions or concerns, please do not hesitate to contact me through email at [jgordon1@ualberta.ca](mailto:jgordon1@ualberta.ca). You may also contact my supervisor, Dr. Christina Rinaldi, at [crinaldi@ualberta.ca](mailto:crinaldi@ualberta.ca). Please complete the attached consent form and return it to your child's school as soon as possible.

I thank you for your time.

Sincerely,

Jennifer Gordon, M.Ed.  
Primary Researcher, University of Alberta

## PARENT CONSENT FORM

I, \_\_\_\_\_, hereby  
(print name of parent – please check one)

- Consent  
 Do not consent

To have **Jennifer Gordon** contact me for the following research activities:

- Provide me with some questionnaires to complete on my perspective of educational involvement at home and school; my perceptions of my child, and general family information (for descriptive purposes only)
- Have my child's teacher complete a brief questionnaire on my child's social and emotional functioning (e.g., school liking, engagement in classroom activities, and peer/teacher relationships) in their classroom.

I understand that:

- My family may withdraw from the research at any time without penalty
- All information gathered will be treated confidentially and used for the sole purpose of research
- Any information that identifies my family will be destroyed upon completion of this research (please note: data will be kept for 5 years following the completion of research)
- My family will **not** be identifiable in any documents resulting from this research

I also understand that the results of this research will be used only in the following cases:

- Presentations and written articles for other developmental researchers, educators, parents, and schools
- A written and oral dissertation in conjunction with my PhD degree requirements

Please indicate your preference on how you would like to participate:

- Online access and submission of the parent questionnaire  
 Hard copy of the parent questionnaire mailed directly to me

\_\_\_\_\_  
Signature of parent

Date signed: \_\_\_\_\_

Please provide us with a contact number so I may contact you about your participation in the project:

Telephone: \_\_\_\_\_

Email: \_\_\_\_\_

## APPENDIX B

### INFORMATION LETTER TO SCHOOLS

Dear Principals,

I am a third year PhD student in the department of Educational Psychology at the University of Alberta. This school year, I am conducting a research study on parent educational involvement at home and school, and how it relates to children's social-emotional functioning in the classroom (e.g., social skills with peers, school liking and classroom engagement). I am particularly interested in obtaining information from parents who have a child in grades K-2, as research has demonstrated social-emotional competencies during these ages are particularly vital for later school success in both academic and interpersonal realms.

As such, I am hoping to gain permission from your school to take part in this research. Parents who give permission to participate will be surveyed in order to measure their quality and quantity of educational involvement at home and school. This study would also involve minimal classroom time. Specifically, teachers would be asked to complete a brief questionnaire (approximately 5-10 minutes) on each participating child's social-emotional functioning in the classroom. Throughout data collection, I am available to provide information around social-emotional development to participating teachers, if requested. As well, I may be available as a helping hand in the classroom (e.g., reading stories, completing social skill activities) to facilitate teachers' completion of child measures. Upon completion, teachers will also be provided with a gift certificate as a token of appreciation for their time or alternatively the school will be provided with a donation to the school library collection.

#### *Study Timeline.*

- School and teacher consent for participation (09-10/2011)
- Parent information letters and consent forms sent home and returned with students (10-11/2011)
- Parent measures completed and returned directly to the researcher (01-02/2012)
- Completion of teacher reports on participating children once parent reports are returned (04-05/2012)

The name of your school and all other identifying information of participants (i.e., teachers, parents, and children) will be kept strictly confidential. The results of this study for the group of parents and schools as a whole will be presented as a published dissertation and oral research defence, conducted as a requirement for my PhD in School Psychology. I will be supervised by Dr.

Christina Rinaldi, who has extensive experience working with young children and their parents across a variety of educational and community settings.

Participation in this study will help us gain a more comprehensive understanding of parent–school partnerships, and determine which facets of parental involvement influence key developmental outcomes for children during their early school years. This understanding is needed so schools and community partners can appropriately engage parents and involve them in activities that are most meaningful to children’s developing skills and competencies. Products of this research may be in the form of empirical articles, parenting sources, policy recommendations, and home-school resource knowledge building in Alberta. At the end of this study, your school will receive a one-page lay summary of key project findings. As well, suggestions to help schools improve the educational involvement of parents will be provided.

Please contact me at your earliest convenience if your school would like to be a part of this study. Thank you for your time.

Sincerely,

Jennifer

Jennifer Gordon, M.Ed.  
Primary Researcher, University of Alberta  
[jgordon1@ualberta.ca](mailto:jgordon1@ualberta.ca)

Christina Rinaldi, PhD, RPsych  
Research Supervisor, University of Alberta  
[crinaldi@ualberta.ca](mailto:crinaldi@ualberta.ca)

## APPENDIX C

### TEACHER INFORMATION LETTER

Dear Teachers,

I am a third year PhD student in the department of Educational Psychology at the University of Alberta. This year I am conducting a research study on the types of parent educational involvement at home and school, and how these influence children's social-emotional functioning in the classroom (e.g., social skills with peers, school liking and classroom engagement). I am particularly interested in obtaining information from parents who have a child in grades K-2, as research has demonstrated social-emotional competencies during this age is particularly vital for later school success in both academic and interpersonal realms.

As such, I am hoping to gain permission from K-2 classrooms to take part in this research. Parents who give permission to participate will be surveyed in order to measure their quality and quantity of educational involvement at home and school. This study would also involve minimal classroom time. Specifically, you would be asked to complete a brief questionnaire (5-10 minutes) on each participating child's social-emotional functioning in the classroom. If many children in your class participate in this study, please note that I am available to help where I can with regards to facilitating your participation as well (e.g., being a helping hand in the classroom while you complete child measures). You will be provided with a gift certificate as a token of appreciation for your time or alternatively your school may be provided with a donation to the school library collection. As well, throughout data collection, I am available to provide information and support around social-emotional development to all participating teachers, if requested.

#### *Study Timeline.*

- School and teacher consent for participation (09-10/2011)
- Parent information letters and consent forms sent home and returned with students (10-11/2011)
- Parent measures completed and returned directly to the researcher (01-02/2012)
- Completion of teacher reports on participating children once parent reports are returned (04-05/2012)

The name of your school and all other identifying information of participants (i.e., teachers, parents, and children) will be kept strictly confidential. The results of this study for the group of parents and schools as a whole will be presented as a published dissertation and oral research defence, conducted as a requirement for my PhD in School Psychology. I will be supervised by Dr. Christina Rinaldi, who

has extensive experience working with young children and their parents across a variety of educational and community settings.

Participation in this study will help us gain a more comprehensive understanding of parent–school partnerships, and determine which facets of parental involvement influence key developmental outcomes for children during their early school years. This understanding is needed so schools and community partners can appropriately engage parents and involve them in activities that are most meaningful to children’s developing skills and competencies. Products of this research may be in the form of empirical articles, parenting sources, policy recommendations, and home-school resource knowledge building in Alberta. At the end of this study, your school will receive a one-page lay summary of key project findings. As well, suggestions to help schools improve the educational involvement of parents will be provided.

Sincerely,

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Christina Rinaldi, PhD, RPsych  
Research Supervisor, University of Alberta  
[crinaldi@ualberta.ca](mailto:crinaldi@ualberta.ca)

## TEACHER CONSENT FORM

I, \_\_\_\_\_, hereby  
(print name and school– please check one)

- Consent  
 Do not consent

To have **Jennifer Gordon** or a trained member of the research team contact me for the following research activities:

- Provide me with some brief measures to complete on participating children's social-emotional school functioning

I understand that:

- I may withdraw from the research at any time without penalty
- All information gathered will be treated confidentially and used for the sole purpose of research
- Any information that identifies individuals will be destroyed upon completion of this research (please note: data will be kept for 5 years following the completion of research)
- I will **not** be identifiable in any documents resulting from this research

I also understand that the results of this research will be used only in the following cases:

- Presentations and written articles for other developmental researchers, educators, parents, and schools
- A written and oral dissertation in conjunction with my PhD degree requirements

Please indicate whether your preference on how you would like to participate:

- Hard copy of the child questionnaires mailed directly to me  
 Online access and submission of the child questionnaires

\_\_\_\_\_  
Signature of teacher

Date signed: \_\_\_\_\_

Please provide us with a contact number so I may contact you about your participation in the project:

Telephone: \_\_\_\_\_

Email: \_\_\_\_\_

For further information concerning the completion of the form, please contact Jennifer Gordon, M.Ed., University of Alberta, Department of Educational Psychology, [jgordon1@ualberta.ca](mailto:jgordon1@ualberta.ca).



- 20-24
- 25-29
- 30-34
- 35-39
- 40-44
- 45 and older

**Highest level of education of parent** (parent filling out this survey):

- a. Graduate education
- b. College/University degree
- c. Certificate in a trade/technology
- d. High school diploma/GED
- e. Partial high school training

**Parent Employment Status:**

- Unemployed
- Full time stay-at-home parent
- Employed Part-time
- Employed Full-time

**Approximate combined annual income of your household:**

- a. less than \$45,000
- b. \$ 46,000 - \$69,000
- c. \$70,000 +

**Does your child receive any specialized classroom support due to school difficulties?**

- a. Yes
- b. No

**If yes, please indicate for what child difficulties (check all that apply):**

- Learning
  - Behavioural
  - Social-Emotional
  - Attentional
  - other (please note)
-

**APPENDIX E**

**TEACHER DEMOGRAPHIC INFORMATION**

**DIRECTIONS:** Please describe yourself by checking your answer(s) to each item. The information obtained from this form is just to help us describe the group we are studying. All information obtained on an individual level is strictly confidential.

**Teacher's Name:** \_\_\_\_\_

**Name of school:** \_\_\_\_\_

**Grade taught:** \_\_\_\_\_

**Years of Teaching Experience:** \_\_\_\_\_

**Previous Education:**

\_\_\_\_\_ Bachelor of Education or equivalent

\_\_\_\_\_ Masters of Education or equivalent

\_\_\_\_\_ Doctoral level training

**Number of students currently in your class:** \_\_\_\_\_

## APPENDIX F

### PARENT INVOLVEMENT ITEMS

We are interested in the types of school-based activities that parents engage in during early elementary. Please remember that there are no "wrong" answers. Some parents may simply have more or less time to be involved at school. We are also aware that some schools do not offer frequent opportunity for parents to engage in certain school activities. Please try to answer as openly and honestly as possible by circling the most accurate response to each item.

	Not yet	1-2 Times	Once per month	Several Times per month	At least once per week
You talk to your child's teacher about how your child is doing socially (e.g. getting along with peers) at school	1	2	3	4	5
You ask your child's teacher about difficulties your child may be having in the classroom	1	2	3	4	5
You ask your child's teacher about your child's strengths at school	1	2	3	4	5
You ask your child's teacher about skills to practice at home with your child	1	2	3	4	5
You email or write notes to your child's teacher about your child or school activities	1	2	3	4	5
You talk to your child's teacher (phone or in-person) about your child or school activities	1	2	3	4	5
You ask your child's teacher questions or make suggestions about your child	1	2	3	4	5

	Not yet	1-2 Times	Once per Month	A few times per month	At least once per week
You volunteer in your child's classroom or school	1	2	3	4	5
You observe in your child's classroom (at least 30 min)	1	2	3	4	5
You help with your child's classroom field trips	1	2	3	4	5
You prepare and deliver materials to your child's classroom or school	1	2	3	4	5
You attend workshops or school meetings	1	2	3	4	5
You visit your child's school for special events (e.g., assemblies)	1	2	3	4	5

You are your child's first and most important teacher. When your child goes to school, teachers also become important to your child. We would like to know more about your relationship with your child's teacher and feelings about your child's school. Remember, your answers are confidential so please answer as openly and honestly as possible.

	Not at All	A Little	Some	A Lot	A Great Deal
You feel welcome to visit your child's school	1	2	3	4	5
You enjoy talking with your child's teacher	1	2	3	4	5
You feel your child's teacher cares about and takes an interest in your child	1	2	3	4	5
Your child's teacher is interested in getting to know you as a parent	1	2	3	4	5
You feel that your child's teacher pays attention to parent suggestions	1	2	3	4	5

You feel comfortable talking with your child's teacher about your child	1	2	3	4	5
You and your child's teacher view your child differently	1	2	3	4	5
You and your child's teacher have similar expectations of your child	1	2	3	4	5
It is difficult for you and your child's teacher to work together	1	2	3	4	5
You and your child's teacher respect each other	1	2	3	4	5
You and your child's teacher trust each other	1	2	3	4	5
	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Disagree
Your child's school is a good place for your child to be	1	2	3	4	5
Your child's school does a good job letting you know how your child doing in school	1	2	3	4	5
The staff at your child's school is doing good things for your child	1	2	3	4	5
Your child's school is doing a good job of preparing your child for the future	1	2	3	4	5

We are interested in the types of activities parents engage in at home with their child during the early elementary years. Please remember that there are no "wrong" answers. Some parents may simply have more or less time to engage in home activities, and may engage in different activities depending on their child's age. Please try to answer as openly and honestly as possible by circling the most accurate response to each item.

Focusing on the previous month, how often have you engaged in the following activities with your child:	Not Yet	Once or Twice this Month	Once a Week	Multiple Times a Week	Everyday
I read books together with my child	1	2	3	4	5
I explain/teach my child things that he/she does not understand in school	1	2	3	4	5
I practice math skills with my child (e.g., addition, subtraction, counting, writing numbers)	1	2	3	4	5
I help my child with school projects and activities	1	2	3	4	5
I engage in science activities with my child (e.g., growing seeds and working with magnets)	1	2	3	4	5
I play games with my child such as cards, puzzles, Lego or board games	1	2	3	4	5
I help my child practice letters and sounds	1	2	3	4	5
I explain to my child the meaning of new or unfamiliar words	1	2	3	4	5
I discuss with my child what he/she does during their school day	1	2	3	4	5
I talk to my child about his/her friendships at school	1	2	3	4	5
I talk to my child about how he/she is feeling about school activities	1	2	3	4	5
I ask my child to tell me about what his or her classmates are like	1	2	3	4	5

I talk to my child about their interactions with their teacher at school	1	2	3	4	5
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If any other family members engage in home-based activities with your child, please indicate which family members and the types of activities they also engage in:

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We are interested in the relationships that parents have with their child during early elementary. Please reflect on the degree to which each of the following statements currently applies to your relationship with your child. We know that some children are simply harder to parent than others so please answer as openly and honestly as possible.

	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies Somewhat	Definitely Applies
I share an affectionate, warm relationship with my child	1	2	3	4	5
My child and I always seem to be struggling with each other	1	2	3	4	5
If upset, my child will seek comfort from me	1	2	3	4	5
My child is uncomfortable with physical affection or touch from me	1	2	3	4	5
My child values his/her relationship with me	1	2	3	4	5
When I praise my child, he/she beams with pride	1	2	3	4	5
My child spontaneously shares information about himself/herself	1	2	3	4	5
My child easily becomes angry at me	1	2	3	4	5

It is easy to be in tune with what my child is feeling	1	2	3	4	5
My child remains angry or is resistant after being disciplined	1	2	3	4	5
Dealing with my child drains my energy	1	2	3	4	5
When my child's in a bad mood, I know we're in for a long and difficult day	1	2	3	4	5
My child's feelings toward me can be unpredictable or can change suddenly	1	2	3	4	5
My child is sneaky or manipulative with me	1	2	3	4	5
My child openly shares his/her feelings and experiences with me	1	2	3	4	5

## APPENDIX G

### SOCIAL-EMOTIONAL FUNCTIONING: PARENT RATINGS

As a parent, you know your child better than anyone else. As such, we are interested in your views of how your child is doing at home and school. Please rate your child on the follow items according to how well they describe your child.

	Definitely Does Not Apply	Not Really	Neutral, Not Sure	Applies Somewhat	Definitely Applies
Is helpful to others	1	2	3	4	5
Shares and acts cooperatively with others	1	2	3	4	5
Take turns, plays fair, and follows rules in games	1	2	3	4	5
Can resolve problems with peers alone	1	2	3	4	5
Shows empathy/is good at understanding others feelings	1	2	3	4	5
Listens to others point of view	1	2	3	4	5
Interacts with peers in a positive manner	1	2	3	4	5
Can stop and calm down when excited or upset	1	2	3	4	5
Enjoys classroom activities	1	2	3	4	5
Looks forward to going to school	1	2	3	4	5
Talks about school in a negative way	1	2	3	4	5
Tells me about good things that have happened at school	1	2	3	4	5
Complains about going to school	1	2	3	4	5
Can control temper when in a disagreement	1	2	3	4	5
Can stay calm when things do not go his/her way	1	2	3	4	5

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Is easily irritated when he/she has trouble with a task	1	2	3	4	5
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## APPENDIX H

### SOCIAL-EMOTIONAL FUNCTIONING: TEACHER RATINGS

We would like to ask about how this child is doing in particular areas of school (i.e., compared to other boys and girls in the same grade). Please circle the most reflective response for each item. Compared to same-grade peers, this child:

	Never	Rarely	Sometimes	Often	Almost Always
Shows empathy and compassion for others' feelings	1	2	3	4	5
Provides help, shares materials, and acts cooperatively with peers	1	2	3	4	5
Takes turns, plays fair, and follows rules in games	1	2	3	4	5
Initiates interactions and joins in with others in an appropriate and positive manner	1	2	3	4	5
Listens carefully to others when they are speaking	1	2	3	4	5
Makes friends easily with other children	1	2	3	4	5
Is easily irritated when he/she has trouble with classroom tasks	1	2	3	4	5
Gets angry when provoked by other children	1	2	3	4	5
Recognizes and labels his/her feelings and those of others appropriately	1	2	3	4	5
Can stop and calm down when excited or upset	1	2	3	4	5
Handles disagreements in a positive way	1	2	3	4	5

This child:	Never	Rarely	Sometimes	Often	Almost Always
Seems unhappy at school	1	2	3	4	5
Groans and complains about suggested activities	1	2	3	4	5
Seems to have fun at school	1	2	3	4	5
Enjoys most classroom activities	1	2	3	4	5
Is a self-directed child	1	2	3	4	5
Listens and follows classroom rules, instructions and directions	1	2	3	4	5
Is easy for teacher to manage	1	2	3	4	5
Responds promptly to teacher's requests	1	2	3	4	5
Accepts teacher's authority	1	2	3	4	5
Accepts responsibility for a given task	1	2	3	4	5
Uses classroom materials responsibility	1	2	3	4	5
Works well independently and autonomously	1	2	3	4	5
Needs a lot of help and guidance	1	2	3	4	5
Seeks challenge in the classroom	1	2	3	4	5

Reflecting on your daily interactions with this child throughout the school year, please rate your overall relationship with this child by circling the most reflective response:

This child and I tend to struggle with each other

I share a satisfactory relationship with this child

I share a warm, affectionate relationship with this child

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1	2	3	4	5
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